

March 2022

Quarterly Thematic Index Performance Review

MVIS[®]
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Thematic Index Round-Up

MV Index Solutions (MVIS[®]) publishes 64 thematic indices to cover forward-looking investment concepts grouped into meta themes: Clean Energy, Health Care Innovation, Financials 2.0, NextGen Hardware & Communications, NextGen Software, Consumer Trend, Thematic Industrials & Infrastructure, Thematic REITS,

In Q1 2022, Materials outperformed, returning 4.6%, while all other meta themes underperformed, with Next Gen Software down the most at -19.6%

Exhibit 1: Meta Thematic Returns (USD, ending 31 March 2022)

Q2-2019	Q3-2019	Q4-2019	Q1-2020	Q2-2020	Q3-2020	Q4-2020	Q1-2021	Q2-2021	Q3-2021	Q4-2021	Q1-2022
Thematic Industrials & Infrastructure 6.0%	Thematic REITs 5.9%	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%	Materials 3.1%	NextGen Hardware & Communications 14.7%	Materials 4.6%
Clean Energy 5.8%	NextGen Hardware & Communications 4.0%	Clean Energy 15.4%	Financials 2.0 -12.1%	Next Gen Software 47.9%	Disruptive Technology 17.9%	Financials 2.0 38.1%	Consumer Trends 8.7%	NextGen Hardware & Communications 8.7%	Thematic Industrials & Infrastructure 0.8%	Thematic REITs 8.8%	Thematic Industrials & Infrastructure -5.4%
Health Care Innovation 4.9%	Clean Energy 0.9%	NextGen Hardware & Communications 12.6%	Clean Energy -14.0%	Health Care Innovation 47.3%	Next Gen Software 11.6%	Health Care Innovation 30.9%	NextGen Hardware & Communications 8.0%	Thematic REITs 8.4%	Thematic REITs -0.8%	Materials 8.1%	Thematic REITs -5.9%
Financials 2.0 3.4%	Thematic Industrials & Infrastructure 0.4%	Consumer Trends 12.0%	Next Gen Software -15.0%	Financials 2.0 33.5%	Materials 11.1%	Materials 30.3%	Thematic Industrials & Infrastructure 7.5%	Thematic Industrials & Infrastructure 7.7%	NextGen Hardware & Communications -1.3%	Thematic Industrials & Infrastructure 4.8%	Clean Energy -8.6%
Disruptive Technology 2.8%	Consumer Trends -1.5%	Materials 11.4%	NextGen Hardware & Communications -16.6%	Disruptive Technology 29.8%	Consumer Trends 11.0%	Next Gen Software 29.5%	Thematic REITs 7.0%	Materials 7.1%	Disruptive Technology -2.0%	Clean Energy 1.0%	Consumer Trends -8.9%
Thematic REITs 2.7%	Financials 2.0 -1.6%	Next Gen Software 10.4%	Disruptive Technology -17.7%	NextGen Hardware & Communications 29.7%	Thematic Industrials & Infrastructure 10.7%	Disruptive Technology 28.5%	Materials 6.6%	Next Gen Software 7.0%	Health Care Innovation -6.0%	Disruptive Technology -2.2%	NextGen Hardware & Communications -10.7%
Consumer Trends 2.0%	Next Gen Software -3.9%	Disruptive Technology 10.3%	Thematic Industrials & Infrastructure -20.2%	Materials 29.3%	Health Care Innovation 9.9%	Consumer Trends 22.7%	Disruptive Technology 5.6%	Disruptive Technology 5.9%	Consumer Trends -6.8%	Consumer Trends -2.9%	Disruptive Technology -13.6%
Materials 1.9%	Disruptive Technology -5.2%	Financials 2.0 6.1%	Consumer Trends -27.0%	Consumer Trends 25.3%	NextGen Hardware & Communications 8.3%	NextGen Hardware & Communications 22.4%	Next Gen Software 3.9%	Consumer Trends 1.1%	Next Gen Software -9.4%	Financials 2.0 -7.3%	Financials 2.0 -14.3%
NextGen Hardware & Communications 1.9%	Materials -5.3%	Thematic Industrials & Infrastructure 5.7%	Materials -28.3%	Thematic Industrials & Infrastructure 24.5%	Financials 2.0 8.1%	Thematic Industrials & Infrastructure 16.6%	Health Care Innovation -2.0%	Clean Energy -1.1%	Clean Energy -10.8%	Next Gen Software -7.6%	Health Care Innovation -14.7%
Next Gen Software -1.8%	Health Care Innovation -8.9%	Thematic REITs 3.2%	Thematic REITs -31.8%	Thematic REITs 20.2%	Thematic REITs 3.5%	Thematic REITs 13.6%	Clean Energy -5.0%	Financials 2.0 -2.9%	Financials 2.0 -13.4%	Health Care Innovation -9.3%	Next Gen Software -19.6%

