
PRACTITIONER'S DIGEST

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ESG, INVESTING, AND CORPORATE FINANCE: SOME BASIC QUESTIONS PAGE 5

Bradford Cornell

Recently, the enthusiasm for ESG has called into question the standard view of finance theory that the goal of a company is to maximize shareholder wealth. A statement published by the Business Roundtable (2019), and signed by CEOs major companies, announced that “*While each of our individual companies serves its own corporate purpose, we share a fundamental commitment to all of our stakeholders.*” It has even been said that not only is ESG investing socially beneficial, it is also associated with greater returns as evidenced by the recent stock price performance of companies like Tesla.

This paper pushes back on three fronts. First, I argue that short-run investor returns associated with a growing preference for highly rated ESG stocks must be distinguished from long-run expected returns. I suggest that in the long run investor preferences for highly rated ESG stocks will lead to lower returns in equilibrium.

Second, I note that maximizing shareholder value need not be inconsistent with ESG objectives. A firm cannot maximize shareholder value if it does not treat its stakeholders well and take account of its impact on the environment.

Finally, I agree with Milton Friedman that even if social and environmental goals are laudable, that does not mean that pursuit of them should be turned over to corporate executives. In a democratic society, decisions regarding what social goals to pursue and what taxes to collect to finance the pursuit cannot be delegated to corporate managers. They have neither the standing nor the requisite training and information to act as public officials. Managers are best off running their companies as efficiently as possible on behalf of their shareholders and leaving public policy to elected officials.

**SUSTAINABLE INVESTING FROM A PRACTITIONER'S VIEWPOINT:
WHAT'S IN YOUR ESG PORTFOLIO?****PAGE 14***Jeffrey R. Bohn, Lisa R. Goldberg and Simge Ulucam*

Many popular ESG indices and ESG strategies pursued by large institutional investors use—often complicated—divestment strategies. Divestment is a common pressure tactic to achieve social goals; however, it comes at a cost. Investors might miss out on returns of potentially profitable companies. Absent optimization, divestment introduces a large-cap bias from cap-weighting the remaining securities. Several optimization techniques attempt to hedge the risks associated with divestments. But these may come with the caveat of a substantial correlation bias resulting in unintended factor risk exposures. Moreover, existing ESG metrics continue to be inconsistent and do not always measure what they purport to measure. Thus, a simple application of ESG ratings to build ESG portfolios is more complicated than it appears.

Divestment and its implications have not been extensively analyzed in the literature from the perspective of a transparent assessment of the consequences of ESG-focused portfolio construction. One of these consequences is the regular misalignment of ESG objectives and actual risk exposure. That is, a particular ESG portfolio often takes unintended risks and may not even align with the original ESG objective. Disentangling the risk exposures and understanding the underlying drivers of ESG portfolio outcomes contribute to more effective approaches to addressing ESG portfolio construction complexity.

SUSTAINABLE ALPHA IN SOVEREIGN AND CORPORATE BONDS**PAGE 30***Karishma Kaul, Katharina Schwaiger, Muling Si and Andrew Ang*

The authors construct fixed income portfolios for sovereign bonds and corporate bonds with sustainable insights. The first section shows how to account for environmental considerations in sovereign allocations to be a Paris Aligned Benchmark (PAB), in line with the recommendations set by the European Union Technical Expert Group (EU TEG). The sovereign climate tilts can be dialed up or down according to investors' risk preferences and overlaid on any benchmark, tilting towards sovereigns more prepared with the climate transition and away from those which are less prepared. The tilts also reduce sovereign carbon emissions in line with the Paris Agreement.

In the second section, the authors investigate three sustainable signals that predict excess returns for corporate bonds. The first signal is based on maximizing exposures to ESG scores of corporations scored across various rating and sector buckets. The second accounts for the impact of carbon intensity on credit spreads and the third examines forward-looking climate transition metrics. For the last, we identify firms that are pro-actively reducing carbon emissions through the issuance of green bonds or that have made Science Based Targets initiative (SBTi) commitments. These signals show how Environmental, Social, and Governance (ESG) insights can be used to predict returns based on the sensibility of ESG flows, carbon emissions, and forward-looking transition readiness. The corporate signals can be combined to create a standalone ESG strategy, which can benefit bond portfolios focused on ESG and climate change. Alternatively, these signals can be incorporated into existing strategies based on traditional credit analysis.

