2

SUSTAINABLE FINANCE

Building a more general theory of finance

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John Maynard Keynes titled his best known work *The General Theory of Employment, Interest, and Money* because he believed he had developed a *general* theory that could explain macroeconomic cycles while relying upon fewer restrictive assumptions than the Classical economists. He argued that the generally accepted framework developed by the Classicals was merely a *special case*—that is, it was applicable only to a fully employed macroeconomy—due to its simplifying assumptions that essentially assumed away the possibility of aggregate demand-led, prolonged recessions such as the Great Depression.

This chapter argues that sustainable finance has the potential to contribute similarly to a more general theory of finance. Traditional financial theory is based upon restrictive assumptions regarding values and investment outcomes, limiting both to financial gains/losses and their risks. sustainable finance instead recognizes both a greater range of potential values—including financial return, risk aversion, altruism for current and future generations, and concern for ecological resilience—and a larger potential set of returns or losses, both financial and otherwise.

Because the *general theory* framework has fewer restrictive assumptions and broader applicability, it is a more appropriate starting point for analysis. It is counterproductive to use a theory of macroeconomics that largely ignores the possibility of financial crises and large macroeconomic downturns to understand a world in which such events have repeatedly happened. It is similarly backward to begin financial analysis with traditional financial theory when it is known that financial gains and losses are necessarily intertwined with human values beyond financial returns, resilience of ecological systems, and the well-being of others within and beyond the current generation. To that end, this chapter discusses several potential components of a new theory of sustainable finance that are building blocks for a more general theory of finance.

Sustainable finance, blended values, and blended returns

Muhammad Yunus (2008) writes that an important problem with traditional economic theory is its view that individuals are purely self-interested when it is quite evident that an individual in fact is driven by a blend of self-interest and altruism. For more than two decades, Jed Emerson (e.g., Emerson, 2003) has preached the concept of "blended value," which recognizes that no

company or organization is purely "good" or "bad" but rather generates a "blend" of social, environmental, and financial returns (which can be positive or negative). A world in which investors have a blend of altruistic and self-interested values, and where all companies generate blended returns, should not look like the received dichotomy of investing 90 percent of one's wealth for self-interested financial return, completely divorced from philanthropic, altruistic giving of the other 10 percent. As RSF social finance's Don Shaffer put it,

> We're in the midst of a transition from a very 20th Century mentality—which can be described as a wealth now, philanthropy later way of compartmentalizing the two and getting wealthy before you can get into charitable and philanthropic activities.
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> What it seems to be transitioning into with younger generations is a blending of those two buckets—investing/wealth and philanthropy. Instead of looking at it in a compartmentalized way, they see it as a spectrum, especially when it comes to rate of return on investment. You could have plus 15 percent on the high end, and negative 100 percent on the other end—which is to give money away—and a whole range in between with a lot of territory in it.
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> *(Waggoner, 2010)*

While not new—"socially responsible investing" (hereafter SRI) dates back at least to the practice of screening out South African investments from portfolios in the 1980s due to apartheid—the current momentum for integrating environmental, social, and governance (hereafter ESG) criteria into investment decisions represents an opportunity to build investment practice *and theory* on the principles of blended values and blended returns.

Instead of the traditional investing/philanthropy dichotomy, Emerson and Freundlich (2012, p. 4) refer to a "unified investor" who invests across three broad categories to align his/her blended values with a blend of investment and impact returns:

1. Capital that is intentionally structured to generate a blend of social and financial returns, requiring a minimum of a market rate risk-adjusted financial return.
2. Capital that is structured to create a blend of social and financial returns, but accepts financial returns lower than the risk-adjusted market rate in exchange for greater social returns.
3. Capital that generates a core mission-aligned social return, but no financial return to the investor other than tax deduction value.

Unified portfolios of blended value/blended return investments can incorporate all traditional asset classes—public equities, private equity, fixed income, deposit accounts and CDs, real estate, real assets, hedge funds, philanthropy, etc. (e.g., Bridges Ventures, 2010; Emerson, 2012, p. 8; Emerson & Freundlich, 2012; Humphreys, Solomon, & Electris, 2012). Opportunities continue to emerge for still greater alignment with unified investing goals for blended values/returns, for instance in community food systems, community development, ecotourism, sustainable agriculture in developing economies, water markets, carbon markets and offsets, carbon-reducing projects (e.g., climate bonds), and conservation finance.

