Thematic Investing: Skating to the Economic Puck

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"I skate to where the puck is going to be, not where it has been"

Wayne Gretzky, Professional Ice Hockey Player, and Coach

IN A NUTSHELL

- Thematic investing looks at equity markets in a different way – not according to the companies' business activities (like sectors), nor according to fundamental, statistical, or macro metrics (like factors), but with an eye on how an economy may evolve in the future.
- Since many themes involve portfolios of stocks that a well-diversified investor likely already holds, the financial merit of thematic investing is not in diversification, but in overweighting exposures in a sensible way to perceived alpha-generating companies.
- Investors need to think carefully about where thematic investing sits within the tactical and strategic spectrum. Many themes will take time to play out, but they also can't be expected to outperform forever. We argue themes sit somewhere in the middle.

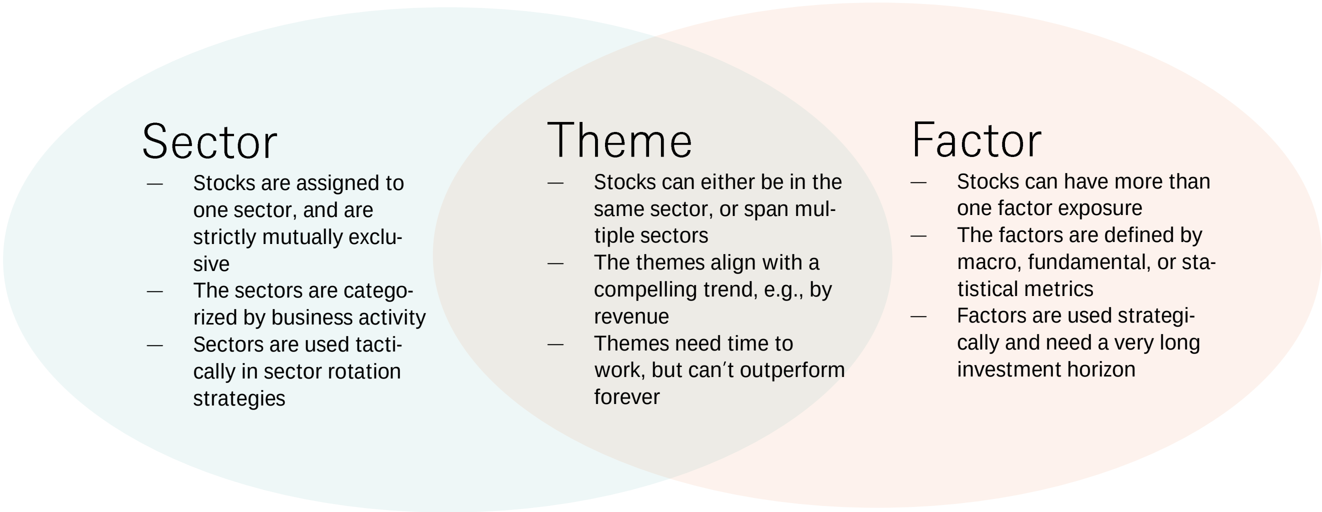
Slicing and Dicing in the Securities Kitchen

There are many ways to categorize, and carve up, an equity market. Perhaps the one that investors are most familiar with is to allocate stocks into one of the 11 sectors of the Global Industry Classification Standards (or "GICS") created by MSCI and S&P. These sectors examine a company's principal business activity, and allocate it accordingly to one sector, which, when combined, revert to the market. In other words, the sectors are "mutually exclusive," one company can't be in more than one sector. Sectors are intuitive to understand, and the idea that their performance will differ according to where the economy is in the business cycle is a well-known feature, and investment strategy ("sector rotation").

Another common way to split-up stocks is according to "style tilts," with perhaps the most common delineation being between "value," "growth," and "blend". Different firms will define these differently, but, often, value implies a stock that is cheap versus some accounting metric, and growth implies the opposite (with blend of course somewhere in the middle).

If it's a question of just one moving scale (i.e. a higher or lower value metric) then companies are likely to only be able to sit within one of these categories, but, if value and growth are defined in different, but not opposite, ways, or, if more than one factor is introduced, then one company can find itself labelled in two or more ways (i.e. you might have one company that is in both value and growth segments, or exhibits both value and momentum characteristics). The point is that mutual exclusivity is now no longer a requirement, but the classification is no less valid as a result.