FINANCING VACCINES FOR GLOBAL HEALTH SECURITY**PAGE 51**

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The risks of emerging infectious diseases (EIDs) are inherently dynamic and largely unpredictable, as the COVID-19 pandemic has amply illustrated, and government leaders face formidable decisions about the provision of health security measures against these threats. Policymakers must necessarily prioritize their readiness efforts based on limited knowledge. However, all too often they are forced to choose between priorities, and construct so-called limited lists of treatments, using testimony from teams of experts to inform these decisions. As recent history has shown, this approach leaves society vulnerable to unforeseen outbreaks. Therefore, a more rational approach is to develop a broad portfolio of vaccines in a coordinated manner and stockpile them *before* they are needed, mitigating the future risk posed by unpredictable outbreaks of these diseases.

However, prior to the COVID-19 pandemic, an increasing number of biotech and pharmaceutical companies had abandoned the vaccines business, citing declining and uncertain revenues due to the unwillingness of governments and investors to fund vaccine development in the absence of a clear and present need. Although seasonal flu vaccines are quite profitable because there is fairly steady demand from year to year, vaccines for less common but more deadly diseases such as Chikungunya, Ebola, SARS, and Zika are not nearly as financially rewarding.

But the economics of the vaccines industry has changed completely since the COVID-19 pandemic and the successful development of vaccines by Moderna, Pfizer/BioNTech, Johnson & Johnson, and others. These changes include both scientific/medical innovations (e.g., mRNA vaccine technology), unprecedented coordination and collaboration among multiple stakeholder communities, and greater willingness of governments and investors to address the threat of EIDs in the wake of COVID-19's enormous toll on lives and livelihoods. To understand the full extent of this seismic shift in the vaccine business, and to develop the most effective policies to respond to this shift, it is necessary to explore the financial incentives involved in vaccine development prior to the pandemic. This is the goal of our article.

In this study, we examine the pre-pandemic economic feasibility of developing and supporting a portfolio of vaccines for the world's most threatening EIDs as determined by scientific experts, drawing from the list of targets made by the recently launched global initiative, the Coalition for Epidemic Preparedness Innovations (CEPI). Previous research has demonstrated that a novel 'megafund' financing strategy is capable of generating returns that could attract untapped financial resources to fund the development of a portfolio of drug development programs. We address this possibility by simulating the financial performance of a hypothetical megafund portfolio of 141 preclinical EID vaccine development programs across 9 different EIDs for which there is currently no approved prophylactic vaccine.

Under pre-pandemic business conditions and pricing structures, we conclude that a private sector solution for the comprehensive development of EID vaccines is not yet feasible. We quantify the gap so as to inform current policy discussions regarding the need for public-sector intervention. Specifically,

using industry-standard assumptions for vaccine development costs, pricing, and expected potential revenues given outbreak estimates in the extant literature, a portfolio of CEPI vaccine candidates yielded a simulated expected return of -61% with a standard deviation of 4.0% . Combining this vaccine portfolio with an otherwise profitable small-cap pharma, mid-tier pharma, or top-10 pharma company yields similar results, turning expected profits into losses.

The only cases in which our simulations are able to produce positive expected returns are: (1) if we raise the prices of vaccines by two orders of magnitude, charging tens of thousands of dollars per dose rather than hundreds of dollars; or (2) creating a subscription model for vaccines in which governments around the world pay annual fees in proportion to their population to fund the development and stockpiling of vaccines in anticipation of outbreaks

However, these conclusions are based on pre-pandemic assumptions for the parameters of our simulations. Although it is too early to determine how to change those assumptions to reflect the innovations we have witnessed over the recent past, there is reason to be optimistic, and we conclude with a discussion of how new policies and novel financial structures can greatly increase the chances of avoiding future pandemics