

#### **GLOBAL X ETFs RESEARCH**

# The Next Big Theme: October 2020

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#### **Electric Vehicles**

Tesla Goes Tabless

At Tesla's 2020 Annual Shareholder Meeting and Battery Day, CEO Elon Musk announced that the company would begin manufacturing a new "tabless" battery design. The new battery design is larger and potentially more efficient that existing batteries, offering six times more power and 16% more range. What's notable for consumers is that, according to Musk, these batteries could reduce costs by 14% per kWh, bringing the price of a Tesla closer to that of similar internal combustion engine (ICE) vehicles. Tesla also plans to enter the lithium industry as a vertically integrated battery and EV manufacturer. As battery-grade lithium may become undersupplied in the future, this initiative could support Tesla's ambitions to scale EV output. Catering to affordability, Tesla also announced its goal for developing a \$25,000 car, which would allow EVs to compete in the mass market vehicle category.

#### Genomics

#### A Covid Test With Your Boarding Pass

To make passengers feel safe and help get them back flying again, some airlines started offering pre-flight COVID-19 testing for passengers. United Airlines started the movement and Hawaiian Airlines, JetBlue Airways, and American Airlines followed suit. Pre-flight testing could also allow travelers who test negative to limit or skip quarantine restrictions altogether at their destination.<sup>iii</sup> United rolled out testing on its San Francisco to Hawaii route, giving passengers the option to take a test at the airport or request a mail-in test several days before departure. Passengers must cover the cost of the test. Currently, a rapid in-airport test costs \$250, and a mail-in test costs \$80.<sup>iv</sup>

#### **Robotics & E-Commerce**

New Colleagues: Robots and Humans

Autonomous forklift and robot-powered vehicle maker Seegrid Corp. secured \$52 million in financing from Silicon Valley investors who see the company as poised for growth during the COVID era. Seegrid expects to scale operations as a surge in e-commerce has increased the importance of efficient warehouses. In





August, warehousing and storage employment totaled a record high of 1.22 million workers. These warehouse jobs have been vital in helping to offset jobs lost during the pandemic.

#### **Artificial Intelligence & Robotics**

#### Toyota Lends the Elderly a Helping Hand

Researchers at Toyota experiment with initial prototypes of robots using machine learning to alleviate household chores. The cleaning robots currently live inside a mock home located at the Toyota Research Institute in Los Altos, California. A method used by the researchers to maximize space at home includes some of the robots even being attached to the ceiling. Vi These household improvements could be considered the next step in the same niche category as Google's smart home launch in 2016. Toyota hopes the product will not only aid elderly people around the house, but also eventually offer companionship. The expectation lies in expertise in car manufacturing being parlayed into more advanced robotics for homes and workplaces by Toyota.

#### **Cloud Computing**

#### Software's Record-Breaking Public Debuts

The initial public offering (IPO) wave in the cloud computing industry continues. Cloud data warehousing company Snowflake (SNOW) recently recorded the largest software IPO ever. After pricing its IPO at \$120, the price surged above \$300 after listing, a 150% gain. The IPO brought the company nearly \$3.4 billion after selling 28 million shares. In Unity Software (U), a leading platform for video game developers, saw its shares jump 44% after going public on the NYSE at \$75 per share. It is as an algorithm as a same appropriate than the NYSE's reference price of \$21. Similarly, shares of big data analytics specialist Palantir (PLTR) were 50% higher than their reference price about 30 minutes into trading.

#### **Health & Wellness**

#### Technology Does a Body Good

Singapore recently partnered with Apple to launch a two-year health initiative called LumiHealth. The first-of-its-kind program intends to help Singaporeans improve their quality of life. As part of the voluntary app-based initiative, which includes personalized coaching, participants receive rewards for healthy activities and behaviors tracked on their Apple Watch. Rewards can total up to \$\$380 over the course of the program. Using technology to promote health continues a trend for both Singapore and Apple. Singapore was the first to release contact tracing in an effort to eradicate COVID-19. And last year, Apple collaborated with Stanford Medicine for the Apple Heart Study app, which uses data from Apple Watch to identify heat irregularities.\*

#### THE NUMBERS

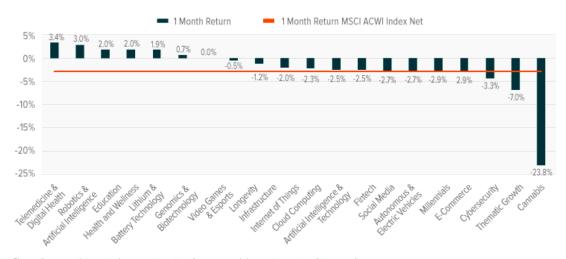
The following charts examine returns and sales growth expectations by theme, based on their corresponding ETFs.





