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## Principles for Thematic Investing in Volatile Markets

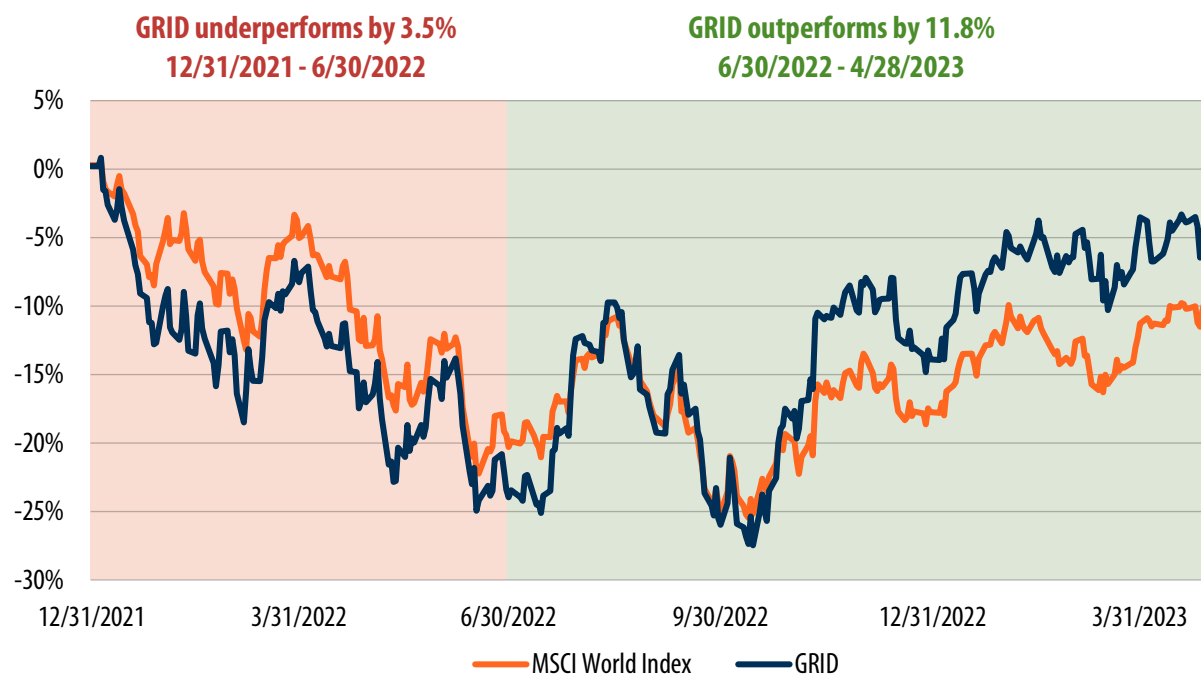
Thematic ETFs provide exposure to stocks that may benefit from certain secular growth trends expected to transpire over the next several years. Investment themes such as artificial intelligence and robotics, cybersecurity, green energy, infrastructure, and biotechnology (among others) generally have little representation in ETFs tracking broad market indices. By implementing thematic ETFs, investors can broaden their equity holdings with targeted exposure to industries poised for robust growth and technological innovation.

In our Q1 2021 edition of Inside First Trust ETFs, we offered four principles for investment professionals seeking to incorporate thematic investments into client portfolios. Although investor sentiment has been weakened by the bear market that emerged in 2022, we believe significant opportunities remain for long-term investors. For those considering exposure to thematic investments, we believe these principles may be worth revisiting.

### Clarify Investment Thesis and Time Horizon

In our opinion, one of the most challenging aspects of thematic investing is resisting the urge to sell into short-term weakness. Those that succumb to this temptation may not only miss a short-term rebound when it occurs but may also find it difficult to determine an acceptable price to re-establish a long-term position. To counter this impulse, we believe it's critical to gain an appreciation of the investment thesis supporting a theme, as well as the period over which it may be expected to play out. Establishing appropriate entry and exit points up front may help manage clients' return expectations and avoid making emotionally charged behavioral mistakes.

**Chart 1: GRID vs. MSCI World Index**



Source: Bloomberg. Past performance is no guarantee of future results.

