ABA Section of International Law
Your Gateway to International Practice

International Environmental Law Committee Newsletter

Vol. 4(1) **Climate Change and Sustainability Financial Reporting** **December 2017**

Photo credit: Courtesy of United Nations and the QUT Library, Australia

Section of International Law
International Environmental Law Committee Newsletter
Vol. 4(1), December 2017
Linda M. Lowson, Editor-in-Chief

Editorial Team
Shannon Martin Dilley,
Jonathan Nwagbaraocha,
Kristi Robertson, Ross Middlemiss

Issue Theme: Climate Change and Sustainability Financial Reporting

In this issue:

Editor's Letter
Linda Lowson 3

FSB Guidance on Climate-Related Financial Reporting: Game-Changer for Voluntary Sustainability Reporting?
Robert Blanchard, Kristie Blase, Karen Bridges, Naicheng Deng, Virginia Harper Ho, Linda Lowson, Jeanne Solomon, and Paul Wehrmann..... 4

FSB Guidance on Climate-Related Financial Reporting: Regulatory and Market Responses
Linda Lowson 8

Climate-Competent Boards: An Emerging Priority for Shareholders and Directors
Edward Kamonjoh and Nell Minow 18

Climate Change as a Matter of Corporate Governance: An Investor Perspective
George Dallas 22

The Human Right to a Clean and Healthy Environment: Compliance Down the Pipeline
Stephanie Trager and
Emily Bergeron..... 27

SIL CALENDAR OF SECTION EVENTS

2017 Moscow Dispute Resolution Conference
December 08, 2017
Moscow, Russia

Surviving a Disaster II: Upholding Your Ethical Duty to Protect Clients, Privileged Documents and Court Records
December 13, 2017
Webinar

Live from L: Cybersecurity
February 15, 2018
Washington, DC

Israel's 4th Annual Foreign Law Firms Conference
February 26, 2018
Tel Aviv, Israel

Career Panel on International Environmental Law
March 28, 2018
Washington, DC

2018 Annual SIL Conference
Celebrating 800 Years of Protecting the Commons: How the Principles of Carta de Foresta Continue to Shape Laws of the Globe
April 17-21, 2018
New York, NY

For full details, please visit our Events & CLE webpage

Copyright © 2017. American Bar Association. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher. Send requests to Manager, Copyrights and Licensing, at the ABA, by way of www.americanbar.org/reprint.

Any opinions expressed are those of the contributors and shall not be construed to represent the policies of the American Bar Association or the Section of International Law.

EDITOR'S LETTER

Linda M. Lowson
Editor-in-Chief

Environmental, social, and governance (also known as ESG or sustainability) risks and opportunities, and the disclosure of these risks and opportunities and their impacts, are now firmly on the agendas of corporate boards and institutional investors worldwide—and for compelling reasons. These issues, and the reporting of these issues, are now spurring a re-evaluation—by both issuers and investors - of corporate business models, supply chains, customer and competitive market dynamics, and financial metrics. This re-assessment (and, in some cases, asset and company re-valuation) is directly affecting equity, fixed income, private equity, and real estate capital markets.

What began as a quiet movement in 2002 with the launch of the first voluntary sustainability reporting framework by the Global Reporting Initiative is now a complex, swiftly evolving global phenomenon which has the attention of the mainstream investment community and has "graduated" to the financial regulatory reporting area. Climate-related risks in particular have garnered the most attention, scrutiny, and concern, due to their scale, urgency, significance, and far-reaching environmental and social consequences. The landmark 2014 Climate Change Synthesis Report (https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf) by the Intergovernmental Panel on Climate Change Climate Change tells the chilling scientific story. Most recently, the final Guidance (https://www.fsb-tcfd.org/publications/final-recommendations-report/)published on June 29, 2017 by the Financial Stability Board (FSB) Task Force on Climate-related Financial Disclosures (TCFD) delineated a range of potential climate change risk scenarios and potential financial impacts arising from climate-related physical, technological, policy, legal/regulatory, and other risks of transition to a lower-carbon economy.

The groundbreaking entry in 2015, and likely long-term presence, of macro-prudential oversight of climate-related financial disclosure by the FSB and G20 finance ministers and central bank governors, as well as the essential role of this disclosure in an orderly transition to the low-carbon economy envisioned by the 2015 Paris Agreement, means that climate-related financial reporting is here to stay, and marks a transition to mandatory reporting requirements and an upgrading of this disclosure with the data and process quality controls and governance guardrails to which financial reporting is subject under securities laws worldwide.

All industries, all capital market transactions, and all financial policymakers and regulators will need to accommodate this seismic shift in the global risk landscape and the new and necessary financial system role as a capital provider facilitator of this low-carbon economy transition. A profound financial system and financial reporting transformation has just begun.

The articles in this publication provide a diverse range of thought-provoking perspectives on issues relating to climate-related and sustainability financial reporting.

The first article, "FSB Guidance on Climate-Related Financial Reporting: Game-Changer for Voluntary Sustainability Reporting?", jointly authored by the members of the ABA 2016 Working Group on Climate Change and Sustainability Financial Reporting (Robert Blanchard, Kristie Blase, Karen Bridges, Naicheng Deng, Virginia Harper Ho, Linda Lowson, Jeanne Solomon, and Paul Wehrmann), sets the context for the FSB TCFD Guidance, and then summarizes responses to the Guidance by the main voluntary sustainability reporting frameworks. It concludes with a forecast of potential implications of, and prognosis for, market implementation of the Guidance.

The second article, "FSB Guidance on Climate-Related Financial Disclosures: Regulatory

and Market Responses", authored by myself, summarizes and comments upon the responses to the FSB TCFD Guidance by financial regulators, issuers, investors, credit rating agencies, and voluntary sustainability reporting frameworks, which collectively represent a strong indication of what to expect regarding market uptake and implementation of this Guidance, and portend potential future financial regulatory developments.

The third article, "Climate-Competent Boards: An Emerging Priority for Shareholders and Directors", jointly authored by Edward Kamonjoh and Nell Minow, explains why board climate competency is now essential. They delineate key board considerations regarding climate risk, including both economic and financial impacts, and legal issues, such as director fiduciary duty, financial regulatory disclosure, and shareholder proposal and proxy access considerations. The article concludes with practical, concrete recommendations for boards.

The fourth article, "Climate Change as a Matter of Corporate Governance: An Investor Perspective", authored by George Dallas, Policy Director of the International Corporate Governance Network (ICGN) (which represents institutional investors holding US $26 trillion in global assets under management), presents the ICGN policy perspective on climate risk. He delves into the legal concepts of board fiduciary duty and investor stewardship, and articulates six investor expectations for corporate directors, regarding climate risks. He also comments upon the role of corporate sustainability reporting, the role of the private sector in implementation of the 2015 Paris Agreement, and the limits of public policy.

The fifth and final article, "Human Right to a Clean and Healthy Environment: Compliance Down the Pipeline", jointly authored by Stephanie Trager and Emily Bergeron, presents a compelling case for an enforceable legal human right to a clean and healthy environment. The article summarizes the current global state of regulatory policies and norms relating to human rights and corporate behavior, and then explains why this human right to a healthy environment should be incorporated into companies' strategic decision-making, environmental due diligence, and corporate governance, risk, and compliance programs, as well as why financial regulatory reporting policies and frameworks should consider the impacts of environmental degradation on human rights.

We are deeply grateful to our authors for their thoughtful and stimulating contributions, and to the Editorial Team for their generous time and efforts, and to all those who supported this endeavor. We hope these articles encourage and inspire active discourse and debate on the important issues presented herein. These issues will have increasing significance as our ecological systems continue to suffer degradation and destruction.

FSB GUIDANCE ON CLIMATE-RELATED FINANCIAL REPORTING: GAME-CHANGER FOR VOLUNTARY SUSTAINABILITY REPORTING?

Robert Blanchard, Kristie Blase, Karen Bridges, Naicheng Deng, Virginia Harper Ho, Linda Lowson, Jeanne Solomon, and Paul Wehrmann

Background

The Financial Stability Board (FSB), established in 2009 by the Group of Twenty (G20) as the successor to the Financial Stability Forum, is a global financial macro-prudential oversight authority charged with promoting financial stability and supervising global financial system systemic risk. It develops and recommends regulatory and supervisory financial sector policies relating to systemic risk, and monitors consistent implementation of the standards and policies to which its members have agreed. FSB members include G20 Finance Ministers and Central Banks, International Financial Institutions, and International Standard-Setting Bodies.

In September 2015, the FSB received a remit from G20 Finance Ministers to develop voluntary guidance on climate-related financial reporting. The direct impetus for this remit was climate risk research conducted in 2014 by the Bank of England (BOE), led by BOE Governor Mark Carney (who is also Chairman of the FSB). The BOE research found that climate risks, and their financial impacts, represent a clear, growing, material global financial system systemic risk.

The FSB, led by Governor Mark Carney, decided that two principal corporate disclosure weaknesses needed to be addressed to mitigate this rising climate-related systemic risk:

- A plethora of disparate, inconsistent disclosure frameworks and requirements addressing these risks (as well as the broad range of environmental, social, and governance, or sustainability risks) have produced a lack of disclosure standardization, making it difficult for investors to evaluate and compare corporate disclosures; and
- Existing disclosure frameworks largely have failed to provide meaningful insight into climate-related financial impacts.

These corporate disclosure weaknesses meant that corporate climate-related risks likely were being understated, undervalued, or otherwise improperly disclosed in corporate financial statements, as well as being under-managed or mismanaged by corporate management and boards, thereby creating increased investor risk and the potential for another international financial crisis.

In January 2016, the FSB established a task force to develop this voluntary guidance on climate-related financial reporting. This Task Force on Climate-Related Financial Disclosures (TCFD) consisted of 32 market participants, representing data users, data providers, credit rating agencies, and other industry experts. It is noted that unrepresented in the TCFD membership was a significant voice from either legal practitioners or securities regulators.

The TCFD issued its draft Final Report on December 14, 2016, which was subject to a 60-day public comment period ending February 12, 2017. See Task Force on Climate-Related Financial Disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosures* (Dec. 14, 2016), available at https://www.fsb-tcfd.org/wp-content/uploads/2016/12/16_1221_TCFD_Report_Letter.pdf. The TCFD issued its finalized Final Report on June 29, 2017 (https://www.fsb-tcfd.org/publications/final-recommendations-report/), which was substantially similar to the draft Final Report. In this article (written in April 2017), we offer an initial analysis from a legal perspective of the draft Final Report ("Guidance"), focusing upon its impacts upon voluntary sustainability reporting.

The TCFD's specific goals were: (i) to improve consistency, clarity, access, and usefulness of climate-related financial disclosures; and (ii) to foster standardized disclosures globally, in both financial regulatory (public) filings and voluntary reporting channels.

The Guidance is organized around four areas of business operations: governance, strategy, risk management, and metrics and targets, recommending that organizations disclose:

- Their governance pertaining to climate-related risks and opportunities.
- Actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy, and financial planning.
- How they identify, assess, and manage climate-related risks.
- Metrics and targets used to assess and manage climate-related risks and opportunities.

Impacts Upon Voluntary Sustainability Reporting

The following commentary will focus upon the three principal global climate-related and sustainability voluntary reporting frameworks: the Global Reporting Initiative (GRI) framework, the

Carbon Disclosure Project (CDP) framework, and the United Nations' Principles for Responsible Investment (PRI) framework. All three frameworks have expressed positive support for the Guidance.

A. Voluntary Sustainability Reporting Background

Voluntary sustainability reporting has been a steadily evolving area since the launch of the first GRI guidance in 2000. All three frameworks have made impressive gains in global market adoption since their inceptions. According to a recent report by the Governance & Accountability Institute (GAI), 81 percent of S&P 500 companies published a sustainability or corporate responsibility report in 2015, up from less than 20 percent in 2011. GAI, FLASH REPORT: 81% of the S&P 500 Index Companies Published Corporate Sustainability Reports in 2015 (https://globenewswire.com/news-release/2016/03/15/819994/0/en/FLASH-REPORT-81-of-the-S-P-500-Index-Companies-Published-Corporate-Sustainability-Reports-in-2015.html) (Mar. 15, 2016).