Source: MV Index Solutions. Meta Thematic index returns are the equal weighted returns of underlying Thematic indices listed in Exhibit 2.

Exhibit 2: Thematic Index Returns (USD, ending 31 March 2022)

Index Ticker	Index Name	Meta Theme	Launch Date	Base Date	Quarterly Returns (USD)				Last 3 Years (USD)		
					Q1-2022	Q4-2021	Q3-2021	Q2-2021	Ann Ret	Ann Stdev	Draw-Down
BWINDNTR	* BlueStar Wind Energy Industry	Clean Energy	03/23/21	12/31/14	-1.7%	-2.2%	0.9%	-5.7%	22.5%	23.1%	-12.3%
BSOLRNTR	* BlueStar Solar Energy Industry	Clean Energy	03/09/20	12/31/14	-4.3%	-4.1%	-7.5%	-3.7%	56.2%	41.6%	-28.5%
MVHTWOTR	MVIS Global Hydrogen Economy ESG	Clean Energy	12/22/20	12/15/20	-6.3%	1.8%	-17.4%	-5.9%			
MVSMOGTR	MVIS Global Low Carbon Energy	Clean Energy	02/23/21	12/31/15	-9.0%	7.6%	-6.7%	3.8%	33.7%	30.3%	-17.2%
BGTQNTR	* BlueStar Global GreenTech	Clean Energy	07/06/20	12/30/16	-9.5%	5.3%	-5.3%	3.6%	30.4%	27.2%	-17.9%
BHDROTR	BlueStar Hydrogen and NextGen Fuel Cell	Clean Energy	03/09/21	06/30/20	-11.7%	-2.6%	-19.1%	-10.1%			
BEVNTR	* BlueStar Electric Vehicle Industry	Clean Energy	01/19/21	12/29/17	-17.7%	1.2%	-20.6%	10.3%	45.8%	60.2%	-21.5%
BCRUZTR	BlueStar Hotels, Airlines, and Cruises	Consumer Trends	06/01/21	12/31/17	2.5%	-5.8%	-0.6%	-5.1%	-2.2%	38.9%	-36.0%
BATORNTR	* BlueStar Asia Travel and Vacation	Consumer Trends	06/24/21	12/31/15	-0.1%	-1.3%	-9.2%	-5.7%	-5.5%	27.0%	-21.2%
BETORNTR	* BlueStar Europe Travel and Vacation	Consumer Trends	05/12/21	12/31/15	-1.0%	-8.0%	1.9%	-5.7%	-8.3%	43.3%	-36.3%
BTOURNTR	* BlueStar Travel and Vacation	Consumer Trends	05/13/19	12/31/15	-1.4%	-2.8%	-2.5%	-4.2%	3.5%	39.5%	-38.3%
MVCIRCTR	MVIS Global Circular Economy ESG	Consumer Trends	03/16/22	12/31/20	-5.2%	5.6%	2.2%	7.6%			
MVBJKTR	MVIS Global Gaming	Consumer Trends	05/08/12	12/29/06	-9.3%	-7.6%	-8.5%	-0.3%	4.9%	33.3%	-28.5%
MVNACBTR	MVIS North America Cannabis Industry	Consumer Trends	03/16/22	12/31/20	-10.7%	-20.3%	-20.9%	-7.7%			
MVESPOTR	MVIS Global Video Gaming & eSports	Consumer Trends	07/16/18	12/31/14	-11.6%	5.3%	-10.1%	7.1%	25.0%	17.9%	-6.9%
BEGAMNTR	* BlueStar E-Games	Consumer Trends	10/05/18	12/29/14	-12.2%	1.9%	-10.3%	5.0%	14.8%	17.6%	-7.0%
MVFOFTR	MVIS Global Future of Food ESG	Consumer Trends	09/09/21	12/31/19	-13.3%	-8.5%	-11.3%	5.0%			
BECOMNTR	* BlueStar E-Commerce US Leaders	Consumer Trends	09/11/18	12/28/12	-16.0%	-8.9%	-3.3%	8.3%	12.7%	24.2%	-12.4%
BAUTNTR	* BlueStar Autonomous Driving	Consumer Trends	05/10/18	12/28/12	-17.9%	8.3%	-5.1%	5.9%	15.4%	28.4%	-21.6%
BCCONNTR	* BlueStar China Mainland Consumer 50	Consumer Trends	06/24/21	12/31/15	-19.1%	4.9%	-11.2%	4.0%	13.2%	24.8%	-14.8%
