

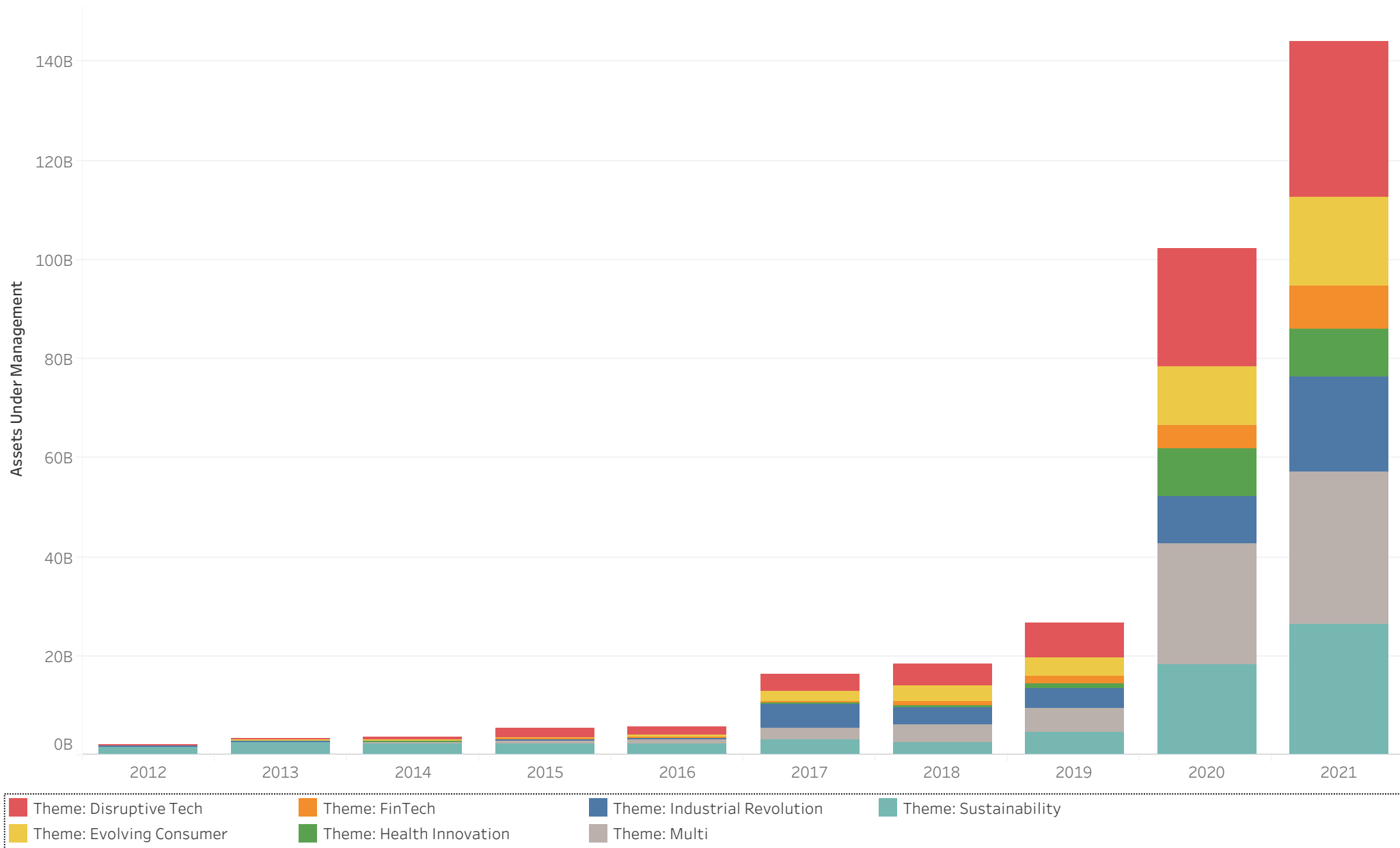
ETF Playbook

Global Themes



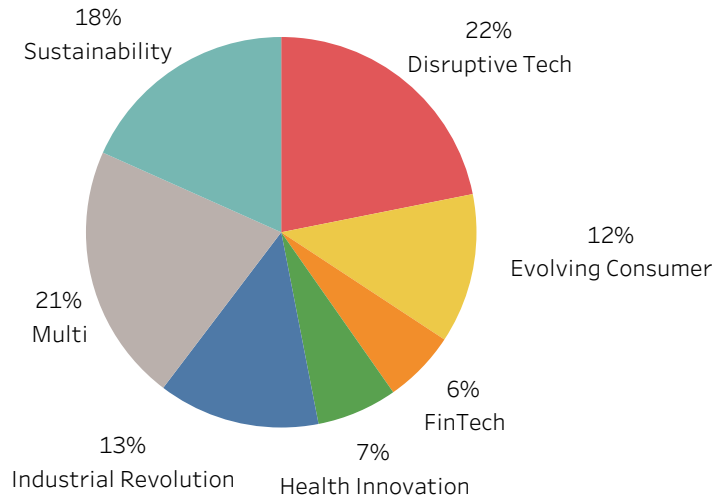
November 9, 2021

Annual AUM Growth



*Thematic landscape data is represented by Sub-asset class Equity > Thematic composite ETFs according to the ETF Action Classification System. Excludes inverse funds. **Flows delayed one day.

