

GLOBAL X ETF MODEL PORTFOLIOS

Conversational Alpha®: Scaling Thematic Equity into a Multi-Asset Portfolio

As of Q3 2025

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Some conversations happen and are quickly forgotten, while others stay with us for years. Is it the quality of the content that makes us remember, or is it the presentation? We think it's a combination of both. Great information packaged in a way that is difficult to engage with is more likely to be forgotten. Conversely, if that same information is packaged as a compelling story, the messages are likely to stick. For investors, we refer to this concept as Conversational Alpha®, where relatable narratives are created to help investors pursue their long-term investment goals.

We believe thematic equity can generate Conversational Alpha® because it targets innovation with the potential to cause structural disruption that investors can relate with. But what level of exposure is appropriate? There are several key factors to consider when developing a framework for exposure to thematic equity. This blog post outlines these considerations by highlighting the diversification benefits thematic equity can provide and tools that can assist financial advisors when establishing upper limits on thematic equity exposure.

KEY TAKEAWAYS

- Thematic equity is long-term focused, providing investors with an opportunity to remain invested at the forefront of technological advancement through diversified thematic exposure.
- Thematic equity can provide diversification benefits while providing opportunities for engaging and memorable conversations.
- It's important to establish a framework for thematic inclusion that considers the portfolio's key objectives and the core portfolio's construction and exposures.

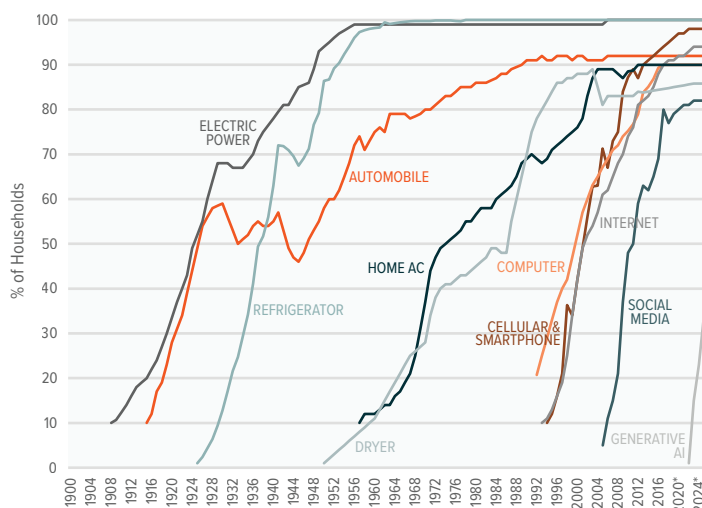
GENERATING CONVERSATIONAL ALPHA® THROUGH THEMATIC EQUITY

In the broader context of portfolio construction, the most engaging portions of a portfolio typically relate to investments that benefit from structural disruption. Railways, cars, and smartphones are examples of pioneering technologies that were once seen as revolutionary. Investors can relate to technologies like these because they are part of their everyday lives.

This disruption doesn't happen overnight. Rather, it is a slow wave of change. U.S. electrification and mass adoption of the automobile took nearly 80 years, while the adoption of more recent innovations such as the internet or smartphones occurred in a decade or two. Artificial Intelligence (AI) is the current wave of change that is starting to gain mass interest and adoption.

Thematic equity provides exposure to companies as the adoption of their technologies rises and they grow in importance, potentially to even become a larger portion of broader market indexes or be acquired by larger companies. Thematic equity is long-term focused,

TECHNOLOGY ADOPTION RATES ACROSS U.S. HOUSEHOLDS



*Forecast

Sources: Generative AI: Pymnts. (2025, April 8). ChatGPT / OpenAI Statistics: How Many People Use ChatGPT? Other Technologies: Global X ETFs forecast with information derived from: Our World in Data. (2019, July 27). Share of United States Households Using Specific Technologies.

providing investors with an opportunity to remain invested at the forefront of technological advancement through diversified thematic exposure.

SEEKING DIFFERENTIATED EXPOSURES WITH DIVERSIFICATION BENEFITS

Thematic equity provides differentiated exposures that can complement a diversified portfolio. It adds long-term growth potential to a well-balanced portfolio while providing a story that can assist financial advisors with client engagement.

