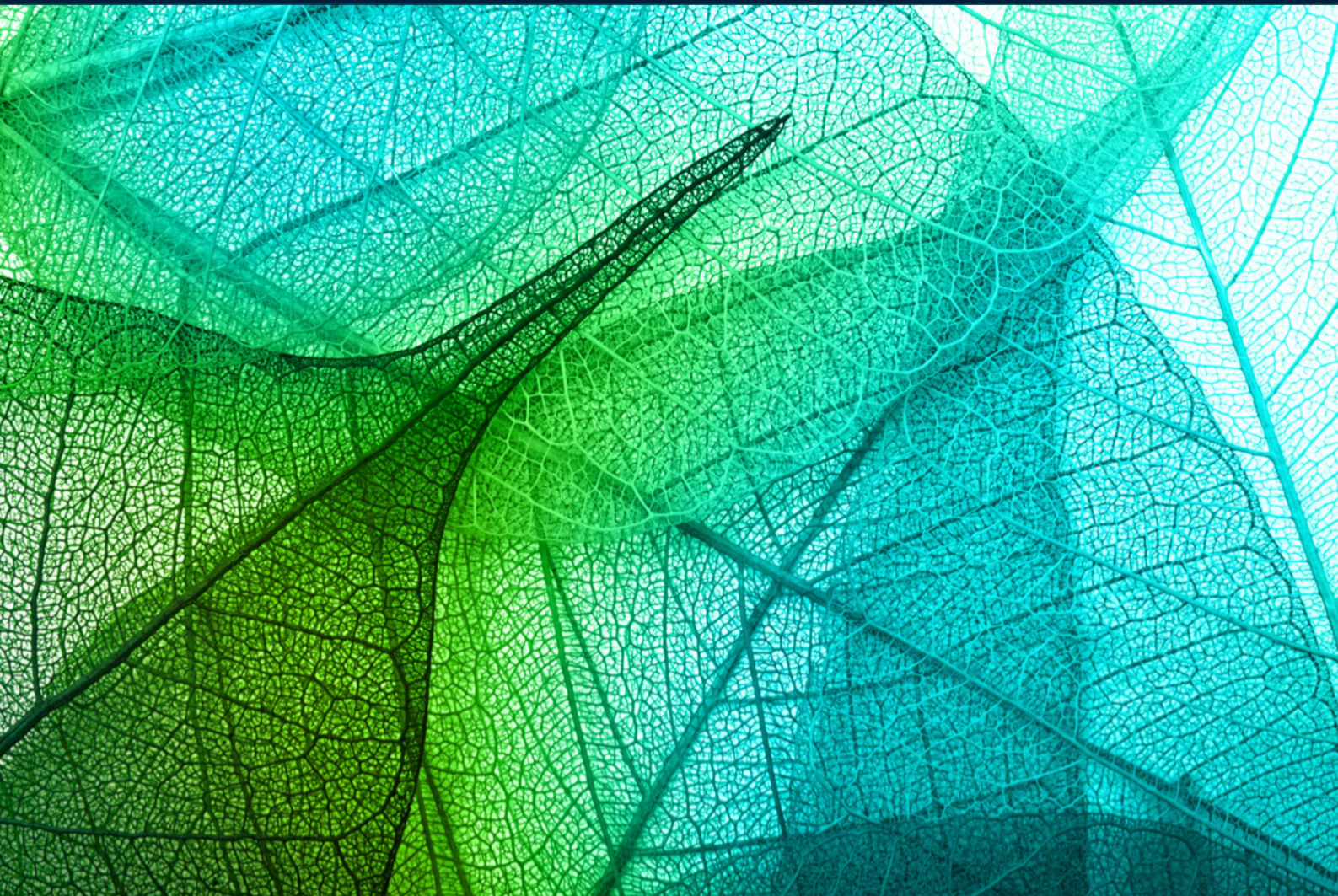


Green Assets Performance and ESG Adoption

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We research environment-related risks, impacts, and opportunities across different sectors, geographies, and asset classes; how such factors are emerging and how they positively or negatively affect asset values; how they might be interrelated or correlated; their materiality (in terms of scale, impact, timing, and likelihood); who will be affected; and what affected groups can do to pre-emptively manage risk. Since our inception we have conducted pioneering research on stranded assets and continue to undertake significant research on the topic.

