

Public Policy and the Polycrisis

Expert Group Meeting on Sustainable Development in Times of
Recurrent Crises

Economic Analysis and Policy Division, UN DESA

Thomas Homer-Dixon

March 21, 2023





Founded in January 2020 at Royal Roads University, Canada, the Institute uses advanced methods to address the full range of humanity's converging environmental, economic, political, technological, and health crises.

We provide governments, businesses, civil society groups, and frontline actors with a better understanding of the world's problem landscape and opportunities for action.

Our goal is to trigger a fundamental and rapid shift in humanity's trajectory towards fair and sustainable prosperity.



What Is a Global Polycrisis?

And how is it different from a systemic risk?

Michael Lawrence, Scott Janzwood, and Thomas Homer-Dixon

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“A global polycrisis occurs when crises in multiple global systems become **causally entangled** in ways that **significantly degrade humanity’s prospects**. These interacting crises produce **harms greater than the sum** those the crises would produce in isolation, were their host systems not so deeply interconnected.”

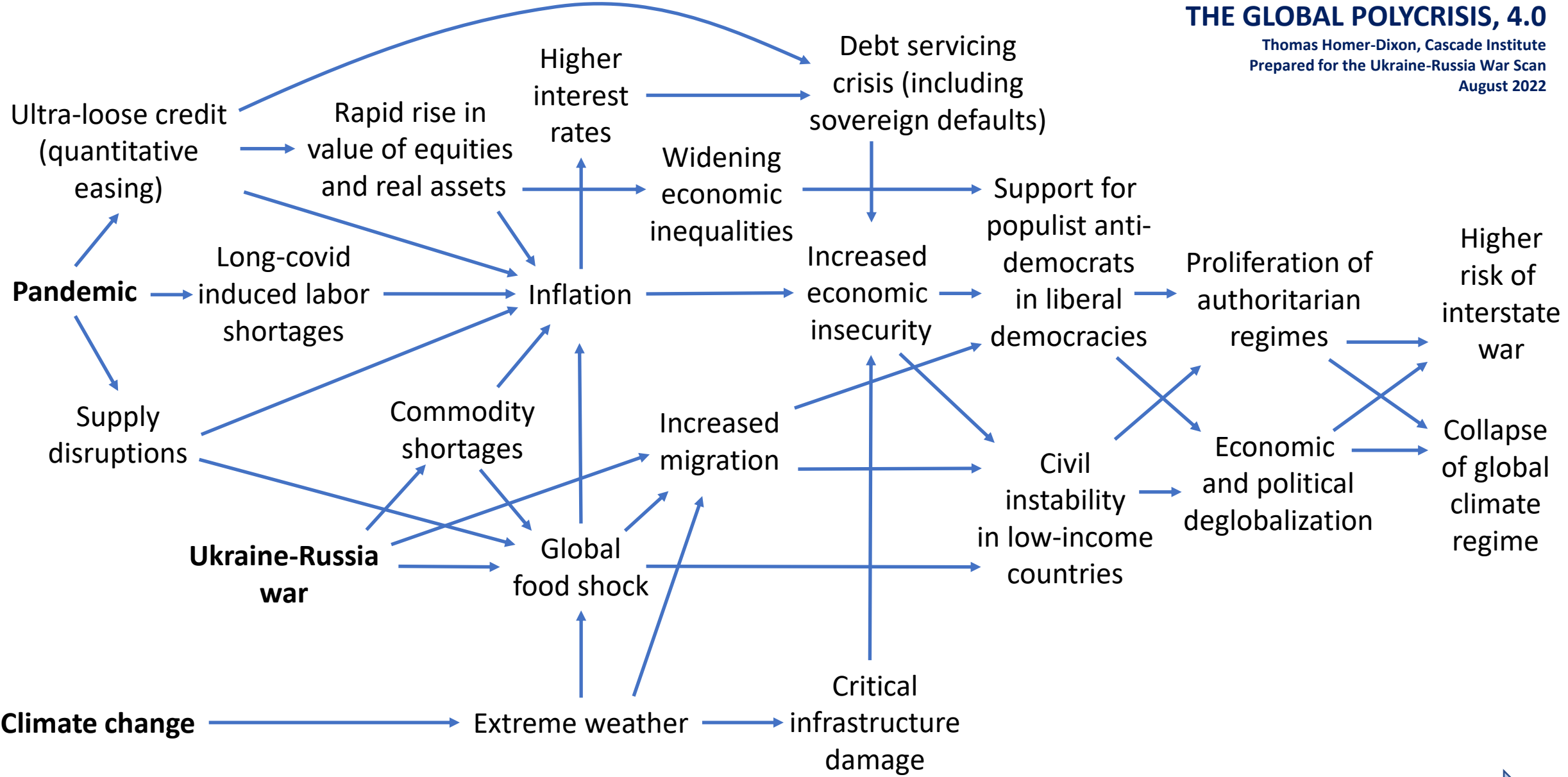
Etymology of “polycrisis”?

