Subject: SEC Comment Letter August 16, 2023

By Electronic Submission

The Honorable Richard Gensler
Chair, Securities and Exchange Commission
100F Street, NE
Washington, DC 20549

RE: Request for Public Comment on the Climate Risk Disclosure Proposed Rule

Dear Chair Gensler,

Thank you for the opportunity to provide comments on the Securities and Exchange Commission's (SEC) proposed rule for the Enhancement and Standardization of Climate-Related Disclosures. As a company, Triangle has developed patent-pending technology to aggregate and synthesize real-time, verifiable carbon emissions, economic, and operational data in a standardized way to meet the needs of our customers and their stakeholders. Our AssetOS operating system captures information from diverse inputs (IoT sensors, smart meters, and linked utility accounts), generating Digital Twins for each individual asset, thereby enabling the automated generation of data feeds. Triangle's expertise lies in capturing and standardizing asset-level climate and operational performance data, including and especially across Scope 3 emissions.

We agree with the SEC's effort to pursue climate-related risk disclosures and believe this information is critical for regulators and investors alike. Based on our experience, including the prospective costs and benefits of aggregating and disclosing such information, we believe the benefits of disclosure, including financial benefit to the disclosing entity, far outweighs the cost of compliance with such a requirement.

The comments below highlight Triangle's viewpoints on the need for climate risk disclosure and likely offer an unique perspective on cost-benefit analysis to potentially regulated entities under such a regime.

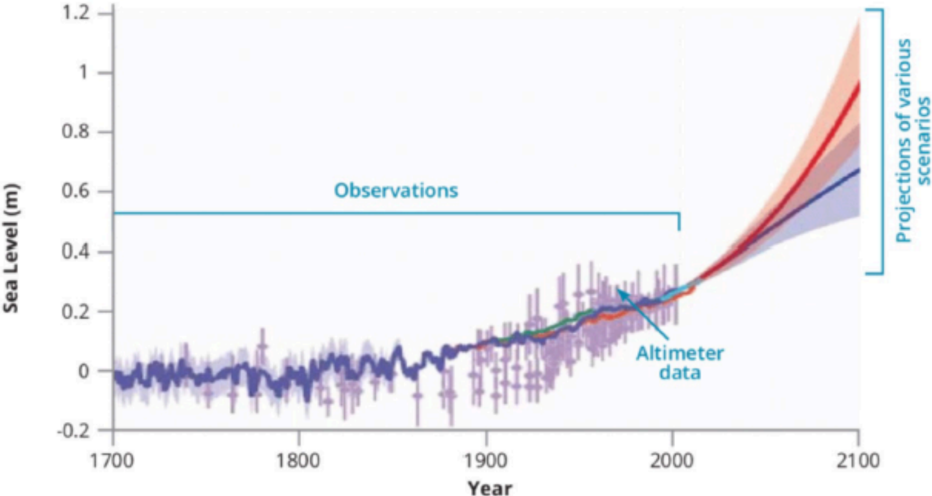
Timely Action
As the SEC is fully aware, the environmental, social, and governance (ESG) market today is littered with "greenwashing," misleading if not untruthful claims by regulated entities to appear environmentally friendly in their practices. As a result, regulators globally are pursuing and adopting climate disclosure requirements, principally based on the Task Force for Climate-related Financial Disclosures (TCFD), and the United States SEC is considering similar actions. This regulatory action is timely, and necessary, both for the benefit of investors and the maintenance of fair, orderly, and efficient capital markets.

Markets in Transition
As traditional and digital finance evolve, so too is the ESG and sustainability-linked bond market in a period of transition. Along these lines, we look at the ESG and sustainability-linked bond market, a market that is littered with greenwashing, to inform the cost-benefit analysis that the SEC should consider in its own rulemakings by studying the empirical data to deduct what we believe will happen in the future once TCFD compliance, or similar equivalent regulatory structures, are enacted. Our conclusion is that there is a significant net economic benefit for this activity, including improved and increased transparency of climate-related risk and the knock-on effect of transparent financial information.