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Green Assets Performance and ESG Adoption

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Executive Summary

This discussion paper highlights the link between green asset development and ESG adoption by discussing how the adoption of ESG practices by investors (companies) change demand (supply) for green assets?

Discussions: We start by defining and classifying of ESG practices and green assets. For corporations, the term of corporate ESG practice has evolved from corporate social responsibility (CSR) and refers to the treatment of various stakeholders in an ethical and responsible manner. For investors, ESG investment practices refer to an investment process/strategy that integrates ESG considerations. Green assets are broadly defined as climate resilient and environmentally friendly assets/projects that address climate change and environmental issues in this study.

We then discuss how the adoption of ESG investment practices by investors changes demand for green assets. The literature and survey evidence suggest that there is a growing recognition of the need to implement sustainable finance practices, and an increasing number of investment decisions are being made with ESG considerations. In addition, ESG integration in investment processes has been found to have an effect on financial performance, which change the demand of green assets. In particular, it is found that ESG investing is effective in mitigating environmental exposures, which is viewed as one of the key factors driving investors towards green assets investment.

Next, we present how the adoption of ESG practices by companies change supply for green assets. A large body of corporate finance research does indicate that efficient implementation of ESG practices improves corporate financial performance, because firms with better ESG performance tend to have higher innovation and competitive advantage, better operational efficiency, and stronger management capabilities by establishing long-term relationship with key corporate stakeholders. But some other findings support negative or no relationship between corporate environmental performance and financial performance.

Another common argument is that the relationship between environmental performance and financial performance is U-shaped: that is to say, better environmental performance tends to be associated with higher financial performance only once a critical level of environmental performance is achieved.

Implications: Based on the above discussion, we show that investment in green assets and adoption of ESG practices are related and the adoption of ESG-related practices can affect the demand (from investors) and supply (from companies) of green assets. While ESG adoption can lead to sustainable development, the collection of reliable and consistent ESG data, and the development of evaluation frameworks and tools to deliver the best ESG solutions, are still at an early stage. We present four implications for practitioners and policymakers related to ESG adoption.

First, the seemingly contradictory evidence of ESG impact on financial performance can, to a significant degree, be explained by information asymmetry and differences in access to expertise. The best-informed investors with industry-specific expertise outperform peers that have insufficient resources. It is thus important for investors to improve their internal capacity for assessing green investments.

Second, the variations in ESG metrics, frameworks and reporting persist, continue to cause challenges. The lack of standardisation makes it more difficult to examine the relationship between ESG performance and financial performance, which in turn hinders the growth of green investing. However, we do not support the view that this implies the need for one single common international standard for ESG definition and measurement. Many of the variations seen currently are understandable given the varying nature of businesses, their stage of development, and the institutional environments within which they operate. We propose that developing more voluntary guidelines of ESG disclosure and integration, allowing for variations across organisational types, sectors and regions, would be more useful.

Third, the regulatory pressure and social demand for green products and services need to be coupled with market-oriented instruments and clear evidence of assets' green performance. If not, excessive external demand for green products and services may exacerbate practices

of greenwashing which, in the worst instance, can undermine the whole ESG movement in the market by impacting consumers' preferences for green products and services.

Last but not least, the linkages between the performance of green assets and the adoption of ESG practices have significant implications for greening China's Belt and Road Initiative (BRI), and for supporting sustainable development in developing countries more broadly. It remains far from certain whether and how the BRI may contribute to sustainable development goals in the emerging countries, or to global efforts to tackle climate change. Following the first Belt and Road forum in May 2017, China issues a series of green BRI policies in attempt to align with the Paris Agreement and 2030 Sustainable Development Goals. Despite official policies, some has raised concerns about environmental risk associated with the BRI investments, saying that many of them are fossil fuel investments. And an implementation blueprint for supporting the UN's Sustainable Development Goals is lacking. Given the evidence that ESG investing is linked to improved financial performance, a higher level of ESG practices should be examined and adopted in recipient countries in order to greening the BRI.