# **SEPTEMBER 2020 THEMATIC ETF RETURNS**

Source: Bloomberg, September 30, 2020, Global X ETFs.



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

## THEMATIC SALES GROWTH

Source: Bloomberg, September 30, 2020, Global X ETFs.



Note: Forward looking based on data and analysis from 9/30/2020. 1-year annualized forward sales growth is the consensus analyst expectations for total sales growth in the next 12 months.





Standard Performance				Cumulative % Data as of month end 9/30/20					Annualized % quarter end 9/30/20			
	Gross Expense Ratio	Net Expense Ratio	Ticker		1 Month		Since Inception				10 Year	Since Inceptio
Dahatian & Astificial Intelligence				NAV	2.66%	16.40%	92.47%	40.30%	9.57%	-	-	17.559
Robotics & Artificial Intelligence Inception Date 9/12/2016	0.68%	0.68%	BOTZ	Market Price	2.95%	16.84%	92.96%	39.88%	9.60%	-	-	17.629
				Index	2.66%	16.59%	94.20%	41.30%	9.69%	-	-	17.809
FinTech				NAV	-2.94%	14.64%	152.54%	31.84%	22.49%	-	-	25.70
Inception Date 9/12/2016	0.68%	0.68%	FINX	Market Price	-2.51%	14.42%	152.74%	31.85%	22.39%	-	-	25.73
				Index	-2.90%	14.83%	159.10%	32.57%	23.29%	-		26.49
Internet of Things Inception Date 9/12/2016	0.000/	0.68%	SNSR	NAV	-2.35%	8.26%	81.15%	29.69%	13.09%	-	-	15.80
	0.68%			Market Price	-2.01%	8.50%	81.71%	30.02%	13.16%	-	-	15.89
				Index	-2.31%	8.40%	83.40%	30.04%	13.42%		-	16.159
Cloud Computing	0.68%	0.68%	CLOU	NAV Market Price	-2.37% -2.25%	11.38%	58.64%	62.86% 63.08%	-	-	-	36.98
nception Date 4/12/2019	0.00%	0.00%	CLOU	Index	-2.25%	11.58%	59.28% 59.97%	63.85%	-	-	-	37.62
				NAV	-3.12%	13.67%	234.76%	51.97%		23.20%		14.58
Social Media	0.65%	0.65%	SOCL	Market Price	-2.66%	14.10%	236.33%	52.97%		23.26%	-	14.64
nception Date 11/14/2011	010070	0.00%		Index	-3.07%	13.84%	251.29%	52.90%	17.05%	23.96%		15.199
Artificial Intelligence				NAV	-2.70%	13.21%	58.27%	47.97%	-	-		21.219
& Technology	0.68%	0.68%	AIQ	Market Price	-2.49%	13.66%	58.75%	48.05%				21.36
nception Date 5/11/2018				Index	-2.68%	13.34%	59,48%	48.49%				21.55
		0.68%	DRIV	NAV	-2.77%	15.89%	17.39%	29.39%	-	-	-	6.739
Autonomous & Electric Vehicles	0.68%			Market Price	-2.71%	16.08%	17.68%	29.50%				6.839
nception Date 4/13/2018				Index	-2.72%	16.02%	17.54%	29.69%	-	-	-	6.769
				NAV	0.86%	25.48%	49.48%	64.65%	4.97%	18.67%	2.28%	4.029
Lithium & Battery Technology Inception Date 7/22/2010	0.75%	0.75%	LIT	Market Price	1.91%	26.56%	50.79%	66.61%	5.09%	18.98%	2.32%	4.11%
inception date 7/22/2010				Index	0.81%	25.29%	56.70%	64.39%	4.86%	18.77%	2.74%	4.509
	0.50%	0.50%	GNOM	NAV	0.56%	1.99%	17.15%	44.01%	-	-	-	11.249
Genomics & Biotechnology Inception Date 4/5/2019				Market Price	0.73%	2.39%	19.80%	44.34%		-		12.93
				Index	0.64%	2.16%	18.24%	44.91%	-	-	-	11.909
Millennials Inception Date 5/4/2016	0.50%	0.50%	MILN	NAV	-2.99%	13.06%	113.01%	26.02%	20.57%	-	-	18.729
				Market Price	-2.90%	13.18%	112.30%	25.97%	20.55%	-	-	18.63
				Index	-2.94%	13.23%	117.36%	26.69%	21.21%	-	-	19.249
Longevity Inception Date 5/9/2016	0.50%	0.50%	LNGR	NAV	-0.50%	5.08%	74.58%	21.83%	11.15%	-	-	13.539
				Market Price	-0.47%	4.99%	78.19%	20.87%	10.92%	-	-	14.069
				Index	-0.49%	5.13%	76.76%	22.11%	11.38%	-	-	13.839
Health & Wellness	0.50%	0.50%	BFIT	NAV	1.25%	10.37%	51.80%	9.48%	12.66%	-	-	9.97%
nception Date 5/9/2016				Market Price	1.99%	11.06%	53.51%	9.35%	12.71%	-		10.259
				Index	1.28%	10.49%	54.70%	9.93%	13.08%		-	10.439
E-Commerce Inception Date 11/27/2018	0.50%	0.50%	EBIZ	NAV	-3.03%	15.62%	81.94%	59.22%				38.40
				Market Price	-2.92%	15.59%	82.27%	59.23%		-	•	38.54
				Index	-3.09% -1.29%	15.66% 10.43%	83.60% 14.67%	59.87% 4.53%	3.80%	-	-	39.03
nfrastructure	0.47%	0.47%	PAVE	NAV Markat Prins	-1.29%	10.45%	14.81%	4.55%	3.75%		-	3.959
nception Date 3/6/2017	0.47 //	0.47/6	FAVE	Market Price Index	-1.27%	10.53%	16.57%	4.99%	4.27%		-	4.389
				NAV	-24.19%	-28.74%	-68.73%	-63.13%				-67.44
Cannabis	0.50%	0.50%	POTX	Market Price	-23.77%	-28.26%	-69.19%	-63.23%				-67.90
nception Date 9/7/2019	0.30%	0.00%	. 5.74	Index	-24.48%	-29.98%	-71.59%	-66.50%		-		-70.23
				NAV	0.07%	17.64%	80.99%	-				80.99
Video Games & Esports	0.50%	0.50%	HERO	Market Price	0.00%	17.63%	81.47%	-	-	-	-	81.479
nception Date 10/25/2019				Index	0.15%	17.87%	81.81%	-	-	-	-	81.819
	0.60%	0.50%+	BUG	NAV	-4.18%	10.78%	43.76%					43.76
Cybersecurity Inception Date 10/25/2019				Market Price	-4.39%	10.56%	46.28%	-	-	-	-	46.28
				Index	-4.13%	10.99%	44.57%	-	-	-		44.57
Thomatic Growth	0.50%	0.50%	бхтб	NAV	-6.28%	8.87%	34.77%	-	-	-	-	34.77
Thematic Growth nception Date 10/25/2019				Market Price	-7.02%	8.72%	36.17%	-		-	-	36.179
				Index	-6.26%	8.88%	34.67%	-	-	-	-	34.67
Education		0.50%	EDUT	NAV	2.39%	-	7.30%	-	-	-	-	7.309
nception Date 7/10/2020	0.50%			Market Price	2.00%	-	7.30%	-	-	-	-	7.309
				Index	2.41%		7.42%	-		-	-	7.429
Telemedicine & Digital Health		.68% 0.68%	EDOC	NAV	3.07%	-	10.11%	-	-	-	-	10.119
nception Date 7/29/2020	0.68%			Market Price	3.44%	-	10.57%	-	-	-	-	10.579
				Index	3.12%	-	10.16%	-	-	-	-	10.169
China Diatoch				NAV		-	1.52%	-	-	-	-	-
China Biotech	0.65%	0.65%	CHB	Market Price						-		

