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In focus

How institutional investors can allocate to thematic investments

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Thematic investing has grown in popularity over the last few years among retail investors. Now, some sophisticated institutional investors have started considering them too.

Here, we look at how thematic investments might make sense for all, especially when considered in the context of the wider portfolio.

We have found that for an institutional investor managing across multiple asset classes:

- The global economy is facing a set of disruptive changes, resulting in thematic investing being an important additional way to generate alpha, particularly in a low interest rate environment.
- Thematic ideas can overlap each other in terms of the risks to which they are exposed (especially the exposure to the growth factor), and also to the existing portfolio. Institutional investors may need to consider how to adjust their existing portfolio (if appropriate) to ensure risks are being taken where intended.
- However, we believe that it is currently inappropriate to set a strategic asset allocation using themes rather than a traditional approach.
- Good governance is crucial. For many institutional investors, this will be the most difficult part of deciding whether to include themes in their approach.

What is thematic investing?

Thematic investing focuses on macroeconomic trends that are transforming the world, such as population aging, energy transition, automation and feeding the world. Many of which we identified in our 'Inescapable truths for the decade ahead'.

Transformative macroeconomic trends are not new – the introduction of the railways and electricity are obvious examples from the past. But thematic investing allows more focus on these trends and it extends or replaces the traditional geographical, sectoral and asset class approach to investing.

Themes can relate to imbalances between people and planet, such as climate change where the energy transition is the response. Or they may relate to imbalances between supply and demand in individual markets, where disruptors can appear and transform an entire industry by displacing long-established incumbents[1]. Or alternatively an entire industry can benefit from disruptive innovation without any change in market leadership.

Themes generally play out over multiple years, as evidenced by the 'transition to cleaner energy' theme to meet the carbon reduction goals of the Paris Agreement. This makes thematic investing arguably more suitable for institutional investors with their generally longer-term time horizon than retail investors. That's as long as the theme(s) is identified at the right time (more on this later) and held for the long term.

Why is thematic investing gaining momentum?

A combination of factors are at play here. Globalisation and a synchronised interest rate cycle have made geographic allocations less important. Meanwhile, the global economy is facing a series of disruptive changes.

Themes create an opportunity for investors to focus part of their portfolio in a way that is more directly linked to their philosophy or secular investment views than sector or geographical allocations

1 https://www.schroders.com/en/insights/watchlisten/what-is-thematic-investing-and-why-should-investors-care/

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allow. These views, particularly those that relate to sustainability and climate, may result in investors setting ancillary objectives that target specific outcomes, like Sustainable Development Goals in addition to their traditional return objectives, where consistent with their fiduciary obligations.

Additionally, expectations of returns over the next 10 years are lower than in the 2010s as we discussed in our 'How do you construct portfolios in a world of zero interest rates?' paper. But institutional and retail investors still need to achieve returns to meet their various liabilities or to ensure that their retirement plans are achievable. This means being more creative with the ways in which we understand how future returns will be generated, including using a wider range of tools. While themes don't increase the total return on the market, institutional asset owners may decide that they can outperform by using specific themes themselves. Or by selecting managers that can provide alpha using themes – this could replace manager selection by asset class for some mandates.

Should asset allocation be set using themes instead of asset classes?

Some themes are persistent and will play out over multiple years; others may only play out over shorter time periods (think climate change vs Covid recovery). It is important to be clear as to what we mean by themes in the context of consideration for setting strategic asset allocation (SAA) – these are the longer term trends that we identify as 'Inescapable truths' which include:

- Lower rates for longer
- Greater focus on environmental issues
- Pressure on government finances
- Geopolitical impact of increased populist policies
- Accelerated technological change
- Demographics – aging populations

Most institutional investors tend to use modelling by asset class and geography in order to decide on a SAA. To make a decision about whether to throw out traditional ways of setting the SAA in favour of themes across multiple asset classes, we need to answer the question about whether themes have all the features required in order to allocate in this way:

1 Does the theme provide a long-term economic rationale across asset classes as to why all investors can benefit from it?

2 Is there a commonly agreed definition for the theme, with clarity about the constituents, which is distinctive?

3 Is there a significant amount of historical data available, from which defensible models can be built for optimisation?

