

# Pathways to our whole system change and the use of one's podium

Abstract: The developing breakdown of the global climate, international government, and economic systems didn't develop overnight. Scientists of many kinds, and perhaps most notably the economist J. M. Keynes, have long been pointing to the global instabilities that would develop as a result of continual compound investment. The harsh realities of the world finding no way to respond to the crisis are finally becoming evident. We've been assuming the world could act as if someone was in charge, and it appears no one is. A new approach based on a new scientific method for reading the features of natural systems in their native contexts appears to be very helpful for finding order in the present advancing chaos.

## Summary of Findings

What I see as the most perilous and destructive part of the world crisis has also remained the most neglected, the animating force behind it. the endless compound investing Keynes focused on as a thread, causing a world economic growth imperative for reorganizing everything we need to work for us at an ever-increasing pace. All the derivative rates of change are exploding, and the world seems like a deer caught in the headlight of an oncoming car.

So, it seems to be time to look at the whole problem from a fresh point of view.

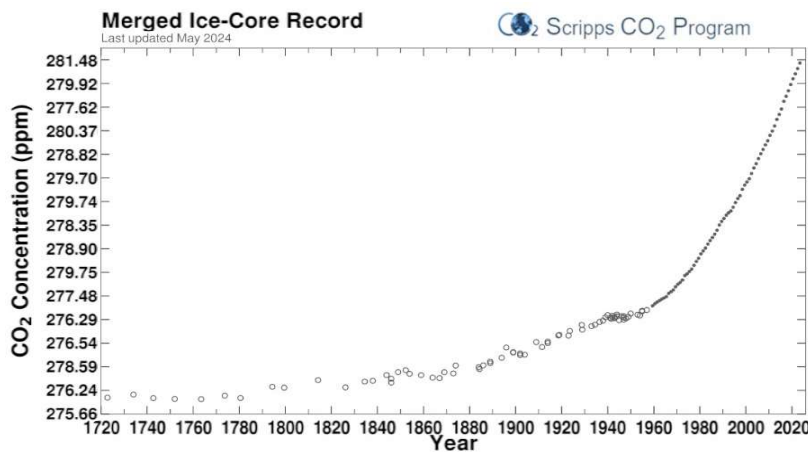


Fig 1 : The current world measure of atmospheric CO2 (a source of the exponential planet heating we're now experiencing the extreme effects of). – Its trend is closely proportional to world GDP growth from 1971 to the present (7), CO2 ~2% a year since WWII and GDP ~3.5% a year.

- CO2 Data - Scripps: [https://scrippsco2.ucsd.edu/data/atmospheric\\_co2/icecore\\_merged\\_products.html](https://scrippsco2.ucsd.edu/data/atmospheric_co2/icecore_merged_products.html)

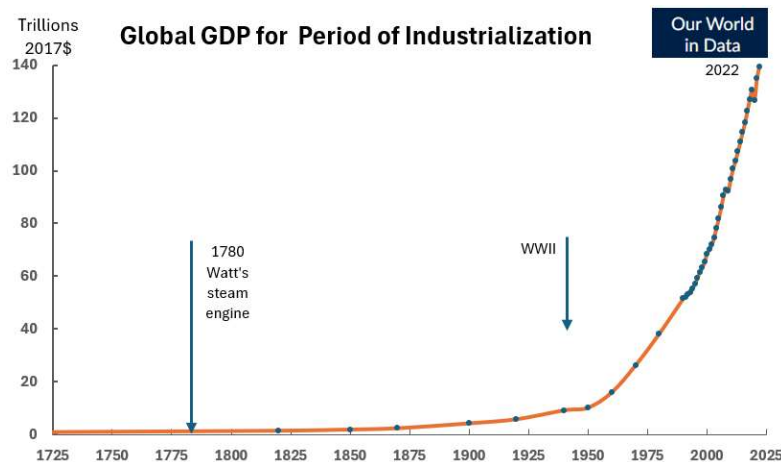


Fig 2 : : World GDP estimates from 1725 to the present—accurate since 1971. The difference in growth curve shapes is partly due to the sparse pre-2071 data and GDP growing faster.

- GDP Data – OWD: <https://ourworldindata.org/grapher/global-gdp-over-the-long-run>

As a senior natural systems research scientist, I've been striving to shed light on the fundamental error that seems to be at the core of our modern world's struggle for survival. Empirical systems science is not a new field, but looking at it scientifically as what people all do every day, reading and responding to empirical signals from the systems around them (in context rather than in abstraction) is a little new. I invite you to delve into my research site and numerous writings, all of which are linked (along the top) from <http://synapse9.com/signals>, to better understand my approach as an empirical systems scientist.

Our local and world cultural difficulties with responding to change are "deep history" and full of great, long stories with lots of different kinds of evidence to consider, all touched on rather broadly here. I hope you will think of what you find of interest or missing in my portrayal to discuss from your podiums to help bring out a fresh new look at our current rather threatening global inability to change.

One of the main problems seems to be everyone assuming someone else is in control when that's simply untrue. So, even if people all agreed on what to do, they would find the systems we need to change control themselves, having developed systems of self-control themselves. So, it's a big problem for us now, believing someone is in charge when no one ever has really been, only falling helpfully or harmfully into an especially influential role in the greater system's story of our lives. It's the contexts we find ourselves in that create the opportunities.

Growth systems are natural phenomena and, as such, are self-organized, animated, and controlled, working as wholes to coordinate their parts. We don't see the systems we live in working on us, but they're doing it all the time. They also evolve and change their designs in response to innovation and contextual signals, their "intelligence," the collective mind of the whole. Today, the challenge is to facilitate its shift from multiplying its parts to perfecting how they work together. This seems to be the implied goal of all systems. As people, mistakenly thinking we're in charge, rather than needing to be good partners with the system that grew around us, we've been doing things getting in its way of seeking to perfect its design.

