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Re SEC: File Number S7-10-22

Dear Commissioners,

As an individual investor, I am responding to specific questions on Page 418 in the proposed rule SEC Release Nos. 33-11042; 34-94478; File No. S7-10-22 *The Enhancement and Standardization of Climate-Related Disclosures for Investors.*

1. **Are there any costs and benefits to any entity that are not identified or misidentified in the above analysis?**

Yes, the SEC proposal omits important costs, especially costs to the natural environment.

a. Costs to the environment: Opportunity costs. Diversion of resources that could be used to benefit the environment. The disclosure proposal is estimated to increase the cost to businesses by $6.3 billion from $3.9 billion to $10.2 billion.[1]
   - Given the approximate cost to plant a tree of $2.25 per tree (estimated as the midpoint $1.50 - $3.00 per tree)[2] the cost of the additional SEC **disclosure is the equivalent of NOT planting 2.8 billion trees in the first year** only.
   - Given that trees absorb carbon dioxide and release oxygen in exchange, the opportunity cost of the additional SEC disclosures is the equivalent of **not absorbing billions of pounds of CO2 from the atmosphere** - every year, in perpetuity.[3]

   While the Commission lacks the authority to direct companies to divert disclosure expenditures toward activities that would actually help the environment, the Commission could at least allow companies and their investors the option to do so rather than comply with the new disclosures.

b. **Costs to the environment: energy consumption**. The enormous quantity of additional data that will be generated by this proposed rule – in perpetuity - will increase the amount of computerized data storage and processing which in turn will require electricity

[1] Wall Street Journal May 17, 2022. https://www.wsj.com/articles/fight-brews-over-cost-of-sec-climate-change-rules-11652779802
[2] The Nature Conservancy https://www.nature.org/en-us/
[3] "In one year, a mature tree will absorb more than 48 pounds of carbon dioxide from the atmosphere in one year and release oxygen in exchange." https://www.usda.gov/ See also https://www.nationalgeographic.com/environment/article/how-to-erase-100-years-carbon-emissions-plant-trees#close

commensurate environmental damage of generating that electric energy. Every kilowatt hour of electricity generates carbon emissions.

- If the Commission dismisses or underestimates this cost as small by looking only at the marginal costs to a single company and to its own databases, it risks erroneously overlooking the vast **multiplier effects of duplicate data storage and processing** by the company's advisors, data aggregators, analysts, and investors globally. The data will be stored and processed not just once but in perpetuity.
- Over the past 10 years, the volume of data/information created, captured, copied, and consumed worldwide has grown approximately **15 times** (from 6.5 zetabytes in 2012 to 97 zetabytes in 2022 according to statista.com). Even if the amount of electricity required to house and process that data has not grown by the same amount because of technological advancements, it has certainly increased.
- **Data centers consume vast amounts of energy** – not only electricity they pull off the grid but also power from diesel-burning backup generators which have caused some to be cited for violating clean air regulations. Even 10 years ago, it was estimated that worldwide, data centers used about **30 billion watts of electricity**, roughly equivalent to the output of 30 nuclear power plants.[4] Even a single desktop computer emits 175 kg of CO_2 per year.[5]
- In 2020, total U.S. electricity generation by the electric power industry of 4.01 trillion kilowatthours (kWh) from all energy sources resulted in the emission of 1.55 billion metric tons -1.71 billion short tons- of **carbon dioxide (CO2).** This equaled about 0.85 pounds of CO2 emissions per kWh.
- **All forms of electricity generation have an environmental impact** on our air, water and land. Fossil fuels are the largest sources of energy for electricity generation in the US (natural gas accounting for about 38% and coal about 22%).[6]

c. **Costs to the environment: solid waste.** The enormous quantity of data that will be generated by this proposed rule – in perpetuity - will increase the amount of computerized data storage and processing by computer hardware which in turn creates environmental waste.

