Comments to the Commodity Futures Trading Commission on the proposed creation of a carbon markets subcommittee of the Energy and Environmental Markets Advisory Committee

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We thank the Commodity Futures Trading Commission (CFTC, or Commission) for the invitation to comment on the proposal by the Commercial Energy Working Group to form an EEMAC carbon markets subcommittee.¹ The proposed stakeholder group would produce a report on principles for designing the derivatives and underlying cash markets for the carbon allowances and offsets that are used to manage the greenhouse gas (GHG) emissions of carbon market participants.

Before commenting, we would like to extend our thanks to Commissioner Dan Berkovitz, the EEMAC sponsor, for his great public service, both as Commissioner and earlier as General Counsel to the Commission, as he prepares to depart the Commission on October 15.

Introduction

We urge the Commission to undertake its own study of carbon markets and to provide opportunities for public comment, as recommended by Better Markets in its recent letter.² In the event that the Commission elects to carry out a study using a stakeholder advisory subcommittee as proposed, we support Public Citizen's recommendations that "the subcommittee's membership should feature robust representation of public interest stakeholders, including environmental justice perspectives" and that members be required to disclose their economic interests.³

¹https://www.cftc.gov/PressRoom/Events/opaeventeemac091521

²https://bettermarkets.com/sites/default/files/Better_Markets_Letter_to_the_CFTC_Regarding_Leadership_in_Ad dressing Climate Risks.pdf

³https://www.citizen.org/article/statement-at-us-cftc-energy-environmental-markets-advisory-committee/

It has been 10 years since the CFTC led an interagency study of carbon markets; since then, they have expanded dramatically and are expected to continue expanding as increasing numbers of companies make pledges to achieve "net-zero" GHG emissions using offsets. We provide recommendations below on how to ensure that this study effectively addresses the significant integrity issues in these markets, which threaten global financial stability as well as achievement of Paris Agreement climate targets.

For purposes of these comments, we use the term "carbon markets" to cover the full range of cash, secondary and derivatives markets that have been established, both voluntarily and for compliance purposes, to capture the financial value to emitters of GHG emissions reductions.

Overview of Financial Risks from Carbon Markets

As President Biden recognized in his May 20, 2021, Executive Order, climate change poses a significant risk to the stability of the global financial system. The primary drivers of this risk are the same as the drivers of climate-change-related damage already underway around the planet: production and combustion of fossil fuels. Heading off a climate-related financial crisis in the future, and protecting people and communities today, requires managing the wind-down of fossil fuel production and reducing GHG emissions at the pace needed to achieve the 1.5°C target in the Paris Climate Agreement.

Carbon markets provide an important vehicle for companies and other entities with difficult-to-abate GHG emissions to mitigate these emissions by financing abatement actions by others. However, given the rapid growth of these markets, the evidence of emissions offset integrity problems, and the lack of carbon market-focused oversight by financial regulators, these markets are likely exacerbating climate-related financial risk. Allocating capital to offset credits, futures and swaps markets, rather than prioritizing investments to directly reduce corporate Scope 1, 2 and 3 GHG emissions, is likely to increase financial risk to individual companies as well as the financial system. Shocks to the financial system due to failures in these markets will become increasingly likely over time in the absence of action by the CFTC and other regulators.

An updated carbon market study should evaluate whether risk to the financial system is growing in both voluntary and compliance markets. Pledges by major corporations and others to voluntarily achieve net-zero GHG emissions by mid-century have been proliferating in recent years. Many of these appear to contemplate business-as-usual GHG emissions by the entity making the pledge and propose to offset those emissions through trades of offset contracts and/or reliance on unproven carbon-removal technologies. Market participants surveyed by the Task Force on Scaling Voluntary Carbon Markets have expressed numerous concerns about offsets'