We believe that these criteria cannot be met currently (although this may not be the case in the future).

On point 1, unlike equities where investors are compensated for taking on higher risk and therefore all investors can benefit from investing in equities over the long term, it is not clear that a particular theme can so assuredly provide this type of premium.

On point 2, a theme does not have an agreed definition – it is a loose description of an idea (one person's idea of 'disruption' may not agree with another's for example).

Finally, on point 3, most themes have a short amount of data (often less than five years) and more are emerging as new themes are identified.

As a result, asset owners and fiduciaries are unlikely to want to take the personal or fiduciary risk of allocating the entire portfolio in this way. It is our view therefore that themes are (often macro) long-term opportunities that can be included in the portfolio (sometimes across multiple asset classes, but not always). And they are best expressed from a bottom-up perspective as an additional source of alpha and complimentary economic exposures to the standard allocation framework. This is provided that valuation of the theme and skill of the active manager are considered as part of the allocation.

Put differently, thematic opportunities are typically within an asset class; mainly equities, although credit and some specific government bonds such as green bonds can also be components of thematic investment ideas. This means that a decision needs to be made about whether the allocation within asset classes needs to be carved up differently.

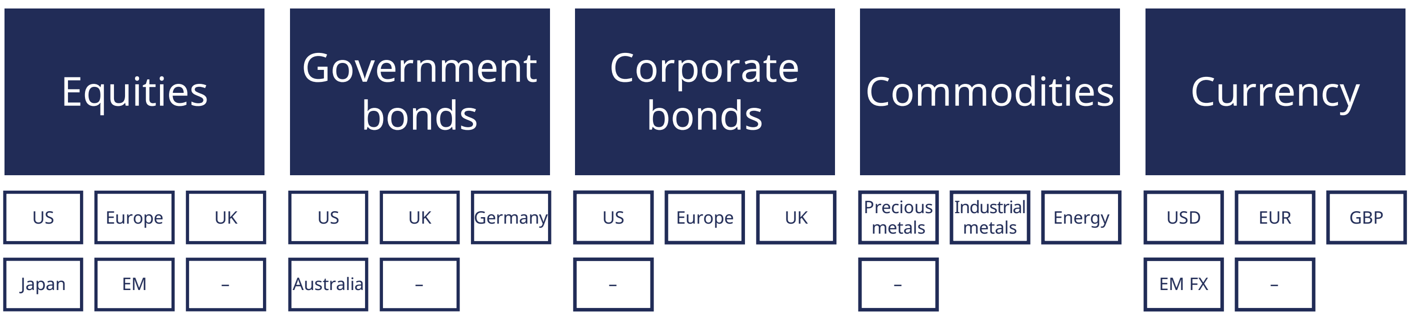
Do themes drive performance in a reliable way? Understanding the factors that drive performance

When managing strategic asset allocations within a multi-asset framework, it is critical to understand a portfolio's risk exposures via a parsimonious set of cross-asset factors that are broad, persistent drivers of return. These risk factors require clear definitions (often supported by rigorous academic analysis). For example, value/inflation/carry are broadly independent of each other and a combination can be used to explain the majority of the systematic portfolio risk.

When incorporating thematic components into the portfolio, it is important to ensure we have a coherent framework that allows for investors to understand the incremental risk exposures from these positions. Below we provide an example of how this can be achieved.