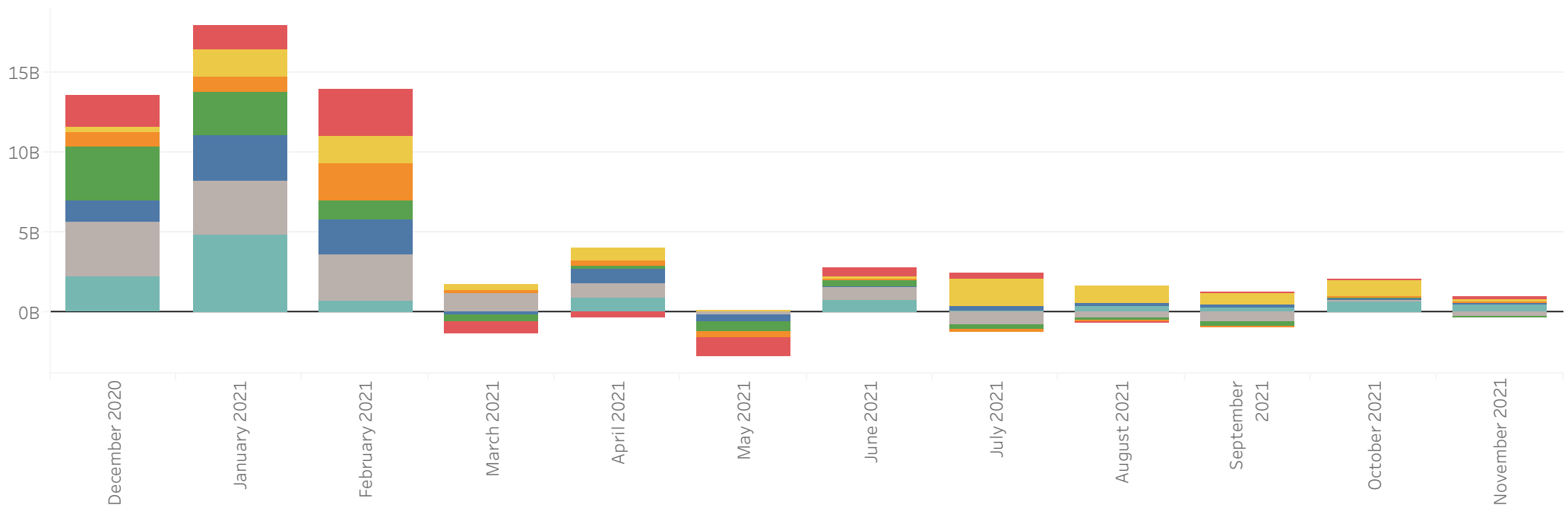
Thematic AUM Makeup



Landscape Assets & Flows

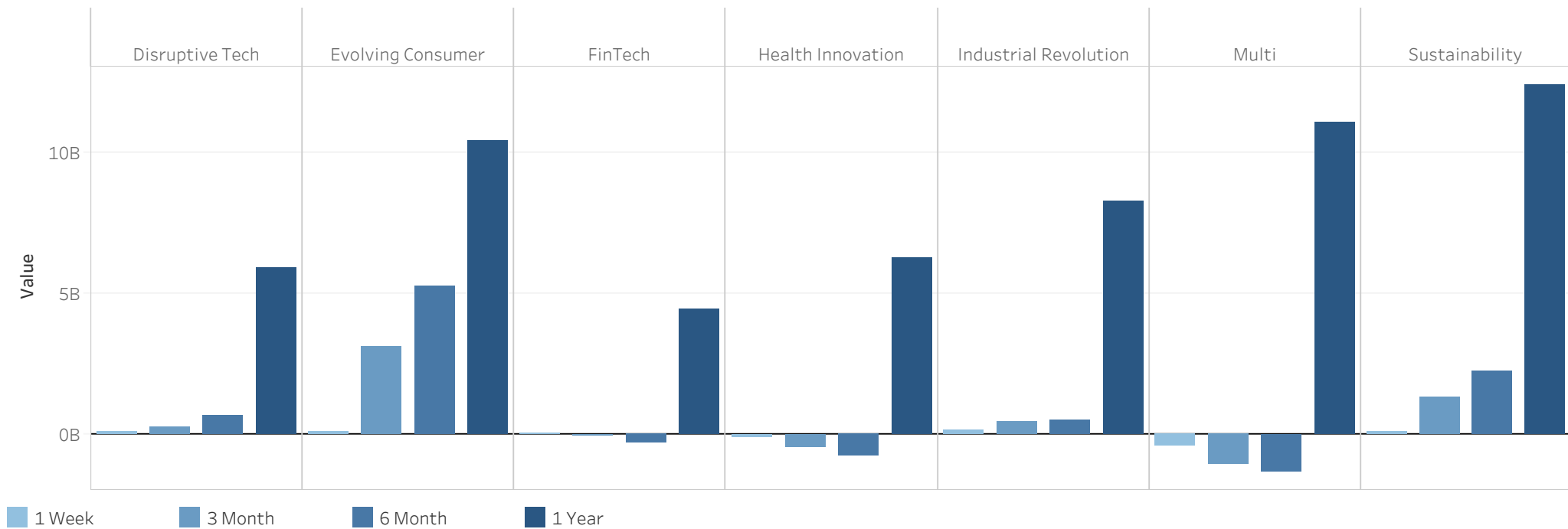
Segment	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Disruptive Tech	36	\$31,499M	\$138M	\$260M	\$681M	\$5,894M
Evolving Consumer	41	\$17,839M	\$130M	\$3,104M	\$5,238M	\$10,388M
FinTech	16	\$8,680M	\$68M	\$32M	(\$293M)	\$4,429M
Health Innovation	15	\$9,602M	(\$65M)	(\$456M)	(\$729M)	\$6,280M
Industrial Revolution	24	\$19,297M	\$155M	\$487M	\$534M	\$8,266M
Multi	28	\$30,745M	(\$400M)	(\$1,057M)	(\$1,276M)	\$11,023M
Sustainability	36	\$26,371M	\$131M	\$1,354M	\$2,252M	\$12,344M

Monthly Flows



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Flows by Time Frames Bar Chart



Weekly Flows Leaders

ETF	Description	AUM	1 Week
MSOS	AdvisorShares Pure US Cannabis ETF	\$738M	\$156M
LIT	Global X Lithium & Battery Tech ETF	\$5,519M	\$151M
META	Roundhill Ball Metaverse ETF	\$208M	\$99M
GRID	First Trust Nasdaq Clean Edge Smart GRID Infrac...	\$656M	\$78M
CIBR	First Trust NASDAQ Cybersecurity ETF	\$5,513M	\$74M
QCLN	First Trust Nasdaq Clean Edge Green Energy Ind..	\$3,267M	\$61M
BUG	Global X Cybersecurity ETF	\$1,028M	\$60M
KWEB	KraneShares CSI China Internet ETF	\$8,459M	\$45M
BLOK	Amplify Transformational Data Sharing ETF	\$1,605M	\$39M
DRIV	Global X Autonomous & Electric Vehicles ETF	\$1,149M	\$32M