- In 2019, the world generated **53.6 Metric tons of electronic waste**. E waste generation is expected to increase to 74.7 Mt in 2030 and reach as much as 110 Mt in 2050, unless we modify our practices.[7] Most of this solid waste is sent to landfills or shipped to emerging markets where mercury, arsenic and lithium can seep into the ground and water supply.[8]
- Even though e-waste includes far more items than computer hardware and the additional data storage and processing created by the proposed rule would have only a marginal impact on the life of computer hardware, it is important that the

[4] *New York Times*, Sept. 22, 2012
[5] https://www.energuide.be/en/

[6] US Energy Administration www.eia.gov.
[7] C.P. Baldé, E. D'Angelo, V. Luda O. Deubzer, and R. Kuehr (2022), Global Transboundary E-waste Flows Monitor - 2022, United Nations Institute for Training and Research (UNITAR), Bonn, Germany. https://api.globalewaste.org/publications/file/286/Global-Transboundary-E-waste-Flows-Monitor-2022.pdf
[8] https://www.newsweek.com/2022-needs-year-that-technology-recycling-goes-mainstream-opinion-1668232

Commission **not dismiss or underestimate** this environmental cost, for example, by looking only at the marginal costs for a single company's one-time disclosure.

2. **Are there any effects on efficiency, competition, and capital formation that are not identified or misidentified in the above analysis?**

   Yes. The proposed disclosures disadvantage smaller, individual investors and the US public capital markets.

a. The analysis fails to consider the disproportionate cost that extensive disclosures impose on individual investors and the commensurate competitive advantage granted by such SEC regulations to large investors. Specifically, the proposal contemplates using XBRL tagging to enable users of financial reports to automatically retrieve relevant data; however, not all users have the ability to benefit from that feature. Specifically, individual investors do not enjoy the same automated analytic capabilities and instead will face ever increasing amounts of disclosure that obscure – i.e., hide – more relevant information. Consider the cognitive costs and dilution effects documented by academic research. The costs of information overload are disproportionately borne by individual investors. The proposed disclosures amount to a tax on individual investors.

b. The analysis fails to consider the impact on the competitive position of the public capital markets of the United States of America compared to the private capital markets. The incremental costs of disclosure will deter companies from listing on public exchanges in the US and will therefore penalize smaller individual investors in the US who do not have the ability to invest in private equity and may not have access to investments in non-US markets.

c. The analysis omits or perhaps intentionally ignores that the required disclosures amount to a subsidy of investment managers seeking to provide ESG investment products. Instead of undertaking extensive research, the investment managers will benefit from the proposed disclosures as a means of creating and substantiating their investment products.

3. **Are there any other alternative approaches to improving climate-related disclosure that we should consider? If so, what are they and what would be the associated costs or**

Yes. A far more efficient approach would be to link existing environmental data to SEC filings.

a. The SEC should acknowledge that its leadership and staff does not have and was not intended to have deep expertise in environmental matters. The SEC should acknowledge that other, existing organizations already possess expertise in environmental matters and have clearer mandates to track environmental issues. The proposed disclosures not only create undue, duplicative disclosure burdens on public companies but also undermine the authority of the organizations created for those purposes.

   The SEC's goal of ensuring that investors have information about the environmental activities (i.e., pollution creating activities) of publicly-traded companies can more efficiently be achieved by having a company's reports to organizations or reports produced by the organizations about companies **linked to its SEC filings** with a single ID such as the existing CIK identifier used in the SEC databases.

- The Environmental Protection Agency (EPA) "protects people and the environment from significant health risks, sponsors and conducts research, and develops and enforces environmental regulations."

  Regarding the SEC's aim of providing investors with information about publicly traded companies' pollution of the environment, consider the **EPA's Toxics Release Inventory (TRI) data**.[9] While sophisticated researchers could match (or approximately match) those data to publicly traded companies using the parent company name, the SEC is in a position to require companies themselves to simply provide relevant links within their filings.

- The mission of the National Oceanic and Atmospheric Administration (NOAA) is "To understand and predict changes in climate, weather, ocean, and coasts, to share that knowledge and information with others, and to conserve and manage coastal and marine ecosystems and resources." One of its agencies, the National Weather Services is charged with providing "**weather, water and climate data**, forecasts, warnings, and impact-based decision support services for the protection of life and property."

  Regarding the SEC's proposed data about "How any identified climate-related risks have affected or are likely to affect the registrant's strategy, business model, and outlook", the SEC is could require companies to provide relevant links to the forecast information for the regions in which it operates.

As conceived, the proposal would serve only as an opportunity for legal and accounting professionals to generate substantial fees while simultaneously creating disadvantages for individual investors and causing both direct and indirect harm to the natural environment.

[9] The Toxics Release Inventory (TRI) is a resource for learning about toxic chemical releases and pollution prevention activities reported by industrial and federal facilities. TRI data support informed decision-making by communities, government agencies, companies, and others. Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) created the TRI.

Regards,
Elaine Henry