

GLOBAL X ETFs RESEARCH



The Next Big Theme: July 2023



Authored by:

Mayuranki De
Research Analyst

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Topic: Disruptive
Technology, Physical
Environment, People &
Demographics



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Electric Vehicles

EVs and Battery Markets Speed Up in First Half

Despite traditional automakers making progress, Tesla widened its lead as the top U.S. electric vehicle (EV) seller. In the first half of the year, Tesla sold roughly 300,000 more units than each of its closest competitors, Hyundai Motor and General Motors. For the same period in 2022, the unit gap was 225,000.¹ Tesla's sales increased an estimated 30% to 336,892 in the first half of the year (H1).² General Motors quadrupled its electric car and truck sales to 36,322 units through June, while Volkswagen more than doubled its EV sales to 26,538 units.³ Advancements by key players like Stellantis, which introduced its STLA Medium platform, contributed to EV market growth. This platform supports multiple propulsion configurations and offers a standard range of over 500 kilometers, extendable up to 700 kilometers with a performance pack.⁴

The global battery demand for EVs is expected to increase from 509 gigawatt hours (GWh) in 2022 to 3,295GWh in 2030.⁵ Government mandates such as China's extension of tax exemptions for new energy vehicles (NEVs) until 2027 is helping adoption.⁶ Currently, Chinese consumers can benefit from EV tax breaks starting at over \$4,000 per vehicle, before the incentives gradually decline over the next four years.⁷

Social Media & Millennial Consumers

Threads Ties Younger Generations Together

Instagram's new conversation-based Threads app garnered 2 million users within its first two hours and over 100 million users in a matter of days after its launch.⁸ Not only are users signing up for Threads, but they are also actively engaging with the app. Within the first day, there were more than 95 million posts and 190 million likes shared on the platform.⁹ Parent company Meta is excited about the successful launch, but management emphasized the need to assess user retention. Threads debuts at an opportune time with younger consumers increasingly relying on social media for guidance. A recent study found that 46% of Millennials seek restaurant information from eateries' social media pages, followed closely by 42% of Gen Z consumers.¹⁰ For Gen Z, influencer recommendations and brand-sponsored content heavily influence their clothing purchases. One in three participants in a recent study cited recommendations from influencers as motivators to purchase from a new brand, while one in five said brand-sponsored content works.¹¹

Cloud Computing & Artificial Intelligence

Generative AI and Hybrid Cloud Models

The rising popularity of hybrid cloud infrastructure, which integrates components of public cloud, private cloud, and on-premises infrastructure into a cohesive architecture, has companies expanding their business models. IBM announced a definitive agreement with Vista Equity Partners to acquire Apptio Inc. for \$4.6



billion. Apptio, which provides financial and operational IT management and optimization (FinOps) software, can help accelerate IBM's IT automation capabilities, allowing enterprise leaders to maximize the value derived from their technology investments.¹² Apptio's product lineup, including ApptioOne and Apptio Cloudability, includes features for managing and optimizing hybrid and public cloud expenditures.

In 2022, global revenue from public cloud services surpassed \$500 billion, a significant milestone, and generative AI sets up to be a key catalyst for future growth in public cloud spending.¹³ In response, Amazon Web Services (AWS) committed a substantial \$100 million investment towards a new generative AI program. Named the AWS Generative AI Innovation Center, the program aims to help customers develop and deploy generative AI solutions.¹⁴ As of now, Oracle's Gen2 Cloud has emerged as the leading choice for running generative AI workloads, attesting to its mounting success as a provider.

Internet of Things & Data Centers

Asia Shows Its Semiconductor Dominance

Taiwan Semiconductor Manufacturing Corp.'s (TSMC) sales surged during the second quarter amid surging demand for AI applications and the company's chipmaking prowess.¹⁵ TSMC is the primary contract manufacturer for Nvidia's AI accelerator chips used to train large data models such as OpenAI's ChatGPT. Japan's government-backed fund, Japanese Investment Corp., proposed an acquisition of semiconductor materials giant JSR worth 903.9 billion yen (\$6.3 billion).¹⁶ Japan is focusing on its traditional strengths, particularly companies like JSR, which specializes in chemicals and materials. Similarly, South Korea leads the memory chip market, which combined with its robust AI ecosystem, gives it an edge in the global AI chip race. Samsung Electronics and SK Hynix, two of the world's largest dynamic random-access memory chipmakers, are investing in AI research and development. Samsung plans to invest 300 trillion Korean won (\$228 billion) in a new semiconductor facility in South Korea.¹⁷ With its digital strategy, South Korea aims to be one of the world's top three AI markets by 2027, closely trailing the U.S. and China.¹⁸