Weekly Flows Laggards

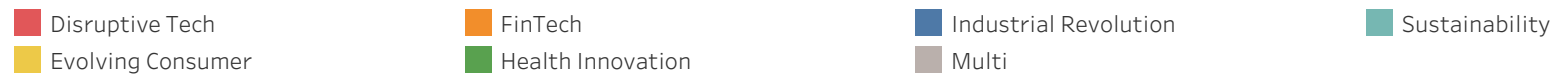
ETF	Description	AUM	1 Week
ARKK	ARK Innovation ETF	\$21,754M	(\$561M)
TAN	Invesco Solar ETF	\$4,112M	(\$86M)
ARKG	ARK Genomic Revolution ETF	\$7,440M	(\$32M)
ARKQ	ARK Autonomous Technology & Robotics ETF	\$2,725M	(\$31M)
ARKW	ARK Next Generation Internet ETF	\$5,589M	(\$24M)
HERO	Global X Video Games & Esports ETF	\$499M	(\$13M)
ARKF	ARK Fintech Innovation ETF	\$3,411M	(\$11M)
SOCL	Global X Social Media ETF	\$403M	(\$9M)
ESPO	VanEck Video Gaming and eSports ETF	\$647M	(\$7M)
BJK	VanEck Gaming ETF	\$121M	(\$6M)

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Thematic Performance Dynamics

Monthly Performance

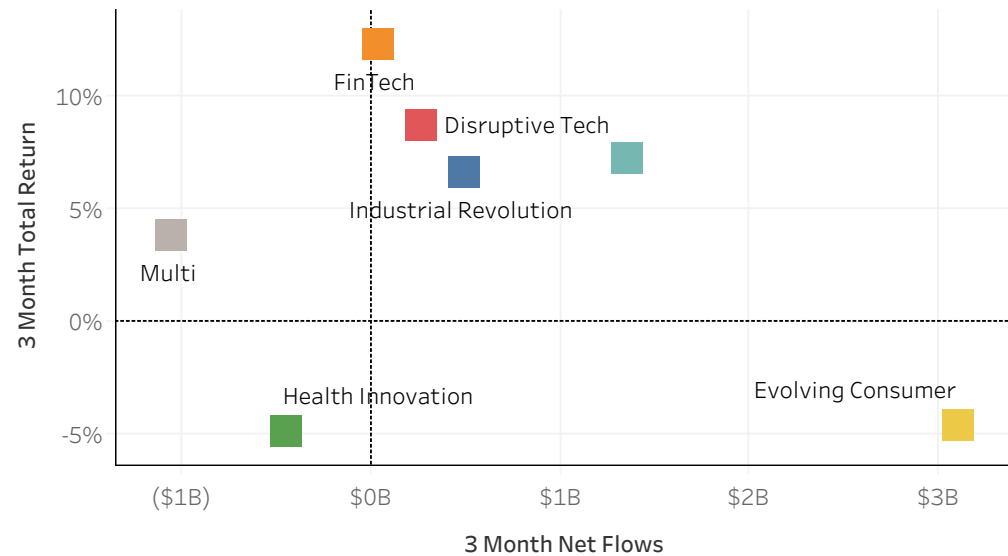
December 2020	January 2021	February 2021	March 2021	April 2021	May 2021	June 2021	July 2021	August 2021	September 2021	October 2021	MTD
10.54%	5.73%	-4.02%	-1.22%	-1.42%	-0.84%	4.62%	0.79%	9.30%	-4.88%	13.61%	11.12%
6.33%	5.57%	0.90%	-4.13%	2.49%	-1.48%	6.34%	0.56%	4.41%	-5.31%	12.65%	4.02%
9.71%	7.29%	1.49%	-1.91%	2.16%	1.05%	4.02%	-0.33%	4.18%	-5.39%	6.96%	3.82%
5.86%	7.67%	-2.87%	-5.10%	3.33%	-4.03%	8.18%	-1.38%	2.33%	-5.73%	6.38%	3.46%
8.22%	0.04%	10.29%	-0.46%	1.84%	-4.90%	4.01%	-2.56%	2.30%	-5.78%	6.15%	2.44%
3.92%	11.56%	6.94%	-4.37%	0.37%	-1.45%	0.90%	-4.54%	1.35%	-6.72%	-0.30%	0.69%
8.69%	2.53%	-0.37%	-4.53%	4.63%	-1.19%	7.00%	-8.69%	-0.96%	-8.80%	-0.33%	0.66%



