

GLOBAL X ETFs RESEARCH

The Next Big Theme: January 2024



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Topic: **Disruptive**
Technology, Physical
Environment, People &
Demographics



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Electric Vehicles

Carmakers Ready to Electrify 2024

Strong 2023 sales from Tesla and BYD along with breakthroughs from Honda in early 2024 set the tone for another promising year for the electric vehicle (EV) sector. Tesla delivered a robust 1.8 million vehicles in 2023 and BYD continued its ascent by delivering 1.5 million, including a record 526,409 in Q4 2023.¹ At the 2024 Consumer Electronics Show (CES), Honda made a significant splash with the unveiling of its innovative 0 Series, including the Saloon sedan and Space-Hub minivan, scheduled for a North American launch in 2026.² This series represents Honda's pivot to in-house EV development and features advancements such as e-axes, steer-by-wire systems, and over 300 miles of range per charge.³ Potentially adding to the impact of milestones like these is a revision to U.S. policy that introduces enhanced tax credits, including instant rebates to facilitate easier consumer access to EVs.⁴ This legislative shift is anticipated to catalyze further growth in the EV market.

Artificial Intelligence

AI Makes its Way to the Keyboard

Microsoft is redefining the relationship between artificial intelligence (AI) and personal computing by introducing a dedicated Copilot key on Windows 11 laptops.⁵ This key, which replaces the Menu key, provides users with direct access to Microsoft's Copilot AI service, highlighting the company's deep integration of AI, from its Azure servers to individual PCs. Google introduced an advanced version of its Bard AI service, expected to be available through a paid subscription to Google One.⁶ Powered by the cutting-edge large language model Gemini Ultra, Bard Advanced is a significant upgrade over the current Gemini Pro version.⁷ Notably, it offers advanced math and reasoning skills. Other recent AI innovations from Google include a feature codenamed Motoko, which might allow users to create custom bots, and a "power up" feature that augments user prompts in Bard. Additionally, a new "tasks" tab and customizable backgrounds for Bard prompts may be forthcoming. Features like these highlight the evolution of AI services in an increasingly competitive market.

Metaverse & Internet of Things

Mixed Reality Aims for Accessibility

Qualcomm announced its Snapdragon XR2+ Gen 2 chip, which will be used in Samsung and Google's forthcoming mixed reality (MR) devices.⁸ The Snapdragon XR2+ Gen 2, an evolved version of the XR2 Gen 2 chip used in Meta's Quest 3, offers advanced features like 4.3K resolution, a major leap forward in XR productivity and immersive entertainment.⁹ The chip can support Android applications, which suggests the



devices may be offered at a more accessible price point than Apple's \$3,499 Vision Pro headset.¹⁰ In response to these new market dynamics, Meta reduced the price of its Quest 2 virtual reality (VR) headset to \$250.¹¹ This pricing strategy extends to the 128GB and 256GB models, including refurbished units and accessories.¹² With its already favorable initial launch price, the Quest 2's new price point may solidify its appeal to VR newcomers, bolstered by a vast array of VR titles.

Aging Population

Digital Solutions Reshaping Patient Care

The launch of Eli Lilly's digital platform LillyDirect is expected to enhance patient access to the company's medications, including Zepbound™, which recently received Food and Drug Administration (FDA) approval.¹³ Part of the GLP-1 agonists class, Zepbound™ is a weight management therapy.¹⁴ LillyDirect's debut, along with the company's partnership with weight loss telehealth service Form Health, aligns with the broader shift of healthcare embracing digital solutions for better patient care. Medtronic's advancements in cardiac care represent another aspect of technology-driven innovation in healthcare. The European approval of the company's latest leadless pacemakers, Micra AV2 and VR2, heralds a new era in cardiac treatment.¹⁵ These devices, distinguished by their compact size, extended battery life, and minimally invasive implantation, are tailored to enhance patient comfort and improve clinical outcomes.

