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OF FINANCIAL TRANSFORMATION

ESG

Regulatory implications of ESG Investment

LUKE O'LEARY | MINDY HAUMAN

WEALTH & ASSET MANAGEMENT

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# THE CAPCO INSTITUTE

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DEAR READER,

Welcome to edition 51 of the Capco Institute Journal of Financial Transformation.

The global wealth and asset management industry faces clear challenges, and a growing call for innovation and transformation. Increased competition, generational shifts in client demographics, and growing geopolitical uncertainty, mean that the sector needs to focus on the new technologies and practices that will position for success, at speed.

There is no doubt that technology will be at the forefront of a responsive and effective wealth and asset management sector in 2020 and beyond. The shift to digitization, in particular, will see the speeding up of regulatory protocols, customer knowledge building, and the onboarding process, all of which will vastly improve the client experience.

This edition of the Journal will focus closely on such digital disruption and evolving technological innovation. You will also find papers that examine human capital practices and new ways of working, regulatory trends, and what sustainability and responsible investment can look like via environmental, social and corporate governance.

As ever, I hope you find the latest edition of the Capco Journal to be engaging and informative. We have contributions from a range of world-class experts across industry and academia, including renowned Nobel Laureate, Robert C. Merton. We continue to strive to include the very best expertise, independent thinking and strategic insight for a future-focused financial services sector.

Thank you to all our contributors and thank you for reading.

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Lance Levy, Capco CEO

# REGULATORY IMPLICATIONS OF ESG INVESTMENT

LUKE O'LEARY | Associate, White & Case LLP

MINDY HAUMAN | Professional Support Counsel, White & Case LLP

#### **ABSTRACT**

In the age of big data and globalization, regulation is increasing in both scope and scale. Much of the recent regulation in the E.U. has focused on ESG investments and compliance, with a focus on increased data reporting requirements to promote transparency. This suite of regulations will pose a real challenge to financial market participants. This article focuses on some of the recent E.U. regulations regarding ESG investment, examines how it will impact the market, and proposes a solution to the challenge. Integrating data analytics into the regulatory and business framework will enable artificial intelligence and machine learning to assist companies and investors with compliance. It will also assist in providing a reliable, objective standard to promote comparability. Finally, this article will discuss how the implementation of some E.U. legislations have enabled fintech businesses with ESG goals to disrupt financial markets.

#### 1. INTRODUCTION

In the age of big data and globalization, where complex international transactions can take place in a matter of seconds, regulation is increasing in scope and scale, and necessarily so.

At the same time, we have seen an increased focus on Environmental, Social and Governance (ESG) related investments. Since early 2019, ESG-related activism across the stakeholder spectrum has increased, resulting in major institutions such as Blackrock and Goldman Sachs producing bold promises on ESG investments to address some of the world's most pressing needs on climate, the environment, and businesses' broader effect on the communities in which they operate. These steps are all welcome beginnings on a difficult path to a low-carbon economy and a more equanimical society. 2020 marks the start of the decade of delivery for the U.N. Sustainable Development Goals (SDGs) – the success or failure of ESG investments will play a significant role in

whether or not these SDGs are attained. The big challenge now is ensuring ESG regulation and the regulation of big data dovetail to help achieve these goals rather than hinder an already difficult undertaking.

There is urgent need for global action to create a harmonized regulatory platform for ESG investments which:

- Applies to all market participants
- Is clear in its aims and objective in its standards
- Is deliverable (i.e., realistic) in the demands it places on those who have to comply

There has been some recent reaction from each of the world's major powers: the European Green Deal,<sup>1</sup> the proposed Green New Deal of the U.S.,<sup>2</sup> and the improvements in Chinese companies' ESG disclosures.<sup>3</sup> However, the E.U. has been leading the way on creating a plan to address these issues.

<sup>1</sup> https://bit.ly/2SzXtPB

<sup>&</sup>lt;sup>2</sup> https://bit.ly/2vCG0NB

<sup>3</sup> https://bit.ly/2SQhAYN

In 2015, the European Commission (E.C.) unveiled its Action Plan on Sustainable Finance (the E.U. Action Plan), which was designed to complement (and be the E.U.'s method of achieving) the commitments set out in the U.N. SDGs.<sup>4</sup>