Asset Management Industry Backdrop
There is an existential risk to the asset management industry. The main culprit is climate change, particularly in the form of sea-level rise. Participants in the asset management industry know that fund performance is highly correlated

to the success of the fund and its ability to meet or beat the market's performance. Imagine if each year that fund started the year financially upside down because the fund needed to factor in asset markdowns. These markdowns occur because fund assets are impaired, first by limited insurance coverage of assets (thus hurting long term asset value), and second for actual sea-level rise as long-life assets like mortgages and other long duration instruments begin to price climate risk into valuation models.

Already we see sea-level rise at ¼" / year and that is expected to increase as ocean temperatures rise.



Using a sample to demonstrate the impact to asset values by sea-level rise and why asset managers are so pressed to see quantifiable data to measure and assess risk, we look at comparing the asset values in the U.S. of the top 25 cities on coastlines vs. the top 25 cities not on coastlines[1] (source Kiplinger). When using population size, home value, and average persons per household, we arrive at $21 trillion for home values for the top 25 cities on coastlines, as opposed to $5 trillion for home values for the top 25 cities in the U.S. not on coastlines. Approximately 40 percent of all people in the U.S. live on coastlines[2] (source NOAA). Based on this data, the population on coastlines represents roughly 80 percent of the concentrated wealth in the U.S. and is indicative of broader asset values across the value chain. As an asset manager, if 80 percent of your portfolio is subject to potential risk of constant markdowns, and redemptions are based on performance, we run the risk of entering a cycle of non-virtuous negative feedback loops that is inescapable for decades.

Based on these core facts, the asset management industry has decided to compensate companies for good governance and proactive sustainable stewardship. The boards of many of the top 200 asset managers have committed[3] (source Net Zero Asset Managers Alliance) the rotation of their portfolios to be 75-100 percent sustainability-linked in order to bend the curve for adoption of climate considerations and link sustainability with the cost of capital and borrowing money.

Asset managers have fostered the development of the sustainability-linked bond market. As a result, that market has thrived to over $3 trillion in size, driven by environmental, social, and governance characteristics (ESG). While this market has driven change, the environmental aspect (E) has been negatively affected by greenwashing and misleading claims. Now, TCFD compliance is taking root globally by major regulators to address this form of investor disclosure fraud with quantifiable metrics for analysis and risk management.

Cost-Benefit Analysis

WIth this backdrop of where the market is today (greenwash-risk), we look at what the market will inevitably become (TCFD compliant) as sustainability-linked assets grow from a $3T market today to $50T by 2025[4] (source: Bloomberg

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[1] https://www.kiplinger.com/article/real-estate/t010-c000-s002-home-price-changes-in-the-100-largest-metro-areas.html

[2] https://oceanservice.noaa.gov/facts/population.html

[3] https://www.netzeroassetmanagers.org/commitment/

[4] https://www.bloomberg.com/company/press/esg-assets-rising-to-50-trillion-will-reshape-140-5-trillion-of-global-aum-by-2025-finds-bloomberg-intelligence/

Intelligence Institute). For this market to achieve its goals, there has to be transparency and confidence of information for investors and issuers, and only with those guardrails in place will an economic benefit follow.

To demonstrate how markets thrive on confidence, we look at the increase of value derived from the increase of confidence driven by transparency. One key catalyst of transparency was delivered when Sarbanes Oxley was adopted in 2002 to protect investors. This event, driven by the Worldcom bankruptcy, rocked the financial markets to its core due to the unraveling of its fraudulent accounting practices.The ensuing legislation was passed to ensure accurate reporting and for management teams to be held to account for those losses.

As we look at the average market multiple comparing the market before that time and after that time, we see that regulation did not lead to degradation, but rather growth and value for market participants - investors, corporations, and the vitality of the market. As we can see comparing these two segments of time, a 64 percent increase in market multiple for stocks that are publicly traded was observed after the law was enacted.

