“Deep ESG”: a holistic validation methodology for Asian private equity

Frederick J. Long[*] and Syren Johnstone[**]

February 12, 2020

Abstract

At this stage of Asia’s development there is a need, and an opportunity, to establish a validation methodology that better gauges levels of ESG implementation and sustainability aspirations in Asian private equity. International investors wanting radical improvement, and local private equity investors and stakeholders typically not holding similar expectations, have broadly led to the adoption of stopgap solutions that are a nod to ESG and sustainability concerns. A taxonomy of common approaches to ESG investment practices in Asian private equity is presented and their shortcomings described.

This article proposes “Deep ESG” as a holistic methodological framework that better operationalizes ESG and sustainability metrics in the context of Asian private equity investment practices in toto. The framework requires the private equity firm to establish the pre-deal and post-execution parameters on which it seeks an ESG investment to be assessed. The rigor of the framework so established will inform and guide the confidence level a stakeholder is willing to assign to the ESG and sustainability merit of an investment. Deep ESG has the potential to drive capital allocation in a more ambitious and commercially compelling direction to solve urgent sustainability goals.

Key Takeaways

- The current taxonomy of Compliant, Selective and Illustrative ESG practices engaged in by PE managers in Asia often fail to indicate whether a PE manager’s investments in toto is contributing in a meaningful way to ESG objectives.

- “Deep ESG” is proposed as a holistic, methodological framework that operates in partnership with commercial investment practices. It allows a third party stakeholder to assign its own confidence level to the ESG and sustainability merit of an investment.

- “Deep ESG” is comprised of five disclosure requirements that are applied over multiple investment life cycles, from pre-investment screening to the establishment, review and correction of a sustainability migration plan, to exit assessment.

- “Deep ESG” can serve to bring a higher level of intentionality to institutional investors and fund managers with a focus on sustainable investment or impact investment.

---

[*] Founding Managing Director, Olympus Capital Asia, Hong Kong.
[**] Executive Director of the LLM (Compliance & Regulation) Programme, The University of Hong Kong; Solicitor (England & Wales and Hong Kong).

Electronic copy available at: https://ssrn.com/abstract=3562096

INTRODUCTION

The recent report of the Global Commission on Adaptation on climate change highlights the urgent challenges arising from crop reductions, rising seas, insufficient water supply, and the resulting poverty that will engulf hundreds of millions of people.[1] Climate change could emerge as the next global crisis; in South Asia alone it is expected to force nearly 40 million people in to migrate within their countries by 2050.[2] South Asia, East Asia and the Pacific already account for 42% of persons globally living below the World Bank defined poverty line, and without a change in direction that percentage is likely to increase.[3]

Asia's contribution to these global issues over the next decade cannot be ignored. Asia's economies already account for 40% of world activity and in the next 12 years will nearly double in size.[4] Almost 75% of the world's coal fired power plants that are either under construction or in the planning stages are in Asia.[5] Large amounts of non-renewable power capacity come on line annually - 725 GW since 2010[6] - and renewables represent only 22% of electricity generation.[7] Asian urban transport infrastructure is still in development or transition.[8] The region is the site of half of the world's largest mining operations.[9] Deforestation remains problematic,[10] as does the generation of plastic waste.[11] The sequelae of Asia's US$100 billion internet economy,[12] while sometimes considered low impact from an ecological perspective, is responsible for significant increases in transportation, packaging, waste, and their related emissions. Asia's compelling consumer opportunities - fast food, large mall developments, luxury products, short lifecycle electronics, high performance vehicles - rarely meet basic environmental, social and governance ("ESG") standards.

This context presents a pressing need for a more profound linkage of ESG investment to sustainability[13] objectives. Traditional patterns of emerging markets investment activity have resulted in funding going to businesses that are prima facie unsustainable, poorly structured to take advantage of new technologies promoting resource efficiency, and under-designed in terms of worker and community welfare. In the context of highly competitive emerging markets, many of Asia's business founders and financial sponsors are in a hurry for growth and are correspondingly less motivated to consider long-term sustainability. Indeed, over relatively short time horizons, such businesses experience few negative consequences. A combination of limited domestic regulations and weak enforcement[14] means that ESG is typically not a significant consideration in business development and evaluation. However,

---

[1] (2019). *Adapt Now: A Global Call for Leadership on Climate Resilience*, Global Commission on Adaptation.
[2] Rigaud, K.K., de Sherbinin, A., Jones, B., Bergmann, J., Clement, V., Ober, K., Schewe, J., Adamo, S., McCusker, B., Heuser, S., & Midgley, A. (2018). *Groundswell: Preparing for Internal Climate Migration*, World Bank Group.
[3] (2018). *Poverty and Shared Prosperity 2018: Piecing Together the Poverty Puzzle*, World Bank.
[4] Nakao T. (2019). *Moving Together as One Wave for the Future of Asia and the Pacific*, Asia Development Bank.
[5] Sengupta, S. (2018). *The World Needs to Quit Coal. Why Is It So Hard?*, The New York Times
[6] (2019). *Renewable capacity highlights – March 31, 2019*, IRENA.
[7] (2019). *BP Statistical Review of World Energy 2019*, BP.
[8] (2017) Arcadis Sustainable Cities Mobility Index 2017
[9] (2019) Consultancy Asia. *Greater Asia Home to Half of the World's Largest Mining Companies*.
[10] Indonesia, Malaysia and India are experiencing conversion of forests into agricultural land and plantation. These forests hold our greatest inventory of biological diversity and serve as the storehouse for hundreds of gigatons of carbon. See WWF website, https://wwf.panda.org/our_work/forests/
[11] Emerging economies in Asia together expel a majority of the 8 million tons of plastic annually delivered into oceans. See (2018). *Planet over Plastic: Addressing East Asia's Growing Environmental Crisis*, The World Bank.
[12] Davis, S., Saini, S., Sipahimalani, R., Hoppe, F., Lee, W., Girona, I.M., Choi, C., & Smittinet W. (2019). *e-Conomy SEA 2019*, Google & Temasek / Bain.
[13] As used herein, *sustainability* generally refers to sustainable development as being a "process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs." *Report of the World Commission on Environment and Development: Our common future*, 1987, para 30.
[14] (2019) Zhao, Jinhua, *Environmental Regulation: Lessons for Developing Economies in Asia*, Asia Development Bank, page 9.