As part of the E.U. Action Plan, the E.C. has created a High-Level Expert Group and a Technical Expert Group, each of whom delivered a report in 2018-2019<sup>5</sup> setting out the methods by which, and the proposed legislation under which, these commitments can be delivered. The purpose of the E.U. Action Plan is to transform its economy into a greener, more resilient system to reduce the its carbon footprint, boost competitiveness by improving efficiency of production, and reduce cost of resources. The strategy comprises the following four key recommendations:

- Establish and maintain a common sustainability taxonomy at the E.U. level (the E.U. Taxonomy)<sup>6</sup> and develop E.U. sustainability (ECO) standards and labels.<sup>7</sup>
- 2. Foster transparency and long-termism in financial and economic activity by: (i) moving focus away from short-term performance (as investments into environmental and social objectives require a long-term orientation); (ii) upgrading disclosure rules to make sustainability risks fully transparent (thereby allowing investors to take better informed and more responsible investment decisions); and (iii) promoting a retail investment savings strategy that includes making ESG part of any investment advice.
- 3. Develop an E.U. green bond standard (E.U. GBS).8
- 4. Develop benchmarks for low-carbon investment strategies.

The E.U. Taxonomy is the foundation of the E.U. Green Deal (and one of the cornerstones of Ursula von der Leyen's presidency of the E.U.). With such a large, diverse financial system to which the E.U. Taxonomy is intended to apply, it is hard at this stage to draw firm conclusions on the potentially huge impact it will have on sustainable finance in the E.U.

However, regulation related to the E.U. Taxonomy has started to come into effect — notably, Regulation 2019/2088 on sustainability-linked disclosure and Regulation 2019/2089 on climate-transition benchmarks. Each of these requires additional reporting from financial market participants who are

in-scope, ranging from disclosure by investors of the impact of sustainability on a particular decision to disclosure by operators of benchmarks regarding their incorporation of ESG factors into their models. Meanwhile, delegated acts that will implement the other aspects of the E.U. Taxonomy in 2020-2021 will require further information to be reported on both the underlying investments and the actions being taken by the reporting entities to ensure that the disclosures meet the requirements of the regulation.

There are also other regulations that form part of the broader E.U. ecosystem of legislation on sustainability and transparency, notably Regulation 2017/2402 (the Securitization Regulation)<sup>10</sup> and Regulation 2015/2366 (the Payment Services Directive 2 or PSD2).<sup>11</sup>

The Securitization Regulation requires quarterly reporting (with the issuer special purpose vehicle (SPV) typically being the designated reporting entity) on the underlying assets of a securitization. This regulation has also introduced to the market the concept of a securitization that is simple, transparent, and standardized (STS). If a securitization can certify that it is "STS compliant" it may allow the investors to claim beneficial risk weighting or capital treatment.

PSD 2 introduces a wide range of measures, imposing greater transparency, security, and technological standards on banks — one of the key requirements of this piece of regulation is to require banks to share customers' data with third parties and is in large part responsible for the fintech boom in Europe in the last few years.

All of the above are well-meaning attempts to contribute to the development and functioning of an ESG investment market and, in that sense, they represent progress. However, as we will discuss in the following sections, the implementation of the raft of E.U. regulations in this area has been (and will be) problematic. There are two key reasons for this:

 Practicality of compliance: it is often difficult for financial market participants to know what exactly it is that they need to comply with. In addition to this, the sheer volume of information that is required to be reported on makes it very difficult to comply.

<sup>4</sup> https://bit.ly/2uJd0sk

<sup>5</sup> https://bit.ly/323LXiL (High-Level Expert Group Report, 31 January 2018); https://bit.ly/3bK7h0C (Technical Expert Group Report, 18 June 2019)

<sup>6</sup> https://bit.ly/3bF1km5

<sup>7</sup> https://bit.ly/39HTMNv

https://bit.ly/2SQNZhZ

https://bit.ly/2uJrAv1

<sup>10</sup> https://bit.ly/2P2nbKr

<sup>11</sup> https://bit.ly/321TkHj

2. Standardization or objectivity: there is no one accepted definition for what ESG means and one company's assessment of what is ESG may be different from another's. This creates a huge problem for investors seeking to compare ESG investments against one another. The self-assessment method cannot be correct as it is open to abuse and manipulation by market participants.

As we will explain, there are solutions to both of these problems. The answer lies in use of artificial intelligence (Al) and machine learning.

#### 2. KEY IMPLICATIONS

As discussed above, two of the major issues hindering the development of regulation as regards ESG investment are the practicalities of complying with the volume of reporting requirements as well as the cementing of an objective standard for what constitutes ESG. We will analyze each of these below.