- The GRI framework is now utilized by 10,494 companies in 90 countries, including 82 percent of the world's largest 250 companies. See http://database.globalreporting.org. GRI requires companies to report on a full range of environmental, social, and governance issues utilizing GRI reporting principles and metrics.
- The CDP framework, first launched in 2003, now has over 5,800 corporate reporters, representing about 60 percent of the world's companies in terms of market capitalization. In addition, it has over 800 institutional investor signatories, with $100 trillion in assets under management. Over 500 cities disclose environmental information through the CDP framework, and 71 of the world's states and regions measure their environmental impacts utilizing the CDP framework.
- The PRI, established in 2006, now has over 1700 signatories with USD $62 trillion in assets under management, including 343 asset owners, 1135 asset managers, and 223 service providers. Signatories must pledge to comply with the six Principles for Responsible Investment, and must report their responsible investment activity annually through the PRI Reporting Framework.

B. Voluntary Reporting Framework Responses to the FSB Guidance

The Guidance adopts a five-year time frame for reporting companies to implement its recommendations. It anticipates that companies may begin to apply the recommendations first in preparing their voluntary sustainability reports, and urges companies to move toward making these disclosures in their mainstream (i.e., public) financial filings, which will create a wider user base of such disclosures, and a wider understanding of organizations' climate-related risks and opportunities, including across the financial sector.

The GRI, CDP, and PRI framework specific responses to the Guidance will be instrumental, particularly in the short-term, with respect to both (i) the speed and scale of market adoption, and (ii) the extent to which issuers implement the FSB Guidance. (In the longer term, the response of national securities regulators to the Guidance will have more influence in the speed, scope, and nature of market adoption.) These three voluntary framework responses (through April 1, 2017) are summarized below.

- *GRI:* GRI has expressed explicit support for the TCFD work. It sees the TCFD work as "an important first step in the process by which the financial sector can become more inclusive and sustainable . . . [and GRI] continue[s] to encourage the TCFD to include the input of all stakeholders in its work, and to leverage existing reporting standards already in use around the world . . . [GRI] also support[s] the TCFD's focus on standardization of the industry around important sustainability

risks such as climate change as an important step towards a more sustainable economy and world." See https://www.globalreporting.org/information/news-and-press-center/our-position-on.

It is noted that GRI's historical practice has been to publish "alignment" reports that demonstrate how the GRI framework aligns with other reporting frameworks. However, the alignment described in these reports is merely a matching of certain GRI framework elements with similar or correspondent elements of other sustainability reporting frameworks. To date, there has been no demonstrated effort by GRI to revise or amend its framework elements to integrate elements from another framework or change its elements to conform to another framework, nor has GRI actively collaborated with any voluntary reporting framework in the actual development of GRI Framework elements.

- *CDP*: The FSB Guidance has received enthusiastic support from CDP, which "is firmly focused on the next steps for the recommendations" and has "committed to adopt them in their entirety in [its] disclosure platform for 2018, meaning that over 5,800 companies will begin experimenting with early adoption next year." See Paul Simpson, *Financial Heavyweights Call for Emissions Disclosure—Is It Enough?* (https://www.cdp.net/en/articles/climate/financial-heavyweights-call-for-emissions-disclosure-is-it-enough) (Feb. 20, 2017).
- *PRI*: The PRI fully supports the FSB Guidance and is committed to helping its signatories comply with it. It will conduct work during 2017 and 2018 to align the PRI Framework with the FSB Guidance. See PRI, *PRI Calls on Investors to Improve Their Climate Reporting and Encourage Companies to Do the Same* (https://www.unpri.org/press-releases/pri-calls-on-investors-to-improve-their-climate-reporting-and-encourage-companies-to-do-the-same) (Dec. 14, 2016).

C. Potential Implications and Prognosis

The Guidance, in setting forth disclosure guidance for all issuers, banks, insurance companies, asset owners, and asset managers, has a broad reach across all capital markets and key actors. The comprehensiveness of the Guidance—which includes reporting principles, detailed implementation guidance on transition risks, and a technical supplement on scenario analysis—responds to the principal limitations of existing reporting practices: poor data quality disclosure and the lack of quantifiable, consistent measures that can be readily compared, with respect to both climate risks and their financial impacts.

- *Disclosure Quality*: The Guidance linchpin is the financial materiality of climate-related risk to investors and its connection to global financial system systemic risk. The Guidance rightly emphasizes applying technical scenario analysis to a broad range of transition risks, some of which differ by market sector. This is a sound methodology for enabling quantification of these risks and/or estimation of this risk quantification with as much accuracy as is practically feasible. Climate risk disclosure quality should be measurably improved even with a basic implementation of this methodology.
- *Risk Management*: The Guidance wisely includes disclosure of the processes used to identify, measure, and manage climate-related risk as part of overall risk oversight and risk management practices. This recommendation will motivate companies to carefully assess the capabilities and integrity of their existing risk management systems and processes for managing climate-related risks.
- *Comparability*: Endorsement by G20 Finance Ministers of the Guidance (which is expected to be forthcoming and including endorsement of future updates to the Guidance) will drive alignment and

convergence to the Guidance by voluntary reporting frameworks. This will be a long road, with a slow and steady progression. We can expect to see Guidance integration in some form by the three main voluntary sustainability reporting frameworks by 2020.

- *System-Wide Disclosure Transparency*: The Guidance includes detailed implementation guidelines for disclosures to be made by asset owners, asset managers, lenders, and insurers (in addition to issuers), regarding how these capital market participants incorporate climate risk into their investment strategies, underwriting, and risk management. This global capital market-wide constituency reach of the Guidance is consistent with the G20 concern about global financial system systemic risk being created by climate-related impacts. Although market take-up is likely to stretch over several years, significant resistance to these recommended disclosures is unlikely. These market constituencies now understand the importance of taking climate risks into account as a strategic and operational imperative and as an essential risk mitigation tool.

The TCFD has recognized that the success of its recommendations depends on their near-term, widespread adoption by organizations across both financial and non-financial sectors. This near-term voluntary adoption will be driven by a variety of market influencers, including asset owners and managers, credit rating agencies, voluntary framework developers, issuer sustainability leaders, national regulators, and governments.

Compliance with the Guidance will require a considerable investment of time and resources, especially for issuers. Companies will be more willing to invest in the analytical, monitoring, and reporting processes that the Guidance requires when widespread market endorsement becomes evident and/or securities regulators such as the U.S. SEC or the EU national regulators (under the 2014 EU Nonfinancial Directive) either reference or incorporate the Guidance.

Robert Blanchard, Kristie Blase, Karen Bridges, Naicheng Deng, Virginia Harper Ho, Linda Lowson, Jeanne Solomon, and Paul Wehrmann *were Members of the 2016 American Bar Association Working Group on Climate Change and Sustainability Financial Reporting.*

FSB GUIDANCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES: REGULATORY AND MARKET RESPONSES

Linda Lowson

This memorandum summarizes and comments upon a representative sampling of responses (through September 15, 2017) from financial regulators, issuers, institutional investors, credit rating agencies, and voluntary sustainability reporting frameworks, to the draft Guidance issued on December 14, 2017, and to the final Guidance published on June 29, 2017, by the Financial Stability Board (FSB) Task Force on Climate-related Financial Disclosures (TCFD). This Guidance consists of a Recommendations Report (https://www.fsb-tcfd.org/publications/final-recommendations-report/), an Annex (https://www.fsb-tcfd.org/publications/final-implementing-tcfd-recommendations/) (Implementation Guide), and a Technical Supplement (https://www.fsb-tcfd.org/publications/final-technical-supplement/) (on Scenario Analysis) (collectively, the "TCFD Guidance" or the "Guidance"). These responses to the Guidance collectively represent a strong indication of what to expect regarding market uptake and implementation of this Guidance, and portend potential future financial regulatory developments.

Introduction

The December 2015 Paris Agreement (http://unfccc.int/paris_agreement/items/9485.php), which entered into force (https://treaties.un.org/doc/Publication/CN/2016/CN.735.2016-Eng.

pdf) on November 4, 2016, has now been ratified (http://unfccc.int/paris_agreement/items/9444.php) by 170 of the 197 signatories (as of October 5, 2017). These 170 countries now must develop and implement policies, strategies, and action plans for timely, successful achievement of their Nationally Determined Contributions (NDCs). This ratification means that most of the world must achieve net zero emissions by 2050, and it is clear that many businesses are not pursuing a strategy consistent with this goal. Climate-related disclosure, and in particular, mandatory climate-related financial reporting, is now an essential facilitator in this business strategy "pivot" imperative.

According to the 2016 "Carrots & Sticks" Report (https://www.carrotsandsticks.net/wp-content/uploads/2016/05/Carrots-Sticks-2016.pdf) produced jointly by KPMG, Global Reporting Initiative (GRI), United Nations Environment Programme (UNEP), and the Centre for Corporate Governance in South Africa, which assesses developments in sustainability reporting regulation and policy across 71 countries and regions, approximately 100 new mandatory sustainability (also referred to as "ESG" - environmental social, governance) reporting instruments were introduced from 2013 through 2016 by governments from 64 countries, representing over 80% of the world's top economies by GDP in 2016. This Report identified a total of 383 instruments overall, consisting of 248 mandatory instruments (65%) and 135 voluntary instruments (35%).

This trend toward mandatory sustainability financial reporting is set to continue, driven not only by implementation of the Paris Agreement NDCs, but also by the entry of FSB macroprudential oversight of climate-related risks in 2015 (and inclusion in the FSB systemic risk agenda), and issuance of the TCFD Guidance, per the FSB's remit from G20 Financial Ministers and Central Bank Governors (G20).

The main purpose of the G20 and FSB focus on climate-related disclosure practices is to induce and catalyze entities to provide better information on climate-related risks and strategies at the firm level, so that (i) financial regulators and macroprudential supervisors can better assess potential system-wide exposures; and (ii) entities, regulators, and governments can identify and mitigate potential vulnerabilities.

Specifically, managing exposure to (a) assets which could rapidly become devalued or obsolete (stranded) with tightening of carbon emissions limits to 2050; (b) natural resources and other physical assets, which are destroyed or diminished by climate-related events; and (c) legal and policy adjustments, technology advancements, and associated market shifts, requires systematic, comprehensive, and cogent monitoring, assessment, and disclosure of these risks and uncertainties, with the quality controls and process integrity inherent in financial regulatory reporting, in order to avert a global financial crisis-style correction.

Proper financial reporting of climate-related risks by both financial and non-financial sectors is now here to stay, as a crucial input in development and implementation of financial regulatory, governmental, and macroprudential policymaking, and in national NDC attainment.

A. Responses from Financial Regulators

The following financial regulatory responses to the TCFD Guidance are organized by country (region in the case of the EU). The overwhelming response has been positive and supportive, with additional recommendations submitted by certain regulators. This signifies that much of the financial regulatory community favors international regulatory alignment in this area.

It is noted that certain key financial regulators and accounting/audit standard-setters have not yet responded to the Guidance, namely, the International Organization of Securities Commissions (http://www.iosco.org/) (IOSCO), the U.S. Securities and Exchange Commission (https://

www.sec.gov/) (SEC), the International Accounting Standards Board (http://www.ifrs.org/) (IASB), and the International Auditing and Assurance Standards Board (http://www.ifrs.org/)(IAASB) (all of whom are FSB Members). As well, most banking and pension fund regulators have not yet responded to the Guidance.

1. European Union (EU)

The European Commission ("EC") is explicitly supportive of the TCFD Guidance. Following is relevant background information as well as its response.