U.S. Infrastructure

Bipartisan Infrastructure Law in Full Effect

The Biden administration's "Investing in America" tour continued to highlight the importance of the billions of dollars set to be allocated for infrastructure, green technology, and chips to support job growth. To date, private companies have announced over \$500 billion of investments aligned with President Biden's federal spending agenda.¹⁹ In late June, the Environmental Protection Agency (EPA) launched the \$7 billion Solar for All grant competition, aiming to expand affordable and clean solar energy access for low-income households.²⁰ Up to 60 grants will be awarded to various entities.²¹ The administration granted over \$2.2 billion through the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program, supporting 162 infrastructure projects across the country.²²

The Biden administration advanced the Gateway Hudson River Tunnel project within the Federal Transit Administration's (FTA) Capital Investment Grants (CIG) program, bringing the project closer to securing up to \$6.88 billion in funding.²³ The project involves constructing a new Hudson River Tunnel between New York and New Jersey and rehabilitating the existing rail tunnel, at a total cost of \$17.18 billion.²⁴ The Bipartisan Infrastructure Law allocates \$66 billion to passenger rails, the largest investment since Amtrak's establishment, and over \$90 billion to public transit, the largest funding for the sector in history.²⁵

Genomics

Pharmaceutical Deals and Approvals



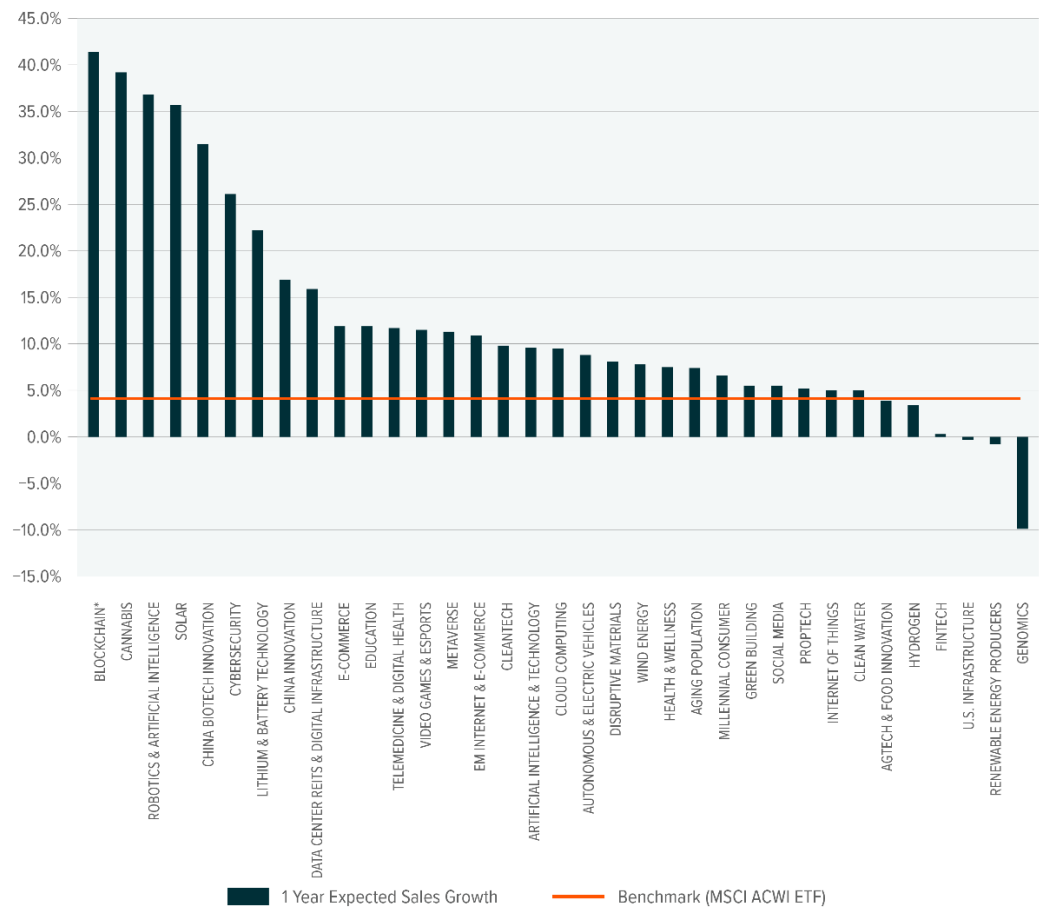
Moderna secured a \$1 billion deal to advance messenger RNA (mRNA) medicine research, development, and manufacturing in China.²⁶ The deal represents another step towards Moderna's goal of ramping up investments in Shanghai and forming partnerships with Chinese counterparts. In May, the company established the Moderna Biotech China unit in Shanghai. In the United States, two major pharmaceuticals achieved major milestones. Sarepta Therapeutics obtained accelerated Food and Drug Administration (FDA) approval for ELEVIDYS, an adeno-associated virus-based gene therapy for Duchenne muscular dystrophy (DMD). The therapy is for ambulatory pediatric patients, 4–5 years old, with a confirmed DMD gene mutation.²⁷ Also, the FDA cleared BioMarin's Roctavian as a one-time therapy for severe hemophilia A. The FDA-approved label for Roctavian highlights the phase 3 GENE8-1 trial results. For 112 patients who received the gene therapy, bleeding cases per year declined by an average of 52% over a median three years of follow-up.²⁸