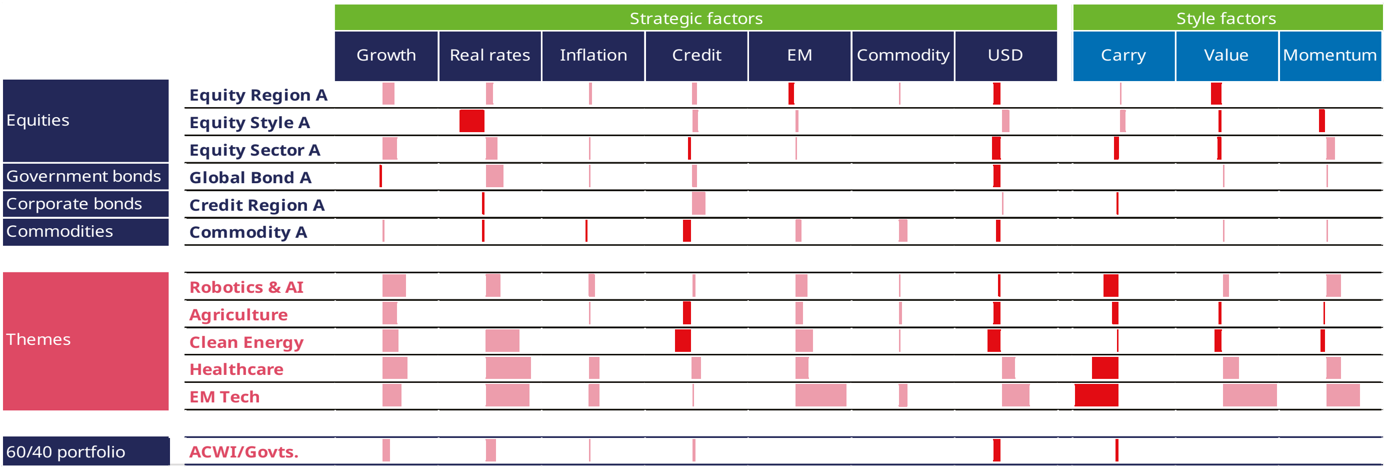
Consider a typical 60% equities/40% bonds strategic asset allocation portfolio. Figure 1 illustrates how investors understand the portfolio allocations from a traditional asset class perspective. It is difficult to begin to incorporate and assess the additional risk exposures from adding thematic components to this as individual themes tend to be made up of an array of region/sector/asset class exposures.

Figure 1: Typically, asset classes are broken down into regions or sectors



Source: Schroders, May 2021. Dashes reflect additional asset class sectors, for simplicity purposes.

Figure 2: Understanding the drivers of risk and return can give us another set of investment lenses



Source: Schroders, May 2021. 60/40 portfolio is 60% MSCI AC World and 40% BofAML Global Governments. Anonymised regions use illustrative numbers, while themes and 60/40 portfolio use calculated numbers from a factor model.

However, if we reframe asset allocation and portfolio analysis along cross-asset factor dimensions to better understand the risks to which the portfolios is exposed, the incremental risk exposures from adding different thematic components to the portfolio become more apparent, as shown in Figure u/c F. Having a clear factor set that investors believe drive performance is an important component of analysing risk relationships between the thematic positions and the core portfolio. In this example, it is clear that the agriculture theme has a high exposure to commodity risk, while robotics is a pro-growth theme with short exposure to rising inflation. We discuss possible solutions to portfolio construction later in this paper.

How does it fit in a broader portfolio? I don't have a 'box' for it

Some options for implementing, say, the equity portfolio differently to allow for thematic investing might be:

1. Opportunistically carve out a proportion of the global equity allocation for one or more themes, and invest the remainder unchanged, recognising that there is likely to be some overlap but that this allows for 'overweighting' of the themes that are likely to drive returns over the longer term. This can also be referred to as 'core-satellite', particularly if a large portion of global equity portfolio is passively invested.

2. Allocate opportunistically as above but use a completion fund or benchmark for the remainder of the global equity allocation because of issues of overweighting

3. Total theme allocation – reallocate the whole of the global equity portfolio to themes, recognising that the sum of these themes is unlikely to be the same as a broad global equity index.

Themes can also be allocated across asset class, for example both in equities and credit, although we recognise that this is likely to be more difficult for asset owners to fit this into their existing frameworks.

There are number of items to consider in this portfolio construction decision:

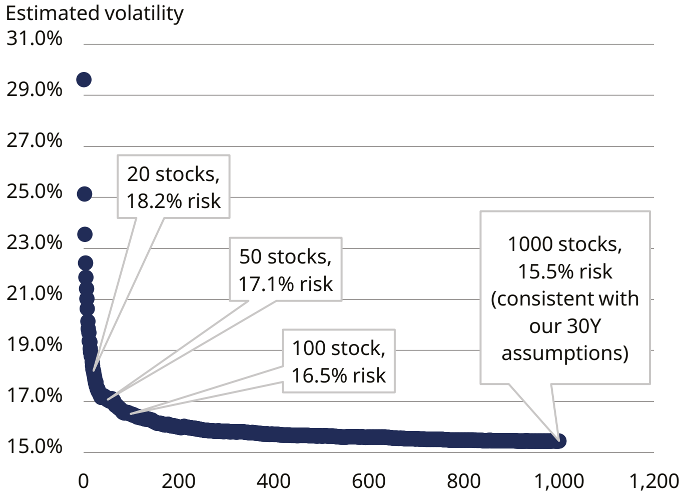
- Whether themes provide diversification benefits or improved alpha (or both)
- Governance of the structure and allocation to appropriate themes (more on this later).