Electronic copy available at: https://ssrn.com/abstract=3562096

companies that fail to pursue competitive advantage with ESG performance in the short term will eventually be compelled to follow investor mandates and/or government regulations and bear higher retrofitting costs.

In the following sections, the role of private equity ("PE") in guiding Asia's ESG development is first considered.[15] The demands of global investors and the evolving efforts of Asian PE managers in the face of local realities have led to common approaches to ESG that are classified into a taxonomy of "Compliant", "Selective" and "Illustrative" ESG. Each of these practices is subject to important limitations on their true ESG value.

The article subsequently proposes "Deep ESG" as a holistic, methodological framework for PE investment. "Deep ESG" repositions ESG investment from a defensive strategy to an active engage-and-implement plan of action on a clearer vector toward sustainability and impact. In a Deep ESG framework, the PE firm establishes and discloses the bases on which it seeks an ESG investment to be assessed. First, the framework so established permits stakeholders to evaluate the firm's investments with greater transparency, objectivity and independence. Second, the rigor of the framework will inform and guide the confidence level able to be assigned to the ESG merit of an investment. As such, Deep ESG can bring a higher level of intentionality to institutional investors and fund managers with a focus on sustainable investment or impact investment. Deep ESG has the potential to drive capital allocation in a more ambitious and commercially compelling direction to solve urgent sustainability goals.

THE STATE OF ASIAN PRIVATE EQUITY

PE in Asia has recently come to be viewed as a truly successful and well-established asset class in which investors provide early stage growth capital and buyout funding to serve the growth of Asia's economies.[16] Up until the early 2000s, much of the investment record in Asian PE lagged other parts of the world, largely due to the inability of PE players to take control of and add value to portfolio companies. Commitments to Asian PE have expanded dramatically as vintages post-2010 produced attractive returns comparable to established markets - the top quartile of funds from 2010 produced annualized returns between 19-25%, in line with investor objectives.[17] Asia Pacific now represents 26% of the global PE market, with $883 billion in assets under management. This figure has grown from $137 billion in assets under management in 2009 (9% of global PE assets), a roughly 6x growth over the past decade.[18]

Many Asian PE firms are pursuing high growth consumption sectors where little consideration is given to the longer-term sustainability of the business model in terms of: (i) its ecological impact ("Footprint"), or (ii) its societal impact, such as community and worker issues, human rights and access to basic needs ("Utility").

Examples of businesses that typically produce negative Footprint or low Utility outcomes include oil and gas development, construction materials such as cement, single-use plastic packaging, electronic products with short lifecycles, convenience-oriented home

[15] In a practical sense, the frameworks presented could apply to most of the world's emerging market private equity activity. Since the authors are based in Hong Kong, one an Asian PE sustainability fund manager and the other an expert on governance practices in Asia, attention is focused on Asia's private equity activities.
[16] Yang, K., Akhtar, U., & Dessard, J., (2019). *Asia Pacific Private Equity Report 2019*. Bain & Company. Figure 2.19.
[17] Yang, K., Akhtar, U., & Dessard, J., (2019). *Asia-Pacific Private Equity Report 2019*, Bain & Company.
[18] Id.

Electronic copy available at: https://ssrn.com/abstract=3562096

delivery services, loan shark lending, and entertainment products including gaming and gambling sites. The reality is that the potential for explosive growth over a five year horizon – an important timeframe for PE firms - may commercially outweigh the difficulty of assessing Footprint and Utility consequences that only become visible over longer periods.

Two difficulties that PE investors may experience in addressing ESG issues more holistically are as follows. First, most Asian PE has historically involved minority investing, under which expectations for operational changes are limited, although the current generation of PE investors are moving toward "control transactions". Second, a key premise in marketing ESG programs – that they provide shareholders with a premium valuation upon public listing or exit - has not been effectively documented. Yet the fact is that investor expectations and regulatory demands are advancing more quickly than PE investors may presume. Investing in a growth company today now means considering what these expectations and demands might look like in 5-10 years.

The implementation of regulations based on "best available control technologies", as in developed economies, neither encourages innovation nor fosters opportunities for investments that promote taking on innovation risks. The coming 10-year cycle of Asian PE investment represents an opportunity to proactively undertake ESG-positive investments that impose an enduring shape on Asia's regulatory infrastructure. Companies investing ahead of the design and implementation of ESG regulations have the opportunity to shape regulations toward commercially efficient solutions and areas of competitive differentiation.[19] By comparison, retrofits are expensive. However, the current shape of Asian PE ESG practices falls short of this potential, largely as a result of structural and methodological challenges.

A structural paradox at this stage of development

PE investors in Asia are caught between two conflicting paradigms.