For example, the First Trust NASDAQ® Clean Edge® Smart Grid Infrastructure Index Fund (GRID) is a thematic ETF comprised of stocks that may benefit from the massive level of capital spending needed over next few decades to enable power grids around the world to incorporate renewable energy and electric vehicles. In our opinion, investors that understand the long-term nature of a theme like this may be better equipped to ride out periods of underperformance, such as the first half of 2022, when GRID fell 23.8% and trailed the MSCI World Index by 3.5 percentage points.<sup>1</sup> In this instance, investors that avoided selling into weakness benefitted from a significant rebound, as GRID outperformed the MSCI World Index by 11.8 percentage points (25.1% vs. 13.3%) from 6/30/22-4/30/23.<sup>2</sup>

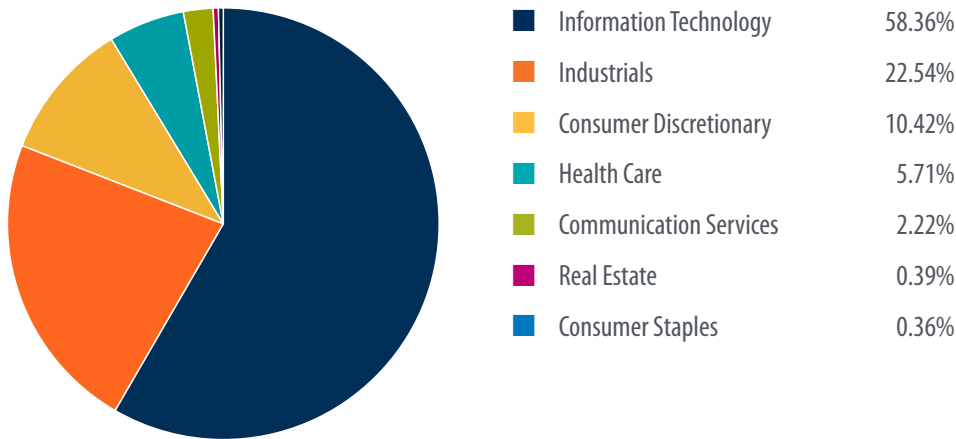
While short-term performance is difficult to predict, investors who stay the course during periods of volatility may minimize emotional investment decisions that can lead to missing out on short-term rebounds and long-term opportunities for thematic ETFs.

<sup>1,2</sup> Bloomberg. As of 4/28/23.

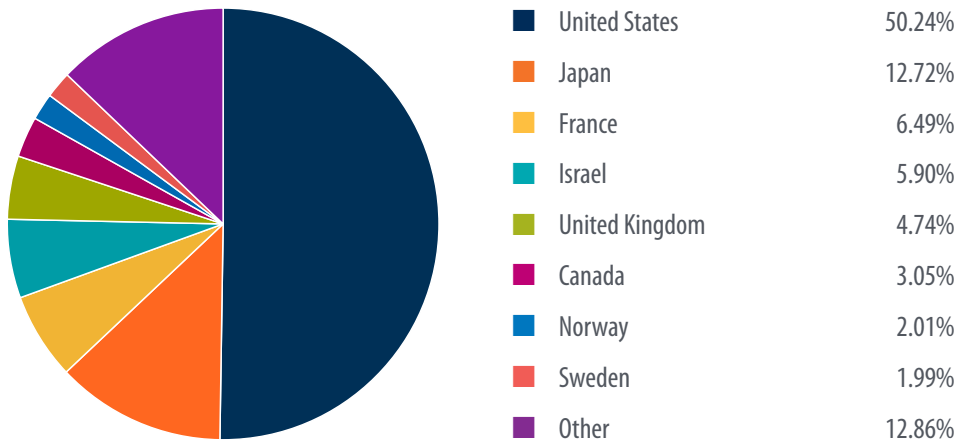
## Analyze Sector Biases and Other Tilts

Thematic ETFs are generally designed to track long-term trends, often providing exposure to various dimensions of a theme. Many themes don't fall neatly into established categories, but may include stocks from various industries, sectors, and geographical regions. We believe it's important to consider how these exposures may impact an investor's overall portfolio allocation.