The devil is in the portfolio construction detail

Some have argued that allocating to themes can provide additional alpha and diversify risk. While the alpha point is relatively easy to evaluate (see the last section in this paper), the second is much harder to prove. It depends on the themes themselves and how they are accessed.

Since many themes are by their very nature novel and untested, we need a way of estimating the additional risk that thematic investing introduces. Since thematic investing – and active investing in general – often increases concentration in the portfolio by design, we can simulate how much additional risk is likely to be introduced by constraining the investible universe to a thematic subset. Figure 3 illustrates this.

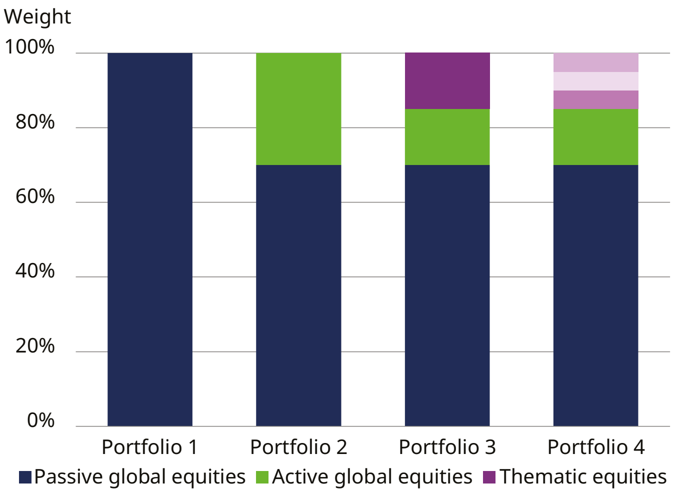
Figure 3: Constraining the investment opportunity set tends to increase risk, as active risk is intentionally introduced



Source: Schroders, May 2021.

Using our estimates of the risk that different types of thematic portfolios might carry, we can model the impact at the portfolio level. In Figure 4 we show four different examples of how an investor might implement the equity portfolio using passive equities, active equities and thematic equities, using the carve-out approach #1 highlighted earlier. Portfolio 4 allocates to several lowly correlated themes whereas portfolio 3 allocates to just one.

Figure 4: A portfolio's active equity allocation can be split between traditional active equities and thematic equities



Source: Schroders, Refinitiv, May 2021.

Since active risk (or at least stock selection risk) has typically been uncorrelated with broad equity market risk (Figure 5), moving from left to right in Figure 4 only marginally increases overall portfolio risk. This is shown in Figure 6.

Figure 5: Stock selection return is generally uncorrelated with broad equity market returns (SS)

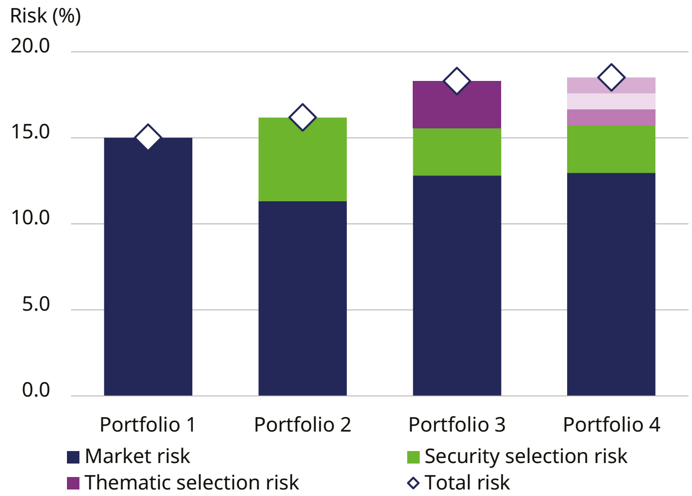
Source: Schroders, Refinitiv, May 2021. Correlation coefficients are based on past performance which is no guarantee of future results.