Figure 1: Some Characteristics, Definitions, and Uses of Sectors, Themes, and Factors



Source: DWS

Our view is that thematic investing simply represents another interesting way in which to slice up equity markets. It has similarities to the sector approach in that, often, though not always, the companies are broadly involved in a similar economic activity, but it differs because, like the factor approach, one company can appear in more than one thematic idea (and many companies can appear in none).

In the sector case, delineation might be a question of both convenience (it helps to easily slot a company into a relevant sleeve), and/or a goal of outperformance (alpha may accrue to those best placed to both predict the business cycle, and to understand the sectors likely to thrive in that phase). In the factor case, the argument is somewhat similar, but longer run. Academics have argued, by citing empirical evidence, that persistent exposures to certain factors could lead to long-run outperformance, and, additionally, being able to categorize a company in terms of its value score (or according to some other statistical metric) is a useful tool for understanding a portfolio's likely risk and return profile.

What then is the argument for the thematic method of slicing? We believe that it represents a "third way" of carving up markets. One that in some ways sits between sector and factor approaches, and in some ways, retains elements of both. The Venn Diagram in Figure 1 shows our way of capturing these differences succinctly.

Shifting the Mindset

In addition to the different way that thematic investing categorizes each stock, there are two further related shifts in mindset that investors will have to consider with themes (analogous to the same way that factors imposed a shift from a largely qualitative process, to a more quantitative one).

The Economy of Tomorrow

The first shift is to recognize that the reason for slicing the market differently is to capture a novel investment thesis – that the economy will be significantly influenced by the theme in the future, and that the capital markets will eventually price in that influence. So, for example, someone investing in a semiconductor theme (disclosure: DWS offers such funds) should believe that the economy will evolve in a way that makes the design, manufacture, and supply of semiconductors very relevant, indeed more relevant than the market is likely pricing in today (hence the title of this paper, "Skating to the Economic Puck"). The idea is not so much that the themes are critical in *today's* economy, but that they will be even more critical or pervasive in the *future* economy. Effectively thematic investors have an option that allows them to exercise their judgement of the way the economy may evolve, and they can tailor that view in contrast to the "consensus view" represented by broad equity markets.

This last point is subtle, but important. Many investors will be content to believe that equity markets are fairly representing a future economy today (in the sense that any future growth is already accurately priced in), many will believe that through fundamental, technical, or quantitative analysis they (or the stewards of capital they trust) can pick specific winning companies that are expected to outperform. Thematic investors are slightly at odds with both camps, believing both that certain trends will be more relevant in the future than priced in today, and that implementing that view via investing in a broader group of companies is preferable to picking a specific stock (our view is that there is merit to all these approaches, *if done properly* – and the devil is in the details of that last – crucial – proviso!).

Is It Strategic…Is It Tactical? No, It's Thematic…

The second shift in mindset follows directly from the first, and it's the question of timing. Our view is that successful thematic investing is likely to play out over a timeframe that is too long to be useful for Tactical Asset Allocation (TAA). Opinions will differ over the specific definition of when an investment is "tactical," but a ballpark of less than two years is probably a reasonable starting point, and we believe that most themes are not trying to capture such short-run dynamics. Of course, this is more art than science, but it's the structural trends that we think investors should try to capture with themes, concerning themselves less with most of the "noisy" day-to-day developments.

Of course, having said that, we need to consider the end of the timeframe too. The idea behind factor investing is that there are long run alpha generators that investors can harvest without an end date in sight. They are not said to work all the time of course, and indeed can detract from performance for years, or even decades, but, for those investors with extremely long horizons, they might be of interest. In contrast to this we don't argue that thematic investing can, or will, always outperform (assuming it even does outperform).

And the reason for this is that, just as an investor believes that a theme is not currently priced in by today's market, they should probably accept that one day this condition will go away, i.e., that there will be some sort of convergence between their view and the market's. And there are at least two economic rationales for this. One is that outperformance should attract other investors who will bid up prices and lower expected returns to align with the rest of the market more closely. And the other is simply that no company, or portfolio, can outgrow the market (of which ultimately it is a component) forever. Why not? Well, if we reductio ad absurdum that idea, we would end up with the company or theme becoming the whole market, at which point we'd have to agree their returns would be the same. So, the bottom line is that investors should think hard about what they are trying to achieve with their thematic allocations, and, in addition to the decision to buy, should think carefully about what, for them, would represent the right time to sell.