International institutional and high net worth investors increasingly want ESG programs in Asia to be dramatically expanded in international investment products, often referencing the Sustainable Development Goals ("SDGs").[20] They expect PE managers to provide both a commitment to ESG practices and information transparency to facilitate ESG evaluation. For example, one leading pension fund states that each of its investments should contribute to SDGs and support the generation of positive social and/or environmental impact through products and services, or acknowledged transformational leadership.[21] The clear directive is that funds that fail to respond to these demands will lose support from at least a segment of institutional investors.

In contrast, companies, regulators and the public in the Asian context typically do not hold similar expectations. While regulations are becoming more stringent in countries such as China and India, enforcement is inconsistent and thus the drivers for small and medium sized companies in Asia to outperform local regulations are not strong. The evidence for better long-term financial performance through strong ESG practices is insufficiently compelling as compared to immediate pricing and structure considerations. As markets for capital raising become more efficient and transparent, with seller-advised deals growing, investors' ability

[19] Porter, M., Linde & van der Linde, C. (1995). *Green and Competitive: Ending the Stalemate,* Harvard Business Review.
[20] Braverman, Beth. (2018) Impactivate. *High Net Worth Investors Expect Companies to Act Responsibly*. According to their studies, 86% of HNW investors expect companies to "make a positive contribution to society."
[21] See https://www.apg.nl/en/asset-management/responsible-investing. APG is a leading Dutch pension fund with 482 billion Euro in assets under management."

Electronic copy available at: https://ssrn.com/abstract=3562096

to differentiate through their knowledge and commitment to ESG practices is rarely helpful and may be perceived as a negative because of the implied additional short-term costs.

The field of ESG research and practice is presently littered with an array of tags, phrases and systems seeking to provide PE investors with tools to commence a dialogue with stakeholders about environmental and societal concerns. However, the foregoing conflict of paradigms has led to some PE firms adopting bridging solutions via defensive devices that acknowledge ESG concerns and confirm ESG policies, but are loose enough not to place the firm at a competitive disadvantage when seeking deals they believe will produce the best returns over five year cycles typical for individual PE investments. Such devices amount to process rather than outcome-focused systems.[22] A taxonomy of such devices is discussed below.

Defensive approaches to ESG can lead PE firms or their companies to make egregious mistakes in their quest to demonstrate ESG responsibility. So-called "greenwash" is common: actual results fall short of claims, negative data is ignored, and the link between a company's actions and a sustainability objective is tenuous.

To give two examples. In the fashion industry: many companies that have reduced the use of animal fur or damaging chemical dyes subsequently define their products as "sustainable" when in fact production of the garments may generate a substantial negative Footprint (and negative Utility where goods are produced in unsatisfactory worker conditions) even while retail customers believe they are supporting sustainability. In Asia's "Green Bonds" market: company achievements often fall short of what the instrument promises in terms of sustainability[23] as the standards certifying the uses of green bond funding and the companies that may issue them provide only limited validation that use of proceeds match those communicated to investors.

Into this mix it must be noted that regulators have not to date applied significant pressure on ESG issues. Stock exchanges in the region have been imposing on listed issuers an increasing array of primarily disclosure based ESG requirements that facilitate investors forming their own determinations about ESG performance. The Stock Exchange of Hong Kong Limited is a leader in this area and has recently introduced mandatory disclosure requirements requiring a board statement on its consideration of ESG issues.[24] The requirements of stock exchanges are relevant to consider because they signal to private companies the social expectations placed on industry leaders as well as to their investors looking for a public listing exit.[25] However, local markets such as the A share market in China and exchanges in Southeast Asia typically lack effective ESG reporting policies and enforcement mechanisms and so fail to provide salient signals to private equity investors.

---

[22] The United Nations' Principles for Responsible Investment (PRI) is one such process-focused system, with 2,300 investment managers and service providers as signatories.

[23] Since the beginning of 2016, Asian companies have raised $59 billion in green bonds. (2019). *Green, social and sustainability bond markets set for record year in Asia*, The Asset; Hammond, G. (2019). *Asia-Pacific issuance of green bonds hits record high of $18.9bn*, Financial Times.

[24] Effective for financial years commencing on or after July 1, 2020. *See generally*, https://www.hkex.com.hk/News/News-Release/2019/191218news?sc_lang=en

[25] Although a material shortcoming of most listing rules in this regard is that ESG requirements applying to listed issuers typically do not apply to new listing applicants. See Recommendation C4.7.1 in S. Johnstone and S.H. Goo, *Report on improving corporate governance in Hong Kong*, Hong Kong Institute of Certified Public Accountants, December 15, 2017; and S. Johnstone and F.J. Long *Alibaba, HKEX & ESG: missed leadership opportunities*, International Financial Law Review, December 10, 2019.

Electronic copy available at: https://ssrn.com/abstract=3562096

A taxonomy of current practices

The foregoing structural issues have led ESG practices in Asian PE to evolve along one of three methodological paths, each of which have limited positive impact on ESG objectives.

"Compliant ESG" A firm establishes ESG "checklists" intended to identify and support companies that are seeking to avoid severely damaging activities and/or put in place processes (e.g. ESG policy, board supervision, basic metrics) providing comfort to investors that some form of ESG factor, often minimal and prevention-focused, is present. This practice can, at best, achieve only isolated outcomes, and at worst may amount to willful blindness.