Notably, the total risk of portfolio 4 is almost the same as that for portfolio 3, illustrating that a multi-thematic approach does not mean taking on more risk at the total portfolio level.

Of course, active risk is less reliable than market risk, such that if the active manager underperforms, or the selected themes underperform, active risk crystallizes as losses for the portfolio. But for high-performing stock selectors, and if the right themes are chosen, active risk can be highly rewarded. Hence a strong governance framework around theme selection is imperative, something we discuss towards the end of this paper.

Thematic strategies, by their nature, are characterised by significant factor tilts. These comprise not only structural biases to common factors – sector, region, style – but also to other systematic factors, the performance of which will be significantly influenced by the economic and market cycle, for example, market beta, size etc.

Figure 6: Moving from left to right only marginally increases overall risk, while diversifying the source of risk

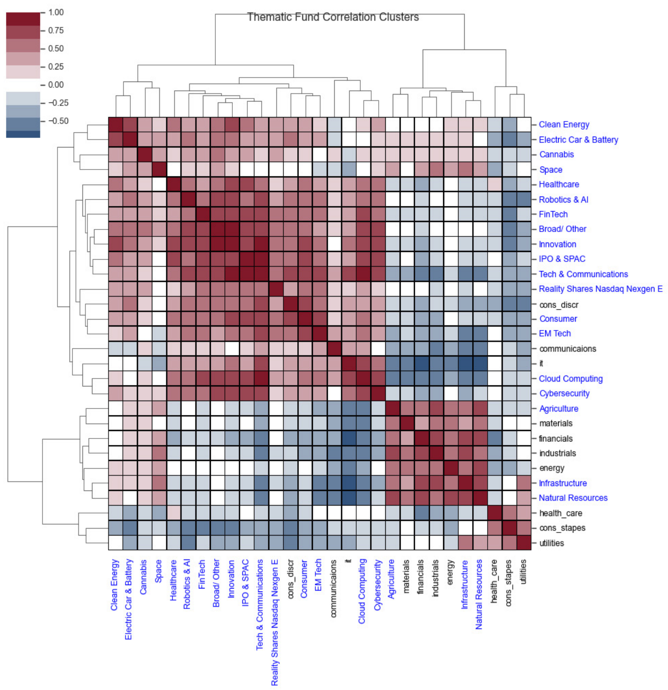


Source: Schroders, Refinitiv, May 2021.

The factor exposures introduced by specific themes can frequently dominate returns at various points in the investment cycle, a feature particularly apparent in narrow thematic strategies which are routinely characterised by extreme and volatile performance.

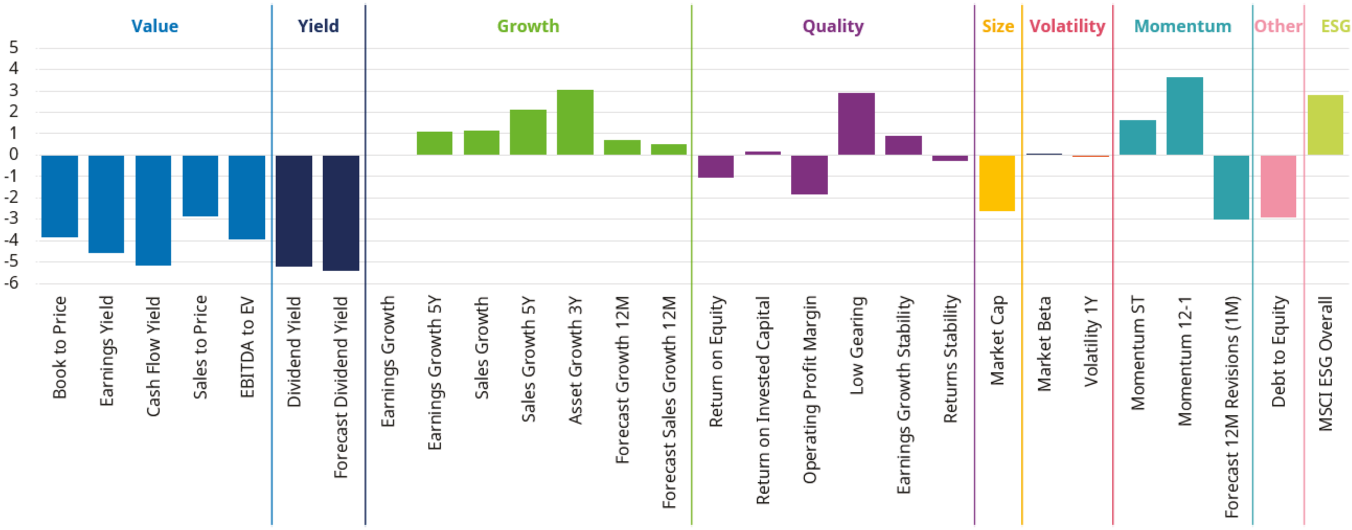
While there are many different themes, importantly many of the themes are highly correlated with one another and also heavily exposed to the growth factor. This suggests that there are fewer unique and meaningful themes than the market has to offer (see Figure 7, where themes appear to 'cluster' together). Here, we analyze beta-adjusted returns of thematic fund groups and global sectors.