#### 2.1 Regulation and practicality of compliance

The Securitization Regulation requires the designated reporting entity to report, on a quarterly basis, all of the information set out in Article 7. This includes (but is not limited to) information on all of the underlying exposure in the securitization, any significant events, and "any change in the risk characteristics of the securitization or the underlying exposures that might materially impact the performance of the securitization." The form of this reporting is to be provided by way of a series of reporting templates set out in an accompanying regulatory technical standards paper.

Although securitizations already typically required quarterly reporting from the issuer SPV in some form, this new regulation adds a further layer of requirements on issuers and participants in a securitization transaction. Issuers are now required to go through, in many cases, hundreds of data fields for its assets (and for portfolio managers of multiple securitizations, they will have to ensure the issuer conducts this exercise for each of the securitizations they manage). This is a sizeable additional burden and we spent a significant amount of time working with our clients in 2019 determining the "hows" and "whys" of compliance with this new regulation.

Further to the general reporting requirements of Article 7, the Securitization Regulation has also introduced a concept of a simple, transparent, and standardized (STS) securitization. This new label is welcome in many ways but it (i) introduces a further layer of reporting requirements on issuers who wish to take advantage of it; (ii) excludes the most common category of securitization in Europe, namely CLOs (collateralized loan obligations), due to the requirement that the pool of assets not be actively managed;<sup>14</sup> and (iii) allows for self-certification of compliance by the issuer SPV, hardly promoting a transparent standard as the recitals to the Securitization Regulation state they wish to do.

The Sustainability-related Disclosures Regulation (Regulation 2019/2088)<sup>15</sup> requires of "financial market participants" disclosure of a series of detailed information on the characteristics of each investment and how it does or does not incorporate sustainability impacts. Article 4, for example, requires each financial market participant with more than 500 employees to publish and maintain on their website:

- (a) Where they consider principal adverse impacts of investment decisions on sustainability factors, a statement on due diligence policies with respect to those impacts, taking due account of their size, the nature, and scale of their activities, and the types of financial products they make available; or
- (b) Where they do not consider adverse impacts of investment decisions on sustainability factors, clear reasons for why they do not do so, including, where relevant, information as to whether and why they intend to consider such adverse impacts.

Article 6 goes on to require descriptions of sustainability risks in pre-contractual disclosures, and Article 7, descriptions of how individual investment products treat potential adverse impacts on sustainability factors. Articles 8 and 9 then address requirements for disclosure where a financial product is stated to promote ESG goals. While the aims of this regulation are admirable, the actual detail of the disclosure required by Articles 4, 6, 8, and 9 will not be known until the RTS are developed (the deadline for this is December 31, 2020). Until

<sup>12</sup> Article 7(1)(g)(iii), EU Regulation 2017/2402

<sup>13</sup> https://bit.ly/2SyGZaw

<sup>14</sup> Article 24(7), EU Regulation 2017/2402

<sup>&</sup>lt;sup>15</sup> Published in the Official Journal of the E.U. on 27 November 2019 and due to come into force on 10 March 2021

then, although we know that urgent action is needed, there will be no mandatory requirements imposed upon financial market participants.

The situation is similar in Regulation 2019/2089, which amends Regulation 2016/1011 as regards E.U. Climate Transition Benchmarks and their sustainability-related disclosures. Articles 13, 19a, 19b, and 27 each require disclosure of information regarding how a benchmark deals with ESG factors.

PSD 2, while not directly linked to ESG factors in the way that the regulations discussed above are, forms part of the E.U.'s legislative framework on transparency and can, therefore, be placed within the "S" and "G" of ESG. It requires payment service providers to disclose large amounts of information, from information on the service provider itself<sup>16</sup> to reporting on financially-important incidents.<sup>17</sup> PSD 2 has also played a vital role in loosening the hold of the major financial institutions on the banking industry and allowing disruptors to enter the market. The regulation requires banks, when authorized by the customer, to share customer account information with third-party service providers.<sup>18</sup> This has increased the ability of fintech companies (from challenger banks to digital payments companies, to financial services infrastructure providers) to enter a previously closed market, as we will discuss below.

