Thinking Ahead Institute

Asset owner conversations

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Topic: Performance reporting in a crisis – smarter measurement required

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Introduction
The focus of this session is the need for a smarter measurement system and, as part of that, we will introduce Fundamental Return Attribution (FRA) methodology developed by the Thinking Ahead Institute. The FRA framework aims to promote a longer-term outlook and came from the idea to develop a methodology that allows portfolio evaluation to be based not only on market value returns, but to also include changes in fundamental attributes.
The framework was turned into a tool, which is now publicly released and is open sourced. Our hope is that this tool promotes the longer-term outlook and aids dialogue between AOs and AMs, which is particularly necessary during times of underperformance.

Agenda
Roger Urwin – vision for smarter measurement systems development
James Price – development of the FRA framework
Maria Musiela – practical example of the FRA framework used by one of our clients

Vision
The last major innovation in the performance measurement was 50 years ago when time-weighted return (TWR) was introduced, which is when we started to compare ourselves against each other. Since then, a lot of asset managers have been judged based on performance measurement which is actually not a forward-looking signal of their skill. Therefore, investment organisations need to have

a more sophisticated investment model, a smarter measurement model, which provides decision-useful information, and the means by which it can move from measurement system to a reward structure. Until now, most organisations haven't worked as hard on their measurement model as they have on their investment model. Increasingly, we start to think that balanced scorecard measurement is a way forward for the industry, which represents an idea that no single figure is the key to understanding future expectation of performance. It incorporates several different measures: soft and hard data, past and future data, input and output. The FRA methodology provides an innovative addition to a traditional measurement model by introducing a more decision-useful view of past performance, by looking fundamentally at sources of return according to the dimensions of growth and multiple expansion or contraction and activity. This is increasingly important as we get more data, especially in the ESG area. Drucker's law: "what gets measured gets managed" turns into Goodhart's law: "what gets measured gets managed and therefore gamed" illustrates the problem of measurement, which can be solved by having more than one measure which provides more of an insight. Therefore, the vision is to have more measurement than we had before, but to have more meaningful decision-useful measurement.

Development of the FRA framework
The FRA framework is complementary to existing frameworks, seeking to be additional and to shed more light on different aspects. For example, the Brinson attribution, among others, typically used models that are really good at explaining what has happened in a portfolio and exactly why, framing it in terms of sector weights etc, but it can be limited by not incorporating any additional context in the investment process, such as manager activity. In contrast, FRA is used at a portfolio level and can be much better at demonstrating how different aspects of an investment process led to decisions which changed the portfolio and therefore drove performance. This is better at removing short-term noise and providing information that is useful to decision makers.
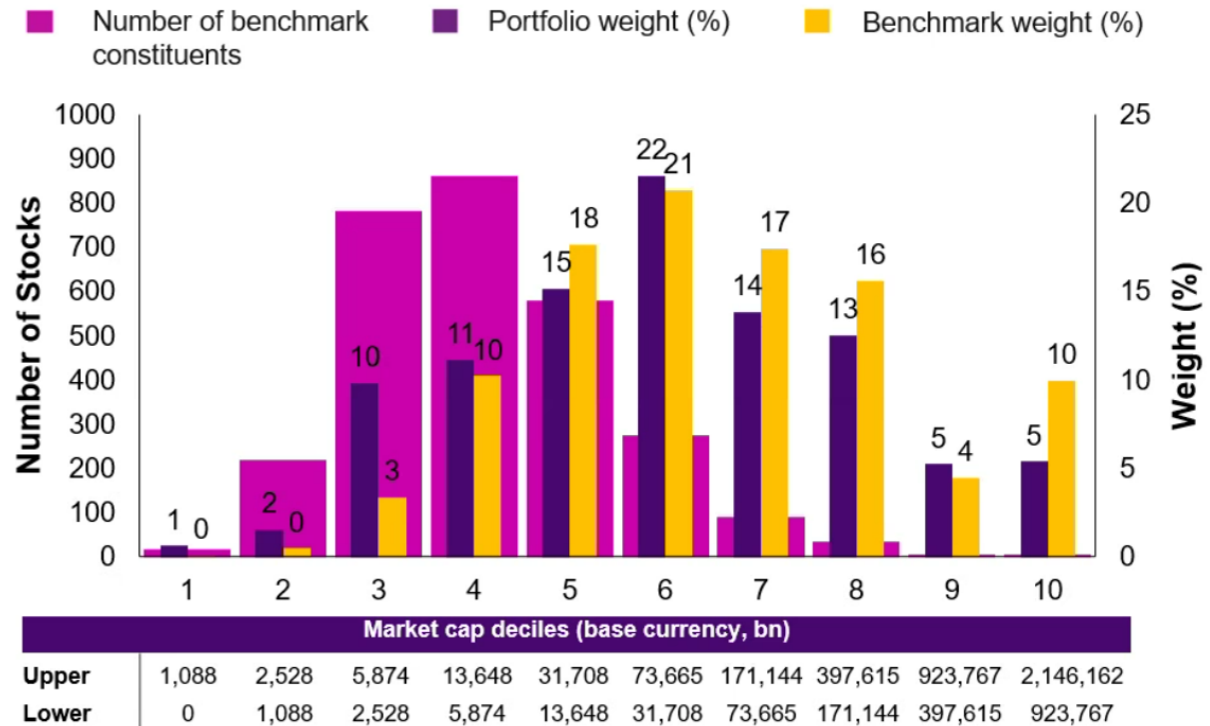
The FRA framework is made up of three components:
- Multiple expansion – the increase (decrease) in the market value of the portfolio that is unrelated to any change in the fundamentals. This is equivalent to an increase (decrease) in a portfolio's price-to-fundamental ratio. This drives the majority of short-term outcomes and therefore noisy.