1. Edgar Morin and Anne Brigitte Kern, 1999
 2. Mark Swilling, 2013
 3. Jean-Claude Juncker, 2018
4. Omega Resilience Funders Network, 2019
 5. Adam Tooze, 2021
 6. Cascade Institute, 2021
7. World Economic Forum, 2023
 8. Reaction

**How do we make sense of
underlying causal
mechanisms?**

THE GLOBAL POLYCRISIS, 4.0

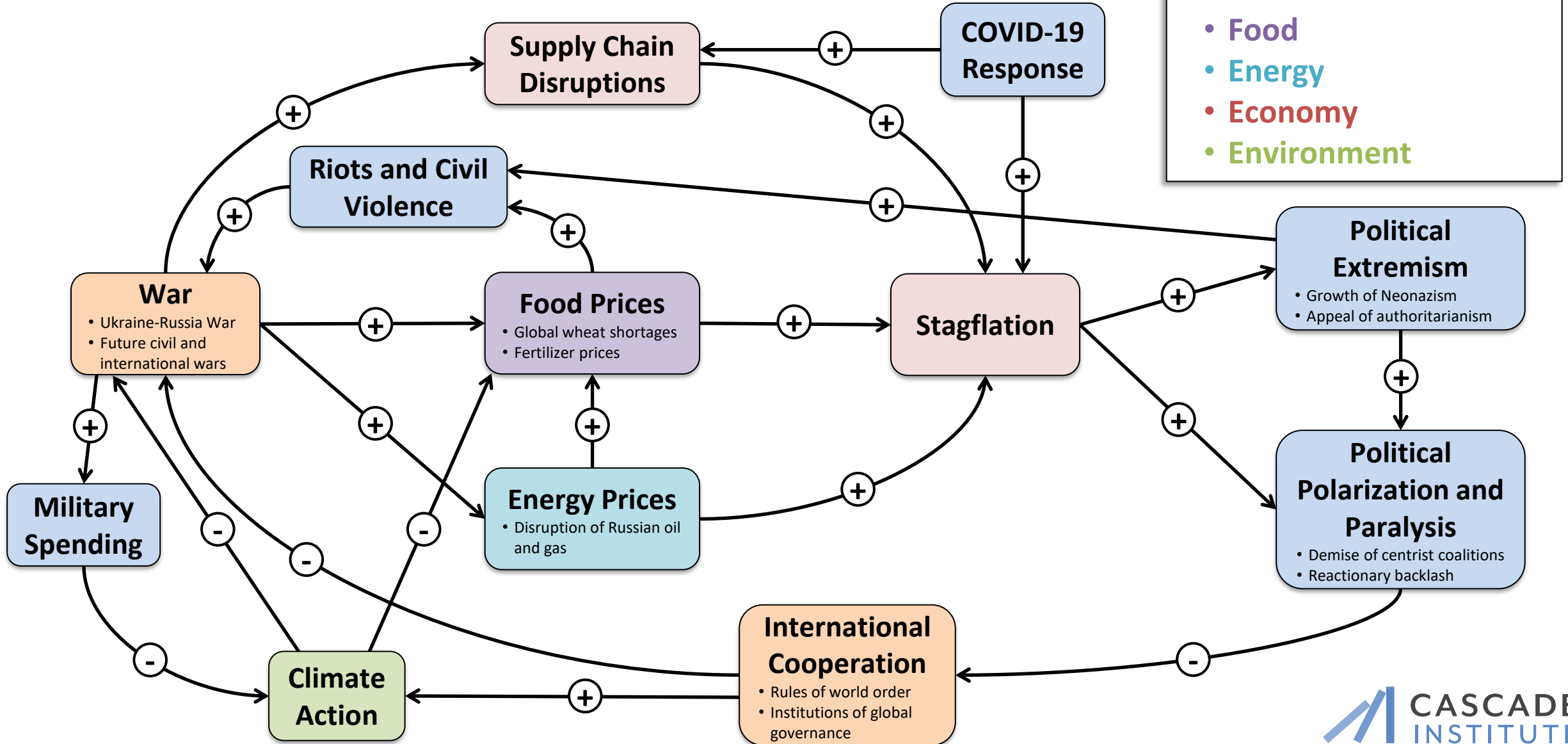
Thomas Homer-Dixon, Cascade Institute
Prepared for the Ukraine-Russia War Scan
August 2022