Disruptive Materials

Copper and Zinc Exploration Updates

Disruptive technologies require metals, and recent developments illustrate the continued demand for zinc, copper, and other metals. Canada's Barrick Gold and Chile's Antofagasta formed Minera El Encierro, a joint venture for copper and metal exploration in Chile's Atacama region.¹⁶ The initiative involves a \$95 million investment to set up 60 drilling platforms across 9,400 hectares. Expected to last five years, the project aims to explore an area with promising copper-gold-molybdenum porphyry deposits, only 15% of which has been drilled.¹⁷ Barrick Gold is also looking to expand its copper production through investments in Pakistan's Reko Diq mine and Zambia's Lumwana super pit.¹⁸ The company wants to double its copper output by 2031. Also, the company is considering an acquisition of First Quantum, which recently closed its flagship mine in Panama.¹⁹ Following a pause due to low zinc prices, Sweden's Boliden AB is negotiating to restart its Tara zinc operation in Ireland this year.²⁰ Also, Boliden is increasing production capacity at its Odda zinc smelter in Norway.²¹ In Canada, Amarc Resources, in partnership with Boliden Mineral Canada, is planning a major drilling program expansion at the DUKE Copper-Gold District in British Columbia for 2024.²²

Data Centers & Cloud Computing

Enterprises Set to Benefit from Hybrid Cloud Partnerships

IBM is partnering with American Tower to accelerate the deployment of hybrid, multi-cloud computing at the edge, enhancing cloud capabilities in IBM's Access Edge Data Centers. A leader in communications real estate with a vast network of data centers, American Tower will integrate IBM's hybrid cloud platform and automated systems to create an edge cloud across its locations.²³ This initiative aims to provide enterprises with flexible application deployment options, enabling faster, more secure data processing near the data source. Cirrascale Cloud Services announced a partnership with Qualcomm to incorporate the Qualcomm Cloud AI 100 into its AI Innovation Cloud.²⁴ This AI inference accelerator is tailored for generative AI, large language models (LLMs), and computer vision applications, a significant advancement in cloud-based AI processing. Qualcomm's introduction of the Cloud AI 100 further strengthens its position in the AI inference market. This move aligns with Qualcomm's strategy to expand into the AI-enabled edge market.