⁴ Studies expressing concerns about the integrity of voluntary carbon markets were summarized in an open letter to the Task Force on Scaling Voluntary Carbon Markets sent by 47 academics and other researchers in January 2021 letter entitled, "Is Scaling Up Voluntary Carbon Markets Really What the Climate Needs?," https://greenfinanceobservatory.org/wp-content/uploads/2021/01/Scaling-up-GFO-analysis-final4.pdf

credibility and integrity.⁵ Due to questionable environmental performance and a host of other uncertainties, the financial value of offsets and offsets derivatives - key legal instruments purporting to demonstrate avoided emissions, reduced emissions or carbon removals - is highly volatile. Sustained volatility frustrates price discovery for emitters that rely on a carbon price signal to justify investments in low-carbon technologies. Moreover, without price discovery, there is no hedging. Without hedging, financial actors enter the derivatives market for no purpose other than speculation, leading to wild price gyrations and financial instability.

Specifically, the growing participation in markets for offset derivatives by banks and other major financial actors jeopardizes financial stability in at least two ways:

- Offset and offset derivatives valuations can suddenly and unpredictably deflate, devastating the balance sheets of companies reliant on these offsets. This failure by companies to adequately prepare for the transition to a low-carbon economy, known as transition risk, affects far more than those companies holding the instruments revealed to be overvalued. Other firms with offsets, and numerous other firms with business models tied to carbon markets and/or sensitive to new carbon regulation, could likewise be damaged, with cascading effects throughout the global economy.
- If GHG emissions turn out to be worse than anticipated due to heavy reliance on offset programs that prove to be poorly designed, extreme weather events and other climate change impacts could cause sudden and unanticipated asset deflation. The consequences of failure to prepare for this damage, known as physical risk, likewise could reverberate across the global economy.

Offsets are also widely used in compliance markets, i.e., by governments seeking to achieve emission reductions with market incentives as a substitute for, or complement to, direct mandates. Some of these programs have also had significant integrity problems, such as in California, where a recent study found that forestry offsets under the state's cap and trade program were virtually worthless, failing to reduce emissions and causing the state to fail to meet its emissions targets. In response to this finding, Washington state recently enacted a cap and

⁵ The TSVCM reports that as of October 2020, 45% of emissions offset buyers responding to its survey were concerned about a "lack of environmental and social integrity of certain projects" from which offset and avoidance credits would be derived. Forty-one percent of buyer respondents were concerned about the double-counting of emissions reductions, avoidance and/or removals by the projects' home country (mostly a TVSCM identified dozen or so developing countries) and the buyers' home country (mostly corporations and financial firms in North America and Europe) in reporting Nationally Determined Contributions (NDCs) to the U.N. Framework Convention on Climate Change (UNFCCC). Twenty-one percent of buyers were concerned that UNFCCC negotiations might not produce an agreement on "corresponding adjustments" to NDCs to avoid double-counting, which, if widespread among UNFCCC member governments, would vitiate any claim that emissions trading will result in absolute and overall emissions reductions consistent with the UNFCCC Paris Agreement of 2015. https://www.iif.com/Portals/1/Files/TSVCM Public Consultation.pdf

⁶ See L. Song, "An Even More Inconvenient Truth: How Carbon Credits for Forest Preservation May Be Worse Than

trade program with a very limited role for offsets, virtually ensuring that offsets could not jeopardize the state's achievement of its targets.⁷

Below we provide our recommendations on issues to be addressed in the updated carbon market report and, if an advisory subcommittee is created, on selecting the subcommittee and ensuring its transparency.

Issues to be Addressed in the CFTC Report

To ensure an effective regulatory response to the financial risks posed by carbon markets, we recommend that the Commission address the following questions in its report.