Figure 7: Understanding how themes fit in a broader portfolio is important to ensure risks are not duplicated unintentionally



Source: Schroders, Refinitiv as of May 2021. Thematic fund groups calculated by equally weighting select funds mapped to each individual theme using weekly returns over the last 24 months. Blue labels indicate themes, black labels indicate sectors. Thematic trends shown above may vary over time and are not indicative of future results.

Figure 8: Themes are exposed to the growth factor



Source: Schroders, Style Analytics. Modelling of 8 broad themes. 5 April 2021. 601612.

Figure 8 shows, for a selection of broad themes (including climate change, disruption and tech innovation), the positive tilt to growth and underweight value compared to the broad equity market.

So it is important to think more carefully about your selection of themes, and to structure your portfolio construction in a core-satellite or carve-out manner, balancing the lower reliability of active risk against the higher potential for returns. Introducing thematic equities doesn't mean abandoning traditional allocation vectors, so it is also important to consider how themes cluster with regional and sectoral equity indices.

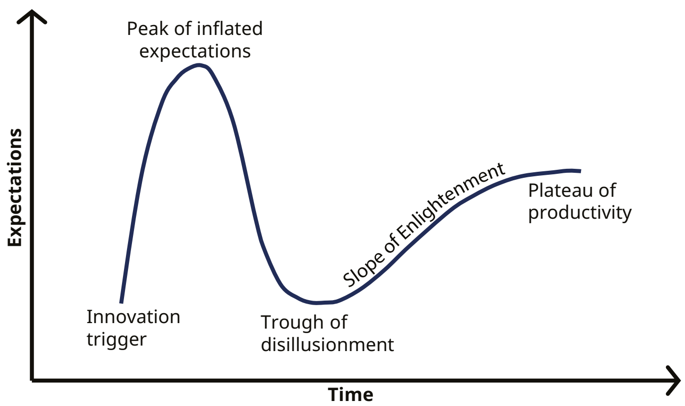
How can I identify the themes?

Thematic investing can be an attractive source of alpha for several interlinked reasons:

- Many investors are often slow to recognise thematic drivers, and...
- ...fail to anticipate the power of a theme on long-term growth, which can lead to...
- ... mis-pricing of securities, which typically corrects incrementally as companies report their performance and provide forward-looking guidance.

Amazon is a poster child for disruptive growth and continues to surprise the market in its ability to disrupt industries through its e-commerce platform. Despite being well covered by sell-side analysts, few if any have acurately modelled the growth potential of this business, leading to persistent share price performance over many years. The Gartner Hype Cycle shown in Figure 9 shows the five key stages of a technology cycle and is often used to better understand the promise of an emerging technology and separate the 'hype' from what a company might be able to achieve.