1. Introduction

Along with the growing importance of sustainable investment, the debate surrounding the relationship between a firm's environmental, social and governance (ESG) adoption and green assets performance has intensified in the past decade. The Global Sustainable Investment Alliance (2018) found that the amount of assets being professionally managed under responsible investment strategies increased by 34% between 2016 and 2018 alone. And recent years have seen a plethora of sustainable finance regulations and guidelines, including voluntary recommendations by the Task-Force on Climate-Related Financial Disclosures (TCFD) and the mandatory green loan investment reporting that has been implemented under a series of Green Credit Policies in China. Increasingly, integration of ESG principles into investment decision-making is seen as an important catalyst for sustainable growth at both a national and international scale, with shareholder influence driving both companies and governments to transition towards a more sustainable future (Andersson, Bolton, and Samama 2016; OECD 2017; Krueger, Sautner, and Starks 2018).

Climate-related risks, other environmental risks, and corresponding opportunities are increasingly recognised as financially material to investment decisions, especially for long-term institutional investors. This is evident in the proliferation of, and continually growing membership numbers of, groups such as Climate Action 100+, the Principles of Responsible Investment and the Montreal Carbon Pledge (IIGCC 2015; UNEP FI 2014). Civil society campaigns for decarbonization and divestment from dirty fossil fuels have also gained momentum, with more than \$6.3 trillion worth of assets under management having pledged to move capital out of fossil fuels and invest in climate solutions (DivestInvest 2018). However, an understanding of the economic losses and benefits resulting from ESG practices is mixed, which in turn affects investment in green assets.

This discussion paper highlights the link between green asset development and ESG adoption by addressing several related questions. Why are investors implementing ESG strategies as part of their portfolio construction, and what challenges do they face? How does the adoption of ESG practices by investors (companies) change demand (supply) for green assets?

While investment in green assets has been widely discussed, there is no unique definition or standard among investors as to what counts as a “green asset”. We start by defining and classifying of ESG practices and green assets. For corporations, the term of corporate ESG practice has evolved from corporate social responsibility (CSR) and refers to the treatment of various stakeholders in an ethical and responsible manner. For investors, ESG investment practices refer to an investment process/strategy that integrates ESG considerations (Renneboog, Ter Horst, and Zhang 2008). Green assets are broadly defined as climate resilient and environmentally friendly assets/projects that address climate change and environmental issues in this study.

We then discuss how the adoption of ESG investment practices by investors changes demand for green assets. Following UN PRI (2016) claim that risk management and long-term value seeking are the significant motivational factors contributing to the growth green assets¹. We discuss this question by reviewing the economic effect of ESG investing and identifying key drivers of mobilising asset allocations toward green assets. The literature and survey evidence suggest that there is a growing recognition of the need to implement sustainable finance practices, and an increasing number of investment decisions are being made with ESG considerations. In addition, ESG integration in investment processes has been found to have an effect on financial performance, which change the demand of green assets. In particular, it is found that ESG investing is effective in mitigating environmental exposures, which is viewed as one of the key factors driving investors towards green assets investment.

Next, we present how the adoption of ESG practices by companies change supply for green assets. It is suggested that the significance of corporate ESG practices performance analysis has a critical role to play in extending efficient supply of green assets. What is the effect of corporate ESG performance on its financial performance? The relationship between corporate ESG performance and corporate financial performance has been widely studied. A large body of corporate finance research does indicate that efficient implementation of ESG practices improves corporate financial performance, because firms with better ESG

¹ UNPRI (2016), “Greening Institutional Investment”. <https://www.unpri.org/greening-institutional-investment/296.article>

performance tend to have higher innovation and competitive advantage, better operational efficiency, and stronger management capabilities by establishing long-term relationship with key corporate stakeholders (Freeman 2015; Jones 1995). But some other findings support negative or no relationship between corporate environmental performance and financial performance. Another common argument is that the relationship between environmental performance and financial performance is U-shaped: that is to say, better environmental performance tends to be associated with higher financial performance only once a critical level of environmental performance is achieved.

As discussed, the adoption of ESG practices and its performance largely affect the demand (from investors) and supply (from companies) of green assets. Based on the linkages between ESG practices and green assets development, we conclude this discussion paper by presenting implications of ESG adoption and how it could be applied in the BRI projects to support sustainable development in developing countries.

This discussion paper is organised as follows. Section 2 will present definitions and classifications of EG practices and green assets. Section 3 discusses ESG investment practices effect on the demand of green assets. Section 4 discusses the link between corporate ESG practices and the supply of green assets. Finally, section 5 assesses the implications of the preceding discussion.