1. Jurisdiction over Carbon Markets

Although the CFTC staff have reviewed and allowed exchange self-certification of at least two proposed offset derivatives products (discussed below), U.S. financial regulators have largely watched the dramatic growth of carbon markets from the sidelines. We recommend that the CFTC assess the full range of its jurisdictional authority to address systemic financial risk from carbon markets, as well as the relevant authority of other financial regulators. Where gaps are identified, the study should identify actions to fill these gaps that could be taken through executive branch action, legislation or both. Attention should be given to initiatives currently underway in the executive branch, such as the climate risk disclosure rule under development at the Securities and Exchange Commission and the report on climate-related financial risk under development at the Treasury Department and Financial Stability Oversight Council.

2. Benefits and Risks of Carbon Markets

As noted above, we believe that carbon markets, when properly designed, implemented and overseen by the Commission, can perform a useful function for companies with hard-to-abate emissions to satisfy statutorily-imposed emissions caps. However, we have major concerns about the global proliferation of offsets, particularly under any 'voluntary' (industry self-regulated) framework not subject to oversight by CFTC oversight or foreign regulators. To date, these voluntary offset programs have yet to deliver as promised in reducing carbon emissions and have attracted financing that otherwise might have been dedicated to proven emissions reduction strategies. Before the Commission decides whether to propose rulemaking

Nothing," ProPublica, May 22, 2019

https://features.propublica.org/brazil-carbon-offsets/inconvenient-truth-carbon-credits-dont-work-deforestation-redd-acre-cambodia/

⁷ See D. Roberts, "Washington state now has the nation's most ambitious climate policy," May 6, 2021 https://www.canarymedia.com/articles/policy-regulation/washington-state-now-has-the-nations-most-ambitious-climate-policy

or guidance for the further recommendations on measures to guide the development of carbon markets, the CFTC must assess the environmental and financial performance of voluntary offset markets as well as offsets in compliance markets. As noted above, systemic financial risk is likely to grow if these markets are providing a method for economic actors to claim emissions reductions that do not, in fact, exist. It is also likely to grow if, as with the growth of Collateralized Debt Obligations in the early 2000s, derivatives products facilitate massive financial speculation without providing any significant hedging value. The CFTC must also investigate the interconnectedness of those introducing into the market questionable offsets and offset futures with other economic actors, such as insurance companies holding offset positions directly or through index funds. With this analysis of systemic financial risk completed, the CFTC can then turn to the regulatory approaches taken to date and how to strengthen them to reduce and manage this risk.

3. Gaps in Regulatory Oversight of Carbon Markets

Thus far, the primary approach taken by the federal government to address potential systemic financial risks from carbon markets has been the CFTC's tacit approval, by allowing exchange self-certification, of new commodity derivatives products pursuant to the Commodity Futures Modernization Act ("CFMA"). As explained below, we have serious concerns about this approval process. We recommend that the CFTC investigate this and any other approaches taken to date on systemic financial risks posed by carbon markets and provide findings on legislative and executive branch actions needed to address identified gaps.

A. CFTC's Minimal Scrutiny of Derivatives Products

Passed in 2000, the CFMA upended the previous system of new commodity derivatives product approval. It did so by eliminating the pre-approval requirement and introducing a self-certification process that allows exchanges to place new rules into effect, including rules applicable to the terms and conditions of new contracts, almost immediately, provided the proposed rule adheres to the Commodity Exchange Act ("CEA") and CFTC regulations.⁸

Self-certification allows designated contract markets⁹ ("DCMs") to list any new contract for trading, and approve any new rule or amendment, by providing a written certification to the CFTC that the new contract, rule, or rule amendment, complies with the CEA and CFTC regulations.¹⁰ Unless the CFTC finds the new product or rule change violates the CEA or CFTC regulations, the DCM may list the new product no sooner than one full business day following

⁸ Commodities Futures Modernization Act of 2000, 7 U.S.C. § 1 (2000).