Compliance with these regulations is, of course, technically possible. The legal necessity to comply will drive companies to find a way to fulfill the requirements. However, the increase in data reporting requirements suggest it will be vastly more effective from a cost-benefit perspective, as well as an efficiency perspective, to employ the power of Al and machine learning tools to pull this data, analyze it, and deliver it to the company's designated ESG officer or analysts to provide a final, human quality control. The CEO of Sensefolio, a data analytics company providing ESG ratings and research, sums the issue up in the following way:

"In regards to ESG data in general, I strongly believe that ESG data based on AI will become extremely popular as they are the only ones able to monitor properly the materiality of companies. There is too much information out there, even if you hire a team of 200 people, you won't get as much insight

as sophisticated algorithms. This goes from reading each text to find the (hidden) links and relations between them..."19

This is even more true as the investment world could use such tools to do more than merely comply with the law – machine learning can help deliver the modern investment paradigm: improve investment theses and delivering greater returns to stakeholders while acting in a socially responsible manner.

Table 1: Third-party agencies providing ESG (or SDG) scores

Arabesque S-Ray: Through machine learning and big data, Arabesque S-Ray systematically combines over 200 ESG metrics with news signals from over 30,000 sources published in over 170 countries. It is the first tool of its kind to rate companies on the normative principles of the U.N. Global Compact: Human Rights, Labour Rights, the Environment, and Anti-Corruption (GC Score). Additionally, Arabesque S-Ray provides an industry-specific assessment of companies' performance on financially material sustainability criteria (ESG Score).

**MSCI:** MSCI ESG Ratings aims to measure a company's resilience to long-term, financially-relevant ESG risks. It leverages Al and alternative data to deliver dynamic investment-relevant insights to power investment decisions.

It uses a rules-based methodology to identify the performance of industry participants. It rates companies on an "AAA to CCC" scale according to their exposure to ESG risks and how well they manage those risks relative to peers.

**Sensefolio:** Sensefolio utilizes machine learning and natural language processing techniques that allow machines to read more than 10,000 different sources of information (which means around 1 billion data points when covering the 20,000 companies in its database) and interpret them as well as humans.

**Sustainalytics:** recently purchased by S&P, it produces an ESG report for each company, including qualitative analysis and commentary on the company's ability to manage ESG issues; a summary of a company's ESG performance with ESG scores in relation to industry peers; and an overview of any ESG controversies, with access to a full controversy report. This process produces an ESG score, which investors can use to make decisions relative to their investment objectives.

**TrueValue Labs:** TrueValue Labs applies AI to sift through millions of data points each month, as well as uncover opportunities and risks hidden in massive volumes of unstructured data, including real ESG behavior that has a material impact on company value. Its peer comparison feature helps investors form a relative value analysis of a sector, industry, or a customized group of companies.

<sup>&</sup>lt;sup>16</sup> See for example, Articles 43-45, Directive (EU) 2015/2366

<sup>17</sup> Article 96, Directive (EU) 2015/2366

<sup>18</sup> https://bit.ly/2wpNOTc

<sup>19 &</sup>quot;Al is the most powerful and accurate tool to monitor companies' ESG" – Interview with Oliver Khatib, CTO at Sensefolio, 5 June 2019, AltData Insights, https://bit.ly/2whsLlx

#### 2.2 Objectivity

The second problem is that of objectivity and standardization of reporting data. Currently, it is extremely difficult for investors to determine how what one company or one investment reports as being compliant with ESG requirements of the various E.U. regulations matches up against another's reporting on the same issue. Each market participant structuring an investment as ESG compliant will use a different set of metrics in coming to the same conclusion. This makes it hard for investors to conduct a relative value analysis.

What is more, an investor's analysis needs to go beyond a mere tick-box review of the annual and quarterly reporting on ESG issues. ESG investors will look to the heart of a company's or investment's practices — for example, a company's Modern Slavery Statement (whose delivery is required by Article 54 of the Modern Slavery Act 2015) will not necessarily reveal underlying supply chain issues. Likewise, such issues will not necessarily be revealed by merely requiring suppliers to complete a diligence questionnaire before entering into a contract; in many cases, conducting site-visits or demanding adherence to internationally recognized standards will also be required. It is when we start delving into this level of detail, as ESG investors must, that objective comparison of investments becomes complicated.

#### 3. AI/MACHINE LEARNING - THE SOLUTION

These two problems, reporting and objectivity, have a common solution: harnessing the power of Al and machine learning to analyze vast quantities of unstructured data in a fraction of the time it would take a human to do so, and often with a greater degree of accuracy. The solution must incorporate both aspects, for while Al is extremely useful in analyzing large datasets, it cannot learn from them and develop in the way that machine learning can.

It is the aim of the E.U. Action Plan to develop an objective standard that can be evenly assessed across market participants and each of the regulations referred to in this article attempts, in its own way, to move us closer to such a standard.