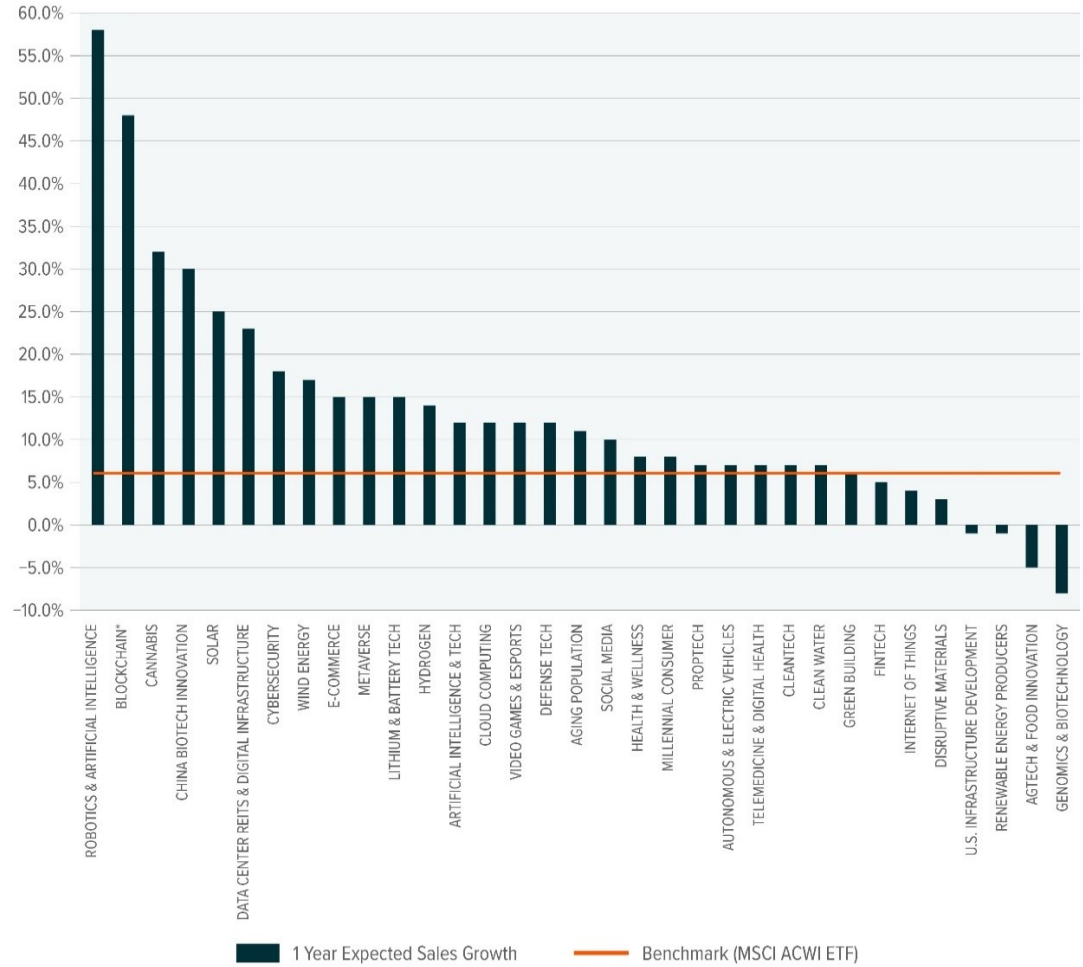


THE NUMBERS

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

THEMATIC EXPECTED SALES GROWTH

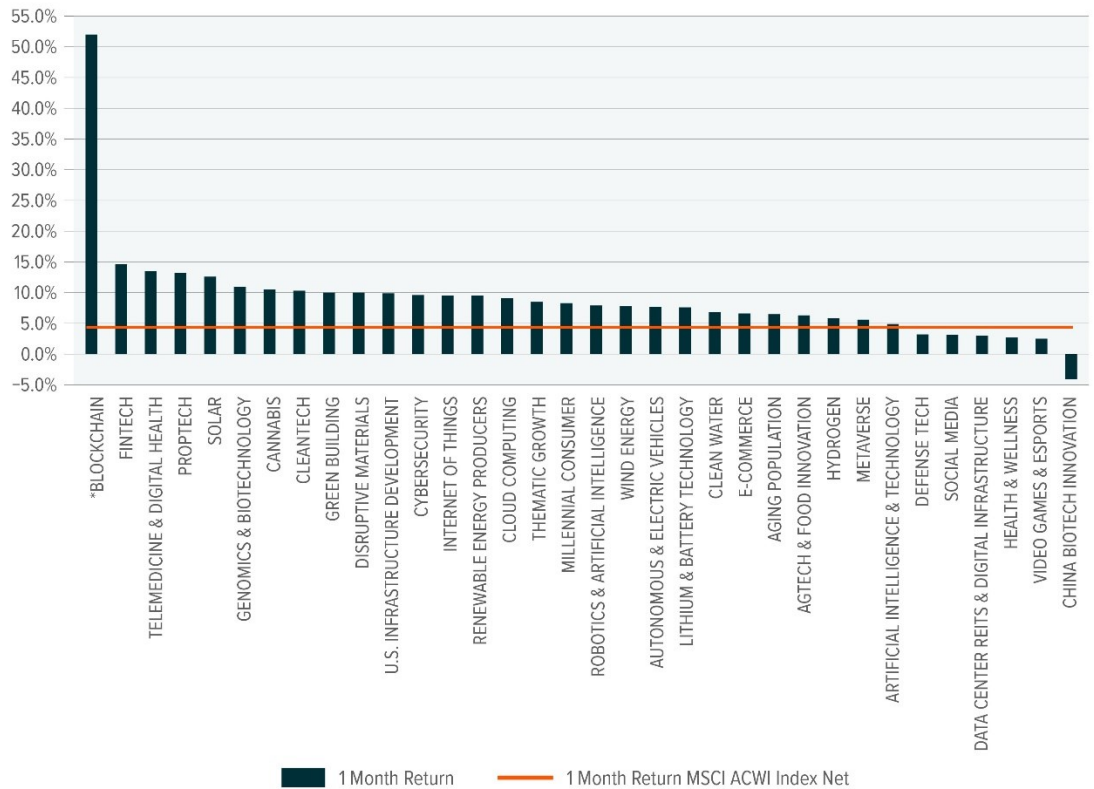
Source: Bloomberg, December 31, 2023, Global X ETFs.



Note: Forward looking based on index data and analysis from 12/31/2023.
1 year annualized forward sales growth is the consensus analyst expectations for total sales growth in the next 12 months.
Refer to Appendix above Footnotes for details on Indices used.