The Global X Equity Thematic Disruptors ETF Model Portfolio provides exposure to between seven and 12 key themes at the heart of the structural changes occurring across the global economy. Currently, there are 10 themes in the portfolio ranging from data and connectivity related themes, all the way to infrastructure development. Starting with data and connectivity, this is reflected in foundational Big Data themes such as Cloud Computing and Cybersecurity, which feed into and benefit from increased adoption of generative AI raising the demand for computing power, data storage, and data protection. The increased use of data and automation has implications for Robotics and Mobility-focused themes such as Robotics & AI and Autonomous & Electric Vehicles (EV). Going beyond the physical world, data and connectivity has implications for the metaverse with Digital Experience-focused themes like Video Games & Esports. Shifting focus to the physical world, infrastructure development plays a crucial



role for enabling technologies like 5G, renewable energy, and smart cities. While an indirect beneficiary of technological advancements and sustainability initiatives, the Infrastructure Development theme provides exposures that are foundational to the future economy.

Pure-play exposure to selected themes provide the building blocks for a diversified thematic equity portfolio. This targeted exposure helps limit overlap between themes while improving the portfolio's diversification benefits when used in a broader portfolio. The overlap table below illustrates this diversification. Bloomberg data as of 7/21/2025 shows that despite the Global X Equity Thematic Disruptors ETF Model Portfolio providing 70% U.S.-listed exposure, it has about 19% and around 17% overlap with the S&P 500 and Nasdaq 100, respectively. When comparing the portfolio to the Russell 1000 Growth or the Russell 2000 Growth, overlap remains low. The Information Technology sector comprises 31% of the portfolio while only having a 11% overlap with the S&P 500 Information Technology sector. Similarly, about 30% of the portfolio is global, yet it only has a 4% overlap with the MSCI ACWI ex USA.

OVERLAP BETWEEN THE EQUITY THEMATIC DISRUPTORS ETF MODEL PORTFOLIO & COMMON INDEXES*

INDEX NAME	% OVERLAP
S&P 500 Index (SPY)	19.1%
NASDAQ 100 (QQQ)	16.8%
Russell 1000 Growth (IWF)	17.8%
Russell 2000 Growth (IWO)	8.5%
S&P 500 Technology (XLK)	10.9%
MSCI ACWI Index (ACWI)	18.1%
MSCI ACWI ex USA Index (ACWX)	4.0%

*ETFs used as proxies (SPY, QQQ, IWF, IWO, XLK, ACWI and ACWX)

Source: Bloomberg data as of June 30, 2025

IMPLEMENT THEMATIC EQUITY IN A RISK-AWARE MANNER

Thematic equity is best suited for investors with a long-term investment horizon who are willing to remain invested as the concept moves from innovative and novel to ubiquitous. The diversification benefits remain relevant across the risk spectrum, provided thematic equity is included at levels that remain appropriate for the risk profile.

In our Core Series ETF Model Portfolios, we include limits on the maximum amount of thematic equity that we believe is appropriate for each risk profile ranging from Conservative to Aggressive. As the table below shows, the maximum limits on thematic equity increase exponentially across the risk profiles as the level of equity rises and the proportion of thematic equity relative to the overall equity sleeve grows. The rising level of these limits reflects the shift in focus from diversification benefits to maximizing long-term growth.

MAXIMUM LIMITS ON THEMATIC EQUITY IN OUR CORE SERIES MODEL PORTFOLIOS

Limits expressed as a % of the total portfolio

CONSERVATIVE	MODERATELY CONSERVATIVE	MODERATE	MODERATELY AGGRESSIVE	AGGRESSIVE
3%	6%	10%	15%	25%

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To illustrate what factors financial advisors should consider when establishing guardrails on thematic exposure, we analyzed the incremental increase in portfolio risk at different levels of thematic inclusion. We used the current positioning of asset allocation models meant for conservative (20% equity, 80% fixed income), moderate (60% equity, 40% fixed income), and aggressive (80% equity, 20% fixed income) investor risk profiles. We then scaled in the current Equity Thematic Disruptors Model Portfolio and back tested it over three years.

The first table shows the themes represented in the Equity Thematic Disruptors Portfolio as of 6/30/2025. This portfolio is actively managed and is subject to change. For more information about this portfolio, please refer to our [advisor login](#). The second table shows the example model portfolio allocation total by asset class we used as examples to show how to scale in a thematic equity model. For the full model holdings please refer to table in the appendix.