2. Definitions of ESG practices and green assets

2.1. *ESG practices*

Environmental, social and governance (ESG) indicates the key factors in measuring the sustainability and social impact of business operations. For corporations, ESG practices refer to the treatment of various stakeholders in an ethical and responsible manor (Sassen, Hinze, and Hardeck 2016) and the term has evolved from corporate social responsibility (CSR) since 2005 (Dumas and Louche 2016). For investors, ESG investment practices refer to an investment process/strategy that integrates ESG considerations (Renneboog, Ter Horst, and Zhang 2008). The term of ESG investment is often used synonymously with sustainable investment or responsible investment. Commonly used ESG investment strategies in practice include ESG engagement, positive/negative screening, fully ESG integration into

individual stock valuation, and thematic investment (Amir and Serafeim 2018). Each ESG theme covers various aspects of corporate non-financial performance. Within the governance area, investors often concern over remuneration, board independence, board diversity, and succession planning; among environmental topics, investors focuses primarily on issues related to climate change; in terms of social themes, investors mostly concerns regarding human rights, labour rights, and bribery and corruption (A. G. F. Hoepner et al. 2018).

2.2. Green assets

While green assets has been widely discussed, there is no unique definition or universal standard among investors as to what counts as a “green asset”. Eyraud, Clements, and Wane (2013) define investment in green assets to be “the investment necessary to reduce greenhouse gas and air pollutant emissions”. It has three main components: low-emission energy supply (including renewable, biofuels and nuclear); energy efficiency and carbon capture (energy supply and energy-consuming sectors), and carbon sequestration (including deforestation and agriculture). The International Finance Corporation (IFC)², part of the World Bank Group, conducted a survey across financial institutions on the activities most typically included in the definition of green assets, and found that these activities include carbon capture & storage, energy efficiency, environmental protections, green building, products and materials, renewable energy, waste management and sustainable land management. Bloomberg uses the term “total clean energy” to describe green assets which includes renewable technology/services, low carbon services and energy smart technologies.

Green assets can also be classified by asset class in finance. Green equities refer to the shares of a publicly listed company, whose business activities generate sizable progress towards the achievement of a well-recognised environmental goal. Institutional investors have developed various green investing strategies to construct investment portfolios based on corporate ESG performance or actively engage with firms on specific ESG issues. Green taxonomies such as EU Green Taxonomy³ help to define clearly what is green equity per

² Maheshwari, Avendano and Stein (2016), “Measuring Progress on Green Finance-Findings from a Survey”

³ https://ec.europa.eu/info/publications/sustainable-finance-teg-taxonomy_en

project or sector. The US Sustainability Accounting Standards Board (SASB)⁴ voluntarily set industry-specific ESG disclosure standards which facilitate communication between companies and investors.

Green loan is a type of loan instrument supporting eligible sustainability-linked project (Li, Liang, Wang and Huang 2018). The launch of Green Loan Principles⁵ in 2018 set a framework of market standards and guidelines and provide a consistent methodology for use across the green loan market.

Green bonds can be broadly defined as “fixed-income securities issued (by governments, multinational banks or corporations) in order to raise the necessary capital for a project which contributes to a low carbon, climate resilient economy” (Della Croce, Stewart, and Yermo 2011). Several green bonds standards have been launched along with the growth of green bond issuance. For example, the Green Bond Principles⁶ set the issuance guidelines to promote transparency, disclosure and reporting in the green bond market. The Climate Bonds Standard and Certification Scheme⁷ was launched to help to certify green bond by issuers, governments and investors.

Green funds are mutual funds or other investment vehicles that invest in firms with a social consciousness or an environmental responsibility” (Adamo, Federico, and Notte 2014).

In this study, green assets are broadly defined as climate resilient and environmentally friendly assets or projects that address climate change and environmental issues. As publicly

⁴ SASB was founded in 2011 to develop and disseminate sustainability accounting standards.

https://www.sasb.org/standards-overview/download-current-standards/?utm_medium=ppc&utm_term=sasb%20standards&utm_campaign=Standards+Downloads&utm_source=adwords&h_sa_kw=sasb%20standards&h_sa_cam=9834195740&h_sa_ver=3&h_sa_acc=4233630826&h_sa_ad=430845914784&h_sa_grp=95376805610&h_sa_src=g&h_sa_mt=p&h_sa_tgt=kwd-897438475909&h_sa_net=adwords&gclid=Cj0KCQjwirz3BRD_ARIsAImf7LPyU_hOJ6pNSa3CkAlwWokEOcN5pYEHrEJZSSkUbPaFU7g2N6Z_TW4aAm2OEALw_wcB.