DECEMBER 2023 THEMATIC ETF RETURNS

Source: Bloomberg, December 31, 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 (12/31/23)				Avg. Annualized % Data as of quarter end (12/31/23)				
	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	7.84%	15.28%	98.63%	38.62%	-4.62%	11.47%	-	9.85%
		Market Price	7.85%	15.31%	98.36%	38.97%	-4.71%	11.60%	-	9.83%
		Index	7.88%	15.39%	103.91%	39.05%	-4.12%	11.99%	-	10.25%
FinTech Inception Date 9/12/2016	0.68%	NAV	14.41%	27.08%	80.18%	33.88%	-16.60%	4.10%	-	8.40%
		Market Price	14.57%	26.98%	80.03%	33.15%	-16.63%	4.10%	-	8.38%
		Index	14.45%	27.24%	87.08%	34.29%	-16.32%	4.57%	-	8.95%
Internet Of Things Inception Date 9/12/2016	0.68%	NAV	9.54%	15.67%	150.18%	22.81%	4.32%	17.74%	-	13.38%
		Market Price	9.30%	15.76%	149.55%	23.05%	4.26%	17.71%	-	13.34%
		Index	9.54%	15.87%	156.37%	23.38%	4.69%	18.13%	-	13.76%
Cloud Computing Inception Date 4/12/2019	0.68%	NAV	8.90%	20.23%	53.03%	41.15%	-6.18%	-	-	9.43%
		Market Price	9.10%	20.34%	53.77%	41.36%	-6.16%	-	-	9.54%
		Index	8.98%	20.47%	57.63%	42.08%	-5.57%	-	-	10.11%