The 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 investor's 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. Returns for periods greater than one year are annualized. Market price returns are based upon the midpoint of the bid/ask spread at the close of the exchange and do not represent the returns you would receive if you traded shares at other times. For performance data current to the most recent month end, please call 1-888-493-8631, or visit www.globalxetfs.com. \*Net Expense Ratio reflects fees incurred by the Fund after waivers and reimbursements. Fee waivers for BUG are contractual and into effect until at least April 1, 2021.





### P/S AND EV/S

Source: Bloomberg, 09/30/2020 and 08/31/2020, Global X ETFs.

Tielcox	Name	P	/S	EV/S		
Ticker	Name	8/31/20	7/31/20	8/31/20	7/31/20	
GNOM	Global X Genomics & Biotechnology ETF	12.78	12.70	12.38	12.22	
CLOU	Global X Cloud Computing ETF	10.62	10.90	11.20	11.47	
CHB	Global X China Biotech Innovation ETF	9.65	N/A	10.10	N/A	
BUG	Global X Cybersecurity ETF	7.99	8.35	7.78	8.14	
FINX	Global X FinTech ETF	7.24	7.53	8.26	8.60	
EDOC	Global X Telemedicine & Digital Health ETF	5.64	5.45	6.94	6.73	
SOCL	Global X Social Media ETF	5.55	5.70	5.88	6.06	
HERO	Global X Video Games & Esports ETF	5.22	5.22	5.18	5.19	
AIQ	Global X Future Analytics Tech ETF	4.05	4.18	4.20	4.33	
LNGR	Global X Longevity Thematic ETF	3.93	3.95	4.57	4.59	
EDUT	Global X Education ETF	3.85	3.78	4.27	4.20	
POTX	Global X Cannabis ETF	3.06	3.95	3.67	4.76	
BOTZ	Global X Robotics & Artificial Intelligence ETF	2.77	2.71	2.75	2.50	
MILN	Global X Millennials Thematic ETF	2.56	2.37	3.15	2.98	
SNSR	Global X Internet of Things ETF	2.51	2.45	3.02	2.95	
SPX	S&P 500 Index	2.46	2.55	2.87	2.95	
EBIZ	Global X E-commerce ETF	2.29	2.42	2.25	2.36	
LIT	Global X Lithium and Battery Tech ETF	2.12	2.11	2.48	2.46	
ACWI	ACWI Index	1.81	1.87	2.26	2.30	
BFIT	Global X Health & Wellness Thematic ETF	1.42	1.40	1.63	1.61	
PAVE	Global X U.S. Infrastructure Development ETF	1.01	1.01	1.32	1.33	
DRIV	Global X Autonomous & Electric Vehicles ETF	0.88	0.91	1.09	1.10	