The European Parliament and European Council issued Directive 2014/95/EU, Directive on disclosure of non-financial and diversity information by certain large companies (http://register.consilium.europa.eu/doc/srv?l=EN&f=PE%2047%202014%20INIT) ("Non-financial Reporting Directive", or "NFD"), effective December 6, 2014, which went into force for Member States on January 1, 2017. The NFD, which affects about 8,000 companies worldwide, requires mandatory disclosure of specific ESG information by EU exchange-listed companies with more than 500 employees, and by certain credit institutions and insurance undertakings. The 28 (27 post-Brexit) Member States were required to transpose the NFD into their national laws by January 1, 2017, with the first company reports to be published in 2018 covering the 2017-2018 financial year. To date, 26 of the 28 Member States have fully or partially transposed the NFD.

The NFD required the EC to issue NFD implementation Guidance ("NFD Guidance"), applicable to all Member States, by December 6, 2016. The EC intentionally delayed the issuance of this Guidance so that it could review the final TCFD Guidance prior to finalizing the NFD Guidance. After conducting a public consultation on implementation of the NFD (http://ec.europa.eu/finance/consultations/2016/non-financial-reporting-guidelines/index_en.htm), the EC published final NFD Guidance on June 27, 2017. It is more detailed in certain respects than the TCFD Guidance, and specifically recommends disclosure of forward-looking information based on climate scenario analysis, a key recommendation of the TCFD Guidance. The EC is required to review Member State implementation of the NFD Guidance at year-end 2018, at which time it may amend or revise the NFD Guidance.

2. United Kingdom (U.K.)

(i) U.K. Government

The U.K. Government officially endorsed the TCFD Guidance as "a key milestone in the global low carbon transition", in a statement by UK Climate Minister Claire Perry MP (https://www.gov.uk/government/people/claire-perry) on September 18, 2017, and encourages all listed companies to implement this Guidance to align climate-related risk management and financial governance.

Related: The U.K. Government (HM Treasury (https://www.gov.uk/government/organisations/hm-treasury) and the Department for Business, Energy & Industrial Strategy (https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy)) has launched a Green Finance Task Force (https://www.gov.uk/government/news/uk-government-launches-plan-to-accelerate-growth-of-green-finance) to explore a range of policy measures designed to spur investment in the low carbon transition and reinforce London's position as a green finance hub.

(ii) Bank of England (BOE)

In June 2017, the BOE released analysis (http://www.bankofengland.co.uk/publications/Pages/quarterlybulletin/2017/q2/a2.aspx) on the risk from climate change to financial markets and noted that it was closely following the TCFD's work.

Related: The BOE, under Governor Mark Carney, has been conducting research on the financial impacts of climate change since 2014. It published a staff paper (http://www.bankofengland.co.uk/research/Documents/workingpapers/2016/swp603.pdf) on climate change impacts upon central

banks in May 2016 and a staff paper (http://www.bankofengland.co.uk/pra/Documents/supervision/activities/pradefra0915.pdf) on climate change impacts upon the insurance sector in September 2015. Governor Carney, who is also Chairman of the FSB, has given several speeches on climate change financial impacts, including remarks (http://www.bankofengland.co.uk/publications/Documents/speeches/2016/speech949.pdf) at the launch event of the TCFD Guidance.

(iii) Financial Reporting Council (FRC)

The FRC, the U.K.'s independent governing regulator for corporate governance and reporting, supports the Guidance (https://frc.org.uk/news/february-2017/frc-responds-to-climate-related-financial-disclosu) and has submitted additional recommendations to the TCFD.

On February 27, 2017, the FRC submitted a comment response (https://frc.org.uk/getattachment/cdae6acb-ee86-437d-9421-c0dc16f6ff94/27022017-Climate-related-disclosures-consultation-response.pdf) to the draft TCFD Guidance. While generally supportive, it was concerned that the size, complexity and detail of the Guidance may impair its usefulness as some companies may be dissuaded by the onerous implementation. Further, it believes that a more principles-based approach, with less emphasis on detailed lists of suggested disclosures, is likely to be more effective. Nonetheless, it believes that the TCFD "has an important educational role to play in communicating its intention for a gradual implementation process and incremental improvements, with more sophisticated methodologies developing over time. The Task Force can facilitate this through stakeholder outreach, bringing companies and investors together to develop best practice … [which] will be crucial for achieving the widespread adoption envisaged". FRC Comment Response at page 4.

(iv) *London Stock Exchange Group (LSEG)*

In its April 2016 comment response (http://www.lseg.com/sites/default/files/content/documents/Regulatory/LSEG_response_to_FSB_TCFD_Phase_I_Report_Consultation.pdf) in the TCFD Phase I consultation, LSEG supported the TCFD work, but urged the TCFD to recognize the existing regulatory and standard-setting environment and to have an active dialogue with all relevant regulators toward the goal of international regulatory alignment and convergence wherever possible. It welcomed the December 2016 draft TCFD Guidance as "an important step in driving improved global consistency in voluntary global reporting standards" and "looks forward to exploring with the TCFD how to support this important work". LSEG sees itself as "a keen partner in international dialogues on disclosure". On February 9, 2017, LSEG published detailed "Guidance for issuers on the integration of ESG into investor reporting and communication" (https://www.lseg.com/resources/media-centre/press-releases/london-stock-exchange-group-launches-guidance-esg-reporting), explicitly stating that it builds upon the TCFD Guidance. Mark Makepeace, CEO of FTSE Russell and Director of Information Services for LSEG stated: "It is vital that investors are able to measure and capture their exposure to ESG risks and opportunities, and the launch of LSEG's Guidance today will help companies understand what good ESG reporting looks like". LSEG Press Release (https://www.lseg.com/resources/media-centre/press-releases/london-stock-exchange-group-launches-guidance-esg-reporting), "London Stock Exchange Group Launches Guidance for ESG Reporting", February 9, 2017.

3. France

France will push for the TCFD Guidance to be mandatory, according to Brune Poirson, the country's Secretary of State attached to the Ministry for Ecological Transition and Solidarity under Minister Nicolas Hulot.

Related: Poirson further stated that said the French government is working to build a coalition of countries for broad implementation of disclosure requirements similar to its Article 173 of the Energy Transition for Green Growth law (https://www.legifrance.gouv.fr/affichTexte.do;jsessionid=

3965D33C0A64333BE8A7E4F8260691C5.tpdila16v_2?cidTexte=JORFTEXT000031044385&categorieLien=id) enacted in August 2015 (given effect by Decree no. 2015-1850 (https://www.legifrance.gouv.fr/eli/decret/2015/12/29/2015-1850/jo/texte), December 31, 2015), which requires institutional investors and financial asset managers headquartered or registered in France to disclose investee companies' "climate risks", including both physical risks arising from climate change and "transition risks", which is a main component of the TCFD Guidance.

4. Australia

(i) Australian Prudential Regulation Authority (APRA)

APRA, the prudential regulator of the Australian financial services industry, is very supportive of the TCFD Guidance, including forward-looking climate risk disclosure by all financial and non-financial sectors. APRA supervises banks, credit unions, building societies, general insurers and reinsurers, life insurers, private health insurers, and most of the superannuation industry, representing over USD $5.9 trillion in assets under management.

Geoff Summerhayes, APRA Executive Board Member, in a speech (http://www.apra.gov.au/Speeches/Documents/ICA%20Speech%20Geoff%20Summerhayes%2017%20February%202017.pdf) at the Insurance Council of Australia Annual Forum (February 17, 2017), stated that climate-related risks are important for all APRA-regulated entities, including (i) potential exposure of banks' and insurers' balance sheets to real estate impacted by climate change and to re-pricing (or stranding) of carbon-intensive assets; and (ii) exposure of asset owners and managers, given the size of Australia's superannuation sector and its heavy weighting towards carbon-intensive equities and a resource-intensive domestic economy. He further stated:

> "it's unsafe for entities or regulators to ignore risks just because there is uncertainty, or even controversy, about the policy outlook ... Like all risks, it is better they are explicitly considered and managed as appropriate, rather than simply ignored or neglected … Robust, scenario-based thinking about risks should be the new standard for risk management … [APRA now has] a greater emphasis on stress testing for organisational and systemic resilience in the face of adverse shocks ... For our part, we know that when regulators are slow-moving, or equivocal, it makes problems even worse".

5. Canada

(i) Canadian Securities Administrators (CSA)

The TCFD Guidance issuance has been the impetus for the CSA to examine Canadian issuers' disclosure of climate-related risks. The CSA represents securities regulators from the ten provinces and three territories in Canada.

On March 21, 2017, specifically in response to the draft TCFD Guidance issued on December 14, 2017, the CSA announced a a Climate Change Disclosure Review Project (https://www.securities-administrators.ca/aboutcsa.aspx?id=1567). This project is intended to review (i) the state of disclosure by Toronto Stock Exchange (TSX)-listed companies on climate change risks and financial impacts; (ii) investor feedback on their climate risk information needs and expectations; and (iii) climate risk disclosure policies of other jurisdictions, including the U.S., U.K., and Australia. The CSA completed its outreach consultation with issuers and investors in August 2017, and will publish a forthcoming progress report outlining its findings. CSA Chairman Louis Morisset said in a statement: "As securities regulators, it is important to assess whether issuers provide appropriate disclosure regarding risks and financial impacts associated with climate change, which in turn assists investors in making informed investment decisions".

Related: Canadian public companies are required to disclose material business risks, including climate change and other environmental risks, liabilities, trends, and uncertainties, under existing Canadian securities laws. Also, on October

27, 2010, the CSA issued Staff Notice 51-333, Environmental Reporting Guidance (http://www.osc.gov.on.ca/documents/en/Securities-Category5/csa_20101027_51-333_environmental-reporting.pdf) (Oct. 27, 2010), which provides detailed explanation and examples of best practice disclosure.

(ii) Canadian Government

The Canadian government is "supportive" of the TCFD work, according to Chloe Luciani-Girouard, spokeswoman for Finance Minister Bill Morneau, and "looks forward to the outcome" (https://beta.theglobeandmail.com/report-on-business/task-force-report-puts-material-risks-of-climate-change-in-focus/article35493217/?ref=http://www.theglobeandmail.com&)of the Climate Change Disclosure Review Project.

6. Insurance Supervisors

At the UNEP-FI Sustainable Insurance Forum on July 25, 2017, insurance regulators and supervisors from 16 jurisdictions around the world jointly backed the TCFD Guidance in a statement organized by the Sustainable Insurance Forum (https://beta.theglobeandmail.com/report-on-business/task-force-report-puts-material-risks-of-climate-change-in-focus/article35493217/?ref=http://www.theglobeandmail.com&) (SIF). Signatories included the Bank of England Prudential Regulation Authority, the Australian Prudential Regulation Authority, France's Autorité de Contrôle Prudentiel et de Resolution, the Monetary Authority of Singapore, the California Department of Insurance, and representatives from Brazil, Ghana, Jamaica, Mongolia, Morocco, the Netherlands, Portugal, South Africa, Sweden, UAE and the U.S. state of Washington. SIF views the Guidance as setting a new global standard for disclosure by insurance firms, and sees scenario analysis as a critical tool. The group appreciated "the forward-looking orientation of the TCFD recommendations, and specific Guidance on scenario analysis", and identified four key areas where insurance supervisors have an important role in supporting market uptake, thereby strengthening insurance markets, namely:

By raising awareness of the TCFD recommendations among regulated firms.
By supporting the TCFD recommendations as a best practice to be considered by insurers in their financial disclosures.
By working with market actors to build capacity and share tools, including for the development of scenarios and metrics.
By incorporating relevant insights from climate disclosures into routine supervisory activities.

B. Responses from Market Participants

1. Issuers

Somewhat surprisingly, given the complexity and implementation challenges of the Guidance, issuer responses have been very positive, although it is unlikely that those issuers opposed to the Guidance would express their displeasure publicly and expose themselves to potential reputational, competitive, or stock price risk. Following are notable issuer responses.

