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Do socially (ir)responsible investments pay? New evidence from international ESG data

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ABSTRACT

Using a new dataset of environmental, social and corporate governance (ESG) company ratings and state-of-the-art statistical methodology, this article analyses the performance of socially (ir)responsible investments in the Asia-Pacific region, the United States and Europe. By implementing a variety of portfolio screens on the industry level, our analysis provides the following insights. First, regardless of geographic region, industry or ESG criterion, active selection of high- or low-rated stocks does not provide superior risk-adjusted performance in comparison to passive stock market investments. Second, in the Asia-Pacific region and in the United States, investors concentrating on ethical utility derived from their portfolio choice can follow an ESG-based investment style and still obtain a performance similar to the broad market. However, depending on the industry focus and the ESG criterion that is used, investors in Europe tend to pay a price for socially responsible investing. Third, our results are robust along several dimensions, such as the employed portfolio cut-off rate, the time frame or the consideration of transaction costs.

1. Introduction

Over the past decade, socially responsible investment (SRI) has become a major trend in the mutual fund industry and a key topic in financial research all around the world.[1] SRI can be broadly defined as an investment process that involves identifying companies with high corporate social responsibility (CSR) profiles where the latter are evaluated on the basis of environmental, social and corporate governance (ESG) criteria (see Renneboog, Ter Horst, & Zhang, 2008a). It implies that investors do not primarily wish to derive financial utility from their investment decisions but also strive for non-financial utility resulting from holding portfolios that are consistent with personal and societal values (see Bollen, 2007).

While the issue of non-financial utility is undisputed, there is a still ongoing debate on the potential economic viability of SRI. In this respect, the literature reveals three opposing views (see Preston & O'Bannon, 1997; Sauer, 1997). The 'doing good while doing well' view indicates a positive relationship between social and financial performance and suggests superior returns from choosing high-rated stocks. It can be observed if the so-called 'available fund hypothesis' or the 'good management hypothesis' hold. While the former argues that high corporate financial performance yields slack resources enabling firms to invest in socially responsible activities (see Eichholtz, Kok, & Yonder, 2012), the latter implies that meeting the requirements of major stakeholders by ensuring, for example, product enhancement or job security, can lead to higher financial performance as a result of continued business or firm loyalty (see Cornell & Shapiro, 1987; McGuire, Sundgren, & Schneeweis, 1988). The 'doing good but not well' point of view suggests a negative relationship that is linked to the 'managerial opportunism hypothesis' or the 'trade-off theory'. According to the first hypothesis, managers may tend to maximise private gains in prosperous times and placate weak financial performance by increasing the shareholders' welfare through social activities (see Posner & Schmidt, 1992). The second hypothesis asserts that socially responsible activities may siphon off resources from a firm, putting it in relative disadvantage to firms that are less socially active (see Aupperle, Carroll, & Hatfield, 1985). Thus, this line of argument suggests the superiority of low-rated firms. Finally, a last perspective is that SRI neither adds nor destroys portfolio value because CSR is not priced. It resembles the standard framework of finance, where factors that are not proxies for risk do not affect expected returns and socially responsible investors do not reduce

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[1] According to Kempf and Osthoff (2007), in the US alone, almost one out of ten dollars under professional management is invested according to socially responsible principles.

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the relative cost of capital to socially responsible companies by favouring their stocks (see Hamilton, Jo, & Statman, 1993).

Research on the financial benefits of SRI mainly concentrates on comparing the performance of socially responsible mutual funds to the performance of unrestricted benchmark portfolios or conventional funds (see Renneboog et al., 2008a, for a review of this vast literature). The overall findings of these studies covering most markets of the world suggest that the risk-adjusted returns for investing in SRI funds do not appear to be significantly different from conventional fund returns.[2] That is, there seems to be no performance advantage (or disadvantage) in selecting SRI funds. However, these results should be handled with care because the evaluation of SRI performance on a fund level has several major drawbacks. First, recent evidence indicates that funds classified as SRI funds considerably change their social responsibility status over time because fund managers tend to modify the holdings not only with increases or decreases of social responsibility on the company level but also in response to changes in other criteria or turbulences in the market (see Wimmer, 2013). SRI funds gradually converge to conventional funds. Thus, an SRI label does not ensure that a fund actually follows pure SRI principles. Second, a number of confounding effects make it difficult to rely upon differences in mutual fund performance to establish the impact of social responsibility screens (see Kempf & Osthoff, 2007; Sauer, 1997). For example, fund performance does not merely reflect the returns of the underlying securities, but rather, also reflects differences in management fees which can vary widely across fund families and investment objectives. Third, most studies rely on funds' alphas to measure their risk-adjusted performance. This is problematic for several reasons. The first reason is that Jensen's alpha is an appropriate measure of portfolio performance for investors that are well diversified and, therefore, are primarily concerned with their exposure to market (systematic) risk (see Eling & Schuhmacher, 2007). However, if SRI screens restrict the investment universe, investors may inadvertently subject themselves to otherwise diversifiable (unsystematic) risk. In this case, it is more reasonable to use a performance measure based on total risk, rather than market risk (see Sauer, 1997). In addition, the use of alternative alphas derived from traditional multifactor models such as those suggested by Fama and French (1993) and Carhart (1997) is still under debate in the finance literature. This is because of a lack of consensus on the appropriate kind and number of model factors (see Capocci & Hübner, 2004) and certain data snooping biases (see Lo & MacKinlay, 1990). Finally, statistical inference for the obtained alpha estimates is usually conducted using standard procedures that are based on asymptotic normality, even though, the normality-condition is not fulfilled in typical empirical sample sizes (see Henry, 2002; Poon & Taylor, 1992). Thus, comparing alphas of SRI and non-SRI portfolios may not be a a fully suitable methodology to analyse the impact of SRI on investment performance or at least has to be handled with care.