THE NUMBERS

The following charts examine returns and sales growth expectations by theme, based on their corresponding ETFs.

THEMATIC EXPECTED SALES GROWTH

Source: Bloomberg, June 30, 2023, Global X ETFs.



Note: Forward looking based on data and analysis from 6/30/2023.

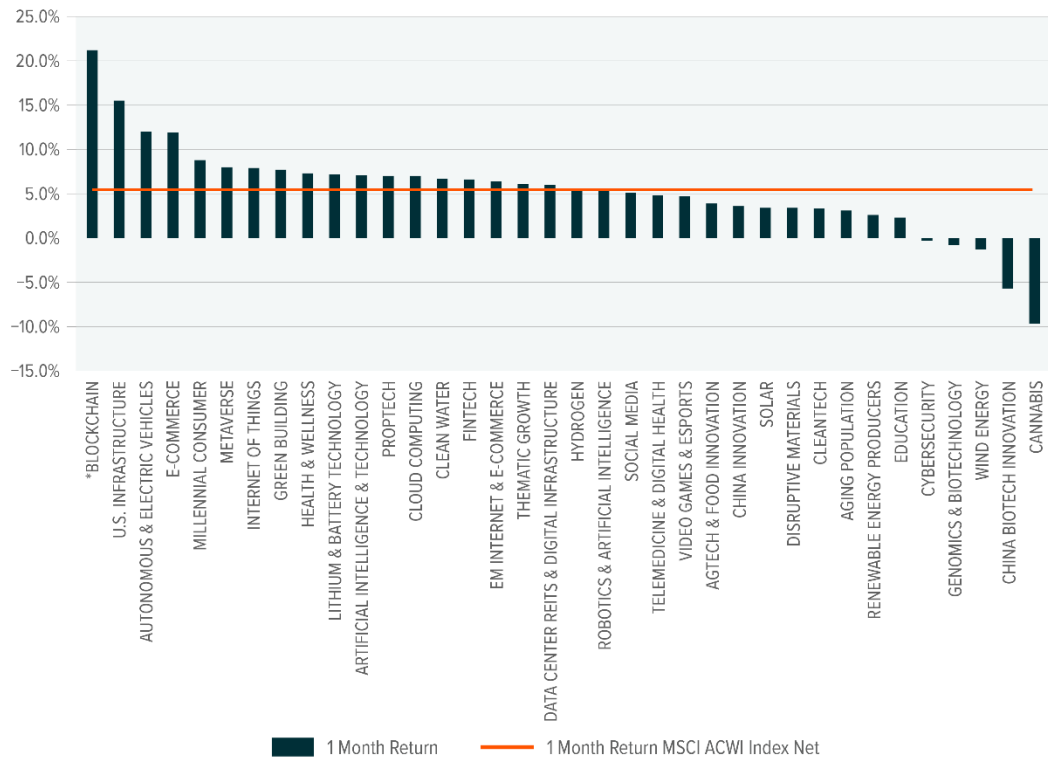
1 year annualized forward sales growth is the consensus analyst expectations for total sales growth in the next 12 months.

*Blockchain reflects figures according to BKCH ETF



JUNE 2023 THEMATIC ETF RETURNS

Source: Bloomberg, June 30, 2023, Global X ETFs.



Note: The performance data quoted represents past performance and does not guarantee future results.

*Blockchain reflects figures according to BKCH ETF

Performance data quoted represents past performance and does not guarantee future results. Investment return and principal value of an investment will fluctuate so that an investors' shares, when sold or redeemed, may be worth more or less than their original cost. Current performance may be higher or lower than the performance quoted. High short-term performance of the fund is unusual and investors should not expect such performance to be repeated. For performance data current to the most recent month end, please call 1-888-493-8631 or visit www.globalxetfs.com.