EQUITY THEMATIC DISRUPTORS ETF MODEL PORTFOLIO

ETF NAME	TICKER	ALLOCATION
Global X Video Games & Esports ETF	HERO	15.0%
Global X FinTech ETF	FINX	12.9%
Global X Robotics & Artificial Intelligence ETF	BOTZ	12.8%
Global X Millennial Consumer ETF	MILN	12.0%
First Trust Cloud Computing ETF	SKYY	12.0%
Global X Data Center & Digital Infrastructure ETF	DTCR	11.9%
Invesco Dynamic Biotechnology & Genome ETF	PBE	9.2%
Global X U.S. Infrastructure Development ETF	PAVE	5.6%
Global X Cybersecurity ETF	BUG	4.7%
Global X Autonomous & Electric Vehicles ETF	DRIV	3.9%

Source: Global X data as of June 30, 2025

FOUNDATIONAL PORTFOLIOS

Based on Blackrock 20/80, 60/40, and 80/20 Target Allocation ETF Models

ASSET CLASS	CONSERVATIVE	MODERATE	AGGRESSIVE
US Equity	16.3%	45.8%	61.3%
International Equity	5.0%	15.4%	19.7%
Fixed Income	75.0%	35.0%	15.2%
Cash & Alternatives	3.7%	3.8%	3.8%

Source: Morningstar data as of June 30, 2025



THEMATIC EQUITY CAN BE BENEFICIAL WHEN SCALED APPROPRIATELY

We modeled out two approaches to scale in thematic equity – including an equity adjustment to maintain the starting asset allocation and without this adjustment.

- **No Equity Adjustment:** As the level of thematic equity increased, overall equity increased, and the fixed income and cash asset class allocations decreased. This method is similar to having a stand-alone satellite portfolio combined with a core portfolio.
- **Equity Adjustment:** The initial asset allocation is maintained and thematic equity scaling only impacts the equity asset class exposures. As the level of thematic equity increases it eventually becomes the entire equity sleeve of the model portfolio. This method resembles a thematic portfolio embedded within a broader asset allocation model. Our Global X Core Series Model Portfolios reflect this approach. Alternatively, this approach reflects an environment where the core consists of multiple portfolios that can be adjusted independently, thus maintaining asset class weights as the thematic sleeve is scaled into the portfolio.

An advisor's starting portfolio will determine which approach is most relevant. It's important to keep in mind that without the ability to maintain the intended asset class levels, scaling in thematic equity increases volatility and tracking error at a faster rate than with the adjustment. As such, when setting maximum thresholds, a lower limit on thematic equity is appropriate in the no equity adjustment scenario.

When adjusting to maintain the existing asset allocation, scaling thematic equity has minimal impact on portfolio risk at low levels of inclusion where it boosts diversification. For example, in the Conservative model, allocating 10% of the equity sleeve to thematic, about 2% of the portfolio, only increases standard deviation by 8 basis points (bps) while slightly increasing tracking error. Similar occurs in the Aggressive model, where taking thematic equity to 10% of the overall equity sleeve, or about 8% of the portfolio only increases standard deviation by 32bps, while tracking error rises by 1bp. Looking further out, taking thematic equity to 30% of equity, which is about 24% of the Aggressive portfolio, standard deviation and tracking error rise by about 104bps and 93bps, respectively.

THEMATIC EQUITY AS A % OF STARTING EQUITY LEVEL: CONSERVATIVE

Benchmark Note: 6% MSCI USA GR USD + 80% Bloomberg US Universal TR USD + 14% MSCI ACWI GR USD

Scaling of thematic as % of starting equity		0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
% of Total Portfolio		0.0%	2.1%	4.3%	6.4%	8.5%	10.7%	12.8%	14.9%	17.1%	19.2%	21.3%
WITH EQUITY ADJUSTMENT	Standard Deviation	8.51	8.59	8.68	8.77	8.86	8.96	9.06	9.16	9.26	9.36	9.47
	Tracking Error	0.89	0.94	1.02	1.12	1.23	1.36	1.50	1.64	1.79	1.94	2.10
NO EQUITY ADJUSTMENT	Standard Deviation	8.51	8.71	8.92	9.13	9.34	9.56	9.79	10.02	10.25	10.48	10.72
	Tracking Error	0.89	1.07	1.28	1.53	1.78	2.05	2.32	2.60	2.88	3.16	3.44

Appropriate level of thematic equity

THEMATIC EQUITY AS A % OF STARTING EQUITY LEVEL: AGGRESSIVE

Benchmark Note: 24% MSCI USA GR USD + 20% Bloomberg US Universal TR USD + 56% MSCI ACWI GR USD