Figure 9: The Gartner Hype Cycle can identify the maturity and adoption of technologies and applications

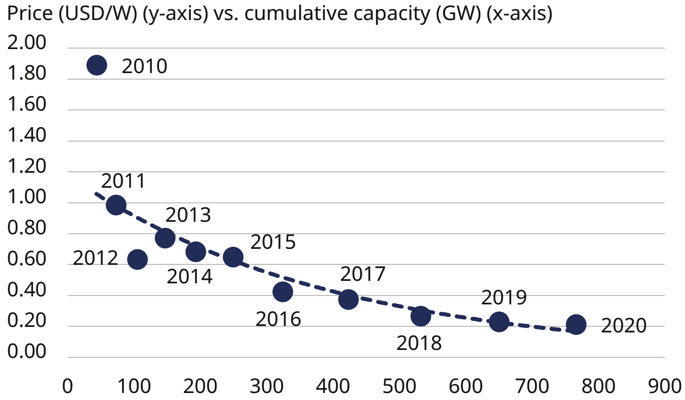


Source: Gartner.com

However, there have been themes that seem obvious today but haven't worked out so well for investors because the financial dynamics of companies have been undermined due to other factors. For example, energy transition has led to China becoming the largest solar photovoltaics producer on the planet, reducing the cost of solar panels by about 90% over the last 10 years (see Figure 10). In the US, tariffs were imposed on imports of solar panels in 2017. Faced by rising stocks, China cut its own subsidies, leading solar panel producers to significantly reduce prices to offload large inventory internationally, despite tariffs[2]. This resulted in even lower prices for solar panels and increased local take up in China. China, which is currently the world's largest greenhouse gas emitter, is moving towards running its electricity grids on non-fossil fuels and reducing its emissions. But these policy decisions, which are outside the hands of solar panel producers, resulted in many solar panel manufacturers in the US, Australia and Germany going out of business[3].

Figure 10: u/c T the price of solar photovoltaics continues to fall

Price (USD/W) (y-axis) vs. cumulative capacity (GW) (x-axis)



Source: Gartner.com

2 https://www.nature.com/articles/s41560-019-0458-3

3 http://large.stanford.edu/courses/2017/ph240/rojas1/#:~:text=As%20Germany%20began%20phasing%20out

Sometimes the perceived initial winners are not the true beneficiaries in the longer term. In the late 1990s large numbers of telecoms businesses collapsed (including WorldCom in the US[4]), but other businesses that incorporated the internet became significant winners – a trend that continues today.

Three steps for successfully identifying themes

In order to alight on themes which are powerful, durable and profitable, we believe therefore that a disciplined approach to theme identification is imperative. This is key in evaluating the investment case, including the valuation of a theme. This is a significant issue for most institutional asset owners who do not have a committee or a governance function set up to invest in this way. We address that issue in further detail later.

First, we believe that it is critical that themes have longevity and s o they need to be structural in nature, avoiding the cyclical or the fads.

Second, the themes also need to have valuation upside because thematic investors are investing in securities rather than in themes as abstractions. In this context, ...there can, from time to time, be a disconnect between the fundamental duration of a theme and the markets' pricing of that theme. This means that it is important to identify sub-themes within a theme. This is so the underlying portfolio manager can navigate a wider theme as it develops and as valuation opportunities come and go.

Third, the themes chosen must also have investment universes which are neither too narrow nor too broad. If they are too narrow they deny the portfolio manager the flexibility to chart their way through evolving themes. And if they are too broad they lack the precision which the end client is seeking when they invest in a particular theme.

Most themes have traditionally played out in equity investments, but there are increasing numbers of credit and sovereign bonds (for example, green bonds) where themes can be exploited in multiple parts of the portfolio.

As highlighted earlier, many of these themes can be 'hyped', as we have seen with green bonds, and therefore can become expensive. Our view is that paying an appropriate price for an investment is still key to adding money in our clients' portfolios.

Some investors seek out what they consider to be shorter-term 'themes', which should perhaps be called 'tactical baskets'. These are ways of exploiting a shorter-term, often cyclical, idea. An example might be the recovery in specific parts of the economy in a 'pandemic recovery basket' which cuts across sectors and could include retail, hospitality and in time, airlines. We do not regard these as truly thematic, as these are less likely to be included across multiple asset classes over multiple years and hence we see these as a way to implement tactical asset allocation ideas.