A smaller strand of the literature deals with specifically constructing SRI portfolios in order to evaluate the advantages of social responsibility screens (see Derwall, Koedijk, & Ter Horst, 2011, for a brief review of the literature). However, the most influential of those studies also have some limitations. First, they primarily use alternative alphas to evaluate investment performance. Second, they concentrate mostly on one dimension of social responsibility (e.g. the eco-efficiency or the directors' board decomposition) or one geographic region (e.g. the United States or Europe) and use different ways to quantify CSR. Thus, their results are not strictly comparable. Third, the subject of corporate governance is usually not covered in studies that analyse more than one dimension of social responsibility. Fourth, especially in the European case, most studies suffer from very limited sample sizes. Finally, the studies tend to yield contrary results. While, for example, Derwall, Guenster, Bauer, and Koedijk (2005), Kempf and Osthoff (2007) and Edmans (2011) confirm superior performance of certain socially responsible screens, Brammer, Brooks, and Pavelin (2006) and Hong and Kacperczyk (2009) find evidence of negative performance. In other words, the latter studies show higher performance for portfolios of socially least desirable stocks.

The goal of this article is to gain further insights into the impact of social responsibility screens on investment performance. Without being subject to the drawbacks of previous studies, this article makes the following main contributions. First, we analyse SRI on a global scale by not focussing only on the United States and Europe but also taking into account the Asia-Pacific region that has been underanalysed so far. Comparing different parts of the world is of interest because even if the CSR ratings of two companies are identical, the corresponding socially responsible activities may lead to diverse outcomes if the environment (i.e., culture, legal restrictions) are different. Second, we are the first international study to quantify CSR by ESG scores provided by the rating agency Sustainalytics. As they are constructed by rigorous standards, they allow a comparison between geographic regions. Third, we not only analyse ESG scores and geographic regions on an aggregate level. We also consider the three dimensions of corporate social responsibility (E, S and G) separately. Furthermore, we are the first to subdivide our stock sample into industries in order to see whether there are different patterns of SRI performance depending on the industry focus of an SRI strategy. Fourth, we leave the boundaries of an alpha-based performance evaluation by applying the Sharpe ratio.[3] This simple and most frequently used reward-to-risk ratio measures the average premium per unit of total risk and therefore is adequate for less than well diversified investors.[4] It has a decision-theoretic foundation under a wide range of (skewed and fat-tailed) non-normal distributions (see Schuhmacher & Eling, 2011, 2012) and the significance of performance differences can be tested using state-of-the-art bootstrap methods that are robust to typical features of financial time series like non-normality and serial correlation (see Ledoit & Wolf, 2008). Fifth, we analyse the robustness of our results along several dimensions. We study the effects of different cut-off rates in our portfolio screens. We then analyse portfolio performance over time. We perform some final checks regarding the application of alternative alphas, the specification of our testing procedure, our portfolio construction, the preparation of the dataset, the choice of risk-free rate and the consideration of transaction costs.

There are basically two types of socially responsible investors (see Derwall et al., 2011): 'Value-driven investors' (VDI) are concerned merely with the non-financial utility they derive from the SRI attribute (a high ESG rating) of their investment and are willing to accept a loss in financial performance in exchange for that. They can invest in any region and industry covered by our study because there is a sufficient number of high-rated companies to choose from. 'Responsible profit-seekers' (RPS) wish to concentrate on high-rated companies but also gain financial profits from their portfolio choice. They would not invest in regions or industries, where SRI does not provide financial benefits. Besides those

[2] For the exceptions of France, Ireland, Sweden, and Japan, Renneboog, Ter Horst, and Zhang (2008b) show that SRI can lead to significant underperformance.

[3] Several recent studies evaluate the performance of investment strategies without resorting to alphas (see, for example, Hatgioannides & Mesomeris, 2007; Szakmary, Shen, & Sharma, 2010; Yao, 2012). However, note that, for completeness, we also apply a standard alpha approach in a robustness check in Section 4.2.

[4] Note that the Sharpe ratio (and alpha) has the theoretical disadvantage that it can be manipulated technically (see Goetzmann, Ingersoll, Spiegel, & Welch, 2007; Schuster & Auer, 2012). However, this is not problematic in our application because our portfolio construction is not subject to such manipulation.