"Selective ESG" Larger firms may establish within a sub-fund an ESG-centric practice, and utilize that fund for investments in the portion of their deals where there is a case that practices in the investee company are seen to be ESG neutral or positive. However, firms typically don't apply this ESG approach across the full range of their investment activities, rendering the firm's overall ESG investment profile balanced in a possibly negative direction. For example, a project might showcase a new sustainability model and give the impression that a problem is being solved, when the majority weighting of the firm's capital allocation continues in unsustainable directions. Global funds establishing sidecars for impact face the risk they will be assessed on the consistency of their policies across all investment platforms.[26]

"Illustrative ESG" Smaller firms may establish impact funds where ESG gains higher prominence in the assessment of deal opportunities. The scale of investment, business operations, and thus ESG impact is typically small. As most impact oriented PE managers are newly formed and have yet to demonstrate adequate financial returns, they generally receive a limited supply of capital from institutional investors. Accordingly, this approach creates only minimal impact on ESG practices in the broader economy. ImpactBase counts hundreds of PE/VC funds focused on impact investing.[27]

When looked at in isolation, the results from Compliant, Selective and Illustrative ESG programs may be directionally positive. When looked at holistically, a significantly different picture may emerge that represents a highly diluted form of what responsible global investors expect ESG initiatives to achieve. It is often a question of form over substance where process frequently takes priority over hard metrics, resulting in an impression that something is being done when the opposite may in fact be the case. As such, there is no "holistic accounting".

Attendant issues

Other than the structural issues discussed earlier, two factors that support these practices in Asia and other emerging economies are: the lack of accepted methodologies for evaluating investment prospects and the lack of objective measurement standards post-investment.

---

[26] Oh, Sunny. (2019). *Critics Say KKR's "Responsible Investment" stance is being clouded by its stake in a controversial tear gas maker.*" Market Watch. November 25, 2019. And (2018). *Private Equity Investment in Consumer Goods Industry Could Jeopardize Zero-Deforestation Efforts*. Chain Reaction Research, July 23, 2018. And (2018). *TPG Capital and Blackstone Affiliates at Center of Puerto Rico Foreclosure Crisis.* Private Equity Stakeholder Project, January 26, 2018.
[27] Global Impact investing Network, 2018.

Electronic copy available at: https://ssrn.com/abstract=3562096

Lack of accepted methodologies Evaluating whether a business model is suitable to be regarded as a prospect for ESG investment is problematic because it presents issues at the first stage of proactive ESG investment. A variety of definitions and approaches can be taken as to what qualifies as "green". Investment tags such as renewable energy, energy efficiency, sustainable transportation, water quality and conservation and green building are sometimes described as "unassailable" in terms of their "green-ness" – but to the extent they lack granularity as to the actual outcomes the concept of "unassailability" invites misleading or counterproductive outcomes.

For meaningful common frameworks to develop, an approach is required that is able to cross-over different forms of finance and different stages of a business's development without losing perspective on the real ESG issues at stake. It should be able to shed light on problems such as: can a firm invest in a damaging industry but justify it as an ESG investment on the basis of implementing improvement processes; would it be relevant to consider whether the end result might be unsustainable; should the investment be re-labelled as a box ticking exercise if fundamental changes to the company's business model fail to be realized? The answers are not straightforward, and PE managers require a wider frame of reference to assess whether an ESG initiative is more than merely a labeling exercise.

For example, in the building materials sector, cement companies have long been a compelling investment target. India's cement industry generates 670 kg of CO_2 per tonne of cement produced, including onsite power generation.[28] Recent improvements in emissions have been achieved largely by waste heat recovery systems, and blended cement, using silica fumes and fly ash materials, has improved waste utilization and product quality. Are these improvements in the Footprint sufficient to validate an ESG-driven cement investment? How should Utility considerations be weighted? Should companies developing alternatives to cement - easier to reuse, lighter, or made from recycled or organic materials - be more important targets for long-term sustainability goals?

Lack of objective measurement standards post-investment Clearer perspectives on the true output of any ESG implementation are needed to provide better quality information. Unlike financial accounting, where there is usually a quantitative answer to a question raised by investors, ESG currently depends too heavily on an array of qualitative metrics that are able to be interpreted differently, massaged and manipulated. While certain ESG-related phenomena can be relatively accurately measured – such as carbon emissions – what this means in the context of an overall sustainability plan can be subject to qualitative interpretation. For example, the number of jobs created is a measurable output but the substantive question is whether, and if so how, it contributes to an ESG objective.

The Sustainability Accounting Standards Board has created a "Materiality Map" to help companies think about categories to evaluate and measure. The Task Force on Climate Related Financial Disclosures is working with regulators and stock exchanges to establish a standard framework for investors to compare carbon emissions among companies. While Norges Bank, among others, has argued against outcome-based ESG measurement,[29] the idea of a "scoring system" for companies to measure SDG outputs is gaining credence.[30]

[28] (2018). *India Cement Industry on Track to Meet 2030 Carbon Emissions Intensity-Reduction Initiatives.* World Business Council for Sustainable Development. November 29, 2018.
[29] (2019). *Norges Bank Warns PRI of Mission Drift*. Environmental Finance, March 5, 2019.
[30] (2019). *New ESG Scoring System Aims to Build Sustainable Markets.* IR Magazine, June 3, 2019.

Electronic copy available at: https://ssrn.com/abstract=3562096

Yet such tools present only a partial solution to the complexities PE managers face when assessing the potential ESG merit of an investment. Moreover, the value of any measurement tool may be lessened when employed in the service of Compliant, Selective, and Illustrative ESG programs. Compliant ESG regards as successful a project that avoids negative outcomes; Selective ESG extols isolated investments while allowing other investments wholly unacceptable within an ESG framework; and Illustrative ESG regards as successful an investment that generates ESG benefits unlikely to achieve scaled results for ESG or SDG objectives.