Standard Performance		Cumulative % Data as of month end (06/30/23)			Avg. Annualized % Data as of quarter end (06/30/23)					
	Expense Ratio		1 Month	3 Month	Since Inception	1 Year	3 Year	5 Year	10 Year	Since Inception
Robotics & Artificial Intelligence Inception Date 9/12/2016	0.69%	NAV	5.07%	13.27%	99.37%	41.12%	6.43%	6.00%	-	10.68%
		Market Price	5.55%	12.92%	100.00%	41.70%	6.59%	6.15%	-	10.73%
		Index	5.08%	13.29%	104.34%	41.61%	7.05%	6.40%	-	11.08%
Fintech Inception Date 9/12/2016	0.68%	NAV	6.86%	6.30%	55.45%	3.86%	-10.97%	-2.05%	-	6.70%
		Market Price	6.61%	6.25%	55.37%	3.86%	-11.07%	-2.11%	-	6.69%
		Index	6.86%	6.36%	60.97%	4.00%	-10.65%	-1.59%	-	7.25%
Internet Of Things Inception Date 9/12/2016	0.68%	NAV	7.77%	3.98%	142.74%	35.11%	13.20%	13.12%	-	13.93%
		Market Price	7.88%	4.25%	143.38%	35.73%	13.27%	13.16%	-	13.97%
		Index	7.81%	4.06%	148.01%	35.47%	13.60%	13.48%	-	14.29%
Cloud Computing Inception Date 4/12/2019	0.68%	NAV	7.13%	8.18%	34.10%	20.32%	-1.99%	-	-	7.20%
		Market Price	6.95%	8.12%	34.64%	20.32%	-2.01%	-	-	7.30%
		Index	7.15%	8.34%	37.64%	21.06%	-1.35%	-	-	7.87%
Social Media Inception Date 11/14/2011	0.65%	NAV	5.11%	-0.30%	154.18%	11.16%	-4.79%	0.76%	9.68%	8.35%
		Market Price	5.06%	-0.59%	153.63%	10.95%	-4.89%	0.73%	9.72%	8.33%
		Index	5.17%	-0.15%	170.08%	11.81%	-4.34%	1.27%	10.22%	8.92%
Artificial Intelligence & Technology Inception Date 5/11/2018	0.68%	NAV	7.10%	13.82%	90.55%	34.35%	10.87%	13.87%	-	13.37%
		Market Price	7.12%	13.83%	91.04%	34.81%	11.00%	13.87%	-	13.42%
		Index	7.19%	14.01%	94.57%	34.98%	11.41%	14.34%	-	13.83%