MVDINDTR	MVIS Digital India	Disruptive Technology	12/28/21	12/31/15	-9.5%	7.0%	24.3%	10.9%	28.3%	29.6%	-12.7%
BGTHTR	BlueStar Israel Global Technology	Disruptive Technology	01/31/14	12/31/03	-11.4%	-4.3%	-5.4%	7.4%	15.8%	23.9%	-13.9%
BGTNATR	BlueStar Israel Global Technology North America	Disruptive Technology	04/19/21	12/17/20	-11.7%	-5.5%	-6.2%	11.0%			
B3DPNTR	* BlueStar 3D Printing	Disruptive Technology	05/12/21	12/29/17	-16.5%	-6.1%	-10.2%	-3.3%	11.3%	39.8%	-14.5%
BSEAQNTR	* BlueStar Asia Technology	Disruptive Technology	08/13/18	06/29/13	-18.9%	-2.0%	-12.6%	3.4%	13.1%	24.1%	-12.7%
BEBKRNTR	* BlueStar E-Brokers and Digital Capital Markets	Financials 2.0	03/31/21	12/29/17	-12.5%	-0.2%	-16.6%	-3.2%	28.3%	29.6%	-12.7%
BBIDSTR	BlueStar Global E-Brokers and Digital Capital Markets	Financials 2.0	08/23/21	12/31/19	-13.0%	-2.6%	-15.8%	2.3%			
BUBIDTR	BlueStar US Listed E-Brokers and Digital Capital Markets	Financials 2.0	11/10/21	12/31/19	-13.1%	-11.2%	-19.9%	3.8%	7.4%	27.6%	-22.5%
BFNQNTR	* BlueStar Fintech	Financials 2.0	11/07/17	06/29/12	-13.5%	-9.8%	-2.5%	5.4%	7.4%	27.6%	-22.5%
MVDAPPTR	MVIS Global Digital Assets Equity	Financials 2.0	03/08/21	02/26/21	-19.2%	-12.9%	-12.2%	-23.1%			
MVBIONTR	* MVIS Global Bionic Healthcare ESG	Health Care Innovation	02/09/22	12/31/20	-4.2%	-3.3%	-1.3%	16.5%			
BEHCNTR	* BlueStar E-Healthcare	Health Care Innovation	01/22/21	12/31/15	-13.8%	-8.3%	-10.1%	2.7%	21.6%	23.7%	-13.3%
MVFHCTR	MVIS Global Future Healthcare ESG	Health Care Innovation	12/06/21	12/31/20	-14.3%	-9.6%	-1.0%	16.6%	19.7%	18.4%	-13.4%
BDNANTR	* BlueStar Genomic Health Care	Health Care Innovation	05/22/20	12/31/15	-26.4%	-16.2%	-11.5%	5.9%	2.2%	33.2%	-21.9%
MVGDXJTR	MVIS Global Junior Gold Miners	Materials	08/31/09	12/31/03	12.4%	11.5%	-17.7%	4.3%	16.1%	43.1%	-22.4%
BMOONTR	* BlueStar Agribusiness 50	Materials	05/03/21	12/31/15	9.9%	6.2%	0.7%	1.9%	19.7%	18.4%	-13.4%
MVMOOTR	MVIS Global Agribusiness	Materials	07/18/12	12/29/06	9.7%	5.8%	0.4%	4.2%	20.5%	18.7%	-14.1%
MVREMEXTR	MVIS Global Rare Earth/Strategic Metals	Materials	10/13/10	12/28/07	7.0%	12.8%	23.2%	15.0%	40.1%	39.6%	-15.6%
MVGMETTR	MVIS Global Clean-Tech Metals	Materials	11/02/21	12/31/15	6.5%	9.5%	0.4%	6.6%	16.1%	43.1%	-22.4%
BACOMNTR	* BlueStar Asia-Pacific Commodities	Materials	06/24/21	12/31/15	4.8%	3.0%	11.4%	10.5%	17.6%	22.9%	-12.6%
MVDAMTR	MVIS Global Digital Assets Mining	Materials	12/28/21	12/17/21	-18.1%				21.6%	23.7%	-13.3%
BAINTR	* BlueStar Artificial Intelligence	Next Gen Software	03/26/18	12/31/12	-12.7%	-0.8%	-0.1%	10.8%	20.4%	23.4%	-12.9%
BDATATR	BlueStar Big Data & Analytics	Next Gen Software	03/09/21	12/31/15	-18.2%	-9.3%	1.8%	11.8%	17.1%	34.6%	-15.3%