In our view, an immediately actionable solution exists but has not yet been implemented: a requirement that for any investment to be labeled ESG (or SDG), it must use two or more

reputable third-party agencies to provide it with an ESG (or SDG) score. Companies like Sustainalytics, Arabesque S-Ray, MSCI, Truevalue Labs, and Sensefolio all provide sophisticated data analytics for ESG and SDG investment, which leverage AI, machine learning, and natural language processing to provide a near real-time assessment of each investment and which updates on an ongoing basis throughout the life of the investment (Table 1). This allows investors to look at more than merely the company-reported data on an investment (which by its very nature will be historic once reported) and also encompass more recent information in between reporting dates.

There are some legitimate concerns around employing such third parties in this manner, particularly (i) that they tend to employ their own proprietary model to produce the score and so, even between these so-called objective third parties it is hard to find a common standard; (ii) that it is not clear how effective these scores are at achieving the goals of ESG investors; and (iii) how to verify the quality of the data that feeds into their models.

These points are fair but not fatal — the proprietary nature of the model does not invalidate it. Seeing the ultimate impact of an ESG investment will not be possible until we have a bigger sample of ESG investments to analyze. Furthermore, the very nature of Al and machine learning programs is that the more data provided to them, the better their outcomes become. As Oliver Khatib, CTO of Sensefolio has stated: "At Sensefolio, the more data we retrieve, the more accurate our algorithms become, and thus our ESG Ratings. By adding more and more information, our artificial intelligence algorithms are better trained and better able to distinguish a good information from a bad one…"<sup>20</sup>

A practical methodology for this proposal could be to require that, in order to be labeled as ESG (or SDG), each investment uses an ESG (or SDG) score from at least two of these eligible third-party companies, with a requirement for a minimum weighted average between the two scores, as well as a permitted margin of error throughout the life of an investment. Further eligibility requirements or concentration limits could also be included. This is akin to how debt investments (including securitizations) around the world are already analyzed by rating agencies, hence would be familiar to the majority of market participants.

<sup>20</sup> Ibid.

This method would provide the objectivity that is so crucial to the success of the E.U. Action Plan and opening up the ESG and SDG investment market to the U.S.\$3-5 trillion of investor capital that needs to be deployed if we are to achieve the SDGs by 2030.21 However, it is clear that we must take self-certification out of the equation if we are to avoid creating a new form of "greenwashing". As Thomas Kuh, Head of Index at TrueValue Labs, has eloquently summarized: "... company-reported data has critical limitations as a basis for analysis and ratings. Self-reported and unaudited, it is subject to manipulation to fit a company's framing ... Analysts need external sources of information to develop credible ESG ratings. Even as company-reported data improves, it will never be sufficient on its own as a basis for meaningful ESG ratings and will always be subject to manipulation. Company disclosure will continue to be an important element of ESG analysis but will become less determinant as investors develop external perspectives that deepen their understanding of how ESG issues impact market valuations."22

#### 4. FINTECH - DEVELOPING THE SOLUTION

The third-party ESG rating companies discussed above are good examples of businesses that are well placed to play a crucial role in easing the regulatory burden in ESG investments.

However, they only represent a small portion of fintech industry players who could gain market share in an environment of increasing regulation and growing ESG investments. Challenger banks, fintech infrastructure, and payment services companies have been experiencing hyper-growth in recent years. They are operating in an optimal environment of regulatory fragmentation around the globe. Fast-mover advantage, as compared with established companies in the space, allows them to target areas and consumers that established companies or individuals do not have the bandwidth to think about.

The challenger banks, such as Revolut (valued at c. U.S.\$5.5 billion), Monzo (valued at c. U.S.2.5 billion), and N26 (valued at c. U.S.\$3.5 billion) have in recent years received a lot of attention for their success in winning customers by tapping into the millennial trend for living life through your phone. Accounts can be opened in minutes and can be easily split into sub-accounts for savings or alternative currencies (frequent international travelers using these companies often

get far superior currency conversion rates than those offered by traditional "bricks-and-mortar" banks). The challenge these companies present to the traditional banks not only promotes economic growth (SDG 8) but also the development of innovation and infrastructure (SDG 9).

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Challenger banks, fintech
infrastructure and payment
services companies not only
promote economic growth but also
the development of innovation
and infrastructure.