**Chart 2: ROBT Sector Allocation as of 4/28/2023**



**Chart 3: ROBT Geographical Allocation as of 4/28/2023**



For example, the First Trust Nasdaq Artificial Intelligence and Robotics ETF (ROBT) tracks the performance of companies engaged in the design and integration of artificial intelligence and robotic automation. As of 4/28/2023, ROBT had a significant allocation to the information technology sector (58.4%), but it also included allocations to the industrials (22.5%), consumer discretionary (10.4%), and health care (5.7%) sectors. From a geographical standpoint, ROBT included allocations to stocks located around the world, including the United States (50.2%), Western Europe (22.1%), Japan (12.7%), and Israel (5.9%), as of 4/28/2023. We believe it's important to analyze how sector tilts and geographical exposures may impact an investors' overall asset allocation.

## Balance Risk and Return

Thematic ETFs are often utilized as satellite positions within the context of more diversified equity portfolios. In our view, it's important for such strategies to seek a balance between striving for excess returns and taking on too much risk. One strategy for targeting an acceptable level of overall portfolio risk is to include lower beta strategies within a portfolio's core equity allocation, while incorporating potentially riskier thematic ETFs as satellite allocations. For example, First Trust's Target Outcome ETFs have been particularly effective tools for reducing risk within core equity allocations, since these ETFs not only tend to produce less market risk, but also provide a certain level of downside protection.

## Diversify Excess Returns

Many secular growth trends are brought about by new innovations within the information technology sector (i.e., artificial intelligence, cloud computing, cybersecurity, etc.) but we believe opportunities for above average, secular growth can also be found in other sectors of the economy. For example:

- Infrastructure spending may surge around the world over the next few decades.
- Renewable energy poses challenges and opportunities for both the traditional energy and utilities sectors.
- Demand for raw materials may increase substantially due to deglobalization and reshoring trends, as well as investments in renewable energy.
- Biotechnology companies are revolutionizing the health care sector by finding new treatments and cures.
- The next generation of mobile networks may continue to reshape the communications services sector.
- Agricultural advances and new farming techniques may disrupt existing business models.

While none of these themes are immune to the impact of broad market factors, (i.e., slowing economic growth, rising interest rates, etc.), there are other distinct dynamics that may drive each theme’s performance over time. For example, the artificial intelligence and robotics theme may be driven by novel ways to improve productivity and efficiency in various industries. On the other hand, the water infrastructure theme, may be chiefly driven by the need to invest in aging pipelines in the U.S. and Europe or urbanization trends in emerging markets. Meanwhile, the biotechnology theme may be driven by a combination of scientific breakthroughs, regulatory approvals, and mergers and acquisitions (“M&A”) activity. Accordingly, it may be beneficial to incorporate various themes whose potential excess returns may be uncorrelated.

## Conclusion

Thematic ETFs are a burgeoning segment of the investment industry offering unique exposures to long-term trends often not well-represented in broad market indices. By appreciating the distinct investment theses and time horizons of thematic ETFs, how their inclusion may affect sector and geographical allocations, as well as the overall risk and return attributes of a diversified portfolio, we believe investors may be well-positioned for the pursuit of long-term outperformance with thematic ETFs.

Performance Summary (%) as of 3/31/23	3 Month	1 Year	3 Year	5 Year	10 Year	Since Fund Inception
<b>GRID Performance*</b>						
Net Asset Value (NAV)	11.86	5.17	32.83	15.77	13.05	10.39
Market Price	12.01	5.38	32.83	15.79	13.08	10.39
<b>Index Performance**</b>						
Nasdaq Clean Edge Smart Grid Infrastructure Index™	12.23	5.43	33.81	16.82	13.96	11.29
MSCI World Industrials Index	7.06	-0.90	17.89	6.11	8.39	9.00
S&P Composite 1500® Industrials Index	4.28	0.85	22.50	8.75	11.29	12.40
Russell 3000® Index	7.18	-8.58	18.48	10.45	11.73	12.26
<b>ROBT Performance*</b>						
Net Asset Value (NAV)	18.76	-9.42	16.44	8.00	N/A	7.48
Market Price	19.23	-9.36	16.36	8.00	N/A	7.51
<b>Index Performance**</b>						
Nasdaq CTA Artificial Intelligence and Robotics Index <sup>SM</sup>	18.95	-9.68	16.90	8.75	N/A	8.12
S&P 500® Index	7.50	-7.73	18.60	11.19	N/A	10.50