All systems are designed around how the parts cooperate. The smoothness of the long-term global curves of economic data shows how effectively human cultures all over the world work together. Systems naturally design themselves as they grow to work as wholes, smoothly coordinate, and respond to changing conditions, 99% hidden from our view. That natural self-coordination comes along with the system as it changes purposes, as when going from multiplying to perfecting their designs.

Our dilemma? No one is in charge. The human systems of life support actually self-organize around our abilities, though leaders often say and may even mistakenly think they are in charge. Humanity developed through an evolutionary process of "try this and that" involving nature offering opportunities and people offering intentional or accidental ways to take advantage of them, with the system, as a whole, finding what did and did not really work.

System transitions from emerging to maturing are often quite smooth, relying on chain reactions of the parts "getting the signals" to change and then moving together to cooperate in coordinating the transition to the next new way of working together. It can go in phases, but ultimately, any living system needs to shift from endlessly multiplying its parts to maturing and fitting in with its world to survive.

From a view of long history, human cultures may have started experimenting with "boundless growth" very long ago, the whole record peppered with both stable cultures and catastrophes. That it's a certain design to fail, that life uses to kickstart new designs and discard, was, however, never appreciated by some humans, such as our direct ancestors.

Our ancestors seem to have taken several civilizations in a row to catastrophic collapse, erasing the cultures involved to leave close to no history of what happened, unaware that designs for maximum endless explosive growth naturally blow up. That fact provides rather clear evidence of there being something wrong with our most advanced forms of knowledge, also one of the messages of the Bible story of Adam and Eve.

That repeatedly inherited blindness to people, from the start, of not being in control of the economies they worked hard to grow and improve, was just never followed up with the normal kinds of studies one would do! I stumbled into doing that in my 20s, and for a long time couldn't understand why others didn't. So today, as the economy gives every sign of accelerating as fast as it can to totally collapse... we need a "full court press" to find out how to survive nature's everyday startup process for anything, "compound growth."

We do see that all lives begin with it, but all projects do as well, along with all friendships and anything else that works as well. The physics is that any energy use needs an organized system to carry it out, and nearly all display a ready response to approaching their organizational limits, but advanced civilizations - not so much. So, there's evidently a somewhat hidden way successful new lives seem to all automatically know how to transition from growing to maturing their designs, that some human cultures easily notice and others can't. The key seems to be that it's \*in the relationships\* that we naturally can't see. So it's through the relationships we need to respond. There are formulas, too, of course, but it's the relationships that make them useful.

To make life work for all the parts, the natural goal for all systems, we need to share good ideas on how to "get the signals" from our contexts to reorganize our way of life, follow the paths of all successful new living systems, moving from investments in multiplying our designs to fulfilling them, not erasing creativity but balancing it with the new focus on caring for and perfecting our designs that every beautiful work ends with.

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## Author References:

Research site:

Reading Nature's Signals <http://synapse9.com/signals>

Papers:

(2024). A People's Systems Science [GST/n]: Weaving Abstract & Contextual Systems: Telling Them Apart & Aligning Their Parts. *ISSS 2024 Mtg.*

Draft Paper [https://synapse9.com/\\_ISSS-24/HNS3-PSS%20MS-v.docx](https://synapse9.com/_ISSS-24/HNS3-PSS%20MS-v.docx)

Talk Slides [https://synapse9.com/\\_ISSS-24/HNS3-PPS-1.pptx](https://synapse9.com/_ISSS-24/HNS3-PPS-1.pptx)

(2023). Emergent Growth of System Self-Organization & Self-Control: Contextual system design, steering, and transformation. *Systems Research and Behavioral Science*

Author copy [https://synapse9.com/pub/2023\\_sys-SelfOrg&SelfControl.pdf](https://synapse9.com/pub/2023_sys-SelfOrg&SelfControl.pdf)

(2022). Holistic Natural Systems - Design & Steering: Guiding New Science for Transformation. *Journal of the International Society for the Systems Sciences*. Presentation Jul 9

[https://synapse9.com/\\_ISSS-22/HNS1-MS-Design&Steering.pdf](https://synapse9.com/_ISSS-22/HNS1-MS-Design&Steering.pdf)

(2021). Understanding Nature's Purpose in Starting All New Lives with Compound Growth: New Science for Individual Systems. *Journal of the International Society for the Systems Sciences* July 2021.

MS [https://synapse9.com/pub/2022\\_NewSysSci-IndividSys.pdf](https://synapse9.com/pub/2022_NewSysSci-IndividSys.pdf),

Supplemental [https://synapse9.com/\\_ISSS-21/ISSSJul11NewSci-IndividSys-supl.pdf](https://synapse9.com/_ISSS-21/ISSSJul11NewSci-IndividSys-supl.pdf)

Oct 2 Talk <https://www.youtube.com/watch?v=0plSWMjnTHQ>

(2019). [Growth Constant Fingerprints of Economically Driven Climate Change](#): From 1780 origin to post-WWII great acceleration. draft [https://synapse9.com/drafts/2019\\_12-GrowthConstFingerprintsOfCC-preprint.pdf](https://synapse9.com/drafts/2019_12-GrowthConstFingerprintsOfCC-preprint.pdf), in Cornell arXive physics preprints <https://arxiv.org/abs/1911.04340> Submissions to: Submissions to Nature Climate Change, IOP, Ecological Economics, Anthropocene, Springer Climatic Change, PLOS.