Average Market Multiple	
1927-2002	15.33937172
2002-2023	25.17650311

Source S&P

We believe that the benefit of transparency for climate risk disclosure will not only enable assets to trade at a higher valuation due to the reduction in risk, but we also believe there is an operational and economic benefit in the core operations that are reflected below.

As we know, one of the key drivers of the benefit in the sustainability-linked bond market is the cost of borrowing benefit that comes from sound management and governance. While many equate ESG to management hygiene, in actuality, it is a process for self reflection and assessment. The same way a company performs annual reviews of their staff, ESG is a process of self reflection and improvement. We use two segments of the market to demonstrate how TCFD, combining transparency alongside cost of borrowing benefits, will not only have a multiple impact, but also an earnings impact that will drive economic benefit and value.

When reviewing the operating benefit for ESG with a specific focus on the “E”, we look at how TCFD-like structures will drive transparency for market participants to make informed decisions. Should market participants purchase the least expensive product (unbeknownst that it has the largest carbon impact and is derived from fossil fuels), or should they choose an alternative because the net-economic value of the purchase, when you account for carbon, is actually less expensive? Should market participants invest in assets that are in historically flood-prone areas because they suggest higher return, without taking into account the risk of flooding or extreme weather impacts due to climate change?

These are the value drivers, specifically embedded in Scope 3 that will inform decision making. They can only be accomplished with proper framework for reporting and analysis, and really get to the heart of allocation of capital. You cannot adequately allocate capital unless you have transparency.

To support these suggestions, we look at the following baseline data:
1. MUNICIPAL GREEN BONDS[5]: where discounts (relative to vanilla) have been observed since 2017, and the recent average is about 28bps (2020). Based on an average spread of 3.25% (what is a snapshot in time so we can

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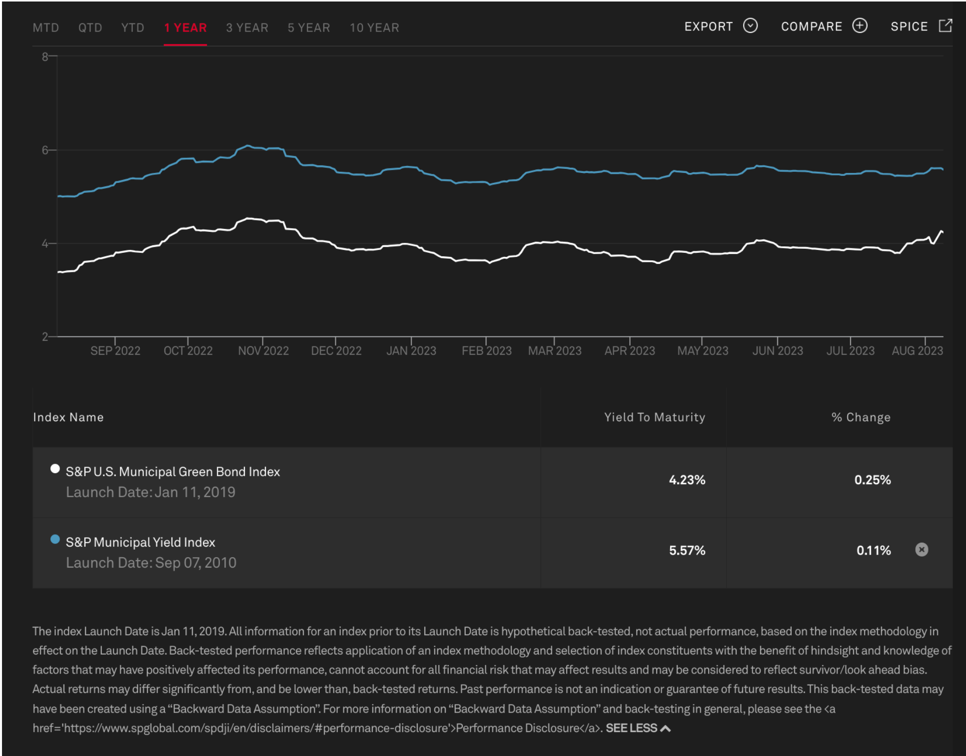
[5] Li, D., K.H. Chung and P. Adriaens. 2023. Impact of ESG Performance and Disclosure on Premiums in the Corporate Bond Market: Evidence from Propensity Score Matching. J. Sustainable. Finance and Investing, In Press.

