Climate Change is a Risk Management Failure that Can and Must be Fixed Immediately

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Senator Whitehouse, Chairman Schatz, and distinguished Members of the Select Committee, thank you for the opportunity to testify to you today.

My name is Bob Litterman. I am an economist with a focus on financial risk management. I am a Partner at Kepos Capital, a New York based investment firm, a member of the board of the Options Clearing Corporation, and I currently serve as chair of the Commodity Futures Trading Commission subcommittee on climate-related market risk.

Having spent a 33-year career on Wall Street, including a position as head of risk management at Goldman Sachs, I have deep respect for the critical role that the financial markets play in facilitating the allocation of capital in our market economy.

But those allocations are efficient only when market participants are given the appropriate incentives.

The climate crisis is fundamentally a risk management failure caused by a simple and obvious bug in the U.S. tax code. We are not pricing climate risk; not creating appropriate incentives to reduce emissions: a tragic and potentially catastrophic mistake.

Incentives are currently directing capital in directions that increase emissions, causing a growing accumulation of greenhouse gases in the atmosphere, which in turn is creating a rapid increase in the risk of permanent damage to the planet and the well-being of all future generations.

While voluntary actions are welcome, they will not be enough. Changing incentives is the key that will lead to the massive changes in economic investment that are required.

Risk management is an area where I have significant expertise gained through my decades at Goldman Sachs. There are a few fundamental principles of risk management that everyone in the financial markets understands, and which apply equally to managing climate risk.

The first principle of risk management is that you have to think about worst case scenarios. Of course, only rarely is there a well-defined worst case, so in the financial community we generally use the expression "extreme, but plausible" to communicate a commonsense understanding of what type of scenario we are focused on. To date the tax code has absolutely failed to address extreme, but plausible, climate-related outcomes.

Second, it is well understood that the purpose of risk management is not to minimize risk. The purpose of risk management is to recognize risks, and to warn when they are not being priced appropriately.

Think about what caused the last financial crisis. That was a classic case where we didn't price the systematic risk in mortgages. Too much risk was created, and it blew up on us.

Let this be a clear warning: the absence of appropriate risk pricing is the root cause of the climate crisis. Government incentives in the tax code encourage the creation of carbon emissions and thus needlessly waste whatever remaining capacity the atmosphere has to safely absorb greenhouse gases.

Third, time is of the essence. Given enough time virtually any problem can be addressed. In risk management, time is a scarce resource. It's when one runs out of time that a risk can turn into a disaster. With climate change we do not know how much time we have before the planet's climatic system is pushed past a catastrophic tipping point, beyond which the consequences would become non-linear and irreversible.

Finally, in financial markets we often distinguish between risk and uncertainty. Our quantitative models give us measures of risk, but what we manage in the financial markets is uncertainty. Similarly, the consequences of climate change are not only risky, but are highly uncertain. This uncertainty means that in managing climate risk we have to err on the side of caution, which is to say an even higher price.

Prudent risk management therefore implies that an incentive should be immediately applied globally to reduce greenhouse gas emissions at a rate that balances the future risk against the current cost.

What makes pricing carbon extremely urgent is that we have already created unacceptable risk, and with each year of delay in pricing climate risk the expected peak temperature, and therefore the risk from climate change, increases at an alarming rate.

Investors are waiting impatiently for the appropriate incentives to reduce emissions to be instituted in the tax code. Then, and only then, will the awesome power of the financial system be able to address this existential threat. Meanwhile, capital is flowing freely in the wrong direction, emissions continue to rise, catastrophic climate-related damages proliferate, and the threat of truly cataclysmic impacts increase.

Risk management provides the frame through which the climate crisis can, and I believe will, be successfully addressed.

I am passionate about pricing climate risk and you may ask why. The answer is easy. I see what is happening, I understand what needs to be done, and I have four grandchildren, Hugo, Izzy, Simon, and Charlie, who will most likely be alive when the temperature peaks.

Our decisions today will determine the quality of their lives.