BCHNQNTR	* BlueStar China Internet Software	Next Gen Software	08/13/18	06/29/13	-23.6%	-17.8%	-29.5%	-0.6%	-6.2%	32.0%	-21.7%
BADTQNTR	* BlueStar Digital Advertising	Next Gen Software	12/28/21	12/30/16	-23.9%	-2.8%	-9.7%	6.2%	17.0%	19.5%	-12.8%
BUQFCNTR	* BlueStar US Machine Learning and Quantum Computing	NextGen Hardware & Communications	03/08/21	12/18/15	-8.9%	14.8%	-0.2%	7.5%	32.6%	22.3%	-13.0%
BQTUMTR	BlueStar Machine Learning and Quantum Computing	NextGen Hardware & Communications	06/07/18	12/18/15	-9.1%	11.6%	1.0%	6.7%	30.2%	21.3%	-13.1%
BIINFNTR	* BlueStar Internet Infrastructure	NextGen Hardware & Communications	12/28/21	12/31/15	-10.3%	5.3%	2.5%	13.9%	30.2%	21.3%	-13.1%
BGFGNTR	* BlueStar Global 5G Connectivity	NextGen Hardware & Communications	07/26/19	12/15/15	-11.8%	14.0%	-4.2%	7.8%	15.8%	20.4%	-11.4%
MVSMCTR	MVIS US Listed Semiconductor 10% Capped ESG	NextGen Hardware & Communications	08/13/20	12/31/11	-12.3%	20.3%	-1.6%	8.7%	38.3%	23.9%	-16.1%
MVSMHTR	MVIS US Listed Semiconductor 25	NextGen Hardware & Communications	08/12/11	09/29/00	-12.7%	21.2%	-2.2%	7.7%	37.6%	24.4%	-15.5%
BILINTR	* BlueStar Israel Infrastructure	Thematic Industrials & Infrastructure	03/25/22	12/31/17	6.7%	13.9%	-1.4%	7.1%	26.2%	17.7%	-17.4%
BTOTNTR	* BlueStar Total Security	Thematic Industrials & Infrastructure	07/08/19	12/31/15	2.8%	0.6%	-0.9%	7.3%	16.2%	20.9%	-14.2%
MVSPCTR	MVIS Global Space Industry ESG	Thematic Industrials & Infrastructure	08/31/21	12/31/19	1.3%	-9.9%	-1.2%	9.2%			
BLOGNTR	* BlueStar Global Logistics Benchmark	Thematic Industrials & Infrastructure	10/23/20	12/29/06	-10.5%	7.3%	3.9%	8.1%	18.2%	15.0%	-8.4%
BLOGRNTR	* BlueStar Global Logistics	Thematic Industrials & Infrastructure	10/23/20	12/29/06	-11.0%	7.9%	3.7%	7.2%	20.0%	15.4%	-8.5%
BECLGNTR	* BlueStar E-Commerce, Payments, and Logistics	Thematic Industrials & Infrastructure	03/01/21	12/29/06	-12.9%	5.6%	0.3%	7.7%	22.9%	19.7%	-10.1%
BRBTNTR	* BlueStar Robotics	Thematic Industrials & Infrastructure	01/29/18	06/29/12	-14.1%	7.9%	1.0%	7.4%	17.9%	23.2%	-15.1%
BUORTR	BlueStar Top 10 US Office REITs	Thematic REITs	08/24/21	12/31/15	5.5%	5.8%	-3.3%	8.1%	2.2%	25.9%	-21.8%
MVMORTTR	MVIS US Mortgage REITs	Thematic REITs	08/04/11	12/30/04	-5.3%	-1.9%	-3.2%	6.0%	-4.5%	39.7%	-56.2%
MVMVATR	MVIS Australia A-REITs (AUD)	Thematic REITs	12/21/12	12/29/06	-5.5%	7.4%	4.6%	8.7%	3.7%	27.4%	-35.6%
BDLRTNTR	* BlueStar Data Center and Logistics Real Estate	Thematic REITs	08/05/19	12/31/13	-9.3%	15.7%	-1.4%	11.4%	21.3%	15.6%	-10.2%
BURRTNTR	* BlueStar Top 10 US Residential Real Estate	Thematic REITs	01/28/22	12/31/15	-15.0%	16.8%	-0.5%	7.6%	11.7%	25.2%	-28.0%