Li, D. and P. Adriaens. 2023. Deconstruction of ESG Impact on US Corporate Bond Pricing: An Assessment of Cost of Capital Benefits Across Industry Sectors. J. Management in Engineering. Accepted for Publication.

Li, D. and P. Adriaens. 2022. ESG Rating Impacts Corporate Bond Yield Spreads: Empirical Evidence From Statistical Inference and High Dimension ML Matching. Conference Paper, Risk in Banking and Finance Conference, Bari, Italy.

see what total rates were at that moment? current tracking), we see an 8.6% benefit on cost of borrowing and economic benefit to the municipalities that pursued this activity.



One of the dark aspects of this segment of financing is the greenwashing that exists due to lack of reporting to verify accuracy and performance. We believe that this spread of improvement will increase much like what we saw when Sarbanes Oxley was adopted, leading to a further economic benefit for this activity.

2. CORPORATE BONDS: ESG and ESG pillar discounts are only observed when the highest rated (AAA, AA, A) bonds are compared to the laggards (BBB and lower), i.e. when companies report on having ESG risk mitigation in place (ratings). In that case, the maximum and most recent sustainability discount for financial bonds (50% of all bonds issued between 2011-2022) is on the order of 54 bps.

What is also important to realize is that these benefits speak specifically to profitability of the enterprise as reduced borrowing costs directly impact the bottom line and an enterprise's profitability.

Over time, and as this market grows from $3T (current savings of $16.2B/year) to $50T by 2025, we believe the spread differential will continue to widen much like we see the spread differential between IG (Investment Grade Debt) and HY (High Yield Debt) as asset managers will have fewer dollars to put towards non-sustainable. And with more assets seeking less capital, capital costs will increase and ultimately it will come down to the investors in those assets to determine whether management's interests are best served by complying or not as profitability will be so poorly impacted.

Cost for Compliance
Costs to deliver climate risk disclosure compliance are higher upfront and reduce significantly over time. These costs break down into the time to aggregate the data, to run the analysis on the data, to deliver that data to the various

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Li, D. and P. Adriaens. 2023. What drives ESG Premia in the U.S. Corporate Bond Market? Conference Paper, Risk in Banking and Finance Conference, Florence, Italy.

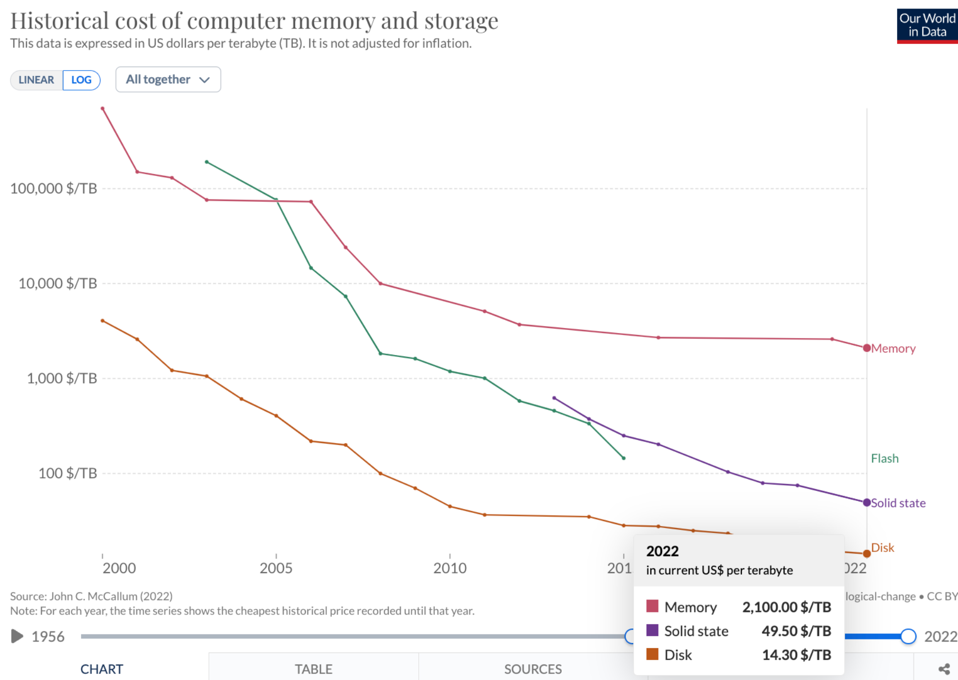
stakeholders in an asset ecosystem, and then there is the advisory and planning to structure your business to continually update and report the necessary information.