- On June 29, 2017, 100 public company CEOs, with market capitalizations totaling more than USD $3.3 trillion, signed a statement of support (https://www.fsb-tcfd.org/statement-support-supporting-companies-june-2017/)to encourage take-up of the TCFD Guidance, stating that the disclosures "are an important step forward in enabling market forces to drive efficient allocation of capital and support a smooth transition to a low-carbon economy". These companies included oil companies - Royal Dutch Shell and Eni (Italy); mining giants - Barrick Gold, Bhp Billiton, Vale, Glencore (but not Rio Tinto); and utilities - Enel (Italy). Financial firms, responsible for assets of more than USD $24 trillion, included HSBC, Bank of America, Citigroup, ING Group, BNP Paribas, AXA, Aviva, and Aegon (but, interestingly, not BlackRock, Banco Bradesco, JP Morgan, or Mercer, all of whom are proponents of responsible investing).
- On September 19, 2017, ten large

companies pledged to implement the TCFD Guidance within the next three years. Signatories included Aviva plc, Royal DSM, Enagás, Ferrovial, Iberdrola, Marks & Spencer, Philips Lighting, Sopra Steria Group, Wipro Ltd., and WPP.

Related: There is a continuing signatory effort to support U.S. implementation of the 2015 Paris Agreement. More than 1,000 companies to date have now signed a letter (http://lowcarbonusa.org/business) calling for the U.S. to "realize the Paris Agreement's commitment of a global economy that limits global temperature rise to well below 2 degrees Celsius". These companies represent more than USD $3.7 trillion in annual revenues and employ nearly 8.6 million workers, , according to CERES (https://www.eenews.net/assets/2017/05/26/document_daily_02.pdf). The largest oil and gas companies support continued U.S. participation in the Paris Agreement, including ExxonMobil, BP, Chevron, ConocoPhillips, and Shell (http://thehill.com/policy/energy-environment/322796-conocophillips-head-trump-should-keep-us-in-paris-climate-pact). ExxonMobil hailed the Paris agreement (http://money.cnn.com/2017/03/29/investing/exxon-trump-paris-climate-change/?iid=EL)as an "effective framework for addressing the risks of climate change".

2. Credit Rating Agencies

In response to the TCFD Guidance, on August 15, 2017, S&P Trucost launched a scenario analysis tool "to help companies get ahead of carbon regulation" and perform scenario analysis in line with the TCFD Guidance. The tool looks at three set scenarios, assessing risk exposure to 2030, including asset-level analysis and risk relating to supply chains. S&P commented (https://www.capitaliq.com/CIQDotNet/CreditResearch/RenderArticle.aspx?articleId=1901283&SctArtId=434728&from=CM&nsl_code=LIME&sourceObjectId=10205917&sourceRevId=1&fee_ind=N&exp_date=20270816-19:51:53) regarding the TCFD Guidance impact upon credit ratings: "The TCFD disclosures, if widely adopted, should enable a better and more granular understanding and credit rating analysis of an entity's resilience to climate-related risks and uptake of climate-related opportunities. However, insufficient adoption of the voluntary recommendations or inconsistencies in disclosure could limit our credit rating analysts' ability to perform peer analysis, which can be an important element of our credit rating analysis".

3. Institutional Investors

According to the Global Sustainable Investment Alliance (http://www.gsi-alliance.org/), USD $20 trillion of professionally managed assets globally now incorporate ESG approaches, out of USD $75 trillion of total global institutional investor assets under management.

The Asset Owners Disclosure Project (AODP), in its fifth AODP global climate 500 index (http://aodproject.net/global-climate-500-index/) report (2017), found that 60% of asset owners, including pension funds, sovereign wealth funds, insurance companies, foundations and endowments, and about 50% of asset managers, are now taking action to manage the risks and opportunities posed by climate change.

Not surprisingly, numerous investor coalitions have expressed strong support for the Guidance:

- In February 2017, the Institutional Investors Group on Climate Change (http://aodproject.net/global-climate-500-index/) (IIGCC) submitted a comment response in the draft TCFD Guidance public consultation. It welcomed the Guidance as "a vital step forward in global efforts to drive harmonization of climate-related disclosure". However, it also suggested certain improvements, urging the TCFD to strengthen its recommendations (https://www.ipe.com/news/esg/iigcc-urges-tcfd-to-do-more-for-comparable-climate-data/10017671.article) relating to the standardization and comparability of data, including standardizing a two-degree scenario with commonly determined (and

disclosed) assumptions and procedures. It also called for additional disclosures regarding board-level expertise on climate risk, and whether board and management remuneration reflected climate-related performance.

- In February 2017, the UN-supported Principles for Responsible Investment ("PRI"), representing 1,650 signatories globally with USD $63 trillion in assets under management, submitted a comment response in the draft TCFD Guidance public consultation period. It urged the TCFD and the FSB to accelerate their efforts, with a stronger emphasis upon follow-up actions to drive implementation of the Guidance. It also stated it will conduct several activities to support strong company and investor implementation of the TCFD Guidance, including (1) adjusting and aligning the PRI Reporting Framework with the TCFD Guidance for asset owners and investment managers; (2) providing practical Guidance to PRI signatories to advance investment practices in applying the Guidance in company and portfolio-level analysis; (3) convening collaborative investor engagement with companies to promote the Guidance; and (4) convening investor input and collaboration with policymakers on implementation across the G20.
- Great Britain's Environment Agency Protection Fund (https://www.ipe.com/news/esg/iigcc-urges-tcfd-to-do-more-for-comparable-climate-data/10017671.article) plans to link its annual report to the TCFD framework, according to a statement (https://www.reuters.com/article/us-climatechange-funds/investors-slowly-start-to-push-climate-change-up-their-agenda-idUSKBN19K2CI) on June 29,2017 by Faith Ward, the Fund's chief responsible investment officer, further stating: "We are aiming to be one of the first asset owners to do this to show our support for the TCFD and its pick up by other asset owners". The EAPF is a founding member of the Transition Pathway Initiative (http://www.lse.ac.uk/GranthamInstitute/tpi/) (TPI), which aims to help asset owners assess companies' management of their greenhouse gas emissions and of risks and opportunities related to the low-carbon transition. More than USD $3.9 trillion of assets are now being invested using the TPI's guidelines.
- On July 3, 2017, five investor coalitions -- UNPRI, IGCC, AIGCC, CDP, and CERES, representing 389 investor signatories with more than USD $22 trillion in assets under management, submitted a letter (http://lowcarbonusa.org/business) to G20 Finance Ministers, urging them to maintain momentum on climate change action, including continuing to support and implement the Paris Agreement, driving investment into the low carbon transition, and implementing climate-related financial reporting frameworks, including supporting the TCFD Guidance.
- On July 20, 2017, Aviva Investors, which oversees USD $437 billion of assets under management, stated (https://www.ft.com/content/69daf7c6-67e3-11e7-9a66-93fb352ba1fe) that it will vote against the annual reports and accounts of companies that fail to embrace the TCFD Guidance, and warned that more than 1,000 companies globally face shareholder backlash at their annual meetings in 2018 if they fail to publicly disclose the risks posed to their business models by climate change. It is noted that a previous study https://www.eiuperspectives.economist.com/sites/default/files/The%20cost%20of%20inaction_0.pdf) by Aviva Investors and the Economist Intelligence Unit estimated that the expected value of a future with 6°C of warming represents potential present value losses of USD $43 trillion, or 30% of the entire stock of manageable assets, when the current market capitalisation of all the world's equity markets is roughly USD $70 trillion.

Related: In an ongoing initiative coordinated by ShareAction and Boston Common Asset Management, 105 asset owners and managers representing about USD $2 trillion in assets under management (as of September 15, 2017), are signatories to a Banking on a Low-Carbon Future investor letter (https://shareaction.org/press-release/investor-letter-bank-low-carbon/) addressed to the CEOs of 62 of the world's largest banks, urging them to adopt the TCFD Guidance. Specifically, they are calling for more robust and relevant climate-related disclosure in four key areas: climate-relevant strategy and implementation, climate-related risk assessments and management, low-carbon banking products and services, and banks' public policy engagements and collaboration with other actors on climate change.

4. Voluntary Sustainability Reporting Frameworks

Somewhat predictably, voluntary sustainability reporting frameworks have been deferential, enthusiastic, and cooperative in responding to the Guidance.

(i) International Integrated Reporting Council (IIRC)

The IIRC (http://integratedreporting.org/) welcomed the TCFD Guidance. IIRC CEO Richard Howitt stated: "The IIRC shares the task force's vision that this isn't just about businesses changing, but about reshaping the whole capital market system … we are proud that major financial and non-financial reporting frameworks have jointly committed to integrating the task force recommendations in our work to achieve a more aligned and coherent reporting system overall". IIRC Press Release, "Integration and Alignment Key to Implementing FSB Task Force on Climate-Related Financial Disclosures Recommendations" (http://integratedreporting.org/news/integration-and-alignment-key-to-implementing-fsb-task-force-on-climate-related-financial-disclosures-recommendations/) (June 29, 2017).

(ii) Climate Disclosure Standards Board (CDSB)

The CDSB praised the TCFD Guidance. CDSB chairman Richard Samans said in a statement: "We believe there is a clear value to businesses implementing the TCFD recommendations … Companies can become more resilient to the systemic risks that climate change creates and improve their relationships with investors and other stakeholders by collecting, assessing and reporting information about climate-related financial risks and opportunities". CDSB Press Release, "Rapid, High-Quality Implementation of TCFD Recommendations Needed to Build a Sustainable Financial System" (https://www.cdsb.net/press-room/task-force/698/rapid-high-quality-implementation-tcfd-recommendations-needed-build?utm_medium=email&utm_campaign=June%20TCFD%20newsletter&utm_content=June%20TCFD%20newsletter%20CID_9e601402bcb6678f5f0f7e50cd3842cc&utm_source=Campaign%20Monitor&utm_term=Read%20our%20press%20release) (June 27, 2017).

(iii) Global Reporting Initiative (GRI)

GRI, in addition to supporting the Guidance like the other main frameworks, went further in its response, recommending that the TCFD utilize the GRI framework as the "gold standard" for implementing the Guidance. Given that its dominant market share amongst voluntary reporting frameworks potentially can cause GRI to have the most to gain or lose by market uptake of the Guidance, it is understandable that GRI made this very pro-active attempt to become, in effect, part of the Guidance.

In its Comment response dated February 11, 2017 to the draft TCFD Guidance (https://www.globalreporting.org/standards/media/1379/item-10-submission-gri-tcfd-publication.pdf), GRI stated:

> "... we are keen to deepen the dialogue between the TCFD and GRI to ensure a constructive, mutually-reinforcing collaboration. We call for establishing direct collaboration between the TCFD and GRI to explore how the GRI Standards can be used as a basis for the implementation of the TCFD Recommendations … GRI invites the TCFD

to work with it to develop guidance for issuers of GRI-based reports clarifying how they can use the GRI Standards as the basis for implementing the TCFD recommendations. By doing so, we believe that the TCFD could significantly enhance its global reach and speed of adoption, while at the same time building on well-established disclosure practice."

(iv) UN Environment Finance Initiative (UNEP-FI) Banking Programme

On March 24, 2017, the UNEP-FI Banking Programme launched a Project on Piloting the Implementation of the TCFD Recommendations (http://www.unepfi.org/extranet/communications/unep-fi-project-on-piloting-the-implementation-of-the-tcfd-recommendations/) for banks. It seeks to establish a group of first-mover banks to collaborate on developing scenarios, models, methods, metrics, and targets for TCFD Guidance implementation, which could gain traction in the banking industry more broadly. It is now working with 11 leading banks representing more than USD 7 trillion in capital. Erik Solheim, Head of UN Environment, stated: "Transparency on how financial institutions mitigate the risks and seize the opportunities of a two degrees pathway is crucial to move international markets towards actively supporting a low carbon and climate resilient future". UNEP FI Press Release, "14 UNEP-FI Member Banks Representing Over $ 7 Trillion are First in Industry to Jointly Pilot the TCFD Recommendations" (http://www.unepfi.org/news/industries/banking/eleven-unep-fi-member-banks-representing-over-7-trillion-are-first-in-industry-to-jointly-pilot-the-tcfd-recommendations/) (July 11, 2017, updated Sept. 26, 2017).