Scaling of thematic as % of starting equity		0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
% of Total Portfolio		0.0%	8.1%	16.2%	24.3%	32.4%	40.5%	48.6%	56.7%	64.8%	72.9%	81.0%
WITH EQUITY ADJUSTMENT	Standard Deviation	13.39	13.71	14.06	14.43	14.82	15.23	15.66	16.11	16.57	17.05	17.54
	Tracking Error	1.03	1.04	1.41	1.96	2.57	3.20	3.85	4.51	5.17	5.83	6.50
NO EQUITY ADJUSTMENT	Standard Deviation	13.39	13.86	14.36	14.88	15.42	15.98	16.56	17.14	17.74	18.36	18.98
	Tracking Error	1.03	1.14	1.64	2.28	2.98	3.70	4.43	5.17	5.91	6.66	7.41

Appropriate level of thematic equity

Source: Morningstar. 3 Year, Monthly data from July 1, 2022 - June 30, 2025.

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HOW THEMATIC SCALING IMPACTS OVERALL EXPOSURES

Since thematic equity is all cap and global in nature, increasing the level of thematic equity reduces exposure to U.S. large caps. This impacts portfolio volatility and can increase tracking from a portfolio's benchmark. The level of small and mid-cap exposure in an advisor's core portfolio also impacts the appropriate level of thematic equity. This reflects the importance of considering the construction of your existing portfolio while determining the appropriate level of thematic inclusion. The nature of the existing equity sleeve will determine the level of diversification benefits thematic equity can provide. When scaling thematic equity into your portfolio, the maximum limit should be lowered if there's already a high level of mid and small-cap exposure.

At high levels of thematic inclusion, the approach used to scale thematic equity into a broader portfolio can have a meaningful impact on the level of mid and small-cap exposure in the overall portfolio. Depending on the size exposure in the underlying core portfolio, without the equity adjustment there will typically be a smaller

transition to mid and small caps as the increase in equity exposure will maintain diversification within the equity sleeve at higher levels of thematic exposure.

The below charts show how the conservative and aggressive portfolios size allocation change as the scale of thematic equity increases.

CONCLUSION

Limits on the maximum desired level of thematic exposure can help financial advisors establish a framework for including thematic equity across different market environments. While the level of thematic exposure may change over time, the narrative of disruption remains strong. Appropriately scaled exposure to thematic equity can be a vehicle for advisors to create memorable conversations with their clients. Importantly, this Conversational Alpha® can help financial advisors and clients maintain focus on long-term objectives, particularly while navigating more challenging market conditions.

THEMATIC SCALE

Scaling of thematic as % of starting equity

CONSERVATIVE - ADJUSTED

Scale of Thematic	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Large	84.8	80.6	76.3	72.0	67.7	63.4	59.1	54.9	50.6	46.3	42.0
Mid	13.8	15.8	17.9	19.9	21.9	24.0	26.0	28.0	30.1	32.1	34.1
Small	1.3	3.6	5.8	8.1	10.3	12.6	14.9	17.1	19.4	21.6	23.9

CONSERVATIVE - NO ADJUSTMENT

Scale of Thematic	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Large	84.8	80.9	77.4	74.4	71.8	69.5	67.4	65.5	63.8	62.3	60.9
Mid	13.8	15.7	17.3	18.7	20.0	21.1	22.1	23.0	23.8	24.5	25.2
Small	1.3	3.4	5.2	6.8	8.2	9.4	10.5	11.5	12.4	13.2	13.9

AGGRESSIVE - ADJUSTED

Scale of Thematic	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Large	84.6	80.4	76.1	71.8	67.6	63.3	59.1	54.8	50.5	46.3	42.0
Mid	13.9	16.0	18.0	20.0	22.0	24.0	26.0	28.1	30.1	32.1	34.1
Small	1.4	3.7	5.9	8.2	10.4	12.7	14.9	17.1	19.4	21.6	23.9

AGGRESSIVE - NO ADJUSTMENT

Scale of Thematic	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Large	84.6	80.4	76.4	72.5	68.8	65.2	61.7	58.3	55.0	51.9	48.8
Mid	13.9	15.9	17.8	19.7	21.4	23.2	24.8	26.4	28.0	29.5	30.9
Small	1.4	3.6	5.8	7.8	9.8	11.7	13.5	15.3	17.0	18.7	20.3

Source: Morningstar data as of June 30, 2025

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APPENDIX: FULL PORTFOLIO USED FOR SCALING

Conservative: Based on the Blackrock 20% Equity, 80% Fixed Income Target Allocation ETF Model

Moderate: Based on the Blackrock 60% Equity, 40% Fixed Income Target Allocation ETF Model

Aggressive: Based on the Blackrock 80% Equity, 20% Fixed Income Target Allocation ETF Model