Autonomous & Electric Vehicles Inception Date 4/13/2018	0.68%	NAV	11.72%	9.98%	85.49%	22.87%	22.34%	13.95%	-	12.57%
		Market Price	12.00%	9.98%	85.63%	22.97%	22.34%	13.91%	-	12.59%
		Index	11.72%	9.94%	87.06%	22.96%	22.68%	14.15%	-	12.76%
Lithium and Battery Tech Inception Date 7/22/2010	0.75%	NAV	6.24%	2.43%	147.73%	-9.69%	27.64%	16.13%	12.66%	7.26%
		Market Price	7.22%	2.65%	148.98%	-9.39%	27.85%	16.35%	12.61%	7.30%
		Index	6.29%	2.58%	163.33%	-9.21%	28.17%	16.39%	12.98%	7.76%
Genomics and Biotechnology Inception Date 4/5/2019	0.50%	NAV	-0.82%	-1.55%	-20.68%	-1.22%	-11.61%	-	-	-5.32%
		Market Price	-0.82%	-1.62%	-19.07%	-0.82%	-11.56%	-	-	-4.87%
		Index	-0.70%	-1.04%	-19.27%	-1.05%	-11.31%	-	-	-4.92%
Millennial Consumer Inception Date 5/4/2016	0.50%	NAV	8.85%	6.88%	119.22%	22.72%	5.18%	7.83%	-	11.59%
		Market Price	8.75%	7.11%	118.21%	22.85%	5.17%	7.78%	-	11.52%
		Index	8.90%	7.04%	126.66%	23.28%	5.70%	8.37%	-	12.11%
Aging Population Inception Date 5/09/2016	0.50%	NAV	2.84%	4.07%	92.96%	10.97%	5.11%	6.92%	-	9.64%
		Market Price	3.07%	4.34%	96.96%	10.62%	5.09%	6.85%	-	9.95%
		Index	2.88%	4.15%	96.45%	11.24%	5.32%	7.13%	-	9.91%
Health and Wellness Inception Date 5/9/2016	0.50%	NAV	7.34%	-3.07%	60.16%	11.63%	5.21%	4.46%	-	6.81%
		Market Price	7.29%	-2.35%	61.60%	11.46%	5.35%	4.43%	-	6.95%
		Index	7.35%	-2.99%	64.71%	11.97%	5.56%	4.83%	-	7.23%
E-Commerce Inception Date 11/27/2018	0.50%	NAV	11.86%	2.32%	25.34%	10.10%	-7.30%	-	-	5.04%
		Market Price	11.86%	2.55%	25.34%	10.36%	-7.37%	-	-	5.04%
		Index	11.87%	2.40%	27.86%	10.59%	-6.96%	-	-	5.50%
Us Infrastructure Development Inception Date 3/6/2017	0.47%	NAV	15.47%	11.15%	118.18%	39.19%	28.08%	14.92%	-	13.14%
		Market Price	15.51%	11.15%	118.25%	39.12%	28.01%	14.90%	-	13.14%
		Index	15.55%	11.29%	125.29%	39.86%	28.79%	15.51%	-	13.71%
Cannabis Inception Date 9/17/2019	0.51%	NAV	-10.31%	-28.25%	-94.97%	-58.26%	-51.42%	-	-	-54.60%
		Market Price	-9.70%	-27.58%	-95.03%	-58.59%	-51.27%	-	-	-54.74%
		Index	-10.58%	-28.68%	-95.79%	-59.69%	-53.01%	-	-	-56.68%
Video Games & Esports Inception Date 10/25/2019	0.50%	NAV	3.95%	0.58%	38.89%	-2.38%	-3.35%	-	-	9.33%
		Market Price	4.73%	0.87%	39.40%	-1.85%	-3.32%	-	-	9.44%
		Index	4.00%	0.63%	41.27%	-1.94%	-2.89%	-	-	9.84%
Cybersecurity Inception Date 10/25/2019	0.51%	NAV	-0.33%	3.59%	63.90%	-1.45%	8.09%	-	-	14.36%
		Market Price	-0.33%	3.45%	66.77%	-1.45%	8.02%	-	-	14.90%
		Index	-0.30%	3.69%	66.54%	-0.85%	8.54%	-	-	14.86%
Thematic Growth Inception Date 10/25/2019	0.50%	NAV	6.10%	5.10%	10.15%	-6.77%	-3.82%	-	-	2.66%
		Market Price	6.10%	5.14%	11.16%	-6.34%	-3.90%	-	-	2.92%
		Index	6.09%	5.08%	9.18%	-6.80%	-4.07%	-	-	2.41%
Education Inception Date 7/10/2020	0.50%	NAV	2.15%	-4.14%	-55.63%	4.15%	-	-	-	-23.92%
		Market Price	2.25%	-4.18%	-55.59%	4.09%	-	-	-	-23.90%
		Index	2.22%	-3.98%	-54.92%	4.70%	-	-	-	-23.51%
Telemedicine & Digital Health Inception Date 7/29/2020	0.68%	NAV	4.67%	-1.10%	-23.42%	1.04%	-	-	-	-8.73%
		Market Price	4.77%	-0.77%	-23.61%	0.95%	-	-	-	-8.81%
		Index	4.71%	-0.98%	-22.47%	1.19%	-	-	-	-8.35%
China Biotech Innovation Inception Date 9/22/2020	0.65%	NAV	-6.13%	-15.69%	-48.90%	-31.15%	-	-	-	-21.52%
		Market Price	-5.65%	-14.63%	-48.76%	-31.82%	-	-	-	-21.45%
		Index	-6.14%	-15.56%	-47.93%	-30.72%	-	-	-	-20.99%
Cleantech Inception Date 10/27/2020	0.50%	NAV	3.01%	-8.00%	-1.62%	8.58%	-	-	-	-0.61%
		Market Price	3.30%	-7.66%	-1.82%	8.04%	-	-	-	-0.68%
		Index	3.02%	-7.92%	-3.12%	9.10%	-	-	-	-1.18%
Data Center Reits & Digital Infrastructure Inception Date 10/27/2020	0.50%	NAV	4.91%	3.47%	-5.29%	-6.31%	-	-	-	-2.01%
		Market Price	6.03%	4.10%	-4.86%	-5.81%	-	-	-	-1.85%
		Index	4.94%	3.49%	-5.51%	-6.56%	-	-	-	-2.10%
Emerging Markets Internet & E-Commerce Inception Date 11/09/2020	0.65%	NAV	6.61%	-6.43%	-51.72%	-6.26%	-	-	-	-24.12%
		Market Price	6.38%	-6.81%	-51.54%	-5.41%	-	-	-	-24.01%
		Index	6.70%	-6.25%	-50.95%	-5.44%	-	-	-	-23.66%
Renewable Energy Producers Inception Date 05/27/2015	0.66%	NAV	3.16%	-2.73%	4.40%	-13.89%	-2.89%	2.89%	-	0.53%
		Market Price	2.64%	-2.58%	3.96%	-14.36%	-3.08%	2.94%	-	0.48%
		Index	3.19%	-2.65%	7.65%	-13.22%	-2.49%	3.33%	-	0.91%
China Innovation Inception Date 02/22/2021	0.75%	NAV	3.32%	-9.46%	-53.94%	-23.66%	-	-	-	-28.09%
		Market Price	3.61%	-8.98%	-54.06%	-24.56%	-	-	-	-28.17%
		Index	-	-	-	-	-	-	-	-
Clean Water Inception Date 04/08/2021	0.50%	NAV	6.86%	6.35%	6.30%	19.85%	-	-	-	2.78%
		Market Price	6.65%	6.43%	6.16%	19.14%	-	-	-	2.72%
		Index	6.87%	6.38%	6.98%	20.16%	-	-	-	3.07%
Agtech and Food Innovation ETF Inception Date 07/12/2021	0.50%	NAV	4.02%	-14.60%	-50.19%	-20.55%	-	-	-	-29.83%
		Market Price	3.85%	-14.07%	-50.19%	-20.95%	-	-	-	-29.84%
		Index	4.02%	-14.62%	-49.87%	-20.33%	-	-	-	-29.61%