Concluding Remarks

Given the scale and significance of climate-related risk forecasts and trajectories, climate risk disclosure is likely to remain under scrutiny and vigilance by the G20 and the FSB for several decades. Further, this risk disclosure has a compelling rationale as a permanent cornerstone and building block in the low-carbon economy transition. Thankfully, due to the involvement of macroprudential oversight authorities and other related developments, climate-related financial reporting, in many if not most countries, will now be subject to the data and process quality controls and governance discipline required of all financial reporting under securities laws.

Climate-related financial disclosure, including the TCFD Guidance, now merits serious consideration by all financial regulators, including corporate, securities, accounting/audit, banking, insurance, and pension fund regulators, across policymaking, rulemaking, and enforcement functions.

Global macro-prudential supervision and mandatory financial disclosure status will mitigate to a large extent the current problematic state of climate-related reporting, i.e., the incompleteness, inconsistency, incomparability, and unreliability. It also will pave the way for international regulatory alignment in this area, assuming the active participation of key financial policymakers and regulators. A subsequent article will discuss potential pathways for developing this internationally coordinated structural governance and disclosure standardization.

Linda M. Lowson *is Chief Executive Officer of the Global ESG Financial Regulatory Academy and Editor-in-Chief of an ABA special publication on Climate Change and Sustainability Financial Reporting.*

CLIMATE-COMPETENT BOARDS: AN EMERGING PRIORITY FOR SHAREHOLDERS AND DIRECTORS

Edward Kamonjoh and Nell Minow

Institutional investors, such as corporate, union, and public pension funds, and endowments and foundations, generally retain their ownership of large-cap publicly traded companies over the long-term. For example, the Pensions & Investment magazine's research center database shows that the 101 U.S.-based defined benefit pension funds it tracks held a total of $923,214,000 in U.S. equities, 57.9 percent of which was passively managed via index funds - and therefore in essence a permanent holding because index funds maintain proportionate holdings of all the stocks in an index such as the S&P 500. (Data as of September 30, 2016, the most recent available at the time of this writing.) See also Weinberg, Ari I., *Thirty Years To Here: How The Market Grew 'Passive'*, Wall Street Journal (Apr. 1, 2017).

The main reasons for long-term ownership, in general, are: (i) high trading transaction costs; (ii) asset/liability management (i.e., matching long-term liabilities with long-term investment returns); and (iii) the legal requirement of diversification for defined benefit plans (under the Employee Retirement Income Security Act of 1974 (ERISA), 29 U.S. Code § 1104(a)(1)(c). If a significant portfolio company (either in size or as a percentage of portfolio holdings), or an entire industry sector, ignores, underestimates, or mis-manages a 'material' corporate risk, institutional investors often find it more cost-effective to engage with the corporate management and board than to sell the stock or bond and find a replacement holding. This is currently the approach taken by a significant number of large institutional investors with respect to climate risk, with support from an increasingly larger number of institutions. See Columbia Center on Sustainable Investment, Shareholders Turn Up the Heat on Climate Change (http://blogs.ei.columbia.edu/2016/10/12/shareholders-turn-up-the-heat-on-climate-change/) (Oct. 12, 2016).

Climate Risk Board Considerations

A. Climate Risk Economic and Financial Impacts

Climate-related risk is an externality that transcends individual companies, market segments, and geographic and jurisdictional boundaries. According to a report from the Economist Intelligence Unit, "*The Cost of Inaction; Recognising the Value at Risk from Climate Change*," (2015), at p. 4, investors stand to lose as much as $4.2 trillion on the value of their holdings from the impact of climate change by 2100 even if global warming is held at a two-degree Celsius increase, which is just half a degree above the 1.5 Celsius goal of the 2015 Paris Agreement. UNFCCC, *The Paris Agreement* (http://unfccc.int/paris_agreement/items/9485.php) (last visited Apr. 1, 2017).

The most recent report of the United Nations Framework Convention on Climate Change (UNFCCC) in 2014, summarizing the body of climate research, found that there is an "unprecedented level" of carbon dioxide in the atmosphere, not seen for 800,000 years, and that more than half was caused by human activities. UNFCCC, *Climate Change 2014 Synthesis Report* (https://www.ipcc.ch/report/ar5/syr/) (2014).

The Financial Stability Board Task Force on Climate Related Financial Disclosures, in its Final Report dated December 14, 2016, concluded that one of the most significant, and perhaps most misunderstood, risks that organizations face today relates to climate change. The Task Force provided guidelines for climate-related assessments and disclosures in mainstream financial filings. These assessments and disclosures are impossible without sufficient understanding of these issues at the board level.

B. Climate Risk Legal Considerations

(i) Director Fiduciary Duty Considerations

The potentially enormous risks for public companies regarding climate-related issues, from consumer concerns to weather damage

to supply chains, brings to bear the issue of directors' fiduciary duties, a legal concept that has been almost universally adopted by national corporate and securities laws, and an issue that has been extensively litigated in U.S. and non-U.S. courts. Directors owe two fiduciary duties to their shareholders and the company: (i) the duty of care (to make informed business decisions by evaluating information critically which is provided to them by management); and (ii) the duty of loyalty (good faith to advance the best interests of the corporation and, similarly, to refrain from conduct that injures the corporation). (See, e.g., State of Delaware Corporate Law - The Delaware Way: Deference to the Business Judgment of Directors Who Act Loyally and Carefully, http://corplaw.delaware.gov/eng/delaware_way.shtml (last visited Apr. 1, 2017).)

Litigation regarding directors' fiduciary duties as they relate specifically to (deficient) climate risk oversight and disclosure have been raised in *U.S. Fentress v. ExxonMobil Corp*., No. 4:16-cv-03484 (S.D. Tex., filed Nov. 23, 2016 (Exxon Investor-Filed Securities Class Action for Failure to Disclose Climate Risks), and in *Ramirez v. ExxonMobil Corp*., No. 3:16-cv-3111 (N.D. Tex., filed Nov. 7, 2016). Moreover, the New York Attorney General has instituted action against several companies since 2008 for inadequate SEC disclosure on climate risks, including against Dynergy, Peabody Coal, and, most recently, commenced an investigation of ExxonMobil. (See, e.g., Justin Gillis & Clifford Krauss, *Exxon Mobil Investigated for Possible Climate Change Lies by New York Attorney General* (https://www.nytimes.com/2015/11/06/science/exxon-mobil-under-investigation-in-new-york-over-climate-statements.html), The New York Times, Nov. 5, 2015.) The California Attorney General likewise commenced an investigation of ExxonMobil (see, e.g., Ivan Penn, *California to investigate whether Exxon Mobil lied about climate-change risks* (http://beta.latimes.com/business/la-fi-exxon-global-warming-20160120-story.html), Los Angeles Times, Jan. 20, 2016.)

Another aspect to consider is how a board's failure to fulfill its fiduciary duties regarding climate risks could in turn create legal liability for pension fund trustees. A recent U.K. legal opinion by a U.K. solicitor firm indicated that pension fund trustees are legally obligated to take climate risks into account if these risks could present financial risks to their fund investments, and that a failure to do so could expose fund trustees to legal challenge. Keith Bryant QC and James Rikards, *In the Matter of the Legal Duties of Pension Fund Trustees in Relation to Climate Change* (https://www.documents.clientearth.org/wp-content/uploads/library/2016-12-02-the-legal-duties-of-pension-fund-trustees-abridged-opinion-ext-en.pdf) (Nov. 26, 2016). Other countries also may require pension trustees' duties to include regular monitoring of their fund investments for sustainability risks. (See, e.g., discussion of applicability of Australian law: Sarah Barker et al., *Climate change and the fiduciary duties of pension fund trustees – lessons from the Australian law* (https://www.documents.clientearth.org/wp-content/uploads/library/2016-12-02-the-legal-duties-of-pension-fund-trustees-abridged-opinion-ext-en.pdf), 6 Journal of Sustainable Finance & Investment 211–244, 211-244 (2016).)

(ii) Financial Regulatory Disclosure Considerations

The U.S. Securities & Exchange Commission (SEC) has issued specific climate change interpretative guidance (Commission Guidance Regarding Disclosure Related to Climate Change (February 08, 2010), 17 CFR PARTS 211, 231 and 241, Release Nos. 33-9106; 34-61469; FR-82), stating that SEC filers must disclose, in their Regulation S-K filings (which includes Form 10-K, Form 10-Q, Form 20-F, and proxy statements), four categories of climate risk to the extent 'material'. Directors must approve the company's Form 10-K Annual Report, and thus could be held liable for 'material' misrepresentations and omissions in this report regarding climate risks. Note, however, that the SEC has been criticized for failure to enforce this requirement. (See, e.g., David Gelles, *S.E.C. Is Criticized for Lax Enforcement of Climate Risk Disclosure* (https://www.nytimes.com/2016/01/24/

business/energy-environment/sec-is-criticized-for-lax-enforcement-of-climate-risk-disclosure.html), New York Times, Jan. 23, 2016.)

Many countries, and the European Parliament (affecting 28 Member Nations) have issued mandatory ESG disclosure requirements, or strongly recommended guidance that investors should expect issuers to follow. Also of legal relevance is the issuance by the U.S. Department of Labor of interpretative guidance in December 2016 regarding shareholder proxy access rights and pension plan fund investment policy for pension plans subject to ERISA (Interpretive Bulletin Relating to the Exercise of Shareholder Rights and Written Statements of Investment Policy, including Proxy Voting Policies or Guidelines (Dec. 29, 2016), 29 CFR Part 2509, RIN 1210-AB78), specifically mentioning "plans on climate change preparedness and sustainability" as matters for shareholder attention and engagement.

Public pension funds are not subject to ERISA but often voluntarily follow ERISA rules, either explicitly or as guidance on fiduciary obligation. See, e.g., Dannae Delano, Thomas Clark, Jr., Jamie Mahler, *Fiduciary Responsibilities for Non-ERISA Governmental Plans — Part III*, Plan Consultant Magazine (Sept. 4, 2015).

(iii) Considerations Regarding Shareholder Proposals and Proxy Access

In the U.S., shareholder proposals, which are subject to certain SEC regulation (primarily 17 CFR 240.14a-8), are becoming a frequent input into the corporate Annual General Meeting. Recently, as investors have become increasingly aware of the potential and actual financial impacts of climate risks, there has been a marked rise in the number of shareholder proposals demanding adequate climate risk disclosure from the company's management and board. See, e.g., Heidi Welsh & Michael Passoff, *Proxy Preview* (http://www.proxypreview.org/wp-content/themes/nanica/download/download-attachment-2017.php) (Mar. 8, 2017). Institutional investors, who generally have a wide range of international holdings, and a fiduciary obligation to beneficial holders, may possess a perspective and capability to engage with and influence corporate managements and boards that can be both effective and expeditious.

Shareholder initiatives on environmental issues began with the very first major use of the shareholder proposal mechanism to raise social concerns, Ralph Nader's Campaign GM, which included a recommendation that General Motors add an "ecologist" to the board of directors. (See Donald E. Schwartz, *Proxy Power and Social Goals: How Campaign GM Succeeded*, St. John's Law Review, Volume 45 Issue 4 Volume 45 (May 1971), Number 4 Article 9, p. 764.)
Institutional investor coalitions began to engage with companies on climate risks as early as 1971, and continues to this day (see, e.g., ICCR, 40 Years of Environmental Stewardship (http://www.iccr.org/sites/default/files/40YearsOfICCREnviroStewardship.pdf), The Corporate Examiner.