ASSET CLASS	ETF NAME	TICKER	CONSERVATIVE*	MODERATE*	AGGRESSIVE*
US EQUITY	iShares MSCI USA Quality Factor ETF	QUAL	2.5%	8.4%	10.4%
	iShares S&P 500 Growth ETF	IVW	2.6%	7.1%	9.2%
	iShares U.S. Equity Fac Rotation Act ETF	DYNF	3.6%	6.6%	8.5%
	iShares Core S&P 500 ETF	IVV	3.8%	6.2%	9.5%
	iShares S&P 500 Value ETF	IVE	1.9%	5.8%	8.3%
	iShares S&P 100 ETF	OEF	-	3.0%	4.1%
	iShares U.S. Thematic Rotation ActiveETF	THRO	1.0%	3.0%	4.0%
	iShares US Technology ETF	IYW	1.1%	2.6%	2.7%
	iShares MSCI USA Momentum Factor ETF	MTUM	-	1.9%	3.0%
	iShares A.I. Innovation and Tech Act ETF	BAI ¹	-	1.1%	1.6%
INTERNATIONAL EQUITY	iShares MSCI EAFE Value ETF	EFV	2.5%	7.3%	9.7%
	iShares Core MSCI Emerging Markets ETF	IEMG	1.5%	5.1%	6.1%
	iShares MSCI EAFE Growth ETF	EFG	1.0%	3.0%	3.9%
FIXED INCOME	iShares Core Total USD Bond Market ETF	IUSB	27.3%	18.2%	9.8%
	iShares MBS ETF	MBB	9.4%	5.0%	1.0%
	iShares Flexible Income Active ETF	BINC ²	8.4%	3.4%	-
	iShares 10-20 Year Treasury Bond ETF	TLH	8.6%	3.9%	2.5%
	iShares Core International Aggt Bd ETF	IAGG	5.9%	3.0%	1.9%
	iShares US Treasury Bond ETF	GOVT	4.5%	-	-
	iShares 0-5 Year TIPS Bond ETF	STIP	3.9%	-	-
	iShares Convertible Bond ETF	ICVT	2.5%	-	-
	iShares JP Morgan USD Em Mkts Bd ETF	EMB	3.1%	1.5%	-
	iShares High Yield Systematic Bond ETF	HYDB	1.5%	-	-
CASH	iShares Gold Trust	IAU	1.5%	1.5%	1.5%
	SPDR® Blmbg 1-3 Mth T-Bill ETF	BIL	2.2%	2.4%	2.3%

*Allocations as of June 30, 2025

¹For the analysis BAI was substituted with IGM due to IGM's limited historical data.

²For the analysis BINC was substituted with BNDX due to BINC's limited historical data.

Source: Morningstar data as of June 30, 2025.

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Definitions:

MSCI ACWI Index: Index designed to represent performance of the full opportunity set of large and mid-cap stocks across all 23 developed and 24 emerging markets.

MSCI ACWIEx-USA Index: A market-capitalization-weighted index maintained by MSCI and designed to provide a broad measure of stock performance throughout the world, with the exception of U.S. based companies. The MSCI ACWIEx-USA includes both developed and emerging markets.

NASDAQ 100: The NASDAQ 100 index includes 100 of the largest non-financial companies listed on its stock market.

REITs: Real Estate Investment Trusts are companies that own or finance income-producing real estate ranging from office spaces and warehouses to hospitals and shopping centers.

Russell 1000 Growth Total Return Index: The index measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

Russell 2000 Growth Total Return Index: The index measures the performance of those Russell 2000 companies with highest price-to-book ratios and highest forecasted growth values.

S&P 500 Technology Index: Index that comprises companies in the S&P 500 that are classified as members of the GICS® information technology sector.

S&P 500 Total Return Index: The index includes 500 leading U.S. companies and captures approximately 80% coverage of available market capitalization.

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Investing involves risk, including the possible loss of principal. Narrowly focused investments may be subject to higher volatility.

Technology-themed investments may be subject to rapid changes in technology, intense competition, rapid obsolescence of products and services, loss of intellectual property protections, evolving industry standards and frequent new product productions, and changes in business cycles and government regulation.

Shares of ETFs are bought and sold at market price (not NAV) and are not individually redeemed from the Fund. Brokerage commissions will reduce returns.

Index returns are for illustrative purposes only and do not represent actual fund performance. Indices are unmanaged and do not include the effect of fees, expenses or sales charges. One cannot invest directly in an index. Past performance does not guarantee future results.

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