Practitioners are already creating new approaches to building portfolios based on blended values of their clients as a result of ESG criteria applied to traditional investments, financial instruments, and even asset classes emerging from sustainable finance, ESG-based indexes, and benchmarks. Within public equities (and often fixed income), there are two main approaches, albeit with several sub-variations:

- The exclusionary or negative screening approach of traditional SRI, where undesirable investments—fossil fuels, tobacco, industrial agriculture, national defense, companies with poor ESG ratings—are omitted either by individual investors or by fund managers (such as TIAA-CREF's Social Choice fund).
- The positive screening approach, which screens better ESG performing companies into the portfolio, either to (a) replace lower ESG performers (e.g., Humphreys et al., 2012; Kiernan, 2009), often within the same industry, in order to maintain desired diversification against a benchmark, or (b) to "tilt" the portfolio to weighting the higher ESG-rated companies higher while lower rated companies remain at lower weights, consistent with the view that no company is "all good" or "all bad," while suggesting that there remain diversification benefits to keeping the lower rated companies in the portfolio (e.g., Herman, 2010).

Both groups also engage in investor activism in an attempt to shape the behavior of companies and increasingly improve their ESG performance. Blended value investors (even the negative screeners) may maintain investments in even very low ESG performing companies in order to file shareholder resolutions or otherwise engage with management as owners. Shareholder resolutions are usually non-binding, but they can impact company policies in various ways, for example by generating public attention (even when unsuccessful) or encouraging management to negotiate to avoid such attention. These strategies further align blended returns of unified portfolios with blended values (e.g., Digitale, 2014; Emerson & Freundlich, 2012; Humphreys et al., 2012).

The strict focus on financial returns of investments and self-interest of investors is a special case of a more general theory of finance. The more general case of sustainable finance is to build a theory of unified portfolios by recognizing that (1) investors possess blended values, and that (2) every investment generates a blend of financial and non-financial returns.

Sustainable finance and financial risk

There is growing evidence that risk-adjusted returns from ESG-based investing could outperform traditional diversified portfolios. Mercer (2011b), for instance, found that in 30 of 36 studies the relationship between ESG factors and return was neutral or positive. In a much heralded and comprehensive study published by Deutsche Bank, Fulton, Kahn, and Sharpies (2012) reviewed 58 academic studies evaluating ESG-based portfolios and found that ESG factors were strongly associated with reduced cost of capital and market based or accounting-based outperformance. Edmans, Li, and Zhang (2014) reported that employee satisfaction is associated with risk-adjusted abnormally high returns in countries with flexible labor markets. Ghoul, Guedhami, Kwok, and Mishra (2012) also reported that companies with higher ratings for employee relations and environmental responsibility had lower *ex ante* implied costs of equity even after accounting for industry, asset value, market beta, and leverage. Their more recent research found evidence for lower costs of equity among higher ESG-rated firms in manufacturing industries across 30 countries (Ghoul, Guedhami, Kwok, & Mishra, 2014). Looking at market indices, Murtha and Hamilton (2012) report that the Dow Jones Sustainability World Total Return Index persistently outperformed the MSCI World Total Return Index during 2001–2010.

There are a few commonly cited explanations for why ESG investments might outperform. First, managers who manage ESG factors better may in fact be better managers. It is well known that manager quality is the key driver of business value; ESG performance could be an *ex ante* indicator of higher quality management (e.g., Herman, 2010; Kiernan, 2009). Second, the risks

and opportunities presented by ESG-related issues are seen as the future, if not current, operating environment of business in general (e.g., De Boer & van Bergen, 2012; Lubber, 2010). Consequently, ESG factors are now often viewed as material to business value and thus also to company reporting (e.g., Bonner et al., 2012; Hespenheide & Koehler, 2013). The logical outcome is increasing investor demand for greater ESG transparency and standards for mandatory reporting of ESG-related outcomes and managerial practices.