Shareholder concerns about a company's failure to address or even fully understand climate-related challenges and opportunities has produced rising shareholder proposals in the U.S. for both proxy access and climate change disclosure. Proxy access, if permitted by a corporate charter or by-laws, gives those shareholders, who typically hold at least three percent of company stock for at least three years, the right to include their own board nominees on the corporate proxy. See, e.g., Edward Kamonjoh & Patrick McGurn, *Proxy Access in the U.S.: What to Expect for the 2015 Proxy Season* (https://www.issgovernance.com/file/publications/2015-iss-us-proxy-access-review.pdf) (Feb. 23, 2015). For the 2015 proxy season, almost 120 shareholder resolutions requesting proxy access provisions were submitted (see Edward Kamonjoh & Patrick McGurn, *Preliminary 2015 U.S. Postseason Review* (https://www.issgovernance.com/file/publications/1_preliminary-2015-proxy-season-review-united-states.pdf) (July 30, 2015)), and over 200 shareholder resolutions were submitted in the 2016 proxy season (see Gary Tygesson & Cam Hoang, *2016 Proxy Season Review: Shareholder Proposals* (https://

www.dorsey.com/newsresources/publications/client-alerts/2016/07/2016-proxy-season-review-shareholder-proposals) (July 11, 2016)). Proxy access has now been adopted by just over half of the S&P 500. See CII, *Proxy Access* (http://www.cii.org/proxy_access) (2017). Even if the ability to nominate directors is not used by corporate shareholders, its availability alone gives large institutional investors better bargaining power regarding board composition and qualifications.

With regard to shareholder proposals in the U.S. demanding better climate-related disclosure, 94 proposals were filed in 2015 and 82 were filed in 2016. See Heidi Welsh & Michael Passoff, *Proxy Preview* (http://www.cii.org/proxy_access) (Mar. 8, 2017).

C. Concluding Remarks and Recommendations for Boards

Shareholders are rightly concerned when there is not a single board member who can properly evaluate and address 'material' climate-related risks. For this reason, large institutional investors, concerned with the rising portfolio risk from climate-related issues, are now calling for climate-competent directors as an increasingly important part of their engagement activity. Elevating climate concerns to the board level is essential in enabling and motivating companies to fully and properly address these material risks in the context of long-term strategy, risk management, governance, and performance compensation metrics.

First, they must examine and minimize the impact of their own operations, including their supply chain, on climate change, and the impact that climate change will have on their operations as well. Even if government restrictions are reduced for the near future, they can reasonably be expected to be reinstated and strengthened at some point.

Second, companies must be able to show that they have addressed sustainability concerns or they will suffer in the marketplace as both customers and investors take their money elsewhere. Boards should make sure that the company is meeting best practice standards for disclosing climate risk assessments and that the company is making efforts to mitigate the risks identified. Boards also should include, in the company's strategic plans, development of goods and services to respond to changing market conditions and consumer preferences. For example, even if there are no further restrictions imposed on production or consumption of oil, it is a fact that eventually all of the reserves will be depleted. Energy companies should be clear about development of alternatives. Consumer goods companies should be developing products that reduce the carbon footprint of purchasers.

Going forward, boards will need climate risk competencies well beyond what exists today to surmount the escalating challenges and risks, and leverage the expanding opportunities, associated with climatic shifts and impacts. If, as is anticipated, there is a rollback of climate related governmental or regulatory policies under the Trump Administration, investors will need to take an even stronger lead in advocating for board climate risk competencies, corporate business model adjustments, and 'full and fair' disclosure in financial regulatory filings.

This new necessity for board climate-related risk competency and governance is industry- and culture-agnostic. The level of global investor demand for this climate competency means that all boards should articulate, and properly implement, corporate policies that explicitly state that climate-related risks are a board-level concern, and that related oversight responsibilities reside within the board as a whole and/or within a specific board committee.

While most "climate-exposed" companies today have staff that monitor regulatory and competitive developments related to climate issues, it is a rare company that has drawn on this expertise to place it squarely onto the board's agenda. Establishing climate competence in boardrooms starts with adding individuals who bring an awareness of

climate science, an ability to grasp its specific business and financial implications, and a willingness to think independently and revisit old wisdoms.

Fundamental to board climate competency, and satisfying investor demands, is clear, consistent, and comprehensive disclosure in corporate financial regulatory filings of the company's climate-related risks and opportunities, and how the company's long-term strategic plans will address these risks and opportunities. In addition to providing these disclosures in all SEC Regulation S-K filings, boards should consider appropriate non-regulatory voluntary reporting frameworks that may be important to their shareholders.

Regardless of current or future public policies and legal/regulatory requirements pertaining to climate-related risks, the necessity for investors to understand climate risks with specificity, and how corporate management and oversight of these risks are embedded within the business enterprise, including board competency and accountability, will only increase as these risks continue to escalate in magnitude and consequentiality.

Edward Kamonjoh *is Executive Director of the 50/50 Climate Resource Project.* **Nell Minow, JD** *is Vice-Chair of ValueEdge Advisors and board member of The 50/50 Climate Project.*

CLIMATE CHANGE AS A MATTER OF CORPORATE GOVERNANCE: AN INVESTOR PERSPECTIVE

George Dallas

A growing focus in the institutional investment community is on climate change as a systemic risk that affects society and economies generally. At the same time it is a risk factor, or, in some cases, an opportunity, for individual companies. The corporate governance questions for investors relate to how boards should consider climate change issues in their fiduciary company oversight—including with regard to company reporting.

The International Corporate Governance Network (ICGN) (www.icgn.org) is a global investor-led body whose members represent institutional investors with global assets under management in excess of US $26 trillion. Its mission is to advocate high standards of corporate governance and responsible investment practices. In its 2016 annual policy priorities statement ICGN identified "promoting long-term investment perspectives and sustainable value creation" as its top policy priority (ICGN ,"Policy Priorities 2016/17" (https://www.icgn.org/sites/default/files/ICGN%20Policy%20Priorities%202016-2017.pdf), September 30, 2016). But what does this mean in practice and how does this relate to climate change and corporate governance? A key to this lies in the area of fiduciary duty.

The core fiduciary duty of institutional investors is to generate sustainable value creation and returns for their clients (in the case of asset managers) and fund beneficiaries (in the case of pension funds and other asset owners). Many of these beneficiaries are long-term retirement savers, which requires pension fund trustees and their asset managers to develop long-term perspectives to match the investment horizons of these savers.

The "sustainable" dimension to value creation means that investors should seek to avoid short-term thinking about the company's purpose, financial performance, and corporate governance.

It is the fiduciary duty of both companies and investors to consider a wide range of potentially material risk factors faced by long-term savers, including traditional financial, competitive and industry risks.

As part of this focus on long-term sustainable performance, investors and corporate board directors are recognizing that the boundaries of corporate governance are changing, and that there is a growing need to assess companies and markets on a systemic basis.

The concept of fiduciary duty relating to environmental and governance risks was assessed in key global markets in a 2016 report, "Fiduciary Duty in the 21st Century" (http://www.unepfi.org/publications/investment-publications/fiduciary-duty-in-the-21st-century/), a collaborative effort by the United Nations-sponsored Principles for Responsible Investment (PRI) (www.unpri.org), the United Nations Environment Program Financial Initiative (UNEP FI) (www.unepfi.org), and the United Nations Global Compact (UNGC) (www.ungc.org). This report addresses the legal nature of fiduciary responsibility as it relates to the salience or materiality of climate change and other environmental, social and governance (ESG) issues and risks, and concludes that fiduciary duty is breached to the extent that companies and investors pay insufficient attention to those ESG factors that pose material and systemic risks.

Why Is Climate Change a Systemic Risk?

As observed in the About Us section of the The Investment Integration Project website (http://tiiproject.com), "systems-level" events, such as economic crises, ecosystems under stress, and societies in turmoil, can disrupt the best-laid plans of investors and cost them dearly."

A systemic risk cuts across markets—like a changing tide that has the potential to raise, or lower, all boats. The recent global financial crisis is a painful example of how a systemic risk relating to mismanagement in banks and financial markets—severely affected countries, societies, companies, investors and individuals globally. Taking a broader view, the United Nations' "Sustainable Development Goals" (http://www.un.org/sustainabledevelopment/sustainable-development-goals/), September 25, 2015, identify a range of specific global risk areas that will undermine our global economic system if not timely and properly addressed.

Climate-related risks and their financial impacts were recently recognized by G20 Finance Ministers and the Financial Stability Board as "one of the most significant, and perhaps most misunderstood, risks that organizations face today" (Task Force on Climate Related Financial Disclosures, "Recommendations of the Task Force on Climate Related Financial Disclosures" December 2016 (https://www.fsb-tcfd.org/publications/recommendations-report/)). Mark Carney, Chairman of the Financial Stability Board and Governor of the Bank of England, refers to climate risk as the "tragedy of the horizons" (Mark Carney, Breaking the Tragedy of the Horizon—climate change and financial stability (http://www.bankofengland.co.uk/publications/Pages/speeches/2015/844.aspx), September 29 2015). The World Economic Forum takes a similar view, stating that climate change can cause significant negative impact for several countries or industries within the next 10 years (World Economic Forum, "The Global Risks Report 2016" (http://reports.weforum.org/global-risks-2016/executive-summary/)).

Systemic climate-related risks include severe weather problems, involuntary mass migration, damage to physical assets (including damage to water systems and transportation infrastructures), transition risks (in the transition to a low-carbon economy), and legal and regulatory risks. Quantification or monetization of these risks is currently very challenging, due to the lack of direct precedent. A 2015 study by the University of Cambridge Institute for Sustainability Leadership estimated that unrealized climate risks in a typical investment portfolio could lead to economic shocks that have the potential to generate losses of up to 45% in total portfolio valuation. (University of Cambridge Institute for Sustainability Leadership,

Unhedgeable Risk: How Climate Change Sentiment Impacts Investment (Nov. 2015) (https://www.cisl.cam.ac.uk/publications/sustainable-finance-publications/unhedgeable-risk))

A specific example pertaining to companies in the coal or oil and gas industry sectors, also known as fossil fuel companies, is stranded assets, which are assets whose economic value will be significantly, or completely, reduced in value as a result of potential policy responses to climate impacts. A recent study (http://www.smithschool.ox.ac.uk/research/sustainable-finance/publications/Stranded-Assets-and-Thermal-Coal-in-China-Working-Paper-February2017.pdf) by the University of Oxford Smith School of Enterprise and the Environment illustrates and monetizes this risk in the case of the Chinese coal-fired power plant sector.

Public Policy and the Role of the Private Sector

Considering the global scope, magnitude, and seriousness of the environmental, social, and economic threats posed by climate change, coordinated international policy agreements amongst governments is arguably the first, and most effective, line of defense, as reflected by the United Nations Framework Convention on Climate Change (UNFCCC) process, including the Twenty First Conference of the Parties (COP 21) Paris Agreement in December 2015 (http://www.cop21paris.org). While some observers believe this Agreement (available at http://unfccc.int/paris_agreement/items/9485.php) could have gone further (e.g., see Mark Carney, Bank of England, "Resolving the climate paradox"(http://www.fsb.org/wp-content/uploads/Resolving-the-climate-paradox.pdf), September 22, 2016), it is generally regarded as a positive documentation of an internationally agreed climate strategy to limit global warming to 2º Celsius by 2050. This Agreement has an organizational and implementation structure comprised of four pillars: three of the four pillars are largely government-focused, relating to finance packages and national climate mitigation efforts, and one pillar relates to private sector initiatives—an action area for both companies and investors. ICGN believes that the Paris Agreement calls for a private sector response that includes the following actions:

- Both companies and investors should recognize their fiduciary duties to understand the potential impact of climate change on the long-term success of companies and sustainable value creation.
- Boards and executive management must (i) integrate "climate awareness" into their business strategies, operations, corporate governance, and risk management; and (ii) implement the policies, processes, and systems to properly assess corporate exposures to climate-related risks and potentially necessary corresponding adaptations to their businesses.
- Investors should integrate climate-related risks into their investment analysis, portfolio monitoring, and company engagement activities, and prepare to mobilize capital to support the transition to a low-carbon economy. This is consistent with the requirements of the PRI framework, which now has almost 1700 signatores representing over US $60 trillion in assets under management. See UNPRI, https://www.unaboutpri.org.

Attention to climate factors continues to grow among investors around the world. The Ceres Investor Network on Climate Risk and Sustainability (http://www.ceres.org/networks/ceres-investor-network) is a largely North-American based investor network representing over US $15 trillion in assets under management. The Ceres Network is complemented in Europe by the Institutional Investors Group on Climate Change (www.iigcc.org) a European-based investor network representing over €14 trillion in assets under management. Similar bodies exist in Australia/New Zealand (IGCC) and Asia (AIGCC). These organizations collectively have formed a global coordination platform, the Global Investor Coalition on Climate Change (globalinvestorcoalition.org). These bodies serve as important collaborative fora for education and

development of strong and credible public policy solutions which can ensure an orderly and efficient transition to a low-carbon economy.