Performance

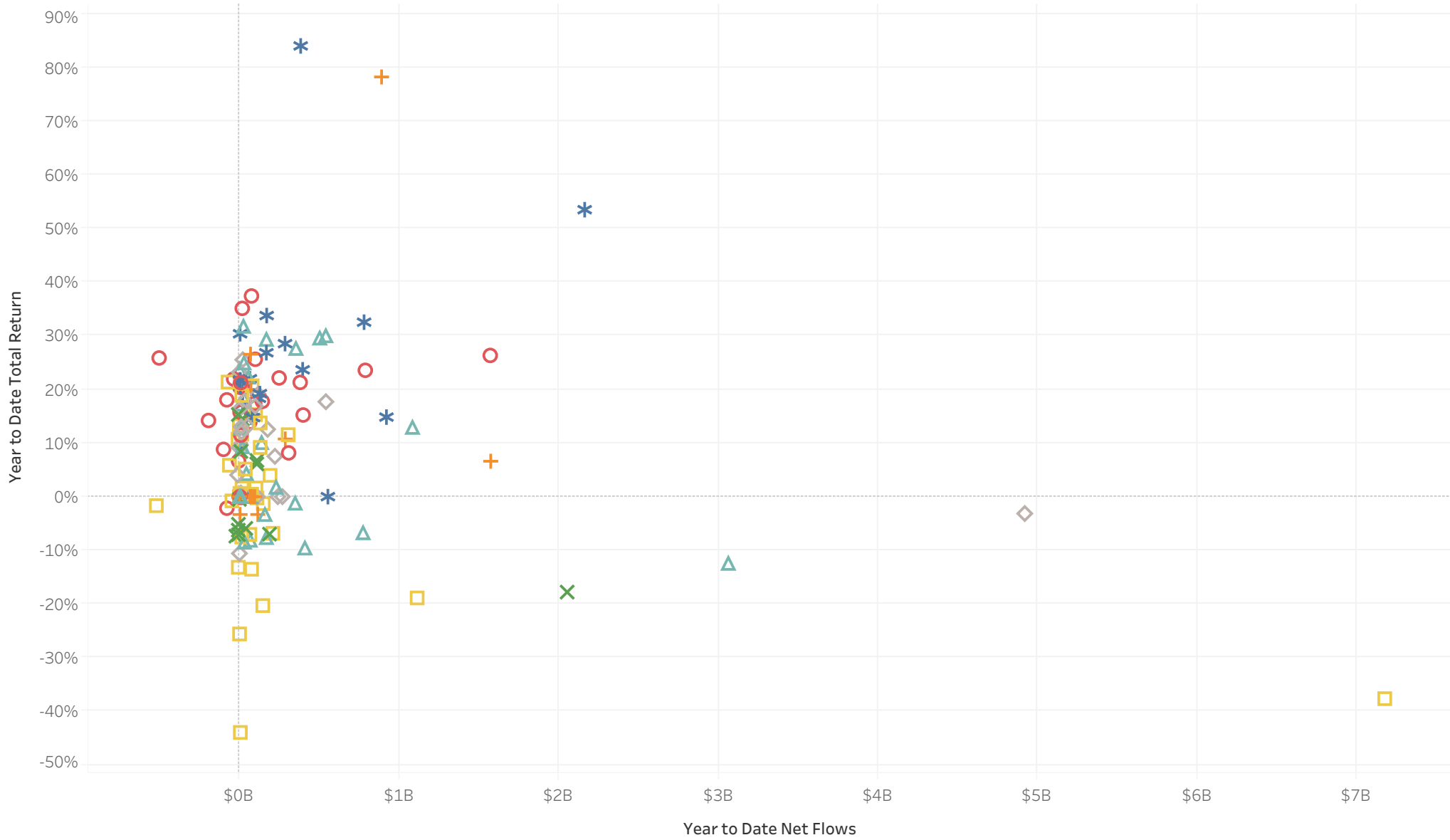
Segment	1 Month	3 Month	YTD	1 Year
Theme: Disruptive Tech	11.17%	8.73%	18.59%	38.65%
Theme: Evolving Consumer	3.58%	-4.61%	-1.07%	12.20%
Theme: FinTech	20.31%	12.25%	19.65%	39.02%
Theme: Health Innovation	3.45%	-4.81%	-0.46%	14.11%
Theme: Industrial Revolution	11.29%	6.64%	26.71%	51.32%
Theme: Multi	8.73%	3.79%	11.37%	24.99%
Theme: Sustainability	14.88%	7.20%	10.32%	30.00%