- Underlying growth – the increase (decrease) in the underlying fundamental quantity due to the underlying asset's (or company's) performance and the distribution of proceeds from those assets – it can be sales, book value, earnings, cash flow or other metrics.

- Trading activity – the change (increase or decrease) in the underlying fundamental quantity arising from the sales and purchases of securities or assets by the asset manager.

By looking at these three components in combination it is possible to get a good insight into what is driving asset managers' or the assets' returns. The three components are not entirely independent, so some activity now might be detrimental, but lead to owning higher growth rates in the future.

The FRA framework aligns with private market type reporting, but it might also help to bridge the evaluation of private and public equity parts within a portfolio. Part of this process could also be used to look at ESG data and carbon emissions. The framework would let you see the actual driver of carbon emissions reduction by disaggregating growth and activity if you set carbon emissions as fundamental in your analysis. For example it would help distinguish whether companies in the portfolio are reducing their carbon footprint or whether the portfolio is migrating from high-emitting companies to low-emitting companies.

Case study / practical example

For this specific client, we are running long only, global equity portfolio using a high conviction, unconstrained, multimanager approach. We aim to create a portfolio where no one single manager is dominating the risk profile, style, sector, and regional exposures from the top-down perspective are very similar to the benchmark. We want the stock selection to be the key driver of the returns. However, there is a slight size bias in the portfolio.

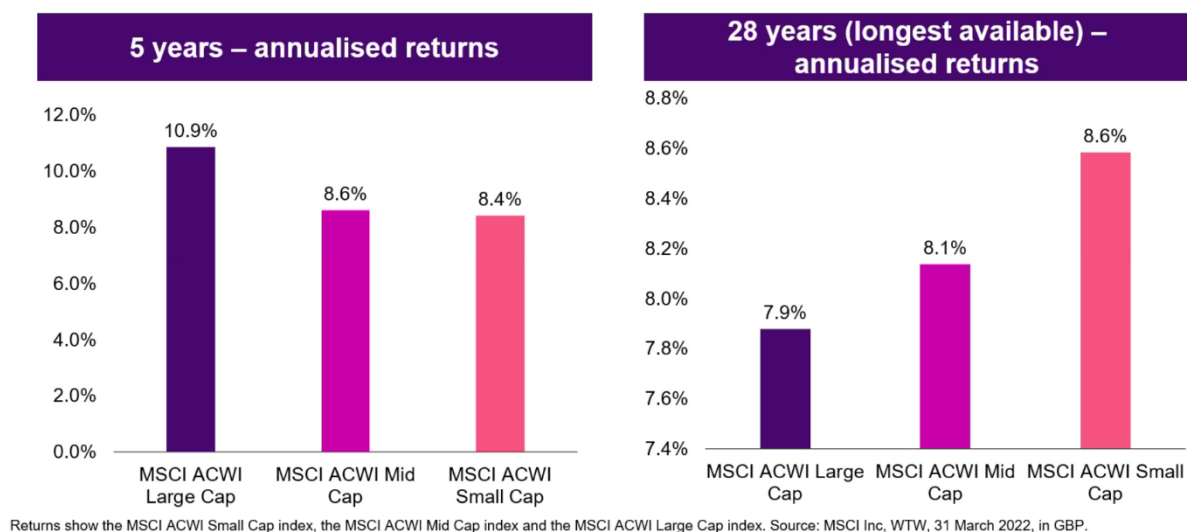|	1	2	3	4	5	6	7	8	9	10
Upper	1,088	2,528	5,874	13,648	31,708	73,665	171,144	397,615	923,767	2,146,162
Lower	0	1,088	2,528	5,874	13,648	31,708	73,665	171,144	397,615	923,767