⁹ Designated contract markets (DCMs) are exchanges that may list for trading futures or option contracts based on all types of commodities and that may allow access to their facilities by all types of traders, including retail customers. *See* Commodity Futures Trading Comm'n, Trading Organizations, https://www.cftc.gov/IndustryOversight/TradingOrganizations/index.htm. ¹⁰ 7 U.S.C. § 7(a)(2).

the self-certification.¹¹ In a major development in the carbon markets, CME Group took advantage of this tight turnaround and limited regulatory oversight by making their certification for Global Emission Offset ("GEO") futures effective Sunday, February 28, 2021 for trading on Monday March 1, 2021.¹² On July 16, 2021, CME self-certified N-GEO futures, which allow companies to buy and sell "nature-based" carbon offset derivatives.¹³

For novel commodity derivatives, DCMs may informally engage with CFTC staff prior to official submission of the self-certification to ensure staff understand and are comfortable with the contract, but there is no requirement that they do so, and the one-day lag between submission and trading effectively guarantees the CFTC will not intervene and halt the contract's listing. Nor does self-certification provide for public input into the approval process for new derivatives products.

While self-certification may be appropriate for listing most new commodity derivatives contracts, which tend to be slight modifications to existing contracts (e.g., a new breed of cattle or a new reference rate) it is a problematic method for listing fundamentally new kinds of contracts, like GEO futures, which should be subject to more intense regulatory scrutiny. GEO futures compound self-certification's problems by raising the possibility that the underlying commodity, offsets eligible for Carbon Offsetting and Reduction Scheme for International Aviation ("CORSIA"), may provide the appearance of emissions reductions without actually reducing emissions, or by reducing emissions less than the stated amount. This stands in sharp contrast to earlier carbon-related derivatives, such as carbon allowance and renewable energy certificate futures and options, which have a scientifically-grounded and government-regulated commodity as the underlying cash market.

B. Cryptocurrency Approvals Reveal Shortcomings

Self-certification received little to no scrutiny until CME and CBOE Futures Exchange ("CFE") self-certified new contracts for cash-settled bitcoin futures products in December 2017, amid bitcoin's first bull market run.¹⁴ Many market participants and observers were surprised to learn that futures contracts on a new and unique asset like bitcoin could be brought to market with no

¹¹ DCMs also have the option of voluntarily submitting new contracts for approval to the Commission.

¹² CFTC, CFTC Regulation 40.6(a) Certification. Notification Regarding the Initial Listing of the Physically-Delivered CBL Global Emissions Offset Futures Contract. NYMEX Submission No. 21-009 (Feb. 11, 2021), https://www.cftc.gov/sites/default/files/filings/ptc/21/02/ptc021621nymexdcm001.pdf.

¹³ https://sirt.cftc.gov/sirt/sirt.aspx?Topic=TradingOrganizationProductsAD&Key=46357

¹⁴ The introduction of CFE's contract coincided with the largest one-week price increase (in dollar value) in bitcoin's history, with the price rising from \$15,168 on December 10, 2017, to an all-time high of \$20,089 on December 17, 2017—the day CME launched their futures contract. Bitcoin euphoria came to an abrupt end post-CME contract launch, and by year-end 2017, bitcoin was trading at \$14,156.

public input and limited regulatory review.¹⁵ To provide more clarity on the self-certification process and federal oversight over virtual currency, the CFTC took the unusual step on January 4, 2018, of releasing a background document titled: "CFTC Backgrounder on Oversight of and Approach to Virtual Currency Futures Markets" (the "backgrounder").¹⁶

The CFTC has established twenty-three core principles that must be met for an exchange to list a new contract. The core principles run the gamut from requiring exchanges to prevent manipulation in traded contracts to enforcing rules governing exchange member conduct. The CFTC acknowledged in the backgrounder that they have limited grounds to "stay" a self-certification and found that in the case of CME's and CFE's self-certification of bitcoin futures contracts, these grounds were not met. In response to the widely known and verifiable claim that the bitcoin cash market was frequently manipulated, the CFTC made clear that their sole focus was on the potential to manipulate the contracts in question, not the underlying commodity. Speaking at the January 2018 meeting of the CFTC's Market Risk Advisory Committee ("MRAC"), Amir Zaidi, the then-director of the CFTC's Division of Market Oversight ("DMO"), stated:

"[I]t is not the responsibility of DCMs [derivatives clearing merchants] or the CFTC to oversee on a daily basis every cash commodity market or make suitability judgments about the underlying commodity market and whether a futures contract should be able to be listed on it. Rightly, we are not overseeing cash markets and participants on a daily basis for abusive practices and risks. Every cash market underlying futures contracts can be manipulated. Gold, silver, FX, bitcoin cash markets, they can all be manipulated. However, making detailed judgments about the level of manipulation, generally, in those cash markets, and if it is too little or too much to list a futures contract, is a different analysis from whether a futures contract is readily susceptible to manipulation." ¹⁷

We question whether it is possible for a derivatives contract to be resistant to manipulation when it is based on an illiquid underlying commodity that is highly susceptible to manipulation. As discussed below, carbon markets are similar to cryptocurrency markets in that the underlying cash market has integrity issues that spill over into the derivatives market. Thus, the CFTC's

¹⁵ See Alexander Osipovich et al., Wall Street Banks Hit Pause Button on Bitcoin, WALL ST J. (Dec. 7, 2017), https://www.wsj.com/articles/wall-street-banks-hit-pause-button-on-bitcoin-1512674703.

¹⁶ CFTC, CFTC Backgrounder on Oversight of and Approach to Virtual Currency Futures Markets (Jan. 4, 2018), https://www.cftc.gov/sites/default/files/idc/groups/public/@newsroom/documents/file/backgrounder_virtualcurrency01.pdf [hereinafter CFTC Backgrounder].

¹⁷ CFTC, Transcript of Market Risk Advisory Committee Meeting (Jan. 31, 2018), https://www.cftc.gov/sites/default/files/2018-08/mrac_013118_transcript.pdf [hereinafter Transcript of Market Risk Advisory Committee Meeting].

failure to address integrity problems in the cryptocurrency cash market portends significant weaknesses in its approach to systemic risk in carbon markets.

C. The CFTC's First Carbon Offsets Derivatives Approval - GEO Futures - Reveals Even More Weaknesses with Oversight

As the listings of GEO and N-GEO futures demonstrate, the CFTC's hands-off approach to self-certification, and its failure to use the formal pre-market review process for novel products, did not change in the wake of the bitcoin futures controversy. While many of the concerns around the self-certification of bitcoin futures also apply to GEO and N-GEO futures, the flimsy and inconsistent methodologies used to develop voluntary offsets raises an entirely new set of concerns. We focus here on GEO futures, but our concerns apply to N-GEO as well.

Our primary concern is that the underlying commodity for GEO futures—CORSIA-eligible carbon offset credits—may not in fact be, or do, what their sponsor—the International Civil Aviation Organization (ICAO)—and CME Group claim. On March 18, 2021, the Financial Times reported on an "unpublished report written for the European Commission" that found CORSIA was "unlikely to materially alter the direct climate impact associated with air travel" and may offer little better than a scenario "in which international aviation emissions remain unregulated." The report's findings run counter to the ICAO eligibility criterion that "Carbon offset programs must generate units that represent emissions reductions, avoidance, or removals that are additional."

CORSIA offsets that do not actually reduce airline emissions are a bit like crude oil that cannot be refined into gasoline. The CFTC must investigate whether the underlying asset serves its stated purpose of emissions reductions and, if not, whether the futures contract should have been self-certified with this deceptive foundation. As stated above, allowing deceptive offsets to proliferate in the derivatives market is likely to be a source of systemic risk, with significant implications for the financial system once the deception is fully revealed.