⁵ Green Loan Principles was launched by Loan Market Association in 2018. The full report can be downloaded at <https://www.lsta.org/content/green-loan-principles/>

⁶ Green Bond Principles was first launched in 2014 and updated in 2018. It can be downloaded at <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>

⁷ The Climate Bonds Standard and Certification Scheme can be downloaded at <https://www.climatebonds.net/standard/brochure>

listed equities and fixed income are the asset classes with the greatest level of ESG adoption among investors, we mainly focus on stock and loan markets in the following discussion.

3. ESG investment practices and the demand of green assets

How does the adoption of ESG investment practices by investors change demand for green assets? Following UN PRI (2016) claim that risk management and long-term value seeking are the significant motivational factors contributing to the growth green assets. We discuss this question by reviewing the economic effect of ESG investing and identifying key drivers of mobilising asset allocations toward green assets.

Investors' demand of green assets are usually associated with the effect that ESG factors can have on investment risks and returns (Schaltegger and Figge 2000; M E Porter and Kramer 2006; P. Krueger, Sautner, and Starks 2018). First, increasing evidence suggests that environmental risk has become a significant concern for asset owners (Starks, Venkat, and Zhu 2017; Gibson Brandon and Krueger 2018). Risks stemming from ESG issues include legal risk, reputational risk, and operational risk and financial risk (Clayman, Fridson, and Troughton 2012), which are likely being captured by volatility. P. Krueger, Sautner, and Starks (2018) suggest that long-term investors find climate risks to be substantially more material than do other investors, especially with regard to physical climate risk. Adoption of ESG practices may add value in the long run by decreasing idiosyncratic risk (Cheng, Ioannou, and Serafeim 2014), because strong ESG performance leads to lower agency costs (Benabou and Tirole 2010; Eccles, Ioannou, and Serafeim 2014) and financing costs (Goss and Roberts 2011), and is associated with improved corporate responsibility disclosure (Dhaliwal et al. 2014), a reduced probability of negative events occurring (Kim, Li, and Li 2014), lower reputational and environmental risks (Clark and Hebb 2005), and lower informational asymmetry (El Ghoul et al. 2011; Hail and Leuz 2006).

In terms of the ESG practices effect on return, such research has been ongoing since the mid-1990s, though recent examples include Gibson Brandon and Krueger (2018) and Hoepner et al. (2018), both of whom use archival data to support this view. Jensen (2001)'s "enlightened value maximisation" argument holds that long-term market value is likely to be best achieved when core stakeholders' interests, including public environmental concerns, are appropriately addressed. This view can be neatly summed up in the idea of 'doing well by

doing good' (Benabou and Tirole 2010), and the maximisation of long-term profits through environmental consideration (Della Croce, Stewart, and Yermo 2011).

However, some practitioners seem to hold different view. State Street Global Advisors conducted a major global survey of over 300 institutional investors in 2019 on the drivers and barriers of ESG adoption, showing that return performance is regarded as one of the major challenges of ESG investing. The survey reports that investors are less likely to be motivated by a view that ESG will generate higher returns, as they regard the evidence as mixed at this stage. In contrast, Amir and Serafeim (2018) conducted a survey of main-stream institutional investors to investigate why investors use ESG data and found that relevance to investment performance is one of the two most frequent motivations.

The mixed evidence of ESG investment effect on return among investors may be caused by a lack of reliable ESG data, resources or cost issues linked to ESG integration, and capacity building⁸. Arguably the return performance of ESG investment practices are changing with the development of technologies, innovation of ESG products and services, and the advancement of analytical tools. The improvement of ESG data and expertise will help investors assess environmental risks and opportunities associated with the investee firms.

As suggested by the literature and survey evidence, there is a growing recognition of the need to implement sustainable finance practices, and an increasing number of investment decisions are being made with ESG considerations in mind (GSIA 2016; Hebb et al. 2016; Krosinsky and Purdom 2017). ESG integration in investment processes has been found to have an effect on financial performance, which change the demand of green assets. In particular, it is found that ESG investing is effective in mitigating environmental exposures, which is viewed as one of the key factors driving investors towards green assets investment⁹.

4. Corporate ESG practices and the supply of green assets

The implementation of corporate ESG practices has grown in importance and credibility among different groups of stakeholders and corporate management teams in the last decade.

