CFTC Market Risk Advisory Committee Report of the Climate-Related Market Risk Subcommittee Bob Litterman, Subcommittee Chairman Founding Partner and Risk Committee Chairman, Kepos Capital July 21, 2020

When Commissioner Behnam and I first talked about my presenting to the Market Risk Advisory Committee today we hoped that it would be in person, and that I would be able to deliver the Climate-Related Market Risk subcommittee report on Managing Climate Risk in the U.S. Financial System.

Sadly, neither of those goals came to pass. The Covid-19 pandemic, which prevents us from meeting in person, has also slowed us down a bit and we are still in the process of finalizing the report.

Nonetheless, I want to assure you today that the subcommittee has been working diligently, productively, cohesively, and collaboratively to produce a report that we hope you will find to be a comprehensive roadmap for managing the growing climate-related risk facing the financial markets, their participants, and their regulators. And although the report is not finalized, and I cannot get into specifics, I can assure you that the Subcommittee has made excellent progress and our report will contain recommendations that hopefully can play an important role in guiding the climate response of the U.S. financial community.

Let me once again express my deep appreciation to the Commission for creating the Climate-related market risk subcommittee. Commissioner Behnam and his chief-ofstaff, David Gillers, brought together an incredibly talented and experienced group of professionals who, without compensation, put in hundreds, if not thousands, of hours of work.

By way of context, let me also note that while this report will be presented to the U.S. Commodity Futures Trading Commission, we have been given a broad mandate. The objective is to provide an analysis and recommendations regarding the existing and emerging risks that climate change poses for the soundness and stability of the U.S. financial system. The report considers the risk of climate change impacts, such as sealevel rise, extreme weather events, and rising temperatures, on economic activity and financial markets. It also takes into account the risks posed to the U.S. financial system by shifts in policy, technology, and consumer preferences—shifts that will be necessary to stabilize concentrations of greenhouse gases and reduce the risk of the most damaging impacts of climate change.

Importantly, the report should help inform ongoing and future policy debates in the U.S. Congress and state legislatures, particularly since climate change will remain a matter of growing legislative interest. Finally, the report should be of interest to the American public, whom the recommendations in this report ultimately seek to serve by enabling the country to better manage one of the most significant threats facing our country.

Over the past decade, financial regulators, business leaders, and legislators around the world have embraced the need to better manage climate-related financial and market risks and recognize the urgency of meeting the challenge. Many countries have adopted legislation, guidance, and other initiatives to advance this goal.

In addition, myriad international initiatives, working groups, task forces, coalitions, and other efforts have emerged to facilitate collaborative solutions and to accelerate learning and information exchange.

The U.S. has been involved in, and has even led, some of these international efforts; but it is noticeably absent in others. As the world's largest economy and second-largest emitter of greenhouse gases, U.S. engagement in—and leadership of—these initiatives remains essential and in the best interest of the nation, particularly since neither climate change nor financial crises respect national boundaries.

At the same time, managing climate-related financial risks requires paying close attention to the unique circumstances of the U.S. That includes the idiosyncrasies of our complex system of financial regulation, as well as the policy space defined by existing legislation and suggested by proposed legislation. It also must consider the central role that the private sector plays in our financial system, and the importance of consultation and collaboration between the private and public sectors in the design of new policies.

Finally, it is worth noting two interrelated challenges. One is how to safeguard the soundness and stability of the financial system in the face of climate change. The main goal here is to manage climate risk responsibly in order to protect the system's ability to serve the American public, to support economic activity and entrepreneurship, and to safeguard the assets of millions of savers, retirees, institutions, and businesses.

The second challenge involves how the financial system can facilitate the transition to a low-carbon, climate-resilient economy. Central to this challenge is identifying ways through which financial markets and institutions can channel significant amounts of additional capital toward sustainable investments and net-zero activities, including low-carbon and renewable energy, energy efficiency, other low-carbon technologies for transportation, industry and agriculture, and resilience against climate impacts.

A stable and well-functioning financial system is incompatible with a world of unmitigated climate change. Such a world would be too chaotic and racked by frequent and devastating shocks to sustain the fundamental conditions on which our financial system is built. Promoting the transition to a net-zero emissions economy and safeguarding financial stability are consistent, mutually reinforcing objectives.

Let me now briefly describe the process that we followed to produce our report. We began with two very productive in-person meetings as a subcommittee, in November and December of last year, one in the CFTC offices in Washington, D.C., and one in the CFTC offices in New York City. We were considering a third in-person meeting when the Corona virus caused us to start operating virtually.

I remember quite vividly sitting around the table in our first meeting as we introduced ourselves and talked about the organizations which we represented and the expertise that we each brought. Working with this group, and learning from them, has been a truly gratifying experience.

At those two in-person meetings last year we quickly agreed on the outline of the report, formed workstreams around the major topics, and found members who were willing to lead or, in most cases, co-lead the various groups. Members volunteered to serve on one or more workstreams, and as we moved forward all members participated and contributed to the discussions and the writing process.

Although I have been involved in financial risk management for over three decades, climate risk is different, in several respects, from the usual market and credit risks that we in the financial markets usually focus on. Unlike most financial risks in which market participants have a long history from which to learn, we do not have much experience dealing with climate risks.

In dealing with financial market risk we often focus on extreme, but plausible, scenarios, over relatively short periods of time, and we are guided by our historical experience.

The financial impacts of climate change, on the other hand, are recent and to date have been relatively small, but are expected to grow significantly over time. Our grandchildren will grow up in a world in which each decade is expected to be warmer than the last; a world in which sea levels will continue to rise, extreme weather events will increase, wildfires will grow in size and frequency, human health will be challenged by increased warming, and global ecosystems will be put under stress. Scientists have warned that it is very plausible that we could soon cross a tipping point after which impacts could grow in a non-linear fashion leading to catastrophic outcomes.

We are doing an experiment of unprecedented scale on a complex system with little historical experience to guide our understanding of what an extreme, but plausible outcome looks like. Today climate change is just starting to have impacts on valuations of securities and creditworthiness of market participants, and just about the only thing we can be confident of is that these impacts will grow over time. Thus, the data and analytic models needed to address climate change are just beginning to be developed. It is important to acknowledge that our understanding of the complex issues associated with climate change impacts is only rudimentary.

The bottom line of this report is that U.S. financial regulators must recognize that climate change poses serious emerging risks to the U.S. financial system, and they

should move urgently and decisively to better measure, understand, and address these risks.

We anticipate the report to be complete either in August or at the very beginning of September.