The shortcomings of ESG investment approaches reviewed above indicate a need for a methodology that better operationalizes ESG metrics in the context of Asian PE. There needs to be a clearer dividing line between (i) investments having qualified and limited ESG impact while still harmful when measured more holistically or over the longer term, and (ii) investments evidencing benefits that significantly outweigh any negative Footprint they generate. Global investors have two options: develop a scoring system they impose on PE managers, or allow managers to invest in the development of their own tools and participate with the managers in assessment and modification. The latter alternative undoubtedly promotes better integration into market practices. Where practitioner-developed tools are transparent to concerned stakeholders and the wider market, there is an opportunity to develop minimum market standards for ESG practices. It is suggested that the adoption of Deep ESG will facilitate this opportunity.

"DEEP ESG"

PE investment is typically premised on identifying enterprises that have a strong business model and are growing at a rate exceeding industry norms. One might therefore ask at what stage should ESG considerations be factored in and how should they be weighted. However, this is the wrong question to ask, because answers may either lapse into Compliant ESG, or support an opt-in approach that can give rise to partial and potentially misleading ESG perspectives, as seen in Selective or Illustrative ESG.

Instead, it is proposed that ESG metrics must be integrated with core commercial practices and applied over multiple investment life cycles of a PE firm's investments, from pre-investment screening to ongoing implementation and assessment. This requires a deeper partnership between commercial practices and ESG, as opposed to ESG being an adjunct process. Such an approach is needed to generate more informed perspectives on whether a PE manager's investments in toto are contributing in a meaningful way to ESG objectives. This should encapsulate the broader portfolio and manager actions of PE firms, not just isolated investments.

In response to these considerations, "Deep ESG" is proposed as a holistic methodological framework that operationalizes ESG metrics across a PE firm's investment portfolio. It is comprised of five factors, which are explained below:

identification rubric: Footprint and Utility;
asset provenance: degrees of freedom;
stakeholder controls;
sustainability migration plan; and
review and correction.

Electronic copy available at: https://ssrn.com/abstract=3562096

The specific parameters of each factor are non-prescriptive, meaning that they are set by the investing PE firm to establish the bases on which it seeks an ESG investment to be assessed from the outset and on an ongoing basis. This avoids the intractable issue of requiring different stakeholders to agree on common quantitative and qualitative standards applicable across a range of ESG issues. The rigor of a Deep ESG framework established by a PE firm will impact on the quality of the merit assessment. Deep ESG frameworks that are more measurable, testable and specific, and which embrace the firm's other investments more generally, will enable a high ESG confidence level to be achieved. In contrast, frameworks that fail to incorporate independent and/or objective metrics, or which are inconsistent with other frameworks developed by a PE firm, cannot be assessed as robustly and are less likely to instill confidence where a PE firm has attached an ESG label to an investment. Finally, because Deep ESG contemplates a firm-wide approach, where a PE firm sometimes seeks to adopt and sometimes does not adopt a Deep ESG approach in respect of its investment portfolio, then this simply is not Deep ESG - it remains Selective ESG, albeit possibly subjected to an improved disclosure and engagement framework.

Disclosure of the parameters of a Deep ESG framework brings depth and breadth to ESG assessment. It enables third parties to assign their own confidence level to the ESG merit of the investment and promotes the opportunity for more open and informed dialogue because it implicitly recognizes the many different shapes an ESG investment might take on. Part of the problem in current mainstream ESG investment activity is the (often unilateral) application of binary labels that stem more informed discourse by glossing over the more subtle considerations as to whether overarching ESG objectives are truly being met (viz., the illustrative examples given earlier). Deep ESG avoids this problem because it promotes a clear statement of the bases on which an investment is regarded by the manager as meeting ESG objectives.

Each of the five factors described below are comprised of two parts. The first, "Required Statement", briefly sets out what the PE firm must state as the basis on which it has applied or will be applying the relevant factor. The second, "Commentary", provides added color to the intent of the Required Statement, and a manager may elect to provide further detail in like terms. Figure 1 shows how the five factors interact.

Identification Rubric: Footprint and Utility

Required Statement What form of review has been undertaken at the front end of the PE firm's investment process to (i) reduce or eliminate exposure to businesses that are likely to have a material negative impact on ESG, (ii) identify investment prospects for contributing to ESG, and (iii) determine whether this review has been applied differently from other investments in a similar asset class. As this factor is capable of being equally applied by an individual PE firm across a number of investments, variation from one investment to the other would be a negative unless adequately justified.

Commentary Is the business one that provides an essential or valued product, in a manner that is efficient? For businesses that are assessed as unsustainable or neutral, managers must articulate their purpose in making the investment, with a reference to ESG metrics where possible.