**Performance data quoted represents past performance. Past performance is not a guarantee of future results and current performance may be higher or lower than performance quoted. Investment returns and principal value will fluctuate and shares when sold or redeemed, may be worth more or less than their original cost. You can obtain performance information which is current through the most recent month-end by visiting [www.ftportfolios.com](http://www.ftportfolios.com).**

GRID Inception Date: 11/16/2009. Gross expense ratio: 0.58%. Net expense ratio: 0.58%. Expenses are capped contractually at 0.70% per year, at least through January 31, 2024. ROBT Inception Date: 2/21/2018. Expense ratio: 0.65%. The Investment Advisor has implemented fee breakpoints, which reduce the fund's investment management fee at certain assets levels. Please see a fund's SAI for full details.

\*NAV returns are based on the fund's net asset value which represents the fund's net assets (assets less liabilities) divided by the fund's outstanding shares. Market Price returns are determined by using the midpoint of the national best bid offer price ("NBBO") as of the time that the fund's NAV is calculated. Returns are average annualized total returns, except those for periods of less than one year, which are cumulative.

\*\*Performance information for each listed index is for illustrative purposes only and does not represent actual fund performance. Indexes do not charge management fees or brokerage expenses, and no such fees or expenses were deducted from the performance shown. Indexes are unmanaged and an investor cannot invest directly in an index.

**You should consider a fund's investment objectives, risks, and charges and expenses carefully before investing. Contact First Trust Portfolios L.P. at 1-800-621-1675 or visit [www.ftportfolios.com](http://www.ftportfolios.com) to obtain a prospectus or summary prospectus which contains this and other information about a fund. The prospectus or summary prospectus should be read carefully before investing.**

## Risks

**You could lose money by investing in a fund. An investment in a fund is not a deposit of a bank and is not insured or guaranteed. There can be no assurance that a fund's objective(s) will be achieved. Investors buying or selling shares on the secondary market may incur customary brokerage commissions. Please refer to each fund's prospectus and SAI for additional details on a fund's risks. The order of the below risk factors does not indicate the significance of any particular risk factor.**

Unlike mutual funds, shares of the fund may only be redeemed directly from a fund by authorized participants in very large creation/redemption units. If a fund's authorized participants are unable to proceed with creation/redemption orders and no other authorized participant is able to step forward to create or redeem, fund shares may trade at a premium or discount to a fund's net asset value and possibly face delisting and the bid/ask spread may widen.

Changes in currency exchange rates and the relative value of non-US currencies may affect the value of a fund's investments and the value of a fund's shares.

A fund is susceptible to operational risks through breaches in cyber security. Such events could cause a fund to incur regulatory penalties, reputational damage, additional compliance costs associated with corrective measures and/or financial loss.

Depository receipts may be less liquid than the underlying shares in their primary trading market and distributions may be subject to a fee. Holders may have limited voting rights, and investment restrictions in certain countries may adversely impact their value.

Investments in emerging market securities are generally considered speculative and involve additional risks relating to political, economic and regulatory conditions.

Equity securities may decline significantly in price over short or extended periods of time, and such declines may occur in the equity market as a whole, or they may occur in only a particular country, company, industry or sector of the market.

Political or economic disruptions in European countries, even in countries in which a fund is not invested, may adversely affect security values and thus the fund's holdings. A significant number of countries in Europe are member states in the European Union, and the member states no longer control their own monetary policies. In these member states, the authority to direct monetary policies, including money supply and official interest rates for the Euro, is exercised by the European Central Bank. The implications of the United Kingdom's withdrawal from the European Union are difficult to gauge and cannot yet be fully known.

An index fund will be concentrated in an industry or a group of industries to the extent that the index is so concentrated. A fund with significant exposure to a single asset class, or the securities of issuers within the same country, state, region, industry, or sector may have its value more affected by an adverse economic, business or political development than a broadly diversified fund.

A fund may be a constituent of one or more indices or models which could greatly affect a fund's trading activity, size and volatility.

There is no assurance that the index provider or its agents will compile or maintain the index accurately. Losses or costs associated with any index provider errors generally will be borne by a fund and its shareholders.

