Negative screening and performance consequences

How much is too much?

Executive summary

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Understanding the impact of exclusions

In recent years, an increasing number of investors have formed dual investment goals: maintain strong investment returns while expressing views on specific industries (such as tobacco, carbon or controversial weapons). As part of this demand, investors also want to understand the performance impact of these exclusions on their portfolio. To meet this need, we created thousands of simulated portfolios with various exclusions. Then we evaluated the performance distribution of these portfolios to identify how – and how much – negative screening can materially affect a portfolio.

Methodology and Data

To demonstrate the range of outcomes caused by exclusions, we used a bootstrap method to simulate and evaluate the impact of security exclusions on the performance of a portfolio.

What is bootstrapping?

Bootstrapping is a statistical resampling technique. It involves taking a random sample of data that is 'bootstrapped' from a larger sample. Certain scenarios/rules (or in this case, exclusions) are then applied before running analysis on that bootstrapped sample. The process is then repeated on a different bootstrapped sample – often multiple times - and conclusions are drawn.

For this research, we drew 6000 bootstrapped samples (to represent portfolios) from the MSCI World Index. We then obtained the monthly holdings and returns data for each of these sample portfolios from November 1997 to November 2017, in order to help us identify which sectors could be excluded under the test environment. In this paper, we show results between 2008 – 2017.

Assessing the impact of exclusions at differing percentage levels

Exclusion sizes amounting to approximately 1%, 2%, 3%, 4%, 5%, 7.5% and 10% of the sample portfolios were randomly selected. We then ran these exclusions on 6000 'portfolios' to examine the impact on excess return and tracking error. By comparing the impact of exclusions at different percentage levels, we can assess at what level the exclusions start to detract from portfolio performance.

Research paper available

Results for 1997-2007 can be found in the research paper, Ross, L., Ouyang, M. (2018). "Negative screening and performance consequences." *Russell Investments Research.*

Percentage levels: Real-world application

To provide some practical context, in the table below we have mapped out a selection of percentages with various sector exclusion equivalents.

Exhibit 1: Sector exclusion equivalents

EXCLUSION PERCENTAGES (TEST ENVIRONMENT)	EXCLUSION EQUIVALENT (REAL-WORLD GLOBAL INDEX APPLICATION)
1%	Roughly the level of a standalone exclusion of tobacco, a modest carbon reduction in relative carbon footprint (25%) or a controversial weapons exclusion, for example.
3-4%	Equates to a total exclusion that combines both tobacco and controversial weapons, or a standalone exclusion of 50% carbon footprint reduction, for example.
5%	Similar to (or in excess of) an aggressive total exclusion consisting of tobacco plus controversial weapons plus relative carbon footprint, for example.

Results: Exclusions do not impact long term return expectations

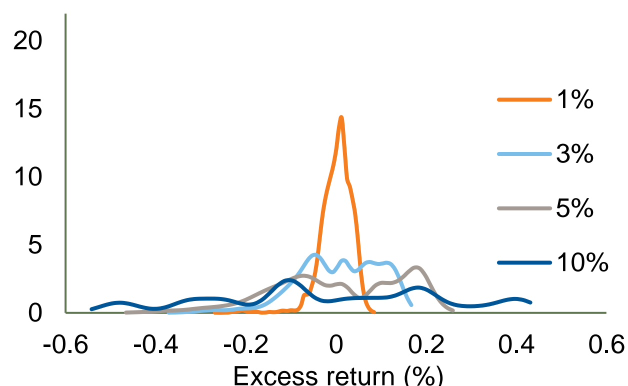
Impact of negative screening: Excess return and tracking error

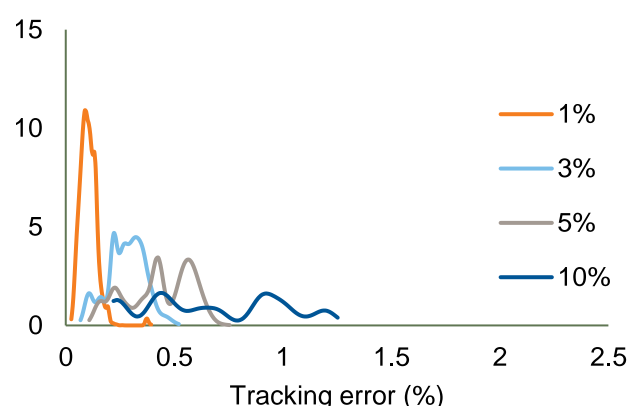
Across all of our simulations, we found that exclusions do not impact long-term return expectations. Larger exclusion sizes, however, may influence short-term return patterns materially. Long-term return expectations are material considerations for fiduciaries and investors considering portfolio exclusions. However, the reality is that month-to-month return differences can cause anxiety and erode confidence.

- We found that excluding 1% of the index should not have a material impact on portfolio returns as excess returns and tracking error remained at a manageable level
- As we begin to move on to more moderate exclusions of 3% and 4%, tracking error increases significantly. In this case, additional management of sector and other exposures becomes more critical.
- If we create a significant exclusion of more than 5%, additional sophistication in managing exposures is required. At this point, return expectations and tracking error become unreliable and unpredictable.

We conclude that simple measures to manage exposures can materially improve portfolio performance when security exclusions are imposed on a portfolio. These simple measures buy the investor an additional 1-2% exclusions before tracking errors become more of an issue. However, moving past 5% exclusions becomes very unpredictable.

Exhibit 2: Distribution of excess return and tracking error





Conclusions

We can see clearly from our analysis that exclusions do not impact long-term return expectations. They may, however, impact:

- Tracking error
- Short-term performance expectations
- Active manager value-add.

How much is too much?

Overall, this research quantifies our intuition, as well as many other industry participants' – the larger the exclusion size, the more that portfolio returns and tracking error deviate, unless exposures are managed sophisticatedly.

These results are extremely useful for investors who want to assess what exclusions mean for their portfolio, and the expected impact they could have on performance. It puts some sensible limits on just how much a portfolio can be restricted.

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