Complementing these initiatives, the concept of investor stewardship is building in financial markets around the world. In many jurisdictions, formal stewardship codes have been adopted to provide guidance to investors for monitoring, engagement and voting ownership rights. For example, see the Financial Reporting Council's "UK Stewardship Code" (https://www.frc.org.uk/investors/uk-stewardship-code), September 2012.

Stewardship can and should include material ESG issues such as climate change, human rights, labor rights, and corruption. ICGN's Global Stewardship Principles, published in 2016, provide a global framework for investor stewardship. One of its seven guiding principles relates to promoting long-term value creation and integrating ESG factors into the investment process. This ESG focus includes systemic threats, such as climate change, income inequality, human rights, and corruption (International Corporate Governance Network, "ICGN Global Stewardship Principles" (http://icgn.flpbks.com/icgn-global-stewardship-principles/#p=1), 2016).

Investor Expectations for Corporate Directors Regarding Climate-Related Risks

The company's board is elected by its shareholders to provide oversight and direction to the company and its executive management, with a view to supporting the company's long-term success. As investors monitor and engage with companies they should assess boards and their understanding of climate risk. A focus on climate need not be to the exclusion of considering other relevant environmental and social issues, and many boards would benefit from a deeper understanding of ESG and sustainability issues generally – and also in the context of macro initiatives such as the United Nations Sustainable Development goals.

For some companies, particularly those that stand to be directly affected by climate- related issues (such as the insurance and energy sectors), it may be desirable for boards to recruit independent outside directors with climate expertise, to assist with board oversight in this area. For example, the U.S.-based energy giant, Exxon appointed a climate scientist to its board in February 2017. While most boards are unlikely to have climate specialists of this nature, boards are nonetheless accountable for providing appropriate oversight from a strategic and risk perspective. ICGN believes that specific investor expectations of directors include:

- developing an understanding of the impacts of climate change;
- asking how climate change can affect sustainable value creation;
- building strategic understanding of risk and opportunity in a low-carbon economy;
- linking material carbon risks to enterprise risk management and strategic planning;
- understanding and mitigating operational financial impacts such as
    - physical impacts (emissions, energy efficiency, etc.)
    - regulatory risks
    - risks to the company business model; and
- reporting policies and performance relating to climate risks.

The Role of Corporate Reporting and Disclosure

Corporate sustainability reporting is now an essential element of corporate disclosure, to inform and guide management, investors, and policy makers with respect to a company's performance and governance on climate-related and other material sustainability risks. Investors are increasingly calling for "integrated thinking" to integrate ESG issues and risks into the management and governance framework, and to reflect how the company links these issues to reporting on company operational and financial performance.

Useful tools for both investors and companies that can facilitate understanding and implementation of voluntary reporting relating to climate risks include

the integrated reporting framework (International Integrated Reporting Council, "The International <IR> Framework" (http://icgn.flpbks.com/icgn-global-stewardship-principles/#p=1), December 2013) and the Carbon Disclosure Project (https://www.cdp.net/en). Other voluntary reporting frameworks, such as the Global Reporting Initiative (GRI) (https://www.globalreporting.org/Pages/default.aspx) and the Sustainability Accounting Standards Board (SASB) (https://www.sasb.org), are contributing to an informational infrastructure that aims to facilitate clearer understanding and greater company comparability on important ESG factors including climate risks. Ultimately, investors will expect high-quality data, and related key performance indicators (KPIs) to set benchmarks and goals for progress with regard to climate strategy and performance.

The Limits of Public Policy as a Strategic Guide for Companies and Investors

The private sector dimension of the Paris Agreement is of particular importance in light of changes to the current international climate policy framework. The most obvious uncertainty relates to the U.S., mainly due to the Trump Administration's announcement that the U.S. was withdrawing from its commitment to the Paris Agreement. As a countermotion to this federal initiative, 11 U.S. states, including California and New York, have joined the bipartisan United States Climate Alliance, which is committed to pursuing policies that are consistent with said U.S. commitments under the Paris Agreement. While these developments may or may not lead to a meaningful dilution of the U.S. commitments under the Paris Agreement, both companies and investors now confront a changing and relatively unpredictable climate policy framework.

This uncertain and potentially unstable climate policy environment may present challenging questions for companies to consider, particularly those in climate-sensitive sectors and those with long-term capital spending horizons. In the U.S., with the U.S. withdrawal of its Paris Agreement commitments, how should the private sector respond? Is it now appropriate for companies and investors to "take advantage" of lesser restrictions relating to climate risk, which in the short term could allow a company to legally reduce costs and increase profits? If it is legal, should management, boards, and investors ignore externalities and ethical imperatives in the interest of proprietary gain?

One must consider that what might be legal may not ultimately be right or appropriate in economic, environmental or ethical terms. Extending this logic to the fiduciary duty of companies and investors, simply staying within the bounds of regulation may not always be the best guide for promoting sustainable value creation.

This perspective would reject a short-term approach to exploit lax climate standards as unsustainable, and suggests that there are economic, ethical, and perhaps legal imperatives for a long-term perspective on addressing climate risks. From a strategic perspective, it is critical to recognize that companies, boards, and investors have a longer time horizon than the four- to eight-year political terms of most political leaders around the world. Policy positions on issues such as climate change can come and go with political leadership, and, if they are based upon flawed assumptions, they will not stand the test of time.

Companies and investors must recognize that prevailing public policy is not necessarily a guide for company planning. They must develop their own views on a viable, sustainable climate policy—both in a macro context and for individual companies. Boards and executive management should seek to holistically understand and anticipate the ultimate impacts of climate-related risks and opportunities for their companies, including but not limited to the impacts of multilateral climate-related agreements and an individual country's changing climate policies.

George Dallas *is Policy Director at International Corporate Governance Network.*

THE HUMAN RIGHT TO A CLEAN AND HEALTHY ENVIRONMENT: COMPLIANCE DOWN THE PIPELINE

Stephanie Trager and Emily Bergeron

This article addresses: (i) the current global state of regulatory norms relating to human rights and corporate behavior; (ii) why a human right to a clean and healthy environment should be incorporated into companies' strategic decision-making, environmental due diligence, and corporate governance, risk, and compliance programs; and (iii) why financial regulatory reporting policies and frameworks should consider the impacts of environmental degradation on human rights.

Introduction

National and international laws and policies, although providing direct and aspirational avenues for redress, all too often allow corporate transgressions against the environment to leave immediate and lasting scars on communities. Human rights with respect to human trafficking, forced labor, bribery and corruption, and other similar social issues have become widely recognized and enforceable concerns for companies in the U.S. and abroad, and have received heightened attention due to corporate reporting requirements. In contrast, a human right to a clean and healthy environment remains overlooked.

International Policies and Norms

The constitutions of over 100 developing and developed nations have provisions for the protection of the environment for the sake of human life, creating human right entitlements to clean air, water, and soil. Christopher Jeffords, *Constitutional Environmental Human Rights: A Descriptive Analysis of 142 National Constitutions, in The State of Economic and Social Human Rights: A Global Overview* (Lanse Minkler ed., 2009). Although U.S. federal law recognizes that "each person should enjoy a healthful environment" and laws exist protecting the environment and human health, U.S. law does not per se provide a legally enforceable human right to a clean environment. 42 U.S.C. §4321 et seq.

Multilateral policymakers have recognized human rights as they relate to environmental concerns. The scope of that right has expanded since the 1948 UN Declaration of Human Rights asserted "everyone has a right to life."

- The 1972 Stockholm Declaration asserted "Man has a fundamental right to… adequate conditions of life, in an environment of a quality that permits a life of dignity and wellbeing."
- Rio Principle 1 posits "human beings are … entitled to a healthy and productive life in harmony with nature." Report of the United Nations Conference on Environment and Development. Rio de Janeiro, 3-14 June 1992 (1993) (http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm).
- In 2010, the UN General Assembly declared clean water and sanitation are fundamental human rights. G.A. Res. 64/292, U.N. Doc. A/RES/64/292 (July 28, 2010).
- The December 2015 Paris Agreement (http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf) also recognizes "climate justice" and speaks to the implications of climate change on human rights. It should be noted that the Trump Administration's June 2017 expression of intent to withdraw from the Paris Agreement in no way precludes U.S. corporations, states, and municipalities from working proactively towards a rights-based approach to the environment. Draft Global Pact for the Environment (https://www.iucn.org/sites/dev/files/content/documents/draft-project-of-the-global-pact-for-the-environment.pdf) Le club de juristes, Draft Project: Global Pact for the Environment Draft Project: Global Pact for the Environment (2017).
- Additionally, the 2016 G20/OECD Principles of Corporate Governance (http://www.oecd.org/corporate/principles-corporate-governance.htm) refers explicitly

to environmental and human rights issues in the context of disclosure, board responsibilities, and internal controls. Despite precedent, this "right" remains largely aspirational. G20/OECD Principles of Corporate Governance: OECD Report to G20 Finance Ministers and Central Bank Governors, (2015) (http://www.oecd.org/corporate/principles-corporate-governance.htm).

U.S. Law

In the U.S., at the federal level, human rights historically have been addressed as a social issue:

- Human trafficking is addressed by Executive Order (EO) 13627, Strengthening Protections Against Trafficking in Persons in Federal Contracts, 77 Fed. Reg. 60029 (2012) (https://www.federalregister.gov/documents/2012/10/02/2012-24374/strengthening-protections-against-trafficking-in-persons-in-federal-contracts), and by the Trafficking Victims Protection Act, 22 U.S.C. § 7103 (http://uscode.house.gov/view.xhtml?path=/prelim@title22/chapter78&edition=prelim).
- Child labor is addressed by EO 13126, Prohibition of Acquisition of Products Produced by Forced or Indentured Child Labor, 64 Fed. Reg. 32383 (1999) (https://www.federalregister.gov/documents/1999/06/16/99-15491/prohibition-of-acquisition-of-products-produced-by-forced-or-indentured-child-labor).

At the U.S. State level, the California Transparency in Supply Chains Act of 2010 (S.B. 657, § 2, subds. (a)-(c) (http://www.leginfo.ca.gov/pub/09-10/bill/sen/sb_0651-0700/sb_657_bill_20100930_chaptered.pdf)) provides additional anti-trafficking and forced labor model guidelines which are similar to The UK Modern Slavery Act, 2015, c. 30 (U.K.) (http://www.legislation.gov.uk/ukpga/2015/30/contents).

Additionally, some U.S. laws focusing on other issues also impact human rights. Section 1502 of the Dodd-Frank Act (Dodd–Frank Wall Street Reform and Consumer Protection Act, 12 USC 5301, §1502 (2010) (https://www.treasury.gov/about/organizational-structure/offices/Documents/Dodd%20Frank%20Act.pdf) requires companies to disclose whether any product manufactured or contracted to be manufactured by the company contains minerals sourced in the Democratic Republic of Congo (DRC). The intent of Section 1502 is to reduce revenue flows to militia groups in the DRC. However, its impact on consumer demand for "conflict-free" minerals, and the pressure for companies to source responsibly, have impacted human rights with respect to a clean environment. Mining communities in conflict zones continue to be impacted both by corruption and environmental conditions that arguably violate human rights.

On June 8, 2017, the U.S. House of Representatives passed the Financial CHOICE Act (https://www.epa.gov/clean-air-act-overview/clean-air-act-text), which includes a provision that would repeal Section 1502 of the Dodd-Frank Act. The bill is now in the Senate. See H.R. 10-115th Congress: Financial CHOICE Act of 2017, www.GovTrack.us, July 27, 2017, available at https://www.govtrack.us/congress/bills/115/hr10. Without Section 1502's reporting requirement, companies sourcing from these areas, in most cases, will not be held accountable.

