The cyclical behaviors of the exponential IRR functions shown on the chart seem unrelated to each other until we use predator-prey dynamics to probe for interdependence. We find they are tracing an unstable feedback system, better known in economics as Minsky’s Long Cycle Model of Debt vs Capital, where principal + interest (Credit to GDP in blue) traces Predator size, while capital + income (GDP in red) traces Prey size. Coincidentally, just glancing at the chart explains why Greenspan and all subsequent G7 central bankers began their barely-disguised, rate-cutting race after 1985. Yet, lower rates can’t stop the system’s leverage from spiking, when central banks, via QE, swap impaired-loans for fresh sovereign debt, after every financial crisis.

In sum, the chart’s extraordinary fit to Minsky’s Long Cycle model suggests that on August 15th, 1971, the world’s Advanced Economies unleashed a destructive feedback system that is now approaching its final stage. Reaching this conclusion, however, requires using a methodology we reserve for the analysis of non-human ecosystems. For when it comes to human economic interactions, rather than nonlinear math, we apply politically-motivated doctrines, posing as science. A reality that leads to a few more observations:

OPINION NOTE: So-called “Top-Down (TD) Controlled” Resource Competition Dynamics (RCD) systems, like the above, rarely happen in nature. Yet, as Minsky and other researchers attested, ‘Ponzzi’ TD dynamics is recursive in our species. Below, I venture a few-unsupported-thoughts on Why Homo Sapiens (HS) RCD truly is different from nature’s:

1. Due to Abstract Thinking, the primary driver for HS survival over its short era on earth is Cultural Dominance, not Genetic Evolution.

2. It is safe to assume that over eons, contemporary survivors eventually achieve some degree of Information Symmetry (IS).

3. As HS RCD hinges on Information-Resources (IR), IR owners and their offspring aim to curb IS expansion. Yet, as they acquire, transmit, accrue and deploy IR over time, IS grows to critical mass among contemporaries and their TD cycle inevitably collapses.

4. A Bottom-Up-Controlled (BU) system restarts the cycle. Yet, as soon as newly dominant IR owners arise, a new TD cycle begins (bottom-up controlled).

Oswaldo Lairé
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1 There must be a hundred better definitions, unless one favors perceptual relevance
2 Statistics require detrending, as data providers tend to pick modes (nominal, percent change, indexed, sum, average, etc.) or parameters (price, time, relevant unit) that back their assertions, yet might be statistically irrelevant or mathematically meaningless.
3 The Lotka-Volterra (1925-26) ordinary differential equations were originally employed to study predator-prey dynamics in fish populations after WWI.
4 Minsky’s “Long Cycle” is typified in the BIS chart by the US financial cycle’s pattern of greater amplitude waves (characteristic of unstable feedback systems) that forms over decades, as the proportion of Debt to GDP rises exponentially with each oscillation.
5 Predator-prey dynamics equations have been applied in economic theory, since at least 1967, when Richard Goodwin used Kolmogorov’s version. Their application to Minsky’s Long Cycle was first proven by Asada in the late 90s, then Keen and others.
6 See details in Arditi-Ginzburg’s 1989 (“ratio dependent”) version of Lotka-Volterra’s predator-prey dynamics.