Electronic copy available at: https://ssrn.com/abstract=3562096

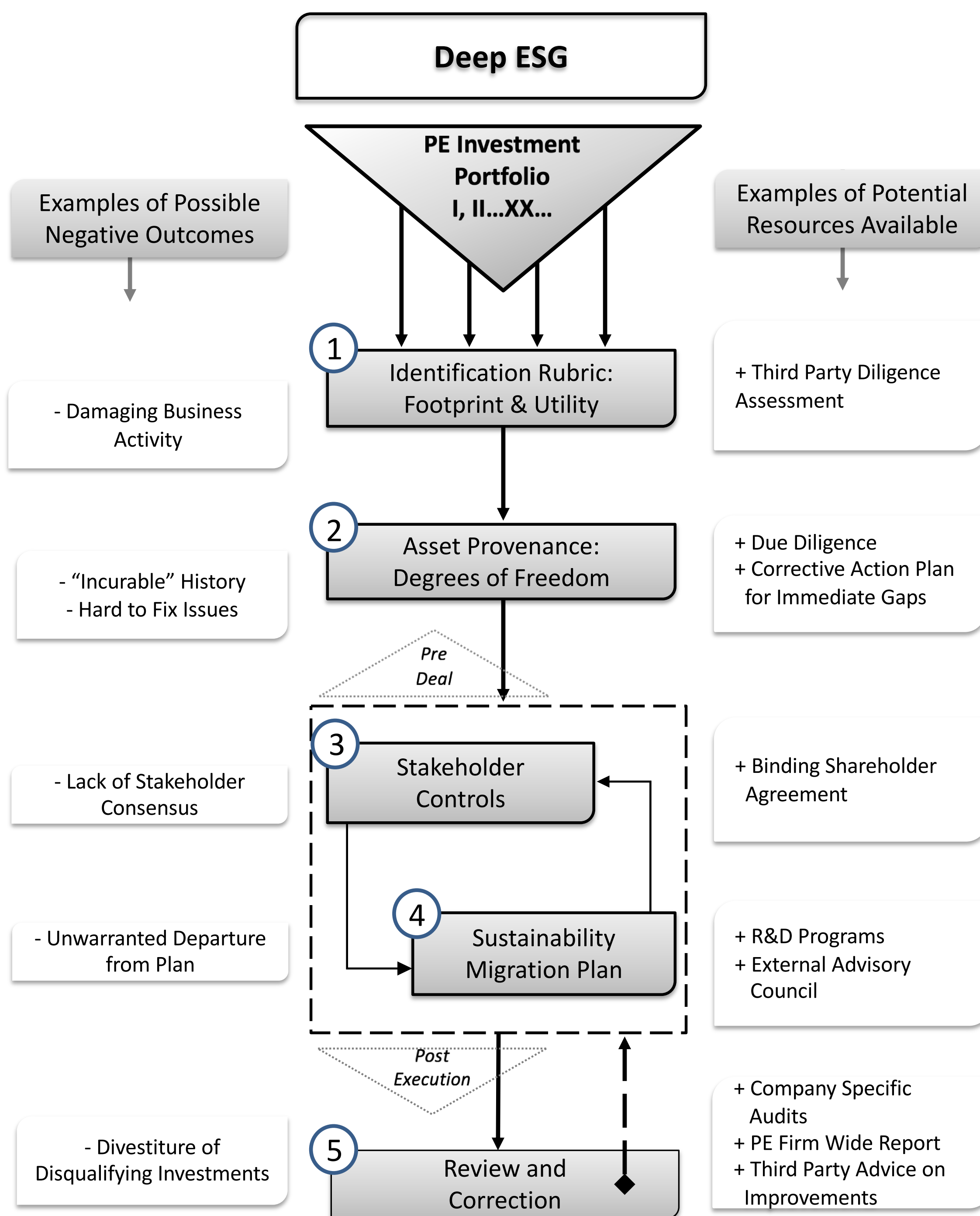

Figure 1 *Deep ESG's five factors operate across the life cycle of a family of a PE firm's investments. Whereas factors (1) & (2) are capable of being applied equally across an investment portfolio as a set of house standards, factors (3) & (4) will be specific to the circumstances of each investment. Variation from one investment to another of how factors (1) & (2) are applied would be a negative for a Deep ESG framework, whereas variation of factors (3) & (4) would be normal and expected. Factor (5) is consequential on the quality of factors (1) & (2), and how well factors (3) & (4) have anticipated business developments and relevant externalities. The examples given at the left and right sides don't impact on a Deep ESG framework per se, but will affect the robustness of an ESG program.*

Electronic copy available at: https://ssrn.com/abstract=3562096

For example, there are numerous industries which clearly fall into disqualifying territory: oil and gas, non-renewable resources, and businesses that rely upon substandard worker conditions for production. There are various shades in interpreting whether a business provides Utility. For example, the assessment of food products might focus on whether the end products enhance the well-being of consumers or cause potentially significant health damage, or it might focus on the interactions of the product source with proper land use, efficient and natural pesticides, water use, and worker relationships involving grower communities.

Asset Provenance: Degrees of Freedom

Required Statement What steps have been taken to assess provenance of the business and its assets and determine if baseline issues can be meaningfully and appropriately improved, i.e. what degrees of freedom exist with regard to correction of provenance concerns. In respect of a specific investment, whether this review has been applied differently from other investments in a similar asset class. As this factor is capable of being equally applied across a number of investments, variation from one investment to the other would be a negative unless adequately justified.

Commentary This is a distinct item from the identification rubric because it requires a specific focus on the origins of separate elements of an ongoing business. In Asia, many businesses that may be operating on relatively well established grounds, i.e. responsibly, may nevertheless be exposed to issues that cannot easily be "cured". Where such issues are identified they should be addressed in the sustainability migration plan (discussed below).