Source: MV Index Solutions. Total Return Indices, *Net Total Return Indices

New Index Launches

MVIS launched 6 new Thematic indices for the quarter.

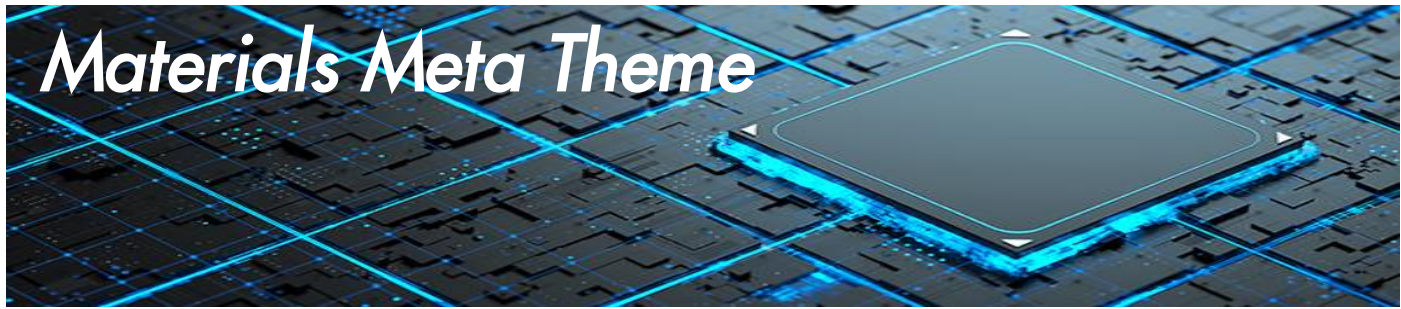
BILINNTR	BlueStar Israel Infrastructure	Thematic Industrials & Infrastructure	The Index tracks the performance of Israeli companies involved in the Israeli infrastructure industry. This is a modified market cap-weighted index, and only includes companies that generate at least 33% of their revenue from within Israel and at least 50% of their revenue from various infrastructure-related segments.
MVNACBTF	MVIS North America Cannabis Industry	Consumer Trends	The Index tracks the performance of the largest and most liquid companies in the cannabis industry located in North America, and only includes companies that generate at least 50% of their revenue from cannabis related activities, such as cannabis farming and related equipment, cannabis-related products and accessories, cannabis distribution and retailing/dispensaries, real estate - including REITs - used for cannabis farming, as well as cannabis-based medical products and pharmaceuticals.
BURRTNTR	BlueStar Top 10 US Residential Real Estate	Thematic REITs	The index tracks the performance of the 10 largest and most liquid US exchange-listed residential real estate companies. This is an equally weighted index, and only includes companies that are incorporated in the United States, listed on a US exchange and denominated in USD, and generate at least 50% of its revenue or real estate asset value from residential real estate located in the US.
BVGOGNTR	BlueStar Global Online Gambling, Video Gaming and eSports	Consumer Trends	The index tracks the performance of the largest and most liquid companies involved in the online gambling, video gaming and eSports industries. and only includes companies that generate at least 50% of their revenue from online gambling, video gaming and/or eSports.
MVBIONNTR	MVIS Global Bionic Healthcare ESG	Health Care Innovation	The index tracks the performance of the largest and most liquid companies in medical/dental or vision-related implants, bioprinting, or prosthesis.
MVCIRCTR	MVIS Global Circular Economy ESG	Consumer Trends	This index tracks the performance of companies contributing to the circular economy. This includes water purification and treatment products/services, waste-to-energy and biofuels, waste management services that include recycling services, metal recycling services.