⁸ Mallowstreet ESG report, November 2019 <https://www.mallowstreet.com/Article/b46228>

⁹ Into the Mainstreaming, ESG at the Tipping Point, November 2019. <https://hub.ipe.com/asset-manager/state-street-global-advisors/into-the-mainstream-esg-at-the-tipping-point/10034600.supplierarticle>

How does the adoption of ESG practices by companies change supply for green assets? UN PRI (2016)¹⁰, among other factors, put emphasis on the significance of corporate ESG practices performance analysis in extending efficient supply of green assets.

The relationship between corporate ESG performance and corporate financial performance has been widely studied. A large body of corporate finance research does indicate that efficient implementation of ESG practices improves corporate financial performance (Hillman and Keim 2001; Birindelli et al. 2015; A. Hoepner et al. 2016), because firms with better ESG performance tend to have higher innovation and competitive advantage, better operational efficiency, and stronger management capabilities (Ambec and Lanoie 2008, 2007; Laruccia 2012; Orsato 2006; King and Lenox 2001; Dixon-Fowler et al. 2013; Orlitzky and Benjamin 2001; Michael E Porter and Linde 1995; Miller, Spivey, and Florance 2008) by establishing long-term relationship with key corporate stakeholders (Freeman 2015; Jones 1995). Overviews of empirical research on the firm-level environmental performance effect indicate a generally positive relationship between corporate environmental performance and corporate financial performance (Orlitzky and Benjamin 2001; Dixon-Fowler et al. 2013; Ambec and Lanoie 2008).

More recent contributions to the theory of the firm regard ESG activities as having the potential to increase firm value. Lo and Sheu (2007) investigate the link between corporate sustainability and market value in the US market and find a significant positive association. Based on the analysis of private companies, Crifo, Forget, and Teyssier (2015) quantify the impact of corporate ESG disclosure on firm value and find that superior ESG practices are associated with enhanced financial performance. Using a sample of Chinese listed companies in heavily polluting industries, Liu and Zhang (2017) document that a high level of corporate governance contributes to better ESG disclosure, which in turn leads to long-term economic gain. Meanwhile, Miroshnychenko, Barontini, and Testa (2017) examine the impacts of corporate environmental practices on a given firm's Tobin's Q and return on equity, and indicate that internal practices have a highly significant positive effect. This finding supports the argument that the adoption and execution of corporate environmental practices

¹⁰ UNPRI (2016), "Greening Institutional Investment". <https://www.unpri.org/greening-institutional-investment/296.article>

lead to sustainable value for all involved stakeholders. Nollet, Filis, and Mitrokostas (2016) study the relationship between corporate social performance and corporate financial performance by using a non-linear model, and find that there is a U-shaped relationship between social practice and return on assets, suggesting that superior corporate social responsibility performance can improve financial performance in the long term. The evidence of the positive effect of corporate ESG practices is further supported by Barko, Cremers, and Renneboog (2018), who indicate that institutional investors such as pension funds prefer to invest in companies with better ESG performance.

But some other findings support negative (Climent and Soriano 2011; White 1996; Friedman 1970; Brammer, Brooks, and Pavelin 2006; Lee, Faff, and Langfield-Smith 2009; Duque-Grisales and Aguilera-Caracuel 2019) or no relationship (White 1996; Climent and Soriano 2011; Schaltegger and Figge 2000) between corporate ESG performance and financial performance. In an early contribution, Friedman (1970) claims that “corporate non-financial activities that exceeded the legal binding minimum requirement would entail extra costs and reduce firm value”. This argument is supported by some subsequent studies. Brammer, Brooks, and Pavelin (2006) find that there is a negative correlation between a company’s score on a comprehensive social performance indicator, and the return on its shares. Lee, Faff, and Langfield-Smith (2009) show that corporate social responsibility performance is negatively associated with market performance. Duque-Grisales and Aguilera-Caracuel (2019) also document a significant negative link between ESG performance and financial performance, either individually or in combination, based on a panel analysis of 104 companies in emerging markets between 2011 and 2015.