For example, waste management businesses across Asia have often been allotted licenses through non-public tender processes. In assessing these businesses, investors must determine if such allotment is likely to create future liabilities or claims, possibly on an extraterritorial basis, since best practices require transparent public tenders. The waste management site can pose significant problems, such as when adjacent land is designed for residential or agricultural purposes or when the site is located within traditional community or national park boundaries, any of which may lead to legal or regulatory issues. Soil contamination created in prior years may be difficult to assess and new investors will bear responsibility for remediation. In such cases, the degrees of freedom may be highly limited, even though the business's function may be seen to provide positive benefits.

Stakeholder Controls

Required Statement What arrangements are in place to secure the mutual commitment of founders, management and other stakeholders to ESG leadership and formation of a sustainability plan (discussed below). The statement should provide detail explaining the sufficiency of controls and accountability, the extent to which the same is embedded in the shareholders' agreement and indicate what human resources and capital are intended to be deployed. Unlike the previous factors, variation of this factor (and those that follow below) across different investments would be normal and expected.

Commentary The sufficiency of commitment and controls is particularly difficult for Asian PE players because it may mean putting themselves at a disadvantage in competitive deal environments. The statement should therefore provide some indication of the investment

Electronic copy available at: https://ssrn.com/abstract=3562096

dynamics that have led to the incumbent control structure and assess the prospects for this evolving in tandem with the implementation of the sustainability migration plan.

One example taken from a larger corporate context could illustrate how a PE firm might implement controls. To reflect growing regulatory requirements to address all aspects of consumer products in Europe, Unilever has developed a comprehensive approach to governance of sustainability issues, with accountability at both the corporate and business unit level. Unilever defines 177 sustainability topics and puts them into priority categories.[31] Non-Executive Directors oversee the company's sustainability conduct. For sustainable sourcing policies, Unilever formed an eight-person independent Sustainable Sourcing Advisory Board comprised of NGO experts and impact investors. Still, Unilever faces numerous challenges to its strategy as many fast moving consumer goods products have negative ecological impacts.

Sustainability Migration Plan

Required Statement What is the overall ESG intent of the investment over its life cycle and how will it be accomplished. This should be documented in a sustainability migration plan ("SMP"), which should (i) clearly set out the relevant factors according to the nature of the business, (ii) envision the steps that can be taken as soon as practicable to evaluate the most suitable modules for implementation and estimate what may be possible in the medium term, (iii) encompass the setting of granular expectations in relation to the operations of a business and/or more aspirational-based standards that go beyond local market norms, and (iv) identify the ESG-sensitive metrics by which the success of the plan can be assessed.

Commentary The SMP is both formative and reflective of investment intent, and sets the prospect for ESG success right from the outset. It should be formed as part of an implementation methodology, be designed in view of stakeholder controls, and be capable of facilitating objective review and correction. Firms should establish SMPs in a more consistent, holistic and ambitious way as part and parcel of pre-investment assessments. This requires a thorough and challenging pre-investment assessment of performance metrics and establishing a meaningful baseline of an operating company prior to investment. In practice it may be difficult or impossible to come up with an SMP post-investment if the fundamentals are not present. Once formed, there should be regular and systematic reviews in order to upgrade and update the SMP. Use of an independent advisory council should be considered, as should access to leading technologies and practices.

Possible scenarios for transitioning business practices should be explored at the outset of the investment, including likely areas of regulatory development as well as potential for gaining competitive advantage. Questions that might be asked include: how the business will provide a valuable societal function in the longer term; how the product can be re-designed in ways that significantly lessen the impact on natural systems and resource utilization; how proper re-use and disposal plans might be achieved, such as via a rental model in place of a sales model; how the employment system will be evolved to address diversity and offer community benefits; and how to incorporate representation and decision making at all stakeholder levels to take into consideration the SMP.

[31] See Unilever website. *Materiality Matrix 2017/2018.* Retrieved from https://www.unilever.com/Images/materiality-matrix-2017-18_tcm244-537797_en.pdf.

Electronic copy available at: https://ssrn.com/abstract=3562096

For example, The Bank of England requirements for financial institutions provides an example of a regulator-imposed need to evaluate the impact of climate scenarios on the entirety of their business portfolios.[32] Two scenarios envision near term adjustments required to limit temperature increases to 2ºC. A third scenario involves assessing impacts and actions over the period to 2050 if climate targets are not met. In these cases, leading financial institutions are expected to bring significant resources to bear to plan for long-dated sustainability scenarios. Barclays' approach is to target Euro 150 billion for social and environmental financing by 2025,[33] while continuing support for carbon intensive energy. In January 2020 a group of shareholders including pension and investment funds managing US$170 billion filed a resolution to prohibit Barclay's from providing financial services to energy companies not aligned with the goals of the Paris Climate Agreement.[34]

Review and correction

Required Statement What methodology will be used to assess the implementation of the SMP, how often will it be engaged, and how will the results be used to provide feedback on and evolve the SMP. The methodology should indicate how the review and reporting system will be undertaken, e.g. by the company or PE investor self-reporting or by an independent service provider. The review should assess whether stakeholder controls have inhibited or facilitated implementation of the SMP.

Commentary Company self-reporting is the current model of ESG implementation across Asia and raises questions about the quality and integrity of performance metrics provided to date. Accordingly, where independent reporting is not to be used, this should be accompanied by an explanation as to why. Where independent parties evaluate the implementation of the SMP, it should be indicated whether they will be engaged to, for example, make recommendations for improvements, benchmark the original grade with the grade achieved over time, or utilize automated systems designed to capture and report relevant data on a real-time basis.