Source: WTW, MSCI Inc, FactSet. 31 July 2022

The chart above shows the makeup of the universe of stocks within the MSCI All Country World index. Pink bars on the chart represent the opportunity set, which is divided up by deciles of market capitalisation, where decile number 10 are the largest stocks and decile number 1 are the smallest stocks. It is evident from the chart that the largest opportunity sets within the benchmark are in the deciles 3, 4 and 5. So, the stocks are more in the small, mid cap space.

Normally, the underweight to large caps and overweight to mid and small caps should lead to a bit of a premium in terms of return over the very long term.

Returns of the MSCI All Country World Size Indices

Past performance does not predict future returns.

Returns show the MSCI ACWI Small Cap index, the MSCI ACWI Mid Cap index and the MSCI ACWI Large Cap index. Source: MSCI Inc, WTW, 31 March 2022, in GBP.

This chart (above) shows that over the 28-year period for the MSCI All Country World cap indices, the large caps underperformed the mid and small caps, however in the shorter-term time frame it was the opposite.

This led us to having a lot of discussions with the client around impact of size and how the concentration of risk within the market has increased over time.

We used traditional attribution methodologies, such as Brinson methodology, to demonstrate the impact of the size and the large caps. Size bucketing methodology clearly showed that the allocation impact was having a negative contribution in terms of the relative return and underweighting large cap stocks and overweighting mid- and small-cap stocks was dragging on relative performance, but the stock selection of the managers was contributing positively.

However, if we shifted to the sector bucketing methodology, the message would become more confusing and size impact would become camouflaged within the individual sectors. For instance, it would show a negative stock selection impact within information technology, but only because very large cap companies were underweighted. Critically, it did not address the questions that client was asking:

- Are the managers picking the right stocks?
- Are they doing what they are meant to be doing in terms of sticking to the style and investment processes?
- Is the portfolio well positioned in terms of fundamentals for the long-term?

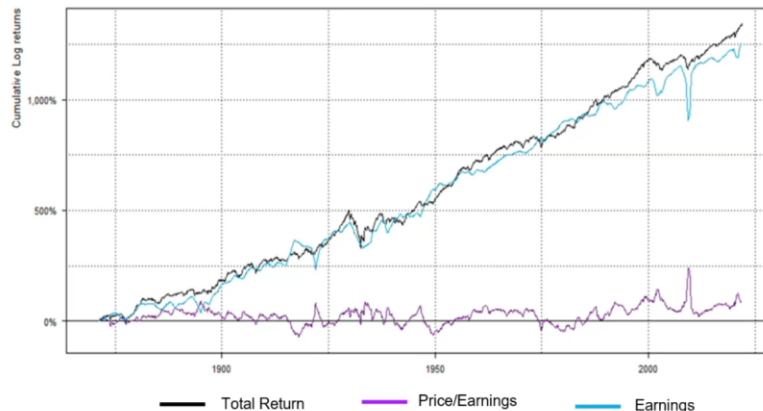## Portfolio returns dominated by company improvement over 5 years to 31 March 2022, benchmark returns less so

Past performance does not predict future returns.