Another common argument is that the relationship between ESG performance and financial performance is U-shaped: that is to say, better ESG performance tends to be associated with higher financial performance only once a critical level of ESG performance is achieved (Riillo 2017; Trumpp and Guenther 2015; Nollet, Filis, and Mitrokostas 2016). Persistent variations in ESG data and measures, and in the time periods and jurisdictions examined in any given study, remain a complicating factor for academic research seeking an unambiguous link between sustainability and financial performance (Orlitzky and Benjamin 2001; Dixon-Fowler et al. 2013; Ambec and Lanoie 2008). The ESG data transparency and standardisation, ESG

practices, and track record of consistent performance will be central to the development of green assets at this stage of its development.

The above-mentioned pushing and pulling factors interact with each other and together influence ESG practices (Philipp Krueger, Sautner, and Starks 2018). For example, the rapid growth of corporate issuance of green bonds over the past 5 years has attracted a high level of interest from mainstream investors, suggesting that demand of green investing has increased at the expected risk and return performance level¹¹. Corporate commitment to ESG practices is translating into real impact in terms of the green asset growth. The evidence that corporate ESG practices are associated with economic benefits likely contributes to green assets development. This is anticipated to continue as a result of ESG investment increasing demand and corporate ESG practices expanding supply, alongside growing ESG disclosure, ESG expertise and relevant NGOs.

5. Discussion and policy implications

Based on the above discussion, we show that investment in green assets and adoption of ESG practices are related and the adoption of ESG-related practices can affect the demand (from investors) and supply (from companies) of green assets. While ESG adoption can lead to sustainable development, the collection of reliable and consistent ESG data, and the development of evaluation frameworks and tools to deliver the best ESG solutions, are still at an early stage. Here, we present four implications for practitioners and policymakers related to ESG adoption.

First, the seemingly contradictory evidence of ESG impact on financial performance can, to a significant degree, be explained by information asymmetry and differences in access to expertise. The best-informed investors with industry-specific expertise outperform peers that have insufficient resources. It is thus important for investors to improve their internal capacity for assessing green investments.

Second, the variations in ESG metrics, frameworks and reporting persist, continue to cause challenges. The lack of standardisation makes it more difficult to examine the relationship

¹¹ BloombergNEF (2016), “Finance Guide for Policy-Makers: Renewable Energy, Green Infrastructure” <https://about.bnef.com/blog/finance-guide-policy-makers/>

between ESG performance and financial performance, which in turn hinders the growth of green investing. However, we do not support the view that this implies the need for one single common international standard for ESG definition and measurement. Many of the variations seen currently are understandable given the varying nature of businesses, their stage of development, and the institutional environments within which they operate. We propose that developing more voluntary guidelines of ESG disclosure and integration, allowing for variations across organisational types, sectors and regions, would be more useful.

Third, the regulatory pressure and social demand for green products and services need to be coupled with market-oriented instruments and clear evidence of assets' green performance. If not, excessive external demand for green products and services may exacerbate practices of greenwashing (Delmas and Burbano 2011) which, in the worst instance, can undermine the whole ESG movement in the market (Hamann and Kapelus 2004) by impacting consumers' preferences for green products and services (Polonsky, Grau, and Garma 2010; Peattie, Peattie, and Ponting 2009; Lyon and Maxwell 2011).

Last but not least, the linkages between the performance of green assets and the adoption of ESG practices have significant implications for greening China's Belt and Road Initiative (BRI), and for supporting sustainable development in developing countries more broadly. A recent study by the World Bank estimated that the BRI investments, if implemented fully, could raise global income by 2.9%.¹² While the BRI has been making significant progress, it remains far from certain whether and how the BRI may contribute to sustainable development goals in the emerging countries, or to global efforts to tackle climate change. Following the first Belt and Road forum in May 2017, China issues a series of green BRI policies including "Guidance on Promoting Green Belt and Road" and "Vision and Actions on Energy Cooperation in Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road," in attempt to align with the Paris Agreement and 2030 Sustainable Development Goals. Despite official policies, some has raised concerns about environmental risk associated with the BRI investments, saying that many of them are fossil fuel investments. And an implementation blueprint for supporting the UN's Sustainable Development Goals is

¹²<https://www.worldbank.org/en/news/press-release/2019/06/18/success-of-chinas-belt-road-initiative-depends-on-deep-policy-reforms-study-finds>

lacking¹³. Given the evidence that ESG investing is linked to improved financial performance, a higher level of ESG practices should be examined and adopted in recipient countries in order to greening the BRI.

¹³<https://blogs.worldbank.org/trade/green-belt-and-road-feasible-how-mitigate-environmental-risk-bri-infrastructure-project>

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