Assessment of the interaction between the SMP and stakeholder controls is important as this may indicate whether proposed changes to the SMP are likely to be effective. Where they are proven to be significantly ineffective, consideration may need to be given to divestiture or, alternatively, justification for maintaining the investment.

Steps Towards Sustainability

A Deep ESG program, at both the company and fund level, presents challenges that few players today can be said to truly fulfill. Companies often take transformational initiatives in one area, while coming up short in other aspects of social and environmental sustainability. The companies below continue to receive criticism even while making long-dated commitments to transform themselves. Still, by illustrating steps being taken by multinational companies, we can see paths that mid-sized private Asian companies and their PE backers may follow.

---

[32] Bank of England Discussion Paper, *The 2021 biennial exploratory scenario on the financial risks from climate change.* December 2019.
[33] (2019). *How Barclay's is Building a Sustainable Banking System.* Barclay's Website. March 19, 2019.
[34] The resolution is due to be put to a shareholder vote in May 2020. See https://www.ft.com/content/0160cb3a-3167-11ea-9703-eea0cae3f0de

Electronic copy available at: https://ssrn.com/abstract=3562096

BMW: Germany's Green Point legislation in 1990 required manufacturers to take a product at the end of its useful life. BMW, following design for disassembly principles, rethought its entire product and production process. The result is a vehicle which can be disassembled in one hour, where parts are reconditioned for use in aftermarkets and 95% of materials are recovered and re-used. Its Sustainable Value Report notes its intention is: to dramatically expand electrified vehicles and mobility as a service; make human rights protection an explicit aim of supply chain management; and direct sustainability management from the board level, making sustainability an explicit corporate objective.

Patagonia: The Company developed the "Don't Buy This Jacket" campaign to encourage people to only buy products they truly need. Patagonia products maintain a lifetime warranty, wherein customers return products experiencing significant wear for repair in order to reduce consumption of new items.

Siemens and BASF: Asia is often cited as the world's manufacturing center. With growing concerns about worker and community welfare, thousands of plants have been closed as Asian governments enact stricter environmental and workplace standards. Siemens and BASF develop products that contribute to workplace well-being, including ventilation and lighting systems, insulation and waterproofing.[35] At the city design level, BASF contributes to The Sponge City Initiatives in China designed to utilize rainwater, protect wetlands, and reduce flooding.

THE OPPORTUNITY AND THE RISK

Scientists view Asia as a critical battleground for ESG and the SDGs. Asian PE needs to take a more ambitious path to impart a positive influence on these important issues. While the SDGs are useful tools for policy makers, many of them are difficult for private business to address directly. Yet the SDGs presently offer the best reference point to begin conversations on how to achieve more sustainable and just economies and societies.

Given the complexity of and prognosis for Asia's ESG problems, it is virtually certain that governments will increase the scale and scope of regulations. Matters that Asian governments will action include the use of non-renewable materials, the pace of developing renewable energy, raising air and water emissions standards, restrictions on international transport of waste, and costing of negative externalities such as carbon emissions. Stringent regulations are already on the books, even though compliance may be insufficient to ensure such regulations are met.[36] One current example is China's approaching soil quality and restoration rules that could exceed even the most stringent standards in Europe or the United States.[37]

While multinationals are expected to lead Asian ESG initiatives due to global mandates, Asian PE investors working together with locally led businesses have an opportunity to develop competitive advantages by more clearly establishing ESG and sustainability performance. Capital investment that does not go beyond minimal and

---

[35] Siemens provides an interesting case study of both unsustainable and sustainable behaviors. In the early 2000's, the company was prosecuted for major acts of bribing foreign officials and was placed on blacklists of various international institutions. Twelve years later, after major efforts including developing solutions to help cities decarbonize and providing training programs for refugees, Corporate Knights (Canada) rated Siemens one of the World's 100 Most Sustainable Corporations in both 2019 and 2020, when it ranked #41.
[36] *John, D., & Wincuinas, J.* (2019). *Sustainable and Actionable: A study of asset-owner priorities for ESG investing in Asia,* The Economist
[37] Kirkland & Ellis (2019). *China's New Soil Pollution Prevention Law Creates Obligations and Liabilities for Companies with Industrial Sites in China.*

Electronic copy available at: https://ssrn.com/abstract=3562096

defensive strategies reflects a failure to respond to the changing commercial context. This is where Deep ESG enables differentiation.

The driving principle of Deep ESG is to operationalize ESG and sustainability metrics by:

moving assessment to an outcomes focused approach;

establishing higher aspirations across an entire investment portfolio;

enabling the holistic evaluation of performance; and

consequentially enhancing the ability of market forces to determine whether capital is being allocated to managers who take ESG and sustainability seriously.

As a methodology, Deep ESG is not prescriptive but instead serves to significantly improve transparency as to how an ESG framework is being applied and assessed in toto. Managers will need to ask hard questions to ensure that the entire investment team considers ESG an integral part of the investment process, not as an afterthought. As such, it promotes a more informed context for the evaluation, implementation and review of investments being held out with an ESG or sustainability labelling. Deep ESG is admittedly demanding. Few PE firms may fully achieve it. Hence it is aspirational and represents a direction of travel for PE firms wanting to improve their approach to ESG and sustainability. Where that happens, it will facilitate PE investors to seek competitive advantage via differentiated ESG performance, and it will promote the reappraisal of investment horizons in anticipation of regulatory and market changes. Taken together, this will enable Asian PE as an industry to begin to get sustainability practices right, and facilitate Asia's contribution to solving global challenges.

Electronic copy available at: https://ssrn.com/abstract=3562096