

Interactive comment on “No way out? The double-bind in seeking global prosperity along with mitigated climate change” by T. J. Garrett

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The comment below is posted on behalf of Jonathan Lilly. I received this comment a while ago when, for some reason, it could not be posted in the discussion.

Axel Kleidon Editor

A welcome search for simplicity

I am not an expert on the economic issues considered in this paper. However, I found Garrett's approach to considering the interaction between the world economy and the climate to be remarkably creative and thought-provoking. Obtaining a global perspec-

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tive on this interaction is extremely difficult because of the vast range of phenomena involved. One approach, which is of course essential, is to combine the specialized knowledge acquired by many individual researchers into intricate numerical models.

Here Garrett takes a different approach and essentially "macroscopic" approach. By seeking an empirical relationship between carbon emission and global economic activity, the author is able to integrate over both systems and examine their coupling. This leaves the reader with a clear picture of possible future trajectories that can, within the context of the model, be readily understood. To me the dire predictions of this simple model are particularly striking because they so clearly reflect fundamental tradeoffs that may really be at work.

The value of this paper in my opinion does not necessarily depend upon the degree of validity of the particular conceptual model. It is instead the aesthetic of the line of research Garrett pursues here—that we can and should search for simple physical laws governing the behavior of the coupled economy/climate system. Hopefully this work will inspire more research in the same direction.

Interactive comment on Earth Syst. Dynam. Discuss., 2, 315, 2011.