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 TKR	PRODUCT NAME	DATE LISTED
MVDINDTR	DGIN US	VanEck Digital India ETF	02/17/22
MVDAMTR	DAM US	VanEck Digital Assets Mining ETF	2/9/2022
BFIVGNTR	5GTK11 BZ	Investo ETF Bluestar 5G Communications	02/03/22
MVREMX	415920 KS	Hanwha Arirang Rare Earth and Metal ETF	01/14/22
BHDRONTR	419650 KS	Hanwha Arirang Hydrogen Nextgen Fuel Cell MV ETF	02/15/22
MVOIHTRG	ONG US	Direxion Daily Oil Services Bull 2x	01/20/22

Spell



Thematic Spotlight

2022 started the year, with a falling and volatile stock market driven by war in Ukraine and rising inflation concerns in the United States. Inflation hit an all-time high of 7.9% in the US triggered by severe supply chain issues combined with high liquidity created by generous pandemic bail outs. The Fed, hoping to contain inflation and its fallout, announced a series of quarter point raises in interest rates over the quarter. Russia invaded Ukraine in February, and hopes of a quick Russian victory were immediately dashed by a determined Ukrainian defense and a coordinated, worldwide condemnation of Russia. This is easily the worst attack on European soil since World War II. Global events of this magnitude have kept the markets unsettled, choppy and on an overall downward trend. Energy prices spiked to an all-time high of \$150 per barrel, a reversal from historic negative rates just two years ago.

Fears of inflation and global political turmoil invariably provide a boost to Gold which is often viewed as a safe haven. The MVIS Junior Gold Miners Index (MVGDXJ) returned 12% this quarter with gold, a store of value with limited supply, proving to be a natural safe haven. The index consists of smaller sized gold miners like Evolution Mining from Australia and Yamana Gold from the US. Similarly, other diversified Material thematic indices such as the MVIS Global Rare Earth/Strategic Materials Index (MVREMX) and the MVIS Clean-tech Metals Index(MVGMET) were also up 7% and 6.5% over the quarter. MVREMX and MVGMET also embed higher prices from the supply shock around many metals with Russia as a major exporter of aluminum, steel, palladium and nickel. These indices provide a more diversified approach to rare metals and global companies involved in rare earth element mining, refining, and recycling.

Exhibit 3: Materials Meta Theme

Index Ticker	Index Name	Meta Theme	Launch Date	Base Date	Quarterly Returns (USD)			
					Q1-2022	Q4-2021	Q3-2021	Q2-2021
MVGDXJTR	MVIS Global Junior Gold Miners	Materials	08/31/09	12/31/03	12.4%	11.5%	-17.7%	4.3%
BMOONTR	* BlueStar Agribusiness 50	Materials	05/03/21	12/31/15	9.9%	6.2%	0.7%	1.9%
MVMOOTR	MVIS Global Agribusiness	Materials	07/18/12	12/29/06	9.7%	5.8%	0.4%	4.2%
MVREMXTR	MVIS Global Rare Earth/Strategic Metals	Materials	10/13/10	12/28/07	7.0%	12.8%	23.2%	15.0%
MVGMETTR	MVIS Global Clean-Tech Metals	Materials	11/02/21	12/31/15	6.5%	9.5%	0.4%	6.6%
BACOMNTR	* BlueStar Asia-Pacific Commodities	Materials	06/24/21	12/31/15	4.8%	3.0%	11.4%	10.5%
MVDAMTR	MVIS Global Digital Assets Mining	Materials	12/28/21	12/17/21	-18.1%			

Source: MV Index Solutions. Total Return Indices, *Net Total Return Indices (as of 03/31/2022)

To learn more about MVIS's extended family of innovative indices, please visit www.mvis-indices.com

and sign up to join the conversation.

IMPORTANT DEFINITIONS AND DISCLOSURES

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