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

### F12M SALES GROWTH, PSG, AND EVSG

Source: Bloomberg, 09/30/2020 and 08/31/2020, Global X ETFs.

Ticker	Name	F12M S	ales (%)	PSG		EVSG		
lickei	Name	8/31/20	7/31/20	8/31/20	7/31/20	8/31/20	7/31/20	
POTX	Global X Cannabis ETF	56.9%	51.0%	0.05	0.08	0.06	0.09	
EDUT	Global X Education ETF	41.6%	35.2%	0.09	0.11	0.10	0.12	
CHB	Global X China Biotech Innovation ETF	41.1%	-	0.23	-	0.25	-	
LIT	Global X Lithium and Battery Tech ETF	31.1%	26.4%	0.07	0.08	0.08	0.09	
EBIZ	Global X E-commerce ETF	30.8%	27.9%	0.07	0.09	0.07	0.08	
HERO	Global X Video Games & Esports ETF	25.7%	23.6%	0.20	0.22	0.20	0.22	
CLOU	Global X Cloud Computing ETF	24.1%	21.4%	0.44	0.51	0.47	0.54	
EDOC	Global X Telemedicine & Digital Health ETF	23.8%	21.9%	0.24	0.25	0.29	0.31	
GNOM	Global X Genomics & Biotechnology ETF	19.2%	14.6%	0.67	0.87	0.65	0.83	
BUG	Global X Cybersecurity ETF	19.1%	17.4%	0.42	0.48	0.41	0.47	
SOCL	Global X Social Media ETF	18.2%	15.4%	0.30	0.37	0.32	0.39	
AIQ	Global X Future Analytics ETF	16.9%	15.2%	0.24	0.28	0.25	0.28	
LNGR	Global X Longevity Thematic ETF	16.2%	15.8%	0.24	0.25	0.28	0.29	
MILN	Global X Millennials Thematic ETF	13.4%	12.2%	0.19	0.21	0.23	0.26	
BFIT	Global X Health & Wellness Thematic ETF	13.0%	25.1%	0.11	0.06	0.13	0.06	
SPX	S&P 500 Index	10.3%	9.3%	0.24	0.27	0.28	0.32	
BOTZ	Global X Robotics & Artificial Intelligence ETF	10.9%	9.2%	0.26	0.29	0.25	0.27	
SNSR	Global X Internet of Things ETF	9.6%	8.2%	0.26	0.30	0.31	0.36	
ACWI	ACWI Index	9.6%	9.1%	0.19	0.21	0.24	0.25	
DRIV	Global X Autonomous & Electric Vehicles ETF	8.0%	6.5%	0.11	0.14	0.14	0.17	
FINX	Global X FinTech ETF	5.3%	4.6%	1.36	1.65	1.55	1.88	
PAVE	Global X U.S. Infrastructure Development ETF	-1.8%	-1.9%	-	-	-	-	

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

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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<sup>&</sup>lt;sup>i</sup> TechCrunch, "Tesla Plans to Build a Cathode Plant and get into the Lithium Mining Business", September 22, 2020

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iii New York Times, "Now at the Boarding Gate: Coronavirus Tests", September 30, 2020

Forbes, "United Airlines Has New Covid-19 Test Options", September 29, 2020

<sup>&</sup>lt;sup>V</sup> Bloomberg News, "Robots Driving Forklifts Score Venture Capital, Create Jobs", September 15, 2020

vi Wired, "These Robots Use AI to Learn How to Clean Your House", September 30, 2020

vii CNN Business, "Snowflake shares more than double. It's the biggest software IPO ever", September 17, 2020

viii CNN Business, "Unity Software shares surge 44% in Wall Street debut as IPO market sizzles", September 18, 2020

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X Bloomberg News, "Singapore to Pay Citizens for Keeping Healthy With Apple Watch", September 15, 2020