This Final Section May Bring You to TEαρs (Tears)

Ok, the acronym doesn't quite work, but looking at the tracking error (TE), alpha (α), correlation (the Greek letter ρ, or rho, indicates correlation), and volatility (the Greek letter sigma is used for volatility) of thematic investing should further help investors to put more context around these strategies, and to draw some important conclusions about their fit in the portfolio.

Tracking Error and Alpha

Figure 2 shows the tracking error (TE) that would result when various weightings of three thematic indexes (Cybersecurity, Semiconductors, and Green Infrastructure[1], on which, again, DWS offers funds) are blended with a holding in the S&P 500. So, for example, if one switched from 100% in the S&P 500 to 94% S&P 500 and 2% in each of these three themes, then around 0.8% of tracking error would result in the portfolio. Two points stand out to us. Firstly, the tracking error is relatively low because these represent allocations to some equities that are already in the broad index (though not all, two of the themes are global in scope and so hold stocks outside the S&P 500). Secondly, note that the tracking error increases linearly with the weight allocated to the thematic – so, doubling the allocations, doubles the TE.

Of course, tracking error is usually regarded as an unwan-

[1] Solactive Cyber Security ESG Screened Index, Solactive Semiconductor ESG Screened Index, and Solactive United States Green Infrastructure ESG Screened Index

Figure 2: The Volatilities and Tracking Errors of Some Blended Market and Thematic* Portfolios (annualized numbers, based on monthly returns from 06/17 to 07/23)

S&P 500 Weight	100%	97%	94%	91%	88%	85%	82%	79%	76%	73%	70%
Thematics Weight (per Thematic)	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
Volatility (% annualised)	17.2%	17.3%	17.4%	17.6%	17.7	17.8%	18.0%	18.1%	18.3%	18.4%	18.6%
Tracking Error (vs S&P 500)	0.0%	0.4%	0.8%	1.2%	1.6%	2.0%	2.4%	2.9%	3.3%	3.7%	4.1%

Source: Bloomberg, DWS as of October 2023. * Thematics represent stocks included in Solactive Cyber Security ESG Screened Index, Solactive Semiconductor ESG Screened Index, and Solactive United States Green Infrastructure ESG Screened Index as of October 2022.

ted outcome, so it begs the question of what return is needed to justify this additional risk. This will depend on several assumptions that will vary from investor to investor, but one way of thinking about this would be to calculate a Sharpe ratio (excess return per unit of risk), or some other risk-adjusted return forecast for the portfolio with, and without, the allocation to the thematic. There must then be a return assumption for the thematic portion that represents a sort of "hurdle rate," above which the profile of the portfolio improves, and, below which, the thematic do not justify their place in the portfolio. By way of example, if one assumed an 8% expected return for the market portfolio, and looked at total return per unit of risk, then, for the same 6% allocation to thematic, one would need them to return 9.5% or more to justify their inclusion (i.e., to improve the risk-adjusted return).

Correlation

In the analysis that we ran on the correlation between these same three themes and the broader market, we can scotch one idea, and that is that these allocations are useful as diversifiers (reducers of overall risk). The fact is that, despite having correlations of less than one, not all assets reduce risk. There are two competing forces tussling in the portfolio, the lower correlation, but also the starting volatility of the addition. In this case the latter disbenefit outweighs the former advantage, meaning that total portfolio risk goes up slightly (Figure 2 also has these details). Importantly, we can't say this will always be true for all thematics. There may be some that reduce risk, but not these. Hence the need for the mind shift belief that we discuss above. Some themes are only justified if the investor believes that these themes will play a more important role in the future (and hence outperform the broader market).