Industrials and producer durables companies are subject to certain risks, including the general state of the economy, intense competition, consolidation, domestic and international politics, excess capacity and consumer demand and spending trends. They may also be significantly affected by overall capital spending levels, economic cycles, technical obsolescence, delays in modernization, labor relations, and government regulations.

Information technology companies are subject to certain risks, including rapidly changing technologies, short product life cycles, fierce competition, aggressive pricing and reduced profit margins, loss of patent, copyright and trademark protections, cyclical market patterns, evolving industry standards and regulation and frequent new product introductions.

Large capitalization companies may grow at a slower rate than the overall market.

Market risk is the risk that a particular security, or shares of a fund in general may fall in value. Securities are subject to market fluctuations caused by such factors as general economic conditions, political events, regulatory or market developments, changes in interest rates and perceived trends in securities prices. Shares of a fund could decline in value or underperform other investments as a result. In addition, local, regional or global events such as war, acts of terrorism, spread of infectious disease or other public health issues, recessions, natural disasters or other events could have significant negative impact on a fund. In February 2022, Russia invaded Ukraine which has caused and could continue to cause significant market disruptions and volatility within the markets in Russia, Europe, and the United States. The hostilities and sanctions resulting from those hostilities could have a significant impact on certain fund investments as well as fund performance. The COVID-19 global pandemic and the ensuing policies enacted by governments and central banks have caused and may continue to cause significant volatility and uncertainty in global financial markets. While vaccines have been developed, there is no guarantee that vaccines will be effective against future variants of the disease. Recent and potential future bank failures could result in disruption to the broader banking industry or markets generally and reduce confidence in financial institutions and the economy as a whole, which may also heighten market volatility and reduce liquidity.

A fund faces numerous market trading risks, including the potential lack of an active market for fund shares due to a limited number of market makers. Decisions by market makers or authorized participants to reduce their role or step away in times of market stress could inhibit the effectiveness of the arbitrage process in maintaining the relationship between the underlying values of a fund's portfolio securities and a fund's market price.

An index fund's return may not match the return of the index for a number of reasons including operating expenses, costs of buying and selling securities to reflect changes in the index, and the fact that a fund's portfolio holdings may not exactly replicate the index.

A fund classified as "non-diversified" may invest a relatively high percentage of its assets in a limited number of issuers. As a result, a fund may be more susceptible to a single adverse economic or regulatory occurrence affecting one or more of these issuers, experience increased volatility and be highly concentrated in certain issuers.

Securities of non-U.S. issuers are subject to additional risks, including currency fluctuations, political risks, withholding, lack of liquidity, lack of adequate financial information, and exchange control restrictions impacting non-U.S. issuers.

A fund and a fund's advisor may seek to reduce various operational risks through controls and procedures, but it is not possible to completely protect against such risks. The fund also relies on third parties for a range of services, including custody, and any delay or failure related to those services may affect the fund's ability to meet its objective.

A fund that invests in securities included in or representative of an index will hold those securities regardless of investment merit and the fund generally will not take defensive positions in declining markets.

High portfolio turnover may result in higher levels of transaction costs and may generate greater tax liabilities for shareholders.

The market price of a fund's shares will generally fluctuate in accordance with changes in the fund's net asset value ("NAV") as well as the relative supply of and demand for shares on the exchange, and a fund's investment advisor cannot predict whether shares will trade below, at or above their NAV.

Robotics and artificial intelligence companies tend to be more volatile and they may have limited product lines, markets, financial resources or personnel and are subject to the risks of changes in business cycles, world economic growth, technological progress, costs of research and development, and government regulation. These companies are also heavily dependent on intellectual property rights, and challenges to or misappropriation of such rights could have a material adverse effect on such companies.

Securities of small- and mid-capitalization companies may experience greater price volatility and be less liquid than larger, more established companies.

Smart grid companies can be negatively affected by high costs of research and development, high capital requirements for implementation, government regulations, limited ability of industrial and utility companies to implement new technologies and uncertainty of the ability of new products to penetrate established industries.

Trading on an exchange may be halted due to market conditions or other reasons. There can be no assurance that a fund's requirements to maintain the exchange listing will continue to be met or be unchanged.

First Trust Advisors L.P. is the adviser to the fund. First Trust Advisors L.P. is an affiliate of First Trust Portfolios L.P., the fund's distributor.

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