Sustainable and Smart Beta
Both are here to stay, why not take advantage?

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Smart Beta and ESG Investing have earned their respective places in the asset management landscape. While stemming from different investment philosophies, those two commercial successes need not work at cross purposes. Would an approach combining the two be a worthy addition, beyond its marketing appeal?
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The fact is ESG investing and Smart Beta are not just commercial successes, nor mere happenstance. Both result from a broad evolution of the financial industry towards increased transparency and accountability. This dual demand could surely be attributed to defensive reactions specific to current financial markets but can also be considered from the larger standpoint of changing service expectations in any industry: accessibility, comparability, personalization and the possibility to give a feedback.

Smart Beta is but the transfer of a know-how previously kept in the active management industry to the front row of indexed investments. By disclosing the methodology and the details of their investments, the portfolio managers are not only giving away data, they are also empowering the end investors to challenge their process and their implementation. This provides in turn a rich toolbox of allocation techniques and experience that can be leveraged upon to address specific needs.

The drivers of ESG investing are abundant. Heightened company accountability comes first in the form of correcting the information asymmetry through richer reporting, which then leads to higher shareholder involvement by way of proxy voting. On another note, the growth of ESG had been accompanied by the rise of investments tailored to different beliefs or themes, outside of the pure financial scope. Finally, analysts at large have discovered or rediscovered that non-financial data matter for the homo economicus and that the forthcoming global challenges warranted a more comprehensive framework.

Though they may have much in common in terms of their motivations, ESG and Smart Beta have matured into very distinct disciplines. This historical separation between both approaches creates all the more possibilities and value to what can be achieved by their combinations, if it can be achieved. A taxonomy of all possible interactions would be of scholarly interest, but for now it suffices to consider the most straightforward case: applying smart beta techniques to a selection of companies according to ESG criteria.
The idea of applying an ESG screening comes naturally as we have seen the advent of “values investors” alongside the economic minded “value investor”. As these values or beliefs cannot be compromised with, it clarifies the portfolio construction that they should be dealt early on in the process to mark their priority. Thematic investing, another ESG discipline, can also be considered along those lines: the theme prevails. It is also a prudent first step to account for the non-financial data input separately, as long as the trade-off between the utility that can be derived from them and from financial data is not clearly defined.

On the other hand, Smart Beta managers are familiar with offering their methodologies on various investment universes, or applying their processes to customer-defined selections for investment mandates. Because Smart Beta as a whole exploits stylized facts about financial markets, it can be expected to operate whenever the market segment in consideration displays those same characteristics in terms of risk and factor exposures. The proliferation of geographically segmented products results from this easy transposition of concepts.

As an illustration, we will check for the presence of these facts after an ESG screening has been performed to assess beforehand the suitability of applying directly allocation techniques. We then perform these allocations to confirm their effects. Our numerical application considers the largest US companies from 2009 (when ESG data are available) to 2016. As for the actual selection, we consider a process that combines ethical screening with a positive “best in class” screening: this approach can be considered as a consensus approach for European investors. Removing companies subject to severe controversies aligns the portfolio away from averred contestable behavior and towards responsible management values. The best in class approach adopts a long term view by rewarding companies which are leading their peer group in terms of policies and strategies, as measured by their respective E, S and G scores.

Our first concern will be checking whether the screening we have defined does not deprive completely our investment pool from sectors or segment of the market. Preserving the economic mesh is the most efficient way of keeping intuitions about the structure of the market, risks and diversification intact. This is exactly what the best in class construction does: by implementing the selection group within groups of similar companies, we make sure that all groups are represented in our final selections, thus keeping the economic structure intact. As an illustration, we provide a comparison of the best in class approach with a selection that is performed on the ESG scores but irrespective of the peer groups. As shown in Figure 2, we see that the Best-in-class approach will remove 30% of the Financial sector, while an absolute approach would halve its weight.

![Figure 1: Screening process for Smart Beta allocation of investments](image)
Indeed, different industries have different structural ESG scores. Their business might entail different exposure to environmental and social issues, and some may be further down the line of ESG alignment. An absolute filter would have induced then a clear ESG bias towards specific sectors.

Additional tests yield results supporting the compatibility of the two approaches. For instance, the exposures to risk-factors (Fama-French) are not altered with any statistical significance. While the very best in each class tend to be the least volatile, the proposed screening process as a whole, does not act like a volatility screening. Company size however is affected, with favoritism towards the largest companies.

To conclude our experiment, we implement an array of Smart Beta strategies with or without performing the ESG screening (simulations go back to 2009).

Those preliminary results confirm Smart Beta allocations can provide similar improvements and the same diversity of risk profile to an ESG investor (Figure 3). Reversing the point of view, Smart Beta converts are also able to carry on with their investment methodology while taking on supplementary sustainability objectives (Figure 4).

Beyond compatibility, the value of a dual approach will arise where there can be synergies. Finding these will depend on the particular objective of the investment process. Naturally, risk based smart beta allocation will be well complemented by the extra financial exposure assessment that an ESG analysis can provide. Fundamental based allocation can also benefit from these new valuation drivers, as an example, there is such a thing as carbon risk, how regulation will affect the industry, how it will impact analysts' forecasts. Uncovering and using those complementarities is what will make smart beta sustainable.
To the point:

- Smart Beta and ESG investing are two facets of larger evolution in investor demand.
- A simple combination of the two - screening via ESG, allocating via Smart Beta - can satisfy both approaches.
- Using a Best in Class process, we verify the value of this mixed technique:
  - ESG investors gain access to a range of risk/return profiles without overlooking their core values.
  - Smart Beta investors can carry over their strategy of choice within the ESG space.
- Beyond the simple combinations, synergies exist, particularly for risk management.
- Other similar synergies are likely to emerge for existing strategies or through specific products as the state of the art progresses.

Figure 3: Risk-Return Profile
Smart beta strategies without ESG screening

- EW: Equal Weight, assigning the same weight irrespectively of the market capitalization.
- DI: Diversity Weighted, reduce market capitalization differences while preserving the relative order.
- RP: Risk Parity, weighting by the inverse of volatility.
- LV: Low Volatility, selecting the least volatile and weighting them by their inverse volatility.
- MM: Minimum Variance, finding the portfolio targeting the lowest possible variance.
- RE: Risk Efficient, aiming at the reduction of downside volatility.
- DV: Dividend Weighted, selecting companies with the largest dividend payout.
- MD: Maximum Diversification, finding the portfolio maximizing the ratio of asset weighted volatilities over the volatility of the portfolio.

Figure 4: Impact of the ESG screening on smart beta strategies

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Source: Period Nov 2009 - May 2016, Source: Datastream, Solactive, Sustainalytics Computation: Ossiam