Social Media Inception Date 11/14/2011	0.65%	NAV	2.65%	12.07%	180.35%	30.94%	-12.97%	8.02%	6.95%	8.86%
		Market Price	3.10%	12.76%	180.21%	31.08%	-12.93%	8.14%	6.90%	8.86%
		Index	2.69%	12.21%	198.82%	31.75%	-12.57%	8.60%	7.47%	9.44%
Artificial Intelligence & Technology Inception Date 5/11/2018	0.68%	NAV	4.84%	15.74%	112.96%	54.78%	4.95%	19.58%	-	14.33%
		Market Price	4.94%	15.94%	113.17%	55.39%	4.96%	19.68%	-	14.35%
		Index	4.92%	15.90%	118.27%	55.83%	5.50%	20.13%	-	14.83%
Autonomous & Electric Vehicles Inception Date 4/13/2018	0.68%	NAV	7.64%	5.86%	77.94%	25.60%	2.18%	17.25%	-	10.60%
		Market Price	7.66%	5.97%	77.45%	26.13%	2.01%	17.24%	-	10.55%
		Index	7.78%	6.02%	79.66%	25.75%	2.43%	17.49%	-	10.78%
Lithium and Battery Tech Inception Date 7/22/2010	0.75%	NAV	7.67%	-6.73%	98.09%	-11.85%	-5.22%	14.67%	8.47%	5.21%
		Market Price	7.60%	-7.03%	96.41%	-12.20%	-5.60%	14.63%	8.45%	5.15%
		Index	7.72%	-6.61%	110.90%	-11.56%	-4.68%	14.91%	8.85%	5.70%
Genomics and Biotechnology Inception Date 4/5/2019	0.50%	NAV	11.14%	13.99%	-24.15%	-8.61%	-21.13%	-	-	-5.66%
		Market Price	10.94%	13.67%	-22.81%	-8.62%	-21.19%	-	-	-5.31%
		Index	11.12%	14.24%	-22.42%	-8.17%	-20.80%	-	-	-5.21%
Millennial Consumer Inception Date 5/4/2016	0.50%	NAV	8.29%	17.16%	144.52%	36.19%	-1.51%	12.76%	-	12.38%
		Market Price	8.32%	16.94%	143.57%	36.27%	-1.54%	12.75%	-	12.32%
		Index	8.33%	17.30%	153.42%	36.82%	-1.04%	13.32%	-	12.90%
Aging Population Inception Date 5/09/2016	0.50%	NAV	6.32%	9.66%	98.65%	9.71%	1.32%	9.17%	-	9.39%
		Market Price	6.45%	9.81%	102.35%	9.66%	1.35%	9.08%	-	9.65%
		Index	6.34%	9.77%	102.69%	10.08%	1.54%	9.41%	-	9.68%
Health and Wellness Inception Date 5/9/2016	0.50%	NAV	2.64%	9.29%	62.65%	8.70%	-2.86%	6.36%	-	6.57%
		Market Price	2.65%	9.02%	63.39%	9.57%	-3.03%	6.24%	-	6.63%
		Index	2.73%	9.51%	67.76%	9.21%	-2.52%	6.76%	-	7.00%
E-commerce Inception Date 11/27/2018	0.50%	NAV	6.74%	16.79%	43.85%	30.50%	-12.40%	9.19%	-	7.40%
		Market Price	6.59%	17.14%	43.64%	30.88%	-12.49%	9.19%	-	7.37%
		Index	6.77%	16.92%	47.07%	31.13%	-12.03%	9.68%	-	7.86%
Us Infrastructure Development Inception Date 3/6/2017	0.47%	NAV	9.83%	13.95%	140.23%	30.88%	18.34%	21.40%	-	13.70%
		Market Price	9.92%	13.94%	140.37%	31.01%	18.38%	21.41%	-	13.71%
		Index	10.06%	14.39%	149.36%	31.90%	19.10%	22.10%	-	14.33%
Cannabis Inception Date 9/17/2019	0.51%	NAV	9.98%	-10.44%	-95.22%	-44.36%	-51.98%	-	-	-50.76%
		Market Price	10.52%	-9.76%	-95.32%	-44.37%	-52.02%	-	-	-51.02%
		Index	9.68%	-10.85%	-96.04%	-46.27%	-53.31%	-	-	-52.89%
Video Games & Esports Inception Date 10/25/2019	0.50%	NAV	2.26%	9.34%	38.75%	8.78%	-12.68%	-	-	8.14%
		Market Price	2.48%	8.80%	38.04%	8.36%	-12.89%	-	-	8.01%
		Index	2.30%	9.44%	41.37%	9.24%	-12.30%	-	-	8.62%
Cybersecurity Inception Date 10/25/2019	0.51%	NAV	9.02%	20.51%	97.60%	40.95%	2.04%	-	-	17.67%
		Market Price	9.60%	20.79%	101.69%	41.40%	2.03%	-	-	18.24%
		Index	9.09%	20.71%	101.36%	41.66%	2.47%	-	-	18.20%
Thematic Growth Inception Date 10/25/2019	0.50%	NAV	8.84%	6.39%	3.65%	10.34%	-16.02%	-	-	0.86%
		Market Price	8.50%	6.28%	4.14%	10.24%	-16.11%	-	-	0.97%
		Index	8.84%	6.35%	2.69%	10.23%	-16.25%	-	-	0.64%
Telemedicine & Digital Health Inception Date 7/29/2020	0.68%	NAV	13.52%	10.55%	-33.27%	-13.01%	-19.23%	-	-	-11.14%
		Market Price	13.45%	10.24%	-33.53%	-12.61%	-19.33%	-	-	-11.24%
		Index	13.54%	10.68%	-32.25%	-12.87%	-18.88%	-	-	-10.75%
China Biotech Innovation Inception Date 9/22/2020	0.65%	NAV	-4.33%	7.41%	-45.68%	-14.60%	-20.53%	-	-	-17.01%
		Market Price	-4.12%	7.17%	-45.95%	-13.57%	-20.71%	-	-	-17.13%
		Index	-4.25%	7.66%	-44.43%	-13.95%	-19.98%	-	-	-16.43%
CleanTech Inception Date 10/27/2020	0.50%	NAV	10.37%	-0.69%	-27.17%	-25.82%	-21.47%	-	-	-9.49%
		Market Price	10.29%	-0.60%	-27.37%	-25.57%	-21.61%	-	-	-9.57%
		Index	10.40%	-0.67%	-28.29%	-25.63%	-21.89%	-	-	-9.93%
Data Center REITs & Digital Infrastructure Inception Date 10/27/2020	0.50%	NAV	2.91%	15.87%	2.93%	18.21%	-0.23%	-	-	0.91%
		Market Price	2.97%	16.01%	3.23%	18.92%	-0.37%	-	-	1.00%
		Index	2.94%	16.08%	2.89%	18.26%	-0.24%	-	-	0.90%
Renewable Energy Producers Inception Date 05/27/2015	0.66%	NAV	9.48%	13.84%	-0.61%	-12.33%	-13.23%	2.25%	-	-0.07%
		Market Price	9.46%	13.62%	-1.48%	-12.82%	-13.65%	2.07%	-	-0.17%
		Index	9.60%	14.05%	2.71%	-11.98%	-12.85%	2.61%	-	0.31%
Clean Water Inception Date 04/08/2021	0.50%	NAV	6.97%	16.17%	13.42%	19.85%	-	-	-	4.72%
		Market Price	6.82%	15.97%	13.62%	20.16%	-	-	-	4.79%
		Index	7.04%	16.39%	14.42%	20.25%	-	-	-	5.06%
AgTech and Food Innovation ETF Inception Date 07/12/2021	0.50%	NAV	6.15%	-0.41%	-56.60%	-23.92%	-	-	-	-28.67%
		Market Price	6.33%	-0.87%	-56.48%	-23.87%	-	-	-	-28.59%
		Index	6.19%	-0.32%	-56.21%	-23.70%	-	-	-	-28.41%
Hydrogen Inception Date 07/12/2021	0.50%	NAV	5.37%	-6.91%	-72.55%	-37.26%	-	-	-	-40.73%
		Market Price	5.82%	-6.50%	-72.39%	-36.49%	-	-	-	-40.59%
		Index	5.55%	-6.79%	-72.17%	-36.63%	-	-	-	-40.40%
Blockchain Inception Date 07/12/2021	0.50%	NAV	53.71%	103.36%	-50.08%	270.95%	-	-	-	-24.51%
		Market Price	52.02%	101.80%	-50.30%	267.36%	-	-	-	-24.65%
		Index	53.69%	103.20%	-51.82%	265.69%	-	-	-	-25.58%
Solar Inception Date 09/08/2021	0.51%	NAV	12.64%	-2.01%	-45.46%	-35.37%	-	-	-	-23.06%
		Market Price	12.61%	-2.07%	-45.34%	-35.13%	-	-	-	-22.99%
		Index	12.68%	-1.88%	-44.77%	-35.02%	-	-	-	-22.64%