Analysis of fundamentals using Price to Book as example

■ Fundamental Growth ■ Multiple Expansion

Source: http://www.econ.yale.edu/~shiller/, WTW, FactSet. Data to 31 March 2022

In the long-term share prices reflect fundamentals!

Total Return — Price/Earnings — Earnings

FRA was very helpful for us to be able to demonstrate to the client what was going on and to answer all those questions – yes, the managers are picking the right stocks that have got solid fundamentals based on their own investment processes, but the market hasn't currently acknowledged the strength of those fundamentals in the current market environment.

We were able to take the top-down view of the portfolio and clearly see that the portfolio is predominantly backed up by improvements in fundamentals, which as the chart above shows, deliver long-term returns. Whereas if you look at the return of the benchmark, a large portion of that is just a result of multiple expansion, which is over the long term doesn't add value.
So, using the FRA framework enabled the client to take a longer-term view of the portfolio and reassure themselves around the strength of the fundamentals of the portfolio itself, the skills of the managers they have and to re-focus their attention on the important topics of the long-term investment.

Discussion

- *Which measurements do you consider when defining which stocks have good fundamentals and which ones haven't?*
  The framework doesn't define a particular set of fundamentals that should be used, so a wide variety of metrics could be used. We have tested generally recognised accounting metrics such as book value and sales in different types of strategies and processes and they have proved to be very robust. Earnings and cashflow are also interesting, but you must make sure it is like-for-like comparison, especially in the multi-manager context.
  However, you can also use other metrics that are specific to a particular manager. In this case, you won't be able to compare across managers, but it would give better insight into that particular manager.
- *Where does the fundamental data come from?*
  We have written the paper and open-sourced a computer code that will do all the calculations and run that for you to make adopting FRA framework as easy as possible. We hope it makes it easier for organisations to test its usefulness before they code it themselves.
- *Have you managed to find any evidence that skill in picking fundamental improvements is predictive of future outperformance?*

The performance is what it is at a particular time. This attribution won't be a significant factor in good or bad performance. However, having an insight that your poor performance in the last quarter is more of a noisy statistic and therefore the likelihood of better performance in the next period or expecting a downside in the next period can be helpful in the accountability context.

Measuring past performance provides validation of the management's ability to do well relative to benchmark, but also it has a certain amount of significance for the future, because it gives you decision-useful information. We believe that you get a better quality information from the growth and activity statistic than from a multiple expansion or contraction. So, the framework provides a valuable upgrade in decision usefulness of the information we measure.

- *Are you suggesting that the manager skill with regards to multiple expansion can't be as reliable in the long-term?*
  You can't expect multiple expansion driven performance to repeat in the next period, because that would be based on the multiple expansion to go further out of kilter, while in reality it is ultimately always going to come back towards its long-term average. Therefore, performance coming from a multiple expansion is not as repeatable as performance coming from growth or superior activity.

- *Can FRA framework be used in the fixed-income area?*
  Conceptually, we have spoken to a few managers about it. In terms of practical application, so far we have concentrated on applying the framework in the equity-style investment (listed equity, private equity, infrastructure, etc). Application in the fixed-income and credit is more complicated. Potentially, you might be able to look at *coupon* as being an equivalent to sales or book value, but you might have to control for more criteria such as duration targets. We have yet to look at it in detail.

- The idea of the balanced scorecard is an interesting and useful addition – more and more we are observing and tracking a lot of sustainability data points in addition to financial metrics. So you might have a manager that underperformed, but it has done a lot of positive in the sustainability dimension and it's important to factor that in or vice versa, where a manager had performed well, but completely ignored the sustainability elements of our mandates. Balanced scorecard also introduce the idea of multiple targets (not just financial performance targets) and add up soft and hard data in a joined-up way through creating a process where not just outputs, but inputs also matter.

- *Does WTW uses this analysis in your interactions with managers and how?*
  It is relatively early days, but we have started to use it in the equity space. Single data points are not that helpful if you haven't had the conversations around it, so the framework is very useful for the qualitative dialogue with managers. It is particularly useful across a portfolio of managers to really understand how much the performance has been driven by growth versus fundamentals versus the trading in the portfolio. Whenever we use it, we always find it additive to our standard processes.