Hydrogen Inception Date 07/12/2021	0.50%	NAV	4.95%	-16.65%	-63.60%	-23.77%	-	-	-	-40.17%
		Market Price	5.63%	-15.90%	-63.24%	-23.59%	-	-	-	-39.87%
		Index	5.61%	-16.20%	-63.21%	-23.03%	-	-	-	-39.85%
Blockchain Inception Date 07/12/2021	0.50%	NAV	19.92%	39.57%	-67.60%	52.73%	-	-	-	-43.61%
		Market Price	21.18%	39.48%	-67.41%	53.97%	-	-	-	-43.44%
		Index	19.82%	38.77%	-68.67%	48.80%	-	-	-	-44.57%
Solar Inception Date 09/08/2021	0.51%	NAV	3.25%	-11.34%	-23.71%	-15.48%	-	-	-	-13.90%
		Market Price	3.41%	-11.13%	-23.42%	-16.16%	-	-	-	-13.72%
		Index	3.30%	-11.21%	-22.89%	-14.98%	-	-	-	-13.39%
Wind Energy Inception Date 09/08/2021	0.50%	NAV	-1.20%	-7.71%	-34.56%	-17.12%	-	-	-	-20.90%
		Market Price	-1.27%	-7.46%	-34.76%	-18.22%	-	-	-	-21.04%
		Index	-1.17%	-7.63%	-34.01%	-16.77%	-	-	-	-20.54%
Disruptive Materials Inception Date 01/24/2022	0.59%	NAV	3.11%	-5.94%	-21.72%	-8.22%	-	-	-	-15.74%
		Market Price	3.37%	-5.24%	-20.90%	-7.86%	-	-	-	-15.12%
		Index	2.99%	-5.98%	-21.30%	-7.90%	-	-	-	-15.42%
Green Building Inception Date 04/11/2022	0.45%	NAV	7.49%	2.73%	-14.49%	0.17%	-	-	-	-12.05%
		Market Price	7.69%	3.08%	-14.27%	-0.41%	-	-	-	-11.87%
		Index	7.54%	2.82%	-14.40%	0.71%	-	-	-	-11.98%
Metaverse Inception Date 04/26/2022	0.50%	NAV	7.33%	10.85%	7.44%	25.07%	-	-	-	6.28%
		Market Price	8.00%	11.50%	7.87%	25.27%	-	-	-	6.64%
		Index	7.39%	10.95%	7.94%	25.66%	-	-	-	6.70%
Proptech Inception Date 04/11/2023	0.50%	NAV	7.13%	-	8.15%	-	-	-	-	-
		Market Price	7.03%	-	8.35%	-	-	-	-	-
		Index	7.01%	-	8.12%	-	-	-	-	-
Carbon Credits Strategy Inception Date 05/24/2023	0.39%	NAV	6.54%	-	2.91%	-	-	-	-	-
		Market Price	7.02%	-	3.28%	-	-	-	-	-
		Index	6.54%	-	4.85%	-	-	-	-	-



P/S AND EV/S

Source: Bloomberg, data is as of 6/30/23 and 5/31/23, Global X ETFs.