As stated above, another source of systemic risk in carbon markets is the absence of price discovery, which signals that derivatives are expanding for no purpose other than speculation. Carbon offsets challenge the fundamental characteristic of commodities, which is that they are fungible. For instance, one bushel of No. 2 yellow corn is the same as any other bushel, it does not matter where the corn is grown, and each bushel is worth the same amount, subject to adjustments for factors such as transport distance to the county or terminal elevators, and conformity of the delivered corn with the specifications of the contract with the grain elevator

8

¹⁸ Camilla Hodgson et al., *Aviation Industry Carbon Scheme Highly Flawed, Brussels warned* Fin. Times (Mar. 18, 2021), https://www.ft.com/content/296121c6-1af5-4ef4-b674-c3389b6de33c?accessToken=zwAAAXhLhpsAkc8pYSHGGvVO9NO2d MM4m23jPA.MEQCIGWcWZdoyYp4rqOGn6vWQsQoE_aBrAFAl8VO4C2boPz8AiBbhVEEamhPRj22ks4_iJhe0SzRaGEzxT WnItej9Y8QEA&sharetype=gift?token=d0e47ed8-788b-4d01-b510-ffd7471235a4.

¹⁹ INT L CIVIL AVIATION ORG., CORSIA EMISSIONS UNIT ELIGIBILITY CRITERIA (Mar. 2019), https://www.icao.int/environmental-protection/CORSIA/Documents/ICAO Document 09.pdf.

The same cannot be said for CORSIA-eligible offsets. In theory, each offset is supposed to represent one ton of CO₂ emissions reduced. In fact, the methods and technologies used to measure and verify this reduction are highly variable. Each offset project is unique; there are many different project developers as well as project validators and verifiers.

The ICAO recognizes seven programs as meeting their CORSIA Emissions Unit Eligibility Criteria:20

- 1.) American Carbon Registry (ACR),
- 2.) Climate Action Reserve (CAR),
- 3.) Verified Carbon Standard (VCS),
- 4.) The Gold Standard (GS),
- 5.) Clean Development Mechanism (CDM),
- 6.) China GHG Voluntary Emissions Reduction Program, and
- 7.) Architecture for REDD+ Transactions (ART).

Each of these programs utilizes its own protocols and carbon accounting methodologies, as well as maintains its own electronic registry system to record the issuance, transfer, and retirement of verified emission reduction credits. Not only are there well-known integrity issues with the validity of offsets within each registry, but there are also problems with comparability across and within registries. For example, each ACR offset program differs from other ACR programs in terms of its approach to additionality.

Even CME Group acknowledges the heterogeneity in the voluntary offset market. In an article published on its website in January 2021, CME noted: "The lack of widely accepted standards used in assessing offset project quality coupled with the absence of transparent data and trading tools has led to significantly wide price ranges across products."21 The same article includes the below table that reveals different offset prices across the three registries eligible for delivery into GEO futures.

²¹ Chad Britnell & Russell Karas, Carbon Convergence Across the GEO-Sphere, CME GROUP (Jan. 26, 2021), https://www.cmegroup.com/education/articles-and-reports/carbon-convergence-across-the-geo-sphere.html#cmeloginteaser1.

CO2 PRICES (\$/MT)					
Registry	Average price	Max	Min	Median	Range
ACR	\$ 10.19	\$ 11.70	\$ 9.34	\$ 10.00	\$ 2.36
CAR	\$ 10.39	\$ 13.18	\$ 5.00	\$ 11.00	\$ 8.18
VCS	\$ 10.52	\$ 21.58	\$ 3.57	\$ 10.44	\$ 18.01

There are a variety of reasons why offsets trade at different prices, one of which is the lack of standardization in measuring offset quality. As noted, such price discrepancies are not found in traditional physical commodities such as oil and corn. Again, this lack of price discovery points to the need for enhanced CFTC review, rather than continuation of the self-certification approach.