I don't have the right governance structure for this change

Having made a decision about whether to allocate to themes, several governance challenges potentially arise. How do I select the themes? How do I make sure the themes are still relevant? How do I make sure that I have the appropriate amount allocated? How do I evaluate them?

We believe that making sure that the 'right' theme is implemented at the 'right' time is likely to be the most problematic of these. Many institutions often have numerous committees, sometimes with non-investment professionals, who need to ratify a decision. This often involves training to understand the theme, getting comfortable with the idea, endorsing it, understanding the market/flows of assets into a theme and selecting a suitable manager. All of which may take many months and few will be equipped to do this successfully. While the type of themes we are discussing here are typically multi-year, some governance groups may want to see a number of years of performance 'evidence' before implementing an idea. Like any investment, however, valuation (being in before it gets very popular) is part of the key to success.

By the time a theme is evident, it might be too late to invest, i.e. the theme has already run its course or that the valuation is too expensive. Huge numbers of thematic ETFs have been launched and Morningstar recently pointed out that few outperform over the long term[5].

It is also worth noting that climate change is somewhat distinct from many of the themes discussed, in that it is often a core investment belief for institutional investors that can be both a risk and an opportunity, affecting the whole portfolio. Some asset owners will be able to or choose to set a secondary objective to have better climate/carbon statistics than the benchmark or peers, which while not covered in this paper, will have other implications for portfolio construction. As institutional investors choose (or have to confront) the prospect of managing their assets with a 'Net Zero' objective (a major debate yet to come), they will need to deal with significant thematic biases.

There are a few potential solutions to sourcing themes including employing a manager(s) with a thematic approach to provide ideas as a strategic partner; employing an active manager for a multi- or single-theme mandate; and employing (internal) top down thematic experts and/or a panel. Allocating an appropriate amount is largely about risk budgeting (covered earlier) and being brave enough to do something before the majority of other institutions have done it. The 'dipping the toe in the water' method of putting a small portion of the equities (or credit) into thematic investing is likely to be the lowest governance burden.

How do I evaluate themes in my portfolio?

Active investing in the pursuit of higher returns involves taking active risk i.e. investing in either off-benchmark positions or in different weights to the benchmark. Introducing a thematic approach – through a carve-out or core-satellite approach – means splitting the portfolio's active risk between asset allocation risk (by asset class), security selection risk and thematic selection risk.

Attribution of the added value from investing in themes deserves a paper in its own right, but we touch on the key issues here. There are two aspects of themes that should be evaluated:

1. Was the theme a good idea?
2. Did the manager deliver alpha within the theme?

This provides accountability for both elements. Evaluating whether the inclusion of a theme improved the Sharpe ratio requires evaluating over a suitable time period and in relation to the 'use' of the theme. In the 'core-satellite' model, the return of the thematic idea, perhaps using a suitable index, compared to passive global equities would provide insight as to whether inclusion of the theme was beneficial.

Typically, added value from stock selection will be assessed against both a broad equity index and a suitable index representing the investible opportunity set derived by the theme. For example, a global energy transition theme might be compared against the MSCI Global Alternative Energy Index (GEAE) and the MSCI ACWI.

4 https://www.princeton.edu/~starr/articles/articles02/Starr-TelecomImplosion-9-02.htm

5 https://www.morningstar.co.uk/uk/news/211463/the-dark-side-of-thematic-funds.aspx

Conclusion

For an institutional investor managing across multiple asset classes, we believe it is currently inappropriate to set a SAA using themes rather than a traditional approach.

However, globalisation has made geographic allocations less important. And additionally the global economy is facing a set of disruptive changes. The result is that thematic investing is an important additional way to generate alpha, and this should not be restricted to just retail investors.

From a portfolio construction perspective, thematic ideas can overlap each other in terms of the risks to which they are exposed, and also to the existing portfolio. Consideration needs to be given to how to access the themes and adjust the existing portfolio (if appropriate) to ensure risks are being taken where intended. As institutional investors choose (or have to confront) the prospect of managing their assets with a 'Net Zero' objective, they will also need to deal with significant thematic biases.

Governance remains key to success; identifying themes, ensuring valuation is taken into account and the selection and measurement of skilled active managers are all imperative.

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