

Interactive comment on “Energetic regimes of the global economy – past, present and future” by Andrew Jarvis and Carey King

Anonymous Referee #1

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Dear Editor,

The authors provide an analysis of globally aggregate measures relating energy consumption and efficiency with economic throughput along semicentennial time scales. Their analysis, based on putting together time series data and plotting them to later comment on their relations, captures the supply shocks of the 1970s. The authors make implications connected with current debates.

In these times of highly-granular data leading to pioneering insights and debates, large scale analyses can still be a source of great and valuable insights, especially when applied to large-scale thermodynamics as endeavoured in this manuscript. We found in this manuscript an interesting attempt in this direction, however, a number of concerns arise to the reader: The value of the insights provided is mostly based on a

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very simplified analysis, and compared with the simplified analysis and the timing of its most significant events, the implications drawn are slightly far-fetched (e.g. see lines 467-471).

Overall, despite the facts that the motivation has merits and that the manuscript goes in an original research direction, the reader sees that the methodological approach is not sound enough to explore this topic. For these reasons, and due to further concerns expressed above, I am inclined to suggest a rejection.

Interactive comment on Earth Syst. Dynam. Discuss., <https://doi.org/10.5194/esd-2020-59>, 2020.