Ticker	Name	P/S		EV/S	
		6/30/23	5/31/23	6/30/23	5/31/23
GNOM	Global X Genomics & Biotechnology ETF	6.22	6.26	5.57	5.61
BUG	Global X Cybersecurity ETF	5.66	5.81	5.36	5.50
BKCH	Global X Blockchain ETF	5.44	3.73	6.49	5.23
VPN	Global X Data Center REITs & Digital Infrastructure ETF	4.78	3.68	7.53	6.54
VR	Global X Metaverse ETF	4.57	4.56	4.43	4.56
BOTZ	Global X Robotics & Artificial Intelligence ETF	4.45	4.24	4.91	4.59
CHB	Global X China Biotech Innovation ETF	4.32	4.68	4.02	4.38
CLOU	Global X Cloud Computing ETF	4.13	3.86	4.36	4.10
HYDR	Global X Hydrogen ETF	3.76	3.66	3.30	3.16
AIQ	Global X Artificial Intelligence & Technology ETF	3.49	3.28	3.63	3.40
AGNG	Global X Aging Population ETF	3.48	3.39	4.11	4.06
HERO	Global X Video Games & Esports ETF	3.20	3.08	3.20	3.15
FINX	Global X FinTech ETF	3.13	2.94	3.58	3.41
SOCL	Global X Social Media ETF	3.02	2.87	2.95	2.80
EDOC	Global X Telemedicine & Digital Health ETF	2.85	2.72	2.88	2.75
SNSR	Global X Internet of Things ETF	2.82	2.62	3.11	2.92
SPX	S&P 500 Index	2.50	2.34	2.81	2.65
AQWA	Global X Clean Water ETF	2.47	2.33	3.48	3.23
RNRG	Global X Renewable Energy Producers ETF	2.30	2.21	4.46	4.44
EWEB	Global X Emerging Markets Internet & E-commerce ETF	2.27	2.14	2.27	2.07
GRNR	Global X Green Building ETF	2.24	2.09	4.15	3.92
RAYS	Global X Solar ETF	2.19	2.00	2.86	2.58
KEJI	Global X China Innovation ETF	2.13	1.94	1.73	1.56
MILN	Global X Millennial Consumer ETF	1.97	1.81	2.30	2.13
LIT	Global X Lithium and Battery Tech ETF	1.94	1.82	2.08	1.96
ACWI	MSCI ACWI Index	1.83	1.74	2.14	2.04
PTEC	Global X PropTech ETF	1.78	1.66	2.87	2.69
EDUT	Global X Education ETF	1.73	1.68	1.82	1.74
WNDY	Global X Wind Energy ETF	1.67	1.72	3.27	3.23
DMAT	Global X Disruptive Materials ETF	1.54	1.49	1.85	1.81
PAVE	Global X U.S. Infrastructure ETF	1.51	1.31	1.80	1.61
POTX	Global X Cannabis ETF	1.41	1.27	1.85	1.69
BFIT	Global X Health & Wellness ETF	1.31	1.23	1.50	1.41
CTEC	Global X Cleantech ETF	1.14	1.11	1.52	1.48
EBIZ	Global X E-commerce ETF	1.10	0.99	1.21	0.92
DRIV	Global X Autonomous & Electric Vehicles ETF	0.98	0.89	1.14	1.04
KROP	Global X AgTech & Food Innovation ETF	0.85	0.90	1.23	1.28

Note: P/S and EV/S refer to price-to-sales and enterprise value-to-sales, respectively.



F12M SALES GROWTH, PSG, AND EVSG

Source: Bloomberg, data is as of 6/30/23 and 5/31/23, Global X ETFs.