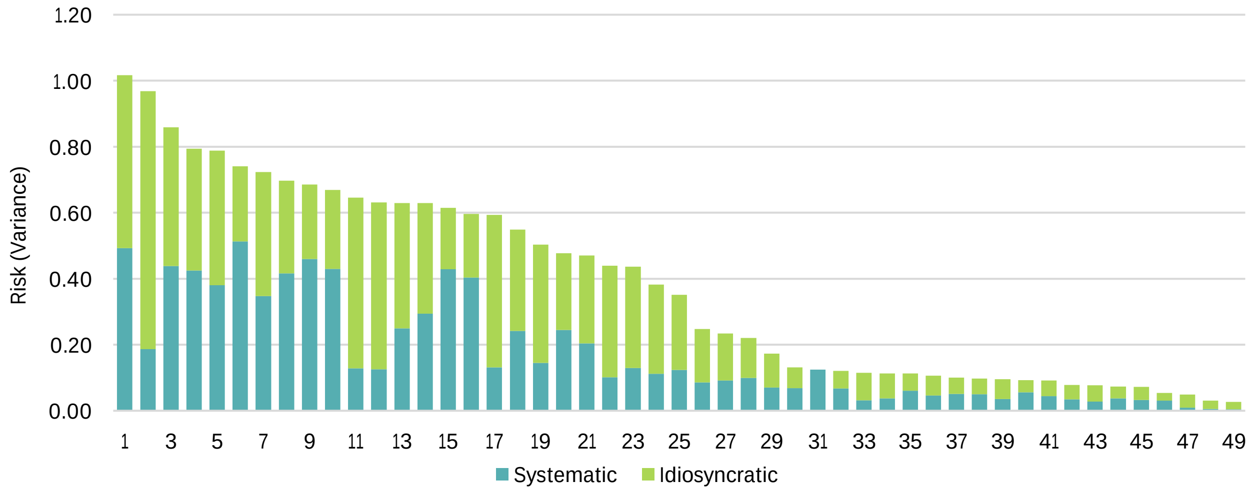
Volatility

We have discussed the overall portfolio volatility of thematic and market blends above, but another important aspect of risk is that of single stock positions versus baskets of securities. To consider this, we present in Figure 3 the risks of the 48 stocks which, at the time of writing, made up the Solactive United States Green Infrastructure ESG Screened Index, along with the risk of the whole basket of stocks (i.e., the index). This is labelled as the 31st security since all the stocks, along with the basket have been ranked in terms of total risk along the x-axis (becoming less risky as one moves to the right).

The distinction between the colors is that the blue portion of each line represents the systematic (i.e., non-diversifiable) risk to the index, and the orange portion represents the idiosyncratic (i.e., diversifiable) risk.

A few features stand out. Firstly, note that the index itself (at position 31) has no idiosyncratic risk. This makes sense, and is by design, since we are defining Infrastructure market risk as the systematic component here. Secondly, note that for every other holding of single stock, investors would find themselves exposed to company specific risks, for which they can expect no commensurate return. This is standard financial theory to be sure, but applied to the world of thematic, where we are simply pointing out that expressing a view on Infrastructure via a single stock holding leaves an investor exposed to a significant amount of stock-specific risk that is both hard to eliminate, and uncompensated. For those that are very sure of their analysis this may be acceptable, but for those that approach this from a more "top-down" approach in the spirit that we described above (with an eye on the future), then company specific risk may be an unintended, or wanted, consequence.

Figure 3: The Risk Breakdown of Stocks in Solactive United States Green Infrastructure ESG Screened Index into Their Systematic and Idiosyncratic Components (weekly returns, 07/22 – 06/23)



Source: Bloomberg, DWS as of October 2023.

Conclusions

Thematic investing represents a relatively new way of carving up equity markets, and, as such, requires investors to think carefully about several issues. Amongst these are:

- Whether the thematic accords with their view of how the economy, and the stock market, will develop in the future.
- The timing of the exposure – we argue that thematics are not tactical in nature, but nor can they be expected to outperform forever.
- The impact that the thematic will have on the portfolio, in terms of tracking error and volatility. The three thematics that we examined in this paper did not play the role of diversifiers (in the sense that allocations blended with the S&P 500 tended to slightly increase risk), though that may not be true of all thematics.
- The potential advantage that thematic approaches have over single stock exposures. Expressing a thematic view via holdings in one, or just a few, single stock positions, runs the risk of company specific exposures for which investors are not compensated. Thematics typically contain several holdings, and that idiosyncratic risk tends to diversify away as a result. Investors will still have significant other risks though, including market risk, and, of course, risk to the theme itself.

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