U.S. federal environmental laws comprehensively address the natural and manmade environments; notably, the Clean Air Act, 42 U.S.C. 42 U.S.C. 7401 et seq. (1990) (https://www.epa.gov/clean-air-act-overview/clean-air-act-text), the Oil Pollution Act 1990 (33 U.S.C. 40 (1990) (https://www.law.cornell.edu/uscode/text/33/chapter-40); the Resource Conservation and Recovery Act (https://www.law.cornell.edu/uscode/text/42/6962), 42 USC 82 (1976), and the Clean Water Act 33 U.S.C. 23 (1972) (https://www.epa.gov/sites/production/files/2017-08/documents/federal-water-pollution-control-act-508full.pdf)). Environmental justice is addressed by Title VI of the Civil Rights Act (https://www.justice.gov/crt/fcs/TitleVI-Overview), 78 Stat. 241 (1964) and Executive Order 12898 (https://www.hud.gov/program_offices/

fair_housing_equal_opp/FHLaws/EXO12898), Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 Fed. Reg. 7629 (1994), both of which seek to protect disproportionately high, adverse human health or environmental effects on minority and low-income populations. The former prohibits discrimination on the grounds of race, color, or national origin in connection with programs and activities receiving federal financial assistance; the latter directs Federal agencies to incorporate environmental justice into their mission in compliance with Title VI of the Civil Rights Act.

Other than U.S. federal laws, there have been U.S. federal government commitments to promote responsible corporate business practices through the use of bilateral and multilateral statements, such as the G-7 Leaders' Declaration (June 8, 2015) (https://obamawhitehouse.archives.gov/the-press-office/2015/06/08/g-7-leaders-declaration) addressing sustainable development and responsible supply chains. Prior administrations have funded multi-stakeholder initiatives that promote awareness and implementation of responsible business practices and accountability in business conduct, such as the UN Guiding Principles on Business and Human Rights (http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf) and the Voluntary Principles on Security and Human Rights Initiative (http://www.voluntaryprinciples.org/). For the latter, which promotes the implementation of a set of principles to guide oil, gas, and mining companies in providing security for their operations utilizing strategies that protect human rights, the U.S. government contributed over US $1 million in programmatic funds. See Bureau of Democracy, Human Rights & Labor - Dept. of State, Response to the UN Working Group surveys on implementation of the Guiding Principles (2012) (https://business-humanrights.org/en/usa).

Another avenue for protecting a human right to a clean environment is the use of civil liability to address corporate malfeasance. However, holding corporations accountable under U.S. tort law is complicated and expensive due to forum shopping, questions of applicable law, and judicial reluctance to support robust interpretations of human rights. See, e.g., Carol Poindexter & Norton Fulbright, *Criminal and Civil Liability for Corporations, Officers, and Directors, Practical Law* (2016) (http://www.nortonrosefulbright.com/files/20160801-criminal-and-civil-liability-for-corporations-officers-and-directors-142383.pdf). See also Eric Mongelard, *Corporate Civil Liability for Violations of International Humanitarian Law (https://www.icrc.org/eng/assets/files/other/irrc_863_mongelard.pdf)*, 88 International Review of the Red Cross 665, 665 (2006).

Current State of Corporate Sustainability Reporting

Corporate sustainability reporting and disclosure practices are now common worldwide. This is, in part, in response to widespread market acceptance of multilateral standards and guidelines, rising investor pressure for supply chain transparency, and mainstream investment community demands for full and fair corporate reporting on environmental, social, and governance (ESG) factors. It is also a response to new requirements and guidelines recently issued by numerous national securities regulators. However, current voluntary reporting frameworks, such as the OECD Guidelines for Multinational Organizations, the UN Sustainable Development Goals, and the UN Global Compact, and current securities laws, do not directly address the impacts of corporate environmental transgressions upon human rights. This gap exists even though numerous underprivileged communities, including indigenous people from North America to the Amazon to the mountains in Nepal, have reported the disastrous impacts of climate change upon their habitats, way of life, and cultural survival. See, for example, 'Indigenous Peoples, Lands, and Resources, National Climate Assessment', http://nca2014.globalchange.gov/report/sectors/indigenous-peoples (last visited Apr. 30, 2017).

Moreover, this gap exists even though there are important benefits of corporate full and fair sustainability disclosures, including enhanced corporate reputation and employee expectations,

improved access to and lower cost of capital, increased operational efficiency, and mitigation of costly environmental and social risks. See, e.g., Ernst & Young, LLP & Boston College Center for Corporate Citizenship, Value of Sustainability Reporting (2016) (http://www.ey.com/Publication/vwLUAssets/EY_-_Value_of_sustainability_reporting/$FILE/EY-Value-of-Sustainability-Reporting.pdf).

A Changing Legal Environment

Recent developments point towards a slowly changing political and legal environment. For example, in Conservation Law Foundation, Inc. v. Exxon Mobil Corp., No. 1:16-cv-11950 (D. Mass. 2016), a case seeking to hold the oil giant accountable for its climate change cover-up that some believed would be immediately dismissed, court rulings indicate keen judicial interest in proceeding. Likewise, the Standing Rock Sioux Tribe's litigation against the Dakota Access Pipeline to protect its right to clean water and preserve its land and cultural heritage has at least been successful in requiring the Army Corps of Engineers to reassess the environmental impact of the project. Standing Rock Sioux Tribe et al. v. U.S. Army Corps of Engineers, Civil Action No. 16-1534 (JEB) (June 14, 2017).

Unfortunately, this limited success is outweighed by the persistent inequities faced by traditionally marginalized peoples. Consider, for example, an Ecuadorian indigenous community's 25-year legal battle over environmental damages resulting from an oil spill that polluted the region, causing death and illness. What began with a 1993 class action suit in U.S. federal court against Texaco in Aguinda v. Texaco (850 F.Supp. 282 (1994)) wound its way through proceedings in Ecuador (María Aguinda et al. v. Chevron Corp., Case No. No. 002-2003 (Prov. Ct. of Sucumbios, 2011) (on file with author)); the Permanent Court of Arbitration at the Hague (Chevron Corporation and Texaco Petroleum Corporation v. The Republic of Ecuador, UNCITRAL, PCA Case No. 2009-23)(2009); U.S. courts (See Jota v. Texaco, 157 F.3d 153 (1998); Aguinda v. Texaco, 303 F.3d 470 (2002); Chevron v. Hugo Gerago Camacho Naranjo, et al., Case No. 11-cv-691, 11-cv-3718 (2d Cir. 2012); and Chevron v. Donziger, Case No.1:12-MC-65 LAK/CFH (N.D.N.Y., 2013)); Canadian courts (Chevron Corp. v. Yaiguaje, 2015 SCC 42 (2015)); and finally the International Criminal Court (ICC) (Letter from M.P. Dillon, Head of the Information & Evidence Unit, Office of the Prosecutor, ICC to R. Doak Bishop, Chevron Counsel (March 16, 2016) (on file with author). (These cases are summarized at Business & Human Rights Resource Centre, https://business-humanrights.org/en/texacochevron-lawsuits-re-ecuador.)

Ultimately, the U.S. claims were dismissed. The $9.51 billion judgment against Texaco/ Chevron for environmental damages awarded by the Ecuador Supreme Court was held unenforceable in an international arbitration claim. Id. The U.S. Court of Appeals later held that the Ecuadorians could not collect on the basis that the judgment was obtained through corrupt means. Most recently, the Ontario superior court held that the judgment could not be enforced against Chevron's subsidiary. Finally, in the Ecuadorian communities' complaint before the ICC alleging that the company and its high-ranking official's decisions to pollute the rainforest and later to evade remediation constituted a crime against humanity, the Court found that the actions did not rise to the level of international crimes that would fall under its jurisdiction.

These individuals, whose health and well-being were destroyed by environmentally reckless behavior, were denied any justice or remunerations. This single series of decisions reflects how costly--economically, environmentally and socially--bad corporate behavior can be when so much time, money, and effort is spent evading responsibility to protect or remedy the human rights implications of environmentally damaging actions.

A Changing Business Environment

Fortunately, some companies, such as Patagonia and L'Oreal, are adopting the mentality that an ounce of prevention is worth a pound of cure when

dealing with environment and human rights. They recognize that a holistic approach to environmental responsibilities may ward off costly, time-consuming remediation and the slings and arrows of unhappy stakeholders.

Whether mandated or not, the investor community can pressure companies to embed ESG principles in their risk management and compliance policies, systems, and practices. Such change can be accomplished through incorporating environmental rights into corporate governance policy and commitments, embedding a respect for human rights in environmental due diligence, and creating more effective remedies and more accessible grievance mechanisms to address environmental harms. Companies should consider establishing a duty to ethically and effectively respond to allegations with a policy of transparency. See, for example, CHRB Pilot Methodology 2016 (2016), https://business-humanrights.org/sites/default/files/CHRB_report_06_singles.pdf. Capacity building and a holistic approach across silos, including the C-Suite, the Board, legal and compliance departments, and business line management, is essential for effective implementation of these policies and practices.

Concluding Remarks

Establishing an enforceable human right to a clean and healthy environment would foster a more humane corporate value system while shifting the current corporate economic paradigm marked by irresponsibility and recklessness regarding environmental damage and suppression of climate science. Responding to the rising demand by consumers and institutional investors for greater corporate accountability, transparency, and disclosure of environmental, social, and governance issues and risks, the international legal community is well-positioned to analyze how this enforceable human right could be integrated into existing legal and policy frameworks, and to support a more holistic, humane approach to advising, litigating, and advocating for policy reform.

Stephanie Trager *is CEO of Intentional Paradigms, a leadership coaching and strategic consulting firm helping senior leaders, advisors and impact teams link people, purpose and sustainability, to profit. She is a Vice-Chair of the ABA Section for Civil Rights and Social Justice Environmental Justice Committee.*

Emily Bergeron *is an assistant professor in the University of Kentucky Department of Historic Preservation. She is a Vice-Chair of the ABA Section for Civil Rights and Social Justice Environmental Justice Committee.*

NOTES AND ACKNOWLEDGEMENTS

The International Environmental Law Committee (IELC) of the ABA's Section of International Law (SIL) serves as a forum for dialogue and an educational resource for the community of private practice, in-house, non-profit, academic and government lawyers practicing or interested in environmental law worldwide, and in legal specialties which intersect with or otherwise directly impact environmental law. Climate Change and Sustainability Financial Reporting, post-COP21, now intersects environmental law.

The IELC presented a program at the ABA SIL Fall 2017 Conference in Miami (October 24-27) entitled: “Climate Change and Sustainability Financial Reporting: How Recent Legal and Regulatory Developments Are Impacting Latin America Issuers, Investors, and Capital Markets”. For information or questions about how to participate in the IELC, please contact me (lmlowson@gmail.com), or the IELC Co-Chairs, Anastasia Telesetsky (atelesetsky@uidaho.edu), and Alicia Cate (alicat.intlenvlawcomm@gmail.com). For information or to participate in our collaborator committee on this publication, the Section of Environment, Energy, and Resources (SEER) International Environmental and Resources Law Committee (IERLC), please contact the IERLC Co-Chairs, Shannon Martin Dilley (dilleyshannon@gmail.com) and Jonathan Nwagbaraocha(jonathan.nwagbaraocha@gmail.com).

Sessions include:

- Improving the Practice of Law Before the ICC and International Criminal Tribunals
- Balancing Privacy and the Right to Know in Open Societies
- International Climate Change After Trump: Charting a Reductions Path Withour the U.S.?
- Cybersecurity Best Practices in Elections
- Rule of Law and the Future of Capitalism
- New Developments In International Representative, Consumer and Class Action
- Confronting the Refugee Crisis
- A Conversation Between the Unstoppable Force and the Immovable Object - Reaching Consensus on Regulating the Delivery of Legal Services
- Are Human Rights Affected by Tax Information Reporting and Disclosures?
- Surveillance, Terrorism & Privacy: What Keeps Us Safe?
- Cross-Border Investigations: Navigating Attorney-Client Privilege and Other Thorny Issues in the Cross-Hairs of Competing Law

ambar.org/2018ParisSessions