Ticker	Name	F12M Sales (%)		PSG		EVSG	
		6/30/23	5/31/23	6/30/23	5/31/23	6/30/23	5/31/23
BKCH	Global X Blockchain ETF	41.4%	46.8%	0.13	0.08	0.16	0.11
POTX	Global X Cannabis ETF	39.2%	19.8%	0.04	0.06	0.05	0.09
BOTZ	Global X Robotics & Artificial Intelligence ETF	36.8%	31.8%	0.12	0.13	0.13	0.14
RAYS	Global X Solar ETF	35.7%	34.9%	0.06	0.06	0.08	0.07
CHB	Global X China Biotech Innovation ETF	31.5%	33.5%	0.14	0.14	0.13	0.13
BUG	Global X Cybersecurity ETF	26.1%	26.1%	0.22	0.22	0.21	0.21
LIT	Global X Lithium and Battery Tech ETF	22.2%	22.1%	0.09	0.08	0.09	0.09
KEJI	Global X China Innovation ETF	16.9%	18.5%	0.13	0.10	0.10	0.08
VPN	Global X Data Center REITs & Digital Infrastructure ETF	15.9%	11.0%	0.30	0.34	0.47	0.60
EBIZ	Global X E-commerce ETF	11.9%	11.5%	0.09	0.09	0.10	0.08
EDUT	Global X Education ETF	11.9%	12.2%	0.15	0.14	0.15	0.14
EDOC	Global X Telemedicine & Digital Health ETF	11.7%	11.5%	0.24	0.24	0.25	0.24
HERO	Global X Video Games & Esports ETF	11.5%	12.1%	0.28	0.25	0.28	0.26
VR	Global X Metaverse ETF	11.3%	11.5%	0.41	0.40	0.39	0.40
EWEB	Global X Emerging Markets Internet & E-commerce ETF	10.9%	11.6%	0.21	0.18	0.21	0.18
CTEC	Global X Cleantech ETF	9.8%	8.4%	0.12	0.13	0.16	0.18
AIQ	Global X Artificial Intelligence & Technology ETF	9.6%	8.1%	0.36	0.41	0.38	0.42
CLOU	Global X Cloud Computing ETF	9.5%	8.4%	0.44	0.46	0.46	0.49
DRIV	Global X Autonomous & Electric Vehicles ETF	8.8%	5.6%	0.11	0.16	0.13	0.19
DMAT	Global X Disruptive Materials ETF	8.1%	8.8%	0.19	0.17	0.23	0.21
WNDY	Global X Wind Energy ETF	7.8%	5.0%	0.21	0.34	0.42	0.65
BFIT	Global X Health & Wellness ETF	7.5%	6.8%	0.18	0.18	0.20	0.21
AGNG	Global X Aging Population ETF	7.4%	6.6%	0.47	0.52	0.55	0.62
MILN	Global X Millennial Consumer ETF	6.6%	5.6%	0.30	0.32	0.35	0.38
GRNR	Global X Green Building ETF	5.5%	4.8%	0.41	0.44	0.75	0.81
SPX	S&P 500 Index	5.5%	4.6%	0.45	0.51	0.51	0.58
SOCL	Global X Social Media ETF	5.5%	4.7%	0.55	0.60	0.54	0.59
PTEC	Global X PropTech ETF	5.2%	6.2%	0.34	0.27	0.55	0.43
SNSR	Global X Internet of Things ETF	5.0%	4.4%	0.56	0.59	0.62	0.66
AQWA	Global X Clean Water ETF	5.0%	2.8%	0.49	0.82	0.70	1.14
ACWI	MSCI ACWI Index	4.4%	3.8%	0.42	0.46	0.49	0.54
KROP	Global X AgTech & Food Innovation ETF	3.9%	-4.3%	0.22	-0.21	0.32	-0.30
HYDR	Global X Hydrogen ETF	3.4%	4.6%	1.11	0.80	0.98	0.69
FINX	Global X FinTech ETF	0.3%	-1.2%	10.56	-2.51	12.07	-2.91
PAVE	Global X U.S. Infrastructure Development ETF	-0.3%	-0.4%	-4.77	-3.60	-5.68	-4.43
RNRG	Global X Renewable Energy Producers ETF	-0.8%	-2.0%	-2.77	-1.08	-5.36	-2.17
GNOM	Global X Genomics & Biotechnology ETF	-9.9%	-10.4%	-0.63	-0.60	-0.56	-0.54

Note: F12 Sales Growth refers to the consensus analyst expectations for total sales growth in the next 12 months.

**Please note that month-over-month variations in F12M Sales may be the result of Bloomberg coverage and estimates of underlying securities.*

PSG and EVSG refer to Price-to-Sales over F12 Sales Growth and Enterprise Value over F12 Sales Growth, respectively.

N/As reflect a negative growth number in the denominator and similar to traditional PEG ratios aren't typically displayed as such (hence the N/A).

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- **Multi-Theme:** [Thematic Growth ETF \(GXTG\)](#), [China Innovation ETF \(KEJI\)](#)

Footnotes

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