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ESG investing and the popularity asset pricing model



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LIKE many topics that inspire passion and thoughtful debate, environmental, social and governance (ESG) investing is complex and multifaceted. Unfortunately, at least in the US, ESG investing has become politicised, which makes nuanced perspectives and analysis increasingly difficult.

If only there was an economic theory we could leverage to rise above the binary, politicised landscape, that would help us understand the different impacts of ESG analysis on risk and expected return and how such considerations should or should not influence portfolio construction for different investors.

Fortunately, we do have such a theory: the popularity asset pricing model (PAPM).

Most finance and investment professionals know about the capital asset pricing model (CAPM) as well as Harry Markowitz's mean-variance optimisation. But knowledge of PAPM is much more limited.

In CAPM, every investor formulates the investment problem in Markowitz's mean-variance frame-

work. By assumption, markets are perfectly efficient and all investors "agree" on the risk and expected returns of all assets. Thus, everyone arrives at the same efficient frontier and the same Sharpe-maximising market portfolio, which is then leveraged or unleveraged based on risk tolerance.

Mean-variance optimisation becomes unnecessary, and investors have no other "tastes" beyond their risk tolerance, which leads to different levels of leverage.

Empirically, there are numerous anomalies in which realised long-term average returns differ from the expected returns from CAPM. Eugene Fama and Kenneth French, in particular, have proposed various hidden risk factors to explain departures from CAPM. Their paper, *Disagreement, Tastes, and Asset Prices*, marks a shift in their perspective. They describe "disagreement" and "tastes" as the two missing ingredients from CAPM that affect asset prices.

Disagreement is the notion that people have different capital market expectations, and tastes are the investor's individual preferences beyond risk tolerance for various attributes and characteristics.

A combined approach

PAPM incorporates both ingredients in a generalised equilibrium asset pricing model. Each investor solves a mean-variance optimisation problem based on their capital market expectations, which include an additional term that cap-

tures how much utility the investor derives from a portfolio that tilts towards their preferred characteristics and away from those they dislike.

At the same time, that term allows for any magnitude of like and dislike. For example, an investor may be somewhat fond of green energy but hate handguns. If enough investors have a strong positive or negative feeling about a characteristic, it impacts asset prices. Over long periods and in line with PAPM, many CAPM anomalies indicate that a return premium may accrue to the shunned characteristic.

Under PAPM, individual investors may all have unique views on how ESG characteristics or sub-ESG characteristics influence expected risk and return. They may also have different tastes as to the characteristics they want reflected in their portfolio. Likewise, they may view almost any given characteristic from a pecuniary and non-pecuniary perspective.

For example, genetically modified organisms (GMOs) evoke a range of views from investors. From a pecuniary perspective, some may believe that demand and price for GMOs will increase or decrease and, as a result, future returns will be better or worse than the market.

From a non-pecuniary perspective, some investors may prefer investing in companies that produce GMOs because they believe it will help feed humanity and end world



PAPM considers different capital market expectations and individual preferences beyond risk tolerance.

ILLUSTRATION:
PIXABAY

hunger. Others may want to avoid such companies because they fear GMOs could threaten biodiversity.

Such views and preferences may or may not be mutually exclusive and at times may defy expectations. One investor may believe that demand and prices for GMO products will fall but still think that fighting world hunger is a worthy cause. Another investor may expect price and demand to rise but feel that it is a small price to pay to prevent GMOs from potentially harming the environment.

Reflecting reality

Investors are complex. As practitioners, we should seek out foundational theories and models that reflect reality and that have fewer and less restrictive assumptions.

True believers of ESG may think that ESG investing can save the world and improve a portfolio's expected risk and return. ESG sceptics, on the other hand, may feel that taking ESG considerations into

account in investing decisions should be illegal. Both perspectives are flawed. The expectation that selecting only investments with high ESG scores will lead to superior returns is just as wrong-headed as restricting the use of pecuniary ESG information in investment analysis and portfolio construction.

After all, investors who ignore pecuniary ESG considerations operate at an informational disadvantage and are likely to underperform. So, too, are those who only invest in securities with good ESG scores for non-pecuniary reasons or who avoid such securities for non-pecuniary reasons. On the other hand, investors who consider pecuniary ESG factors and ignore non-pecuniary ones are likely to overperform.

Investors who apply pecuniary ESG considerations and have non-pecuniary tastes are likely to underperform, yet from a PAPM perspective, they should own personalised, utility-maximising portfo-

lios. For those without tastes or strong pecuniary views, that "personalised" portfolio will often be a passive, low-cost portfolio.

Therefore, individual investors and those that serve them should build personalised portfolios that reflect their views and preferences to the degree that they have them.

As for institutional portfolios, those who manage public pension plans or other large portfolios that serve diverse groups of people should not limit the investment universe based on their personal preferences. This is especially true when those whom the portfolio serves have no other choice.

To the degree that any pecuniary factor, ESG or otherwise, may influence risk and return, stewards of public capital should consider all applicable information and should not be restricted from using applicable pecuniary ESG information. This could include seeking to take advantage of the impact of tastes by purchasing unpopular assets and avoiding overly popular ones.

PAPM moves us beyond broad strokes and divisive rhetoric by explaining how disagreement and tastes influence personalised portfolio construction and, ultimately, equilibrium asset prices. It allows for a world of different views and preferences and provides a practical framework anchored in a theory to navigate that world.

When it comes to ESG investing, we have to agree that we don't all agree.

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