In a FAQ section on its website, CME argues that GEO futures will provide "a mechanism for convergence across different carbon registries and project types." However, there is no indication that this has happened. The websites of the three CME-approved registries do not provide ready access to offset credit prices. CME's self-certification notes that CBL Market is "the commodity trading system integrated with ICAO CORSIA Approved Registries upon which accounts are established for market participants as account holders to transact in, hold and retire offsets." However, the CBL website provides no pricing information and requires researchers to apply for a CBL product and cash account. ²²

As a result of this pricing opacity, it will be difficult to determine whether price discovery in offset futures trading converges with the cash price for offset credits underlying the futures contract as that contract nears its expiration date. If there is no price convergence, the offset futures contract cannot serve as a price benchmark for commercial hedgers investing in the underlying cash market. A futures contract without price convergence benefits only speculators and the exchanges receiving trading and data fees.

We can think of no other commodity derivatives contract where the price of the underlying asset is not readily accessible to the public. Price opacity is frowned upon by regulators because it facilitates speculation. An example of how price opacity may benefit GEO futures sellers is if those with a short position are given the "seller's option" provision, allowing them to select

10

²² XPANSIV CBL, https://xpansiv.com/cbl/ (last visited Sep. 15, 2021).

"which eligible registry it will delivery [sic] carbon offsets from" upon contract expiration.²³ Obviously, futures sellers will deliver the cheapest offset. They may even have the ability to obtain risk-free arbitrage profits by buying and selling an equivalent amount of GEO futures contracts with the same expiration. If their long position has increased in value, they can sell it prior to expiration and then deliver the cheapest offset to close out their short position upon expiration. This potential for risk-free profits, combined with price opacity in the underlying cash market, further suggests that GEO futures only serve financial speculators and provide no hedging value.

CME implicitly acknowledges that offsets are not fungible by restricting the number of registries and programs where offsets can be sourced for delivery into the GEO futures contract. While the ICAO lists seven "Eligible Emissions Unit Programs," CME only permits three of these to deliver into the contract for a variety of reasons it articulates in the self-certification. CME notes that the China GHG Voluntary Emissions Reduction Program is not included because the program "will not be publishing publicly available registry data," but as noted above, pricing data for the three permitted registries can hardly be considered "publicly available." CME also states that it excludes The Gold Standard registry because it does not "assume any form of liability or indemnity in the event of breach or fraud by the organization or its employees." The CFTC should investigate whether CME's decision to use all seven registries for the purpose of the underlying offset credit price index was appropriate, given that only three of seven registries are eligible for physical delivery of the offset credits.

Another problem with GEO futures that the CFTC evidently overlooked is the lack of depth and liquidity in the underlying cash market. Not every project listed on the three eligible registries meets the ICAO Eligible Emissions Units criteria. Once these criteria are applied, they significantly limit the number of CORSIA-eligible offsets. CME notes in the self-certification that "[a]s of July 2020, the Climate Action Reserve registry does not have any CORSIA eligible offsets available and therefore is not included in the calculation of deliverable supply." CME then estimates a monthly deliverable supply for CORSIA eligible carbon offsets of 7,509,187 emissions offsets, which equates to "7,509 monthly contract equivalents based on a contract size of 1,000 emissions offsets per contract." Given that current open interest in the December 2021 GEO futures contract is currently 1,110, this represents roughly over 14% of all eligible offsets, assuming the deliverable supply trends from the self-certification hold. Thus, a fairly large percentage of trading in underlying CORSIA offsets will reflect futures close-outs. Apparently in recognition of weak regulatory oversight, CME does not bother to address the impact of these

²³ CBL Global Emissions Offset futures (GEO) FAQ, CME Group, https://www.cmegroup.com/education/articles-and-reports/cbl-global-emissions-offset-futures-faq.html (last visited Sep. 15, 2021).

²⁴ CFTC BACKGROUNDER, supra note 8.

close-outs on underlying prices and how estimated deliverable supply can still be said to represent emissions avoided, reduced or removed in the underlying offset credit.