Wind Energy Inception Date 09/08/2021	0.50%	NAV	7.69%	8.02%	-43.34%	-22.40%	-	-	-	-21.78%
		Market Price	7.79%	8.30%	-43.46%	-22.22%	-	-	-	-21.86%
		Index	7.69%	8.18%	-42.79%	-22.14%	-	-	-	-21.46%
Disruptive Materials Inception Date 01/24/22	0.59%	NAV	9.95%	-2.47%	-32.31%	-19.67%	-	-	-	-18.27%
		Market Price	9.96%	-3.34%	-32.83%	-19.75%	-	-	-	-18.60%
		Index	9.99%	-2.31%	-31.75%	-19.35%	-	-	-	-17.92%
Green Building Inception Date 04/11/22	0.45%	NAV	10.12%	16.41%	-2.03%	18.15%	-	-	-	-1.18%
		Market Price	9.99%	16.34%	-2.23%	18.43%	-	-	-	-1.30%
		Index	10.25%	16.69%	-1.58%	18.83%	-	-	-	-0.92%
Metaverse Inception Date 04/26/22	0.50%	NAV	4.90%	20.87%	18.11%	50.67%	-	-	-	10.40%
		Market Price	5.58%	20.98%	18.18%	51.59%	-	-	-	10.44%
		Index	4.94%	21.00%	18.84%	51.30%	-	-	-	10.81%
PropTech Inception Date 04/11/23	0.50%	NAV	12.64%	15.27%	22.46%	-	-	-	-	-
		Market Price	13.19%	15.40%	22.78%	-	-	-	-	-
		Index	12.72%	15.46%	22.80%	-	-	-	-	-
Carbon Credits Strategy Inception Date 05/24/23	0.39%	NAV	7.42%	3.53%	-2.24%	-	-	-	-	-
		Market Price	7.03%	4.25%	-2.07%	-	-	-	-	-
		Index	7.66%	4.74%	1.11%	-	-	-	-	-
Defense Tech Inception date 09/11/23	0.50%	NAV	2.93%	14.63%	12.09%	-	-	-	-	-
		Market Price	3.22%	14.80%	12.54%	-	-	-	-	-
		Index	3.00%	14.80%	12.30%	-	-	-	-	-



P/S AND EV/S

Source: Bloomberg, data is as of 12/31/23 and 11/30/23, Global X ETFs.