3 Month Total Return vs Net Flows



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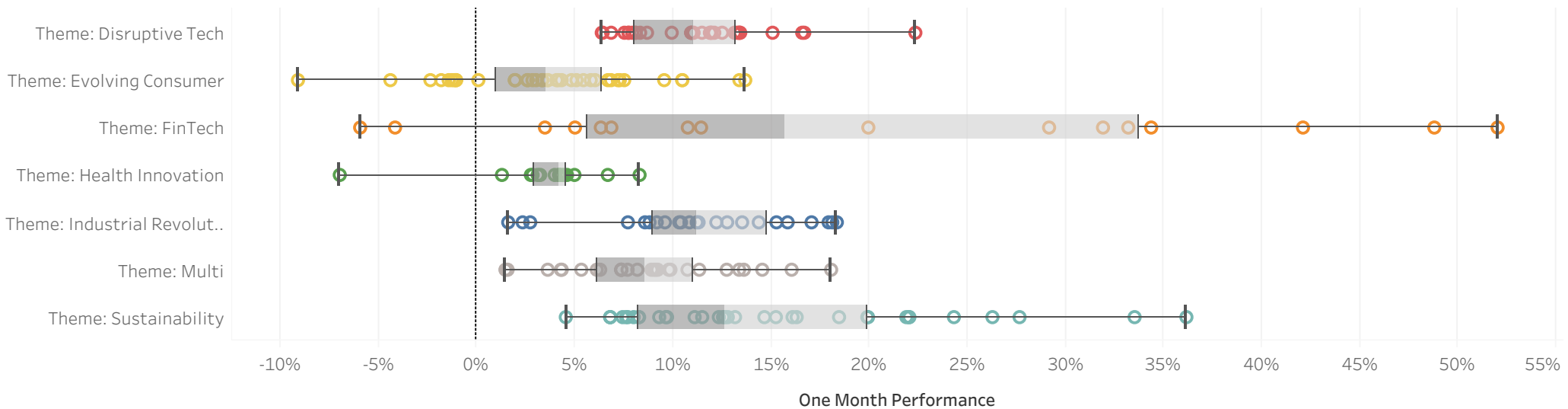
YTD Performance vs YTD Net Flows



- Theme: Disruptive Tech
- Theme: FinTech
- Theme: Industrial Revolution
- Theme: Sustainability
- Theme: Evolving Consumer
- Theme: Health Innovation
- Theme: Multi

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One Month Performance Ranges - Box & Whisker Plot



- Theme: Disruptive Tech
- Theme: FinTech
- Theme: Industrial Revolution
- Theme: Sustainability
- Theme: Evolving Consumer
- Theme: Health Innovation
- Theme: Multi

One Month Performance Leaders

		1 Mo	YTD
BKCH	Global X Blockchain ETF	52.00%	
RIGZ	Viridi Cleaner Energy Crypto-Mining & Semicon..	48.78%	
BITQ	Bitwise Crypto Industry Innovators ETF	42.08%	
HDRO	Defiance Next Gen H2 ETF	36.15%	
DAPP	VanEck Digital Transformation ETF	34.35%	
HYDR	Global X Hydrogen ETF	33.51%	
CRPT	First Trust SkyBridge Crypto Industry and Digit..	33.18%	
SATO	Invesco Alerian Galaxy Crypto Economy ETF	31.90%	
BLOK	Amplify Transformational Data Sharing ETF	29.15%	78.22%
HJEN	Direxion Hydrogen ETF	27.64%	

One Month Performance Laggards

		1 Mo	YTD
EDUT	Global X Education ETF	-9.12%	-43.95%
GERM	ETFMG Treatments Testing and Advancements ETF	-6.99%	15.30%
IPAY	ETFMG Prime Mobile Payments ETF	-5.95%	-3.32%
KWEB	KraneShares CSI China Internet ETF	-4.41%	-37.65%
TPAY	Ecofin Digital Payments Infrastructure Fund	-4.17%	-3.33%
MSOS	AdvisorShares Pure US Cannabis ETF	-2.37%	-18.88%
EWEB	Global X Emerging Markets Internet & E-commerce ETF	-1.82%	-25.59%
BETZ	Roundhill Sports Betting & iGaming ETF	-1.44%	13.74%
SOCL	Global X Social Media ETF	-1.28%	-0.24%
EMQQ	Emerging Markets Internet & Ecommerce ETF	-1.15%	-20.31%

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