Fintech infrastructure and payment services (the plumbing of the financial services industry), while not always taking the headlines, has become more mainstream in the past few years. Companies such as Stripe, a payment services provider that allows companies and individuals to receive online payments, Plaid, which enables companies and individuals to connect with a counterparty's bank accounts, and Currencycloud or Transferwise, which specialize in payments platforms for cross-border payments for companies and individuals, respectively, have all grown exponentially as the world has become increasingly globalized.

Aside from very well-known players mentioned above, as well as Square (which provides credit card payment processing services for SMEs) and Klarna (which provides e-commerce payment solutions), in terms of market innovation the leader is arguably M-Pesa. This mobile-phone based money transfer service has c. 17 million customers in Kenya and has recently expanded to South Africa, India, and Eastern Europe. Around 49 percent of Kenya's GDP is processed over the platform<sup>23</sup> and it (along with a few other similar services) has increased the proportion of Kenya's population with access to formal financial services to 83 percent (in 2016).<sup>24</sup> Given the high percentage of the world's population living in emerging economies, who lack access to a traditional banking infrastructure but would have access to mobile phones, this is a business with huge potential scalability that would also

<sup>21</sup> SDG Bonds and Corporate Finance: A Roadmap to Mainstream Investments, White Paper prepared by the U.N. Global Compact Action Platform on Financial Innovation for the SDGs. 2018

<sup>22</sup> https://bit.ly/2vJCIYY

<sup>23</sup> https://bit.ly/2P2P0SN

<sup>24</sup> https://bit.ly/2wkuG8Y

actively contribute to achieving a number of the SDGs, in particular SDGs 8 (Decent Work and Economic Growth), 9 (Industry, Infrastructure and Innovation), and 11 (Sustainable Cities and Communities).

Established financial institutions have by now realized the potential for these fintech businesses to take their market share. Given that in many cases they lack the competitive advantage of size and flexibility, it is likely that they will continue to consolidate by acquiring the most successful companies in this space (see, for example, Visa's recent purchase of Plaid for U.S.\$5.3 billion and Visa's U.S.\$80 million investment in Currencycloud's latest round). This will combine the capacity and infrastructure of a traditional financial institution with the innovation of a fintech challenger. For certain fintech businesses (especially those operating on subscription models or with predictable cash flows or customer receivables) raising debt finance either by way of loans or securitizations could be good options to consider, particularly where companies are reluctant or unable to raise a further round of equity, which would dilute control (or they are unable to issue equity due to the nature or structure of the project).

#### 5. FROM ESG TO SDG...AND BEYOND

The ESG actions of companies around the world clearly have the potential to shape the future of the planet and our place within it. However, we would suggest that the term ESG, while it has undoubtedly moved us forward and charged the debate, is a term that belongs to 2019. The term for the 2020s and beyond should be "SDG". The Sustainable Development Goals encompass ESG and go beyond it, to the heart of a global struggle to create a more equal planet. Each of the seventeen goals is quantifiable and measurable by looking at the sub-indicators published by the U.N. and using methodologies developed in line with them. As we have noted previously, several of the third-party data analytics providers have already developed models that analyze investments based on how closely they align to the SDGs; these providers deserve more attention.

Although financial market participants and institutions across the finance services industry are working towards a common definition of ESG, there is as yet no universally accepted one and it seems likely that the powers of vested interests in

Figure 1: United Nations sustainable development goals

# SUSTAINABLE DEVELOPMENT GOALS



this debate will ensure that one agreed-upon definition will be tough to achieve. By contrast, given the SDGs have been developed by the U.N., there is much less room for debate.

Whichever term is used, the global shift towards sustainable investments will increase the data reporting requirements of companies and financial market participants. The volume of reporting and the uncertainty of the form in which it must be delivered will make it hard to comply. As we have discussed above, the solution to this lies in greater integration of data analytics, using Al and machine learning to make a giant task more manageable.

For financial instruments that use the label "sustainable", "ESG", or "SDG", requiring mandatory usage of third-party data analytics companies to provide ESG ratings (in a similar

way to how the credit rating agencies currently rate financial market transactions), would be one method of providing the reliability and objectivity that is required for ESG investments to gain wider traction. This combined with, firstly, a growing willingness of companies to actively change their activities to promote sustainable behavior, and, secondly, the increasing scope and specificity of E.U. sustainable finance regulation could be the framework for promoting transparency through harmonized reporting obligations and methodologies. These three elements provide us with a roadmap that successfully balances the need for accountability and the need to encourage sustainable growth in a globalized world.

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