Ticker	Name	P/S		EV/S	
		12/31/23	11/30/23	12/31/23	11/30/23
GNOM	Global X Genomics & Biotechnology ETF	7.58	6.60	6.60	5.65
BUG	Global X Cybersecurity ETF	5.80	5.33	5.53	5.07
BKCH	Global X Blockchain ETF	4.95	3.21	6.37	3.87
CHB	Global X China Biotech Innovation ETF	4.87	5.08	4.53	4.72
VR	Global X Metaverse ETF	4.74	4.79	4.75	4.79
VPN	Global X Data Center REITs & Digital Infrastructure ETF	4.62	4.51	7.27	7.13
BOTZ	Global X Robotics & Artificial Intelligence ETF	4.40	4.08	4.86	4.54
CLOU	Global X Cloud Computing ETF	4.30	3.94	4.55	4.20
AIQ	Global X Artificial Intelligence & Technology ETF	3.64	3.42	3.75	3.53
FINX	Global X FinTech ETF	3.62	3.17	4.39	3.90
AGNG	Global X Aging Population ETF	3.52	3.40	4.13	4.00
SOCL	Global X Social Media ETF	3.21	3.12	3.12	3.03
HERO	Global X Video Games & Esports ETF	3.03	2.97	2.98	2.94
HYDR	Global X Hydrogen ETF	2.80	2.52	2.76	2.48
SNSR	Global X Internet of Things ETF	2.75	2.68	3.11	2.96
GRNR	Global X Green Building ETF	2.70	2.45	4.64	4.40
SPY	S&P 500 ETF	2.61	2.49	2.96	2.85
AQWA	Global X Clean Water ETF	2.54	2.37	3.53	3.36
EDOC	Global X Telemedicine & Digital Health ETF	2.26	1.99	2.24	1.97
RNRG	Global X Renewable Energy Producers ETF	2.15	1.99	4.54	4.39
MILN	Global X Millennial Consumer ETF	2.11	1.95	2.45	2.29
PTEC	Global X PropTech ETF	2.01	1.78	3.48	2.88
ACWI	MSCI ACWI ETF	1.94	1.85	2.57	2.18
WNDY	Global X Wind Energy ETF	1.72	1.38	3.01	2.82
LIT	Global X Lithium and Battery Tech ETF	1.68	1.58	1.85	1.75
PAVE	Global X U.S. Infrastructure ETF	1.65	1.52	1.97	1.85
RAYS	Global X Solar ETF	1.51	1.37	2.10	2.03
SHLD	Global X Defense Tech ETF	1.51	1.47	1.79	1.75
BFIT	Global X Health & Wellness ETF	1.32	1.30	1.50	1.47
DMAT	Global X Disruptive Materials ETF	1.30	1.21	1.62	1.52
POTX	Global X Cannabis ETF	1.26	1.27	1.35	1.36
EBIZ	Global X E-commerce ETF	1.16	1.09	1.24	1.17
KROP	Global X AgTech & Food Innovation ETF	0.98	0.89	1.28	1.25
CTEC	Global X Cleantech ETF	0.91	0.83	1.25	1.17
DRIV	Global X Autonomous & Electric Vehicles ETF	0.87	0.79	1.01	0.91

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 12/31/23 and 11/30/23, Global X ETFs.

Ticker	Name	F12M Sales (%)		PSG		EVSG	
		12/31/23	11/30/23	12/31/23	11/30/23	12/31/23	11/30/23
BOTZ	Global X Robotics & Artificial Intelligence ETF	57.6%	54.3%	0.08	0.08	0.08	0.08
BKCH	Global X Blockchain ETF	48.2%	44.5%	0.10	0.07	0.13	0.09
POTX	Global X Cannabis ETF	31.8%	37.9%	0.04	0.03	0.04	0.04
CHB	Global X China Biotech Innovation ETF	30.2%	36.1%	0.16	0.14	0.15	0.13
RAYS	Global X Solar ETF	24.9%	26.4%	0.06	0.05	0.08	0.08
VPN	Global X Data Center REITs & Digital Infrastructure ETF	23.5%	23.4%	0.20	0.19	0.31	0.30
BUG	Global X Cybersecurity ETF	17.9%	16.5%	0.32	0.32	0.31	0.31
WNDY	Global X Wind Energy ETF	17.3%	16.1%	0.10	0.09	0.17	0.17
EBIZ	Global X E-commerce ETF	15.5%	14.4%	0.08	0.08	0.08	0.08
VR	Global X Metaverse ETF	15.4%	16.0%	0.31	0.30	0.31	0.30
LIT	Global X Lithium and Battery Tech ETF	15.2%	14.1%	0.11	0.11	0.12	0.12
HYDR	Global X Hydrogen ETF	14.3%	8.0%	0.20	0.31	0.19	0.31
AIQ	Global X Artificial Intelligence & Technology ETF	12.5%	11.9%	0.29	0.29	0.30	0.30
CLOU	Global X Cloud Computing ETF	11.9%	11.1%	0.36	0.36	0.38	0.38
HERO	Global X Video Games & Esports ETF	11.8%	9.3%	0.26	0.32	0.25	0.32
SHLD	Global X Defense Tech ETF	11.7%	11.1%	0.13	0.13	0.15	0.16
AGNG	Global X Aging Population ETF	10.7%	9.5%	0.33	0.36	0.38	0.42
SOCL	Global X Social Media ETF	9.7%	8.7%	0.33	0.36	0.32	0.35
BFIT	Global X Health & Wellness ETF	8.1%	8.3%	0.16	0.16	0.18	0.18
MILN	Global X Millennial Consumer ETF	8.1%	7.6%	0.26	0.26	0.30	0.30
PTEC	Global X PropTech ETF	7.5%	8.2%	0.27	0.22	0.47	0.35
DRIV	Global X Autonomous & Electric Vehicles ETF	7.2%	6.1%	0.12	0.13	0.14	0.15
EDOC	Global X Telemedicine & Digital Health ETF	7.0%	6.3%	0.32	0.31	0.32	0.31
CTEC	Global X Cleantech ETF	6.7%	4.8%	0.14	0.17	0.19	0.24
AQWA	Global X Clean Water ETF	6.5%	5.7%	0.39	0.41	0.54	0.59
SPY	S&P 500 ETF	6.1%	5.6%	0.43	0.45	0.49	0.51
GRNR	Global X Green Building ETF	6.0%	5.4%	0.45	0.46	0.77	0.82
ACWI	MSCI ACWI ETF	5.7%	5.1%	0.34	0.36	0.45	0.42
FINX	Global X FinTech ETF	5.0%	4.0%	0.72	0.79	0.87	0.97
SNSR	Global X Internet of Things ETF	4.2%	3.7%	0.66	0.72	0.74	0.79
DMAT	Global X Disruptive Materials ETF	2.6%	4.2%	0.50	0.29	0.63	0.36
PAVE	Global X U.S. Infrastructure Development ETF	-0.7%	-0.8%	-2.34	-1.84	-2.79	-2.22
RNRG	Global X Renewable Energy Producers ETF	-0.9%	-0.7%	-2.45	-2.81	-5.18	-6.21
KROP	Global X AgTech & Food Innovation ETF	-5.0%	5.4%	-0.20	0.16	-0.26	0.23
GNOM	Global X Genomics & Biotechnology ETF	-7.9%	-8.8%	-0.96	-0.75	-0.84	-0.64