Breaking these down, on the aggregation of data, much of this data is the same data that is used by accountants to run annual financials for the companies they are servicing. While there will be some initial configuration, long term these costs should come down as processes are automated. The automation of these bills is already occurring with utility bills able to be configured for routing of information to link utility bill to assets in an asset ecosystem. That not only streamlines reporting, but also allows for operational efficiencies to be had as you can pinpoint misuse more accurately.

For the Carbon Ledger, once the data is aggregated, the carbon formulas, based on unit of output, are readily available and can be applied to an asset ecosystem. The advisory and planning is probably the most thoughtful or expensive aspect of the platform today, but we believe that advances in technology, including AI, will be able to eventually weigh all the data attributes, the sources of carbon, and prescribe a set of outcomes (based on cost and time) that allow the entity to fine tune and implement new infrastructure so they can accomplish their goals.

And lastly, is the distribution of this information to all the stakeholders. For Triangle, that happens to be our super power and believe that the combination of our Digital IDs and Wallet infrastructure we can deliver this in a market data feed thus minimizing costs for API management that is often costly and expensive.

In total, we use the trend / cost for management of data systems and storage as a barometer of how this market will evolve from a cost perspective and how it will quickly see price compression as competition drives out the least efficient solutions.



Carbon Credits

In order to achieve TCFD, enterprises will either roll out new infrastructure, or will use carbon credits (synthetic 1 MTCO2e units of accounting) for their accounting disclosure. As part of TCFD and SEC Disclosure Compliance, the regulator must provide clarity around the underlying measurement (investor disclosure) and reporting of carbon credits and should take up this matter as it directly relates to the success of TCFD.

Carbon credits are an important tool in climate disclosure as they are a synthetic asset to provide a unit of compliance for TCFD disclosure requirements. These credits must require a quality of reporting for carbon credits to include the data supporting the credit, no different than FINRA Rule 2232 for confirmation reporting and disclosure.

These carbon credits should bear data attributes consistent with economic reporting requirements for financial instruments/derivatives that are part of the market.

That includes the creation of the NFTs associated with the carbon credits, the linking of those assets to tangible alternatives, and the requirement that regulated entities should only be allowed to act as a market intermediaries with exchanges as the venue of transaction, and the numerous entities that are currently infringing should be prosecuted and penalized. This part of the market has similar fraudulent exposure as what we saw in FTX and is a significant risk to the vitality and success of TCFD.

For those that fall into the wrong side of the fence that have driven this market to date, find a partner or become a BD yourself. I would recommend the former not the latter.

Conclusion

In summary, we believe there are incredible benefits and diminishing costs over time that make TCFD disclosure an important and necessary rule for the benefit, vitality and growth of global capital markets. As the leading market authority for compliance of the largest and deepest capital markets, it is a tremendous opportunity of leadership lost if these activities are not pursued. We want to thank the SEC for taking on this role and considering our comments in your process for evaluation.

Regards,

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