The self-certification and subsequent expansion of GEO futures incentivizes project developers and registries to create new offset projects of dubious environmental benefit, all of which provide the appearance of reducing emissions without doing so, or at least not in the quantities of emissions represented in reporting to the CFTC. Thus, entities with the stated mission of addressing climate change²⁵—the registries—stand to profit from GEO futures regardless of their products contribute to emissions reductions as promised. These financial gains will likely be substantial given the contract requirement that buyers and sellers hold "a registry account with each of the ICAO CORSIA Approved Registries included in the GEO Screening Criteria." ²⁶

Diversity and Transparency of the Proposed EEMAC Subcommittee

We share the concerns of Public Citizen about the diversity and transparency of the proposed carbon markets subcommittee. If the CFTC elects to create a subcommittee, it is critical that it hear the perspectives of frontline communities bearing the brunt of climate change and others with evidence of offsets failures, speculation on derivatives markets, and other existing and potential problems with carbon markets as currently regulated or industry self-regulated. It is also critical that the interests of subcommittee members be fully disclosed so that the financial costs and benefits to them of proposed policy solutions are fully appreciated.

Conclusion

Carbon offsets in the voluntary markets suffer from a lack of scientific rigor and consistent methodology that would permit market participants to make informed decisions about the environmental benefits of various offset programs across multiple registries. This in turn makes it difficult for investors to assess the integrity of offset futures contracts and their susceptibility to manipulation. It is hard to imagine that a futures contract on a commodity that is of dubious origins and quality can somehow be free from manipulation. Indeed, because voluntary offsets are not fungible and frustrate price discovery, the risk of manipulation in both the cash and derivatives markets is high.

As we have seen in the past, once a market becomes accustomed to certain products, it is difficult to restrict or prevent their use. Given the growing volume of corporate net-zero commitments

12

²⁵ AMERICAN CARBON REGISTRY, https://americancarbonregistry.org (last visited Sep. 15, 2021)("A mission-driven institution named for philanthropist Winthrop Rockefeller, Winrock believes that climate change will have a profound impact on the poorest populations around the world and that markets are the most effective path to mobilize actions to reduce emissions." *See also* CLIMATE ACTION RESERVE, https://www.climateactionreserve.org/about-us/ (last visited Sep. 15, 2021)("As the premier carbon offset registry for the North American carbon market, the Climate Action Reserve encourages action to reduce greenhouse."

CLIMATE ACTION RESERVE, https://www.climateactionreserve.org/about-us/ (last visited Sep. 15, 2021)("As the premier carbon offset registry for the North American carbon market, the Climate Action Reserve encourages action to reduce greenhouse gas (GHG) emissions by ensuring the environmental integrity and financial benefit of emissions reduction projects."); Verra, Verified Carbon Standard, https://verra.org/project/vcs-program/ (last visited Sep. 15, 2021)("The VCS Program is the world's most widely used voluntary GHG program. Nearly 1,700 certified VCS projects have collectively reduced or removed more than 630 million tonnes of carbon and other GHG emissions from the atmosphere.").

²⁶ CFTC BACKGROUNDER, supra note 8.

that can only be achieved with a heavy reliance on offsets, it is only a matter of time before companies purchase large volumes of offset futures and declare that they have fulfilled their net-zero commitments. A powerful lobby will then emerge to resist any regulatory intervention that might expose the fundamental weaknesses of these commitments. As regulatory intervention is delayed, systemic financial risk builds. Thus, the CFTC has a narrow window of opportunity to examine the environmental and accounting integrity of voluntary carbon offsets. Until such an examination is completed, we recommend the agency conduct a thorough review of all current offset derivatives and prevent the self-certification of new offset derivatives.

We are pleased that the CFTC is considering launching a new study on the risks that carbon markets pose to financial stability and look forward to providing our input and support as this process moves forward.