Note: F12M Growth is calculated using consensus analyst expectations for total sales in the next 12 months and weighted average trailing 12 month revenue.

Please note that substantial 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.



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- **Multi-Theme:** [Thematic Growth ETF \(GXTG\)](#)

Appendix: Thematic Expected Sales Growth Graph Indices

AgTech & Food Innovation: *Solactive AgTech & Food Innovation Index*

Aging Population: *Indxx Aging Population Thematic Index*



Artificial Intelligence & Technology: *Indxx Artificial Intelligence & Big Data Index*
Autonomous & Electric Vehicles: *Solactive Autonomous & Electric Vehicles Index*
Blockchain: *Solactive Blockchain Index*
Cannabis: *Cannabis Index*
China Biotech Innovation: *Solactive China Biotech Innovation Index*
Clean Water: *Solactive Global Clean Water Industry Index*
CleanTech: *Indxx Global CleanTech Index*
Cloud Computing: *Indxx Global Cloud Computing Index*
Cybersecurity: *Indxx Cybersecurity Index*
Data Center REITs & Digital Infrastructure: *Solactive Data Center REITs & Digital Infrastructure Index*
Defense Tech: *Global X Defense Tech Index*
Disruptive Materials: *Solactive Disruptive Materials Index*
E-Commerce: *Solactive E-commerce Index*
FinTech: *Indxx Global FinTech Thematic Index*
Genomics: *Solactive Genomics Index*
Green Building: *Solactive Green Building Index*
Health & Wellness: *Indxx Global Health & Wellness Thematic Index*
Hydrogen: *Solactive Global Hydrogen Index*
Internet Of Things: *Indxx Global Internet of Things Thematic Index*
Lithium & Battery Technology: *Solactive Global Lithium Index*
Metaverse: *Global X Metaverse Index*
Millennial Consumer: *Indxx Millennials Thematic Index*
PropTech: *Global X PropTech Index*
Renewable Energy Producers: *Indxx Renewable Energy Producers Index*
Robotics & Artificial Intelligence: *Indxx Global Robotics & Artificial Intelligence Thematic Index*
Social Media: *Solactive Social Media Total Return Index*
Solar: *Solactive Solar Index*
Telemedicine & Digital Health: *Solactive Telemedicine & Digital Health Index*
U.S. Infrastructure: *Indxx U.S. Infrastructure Development Index*
Video Games & Esports: *Solactive Video Games & Esports Index*
Wind Energy: *Solactive Wind Energy Index*

Footnotes

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