But if ESG factors that in some cases are already publicly available are related to higher risk-adjusted returns, why has the market not priced these factors in already? Leaving aside the issue of whether capital markets are efficient (in the efficient markets hypothesis sense), from the perspective of a more general theory of finance, it follows that an asset pricing model in which ESG factors have systematic properties could in fact be a better model (e.g., Jussa et al., 2013). At the same time, the majority view in capital markets (and in academic finance) continues to be that ESG factors are *not* systematic, and therefore explicitly integrating them into portfolio building results in a *reduced* reward-to-risk balance (e.g., Forbes, 2013; Kiernan, 2009). In other words, if the true or at least better model is one in which ESG factors reduce risk systematically, and if market participants on average are using an asset pricing model that does not incorporate ESG factors, then there could by definition be alpha (excess risk free return) associated with ESG-based investing (e.g., Harold, Spitzer, & Emerson, 2007).

The doubts of many investors and finance academics notwithstanding, there are many reasons to believe that ESG factors could become essential systematic factors of portfolios of the future (again, if they are not already), such as the following:

- The future interaction of climate and biodiversity-related risks/opportunities with new technologies and the extent of policy responses will form the context of investing, risks, and returns, according to Mercer (2011a). Strategic allocations among different asset classes, and among higher versus lower ESG rated within and across these asset classes, will matter in many reasonable scenarios (Mercer, 2011a).
- Some argue forcefully that even current fossil fuel reserves are "unburnable" given imminent climate legislation, which would mean that existing assets of the respective firms are grossly overvalued already based on cash flows that can reasonably be forecast from these assets (e.g., Leaton, 2014).
- Some newer ESG-related asset classes—such as sustainable agriculture or Social Impact Bonds—could have low correlations with traditional investments and thus could provide benefits to diversification (e.g., Barby & Pedersen, 2014; McGrath & Lai, 2014).
- ESG ratings have been found to be related to lower cost of debt among publicly held corporations (e.g., Principles for Responsible Investment, 2013), while anecdotal evidence suggests that ESG ratings for municipal bonds may predict state and local government defaults (Gerlach, Herman, Hecker, & Bernhardt, 2013).

Of course, this is not to suggest that ESG investments will always outperform "traditional" investments. Even those publishing such studies find the favorable results tend to be related to specific characteristics of portfolios or firms. For instance, the results of Fulton et al. (2012) were most strongly associated with the "G" or governance part of ESG and with portfolios built from positive rather than negative screens typical of traditional SRI investing. Krosinsky (2014) reminds us that a portfolio constructed from Sustainalytics' "10 Companies to Watch in 2014" would have been "an unmitigated short-term disaster, dramatically underperforming benchmarks"; he warns that while Sustainalytics' evaluations are likely correct and in general represent a high quality of analysis and detail, ESG factors become material only if companies

are held accountable by policy, markets, or both. Referring to his own research, Krosinsky confirms the Fulton et al. result that positive screens can be associated with outperformance, while negative screens rarely are.

The question, of course, is which positive screens are appropriate. There are too many approaches to discuss or even name here for aligning ESG ratings and financial return, but the overarching themes tend to be building portfolios of companies that are (a) best at managing the opportunities and risks of environmental factors in their own operations, in their supply chains, and in terms of potential regulatory changes, and (b) best at managing a range of stakeholders from employees to communities to customers. (See, for instance, the various chapters in Krosinsky (2012) or Jussa et al. (2013) for examples and discussions of ESG portfolio building, many of which blend ESG analysis with traditional financial and competitive advantage analysis.) More recently, Khan, Serafeim, and Yoon (2015) draw a distinction between material and non-material ESG issues, finding that better performance on material ESG issues has been the driver of ESG outperformance.

For building a more general theory of finance, the growing evidence of how financial risk, financial return, and ESG factors are related suggests that traditional single- or even multi-factor models of the risk/return relationship are overly simplistic. Instead, sustainable finance provides the impetus to do analysis that more explicitly integrates context—that is, a company's sustainability policy, employee relations, community relations, board diversity, exposure to regulatory risks, ESG disclosure, and so on are economically significant for determining materiality and systematic risks. A theory of finance that omits or otherwise downplays this context is a special case, not a general one.