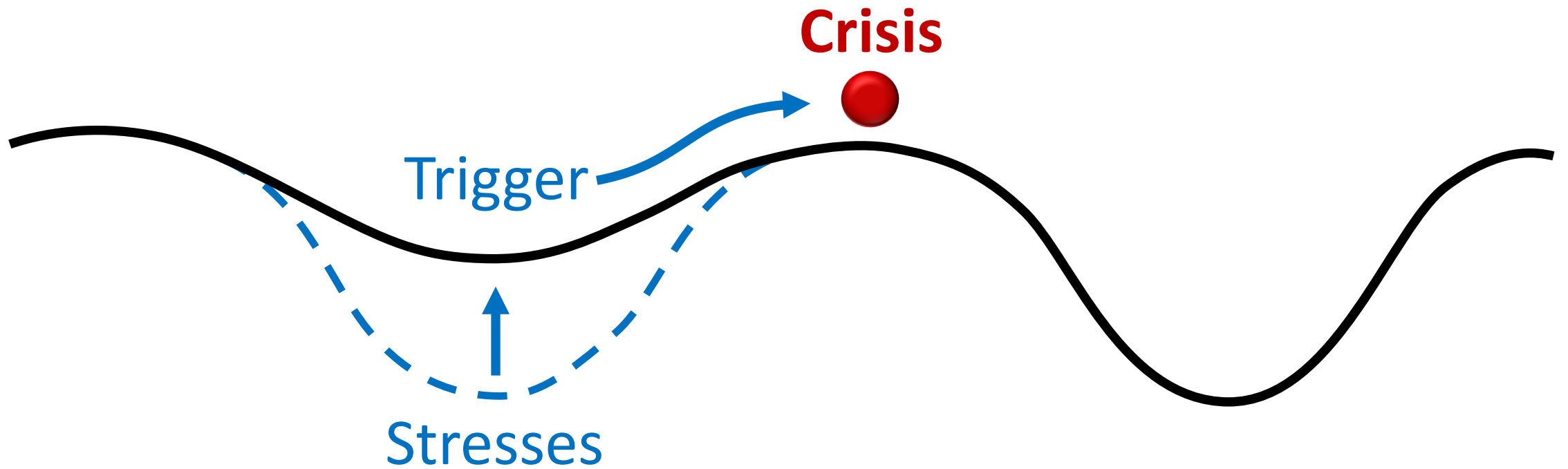
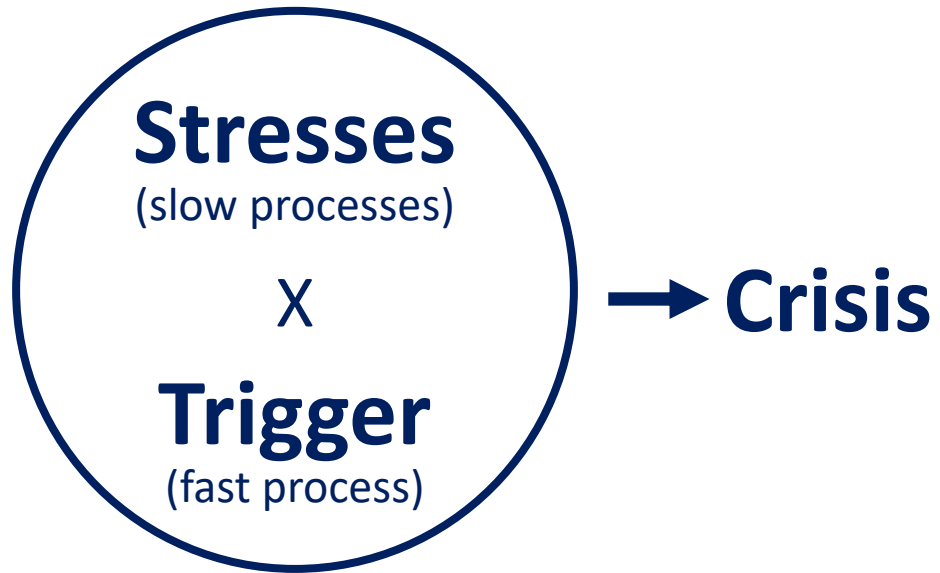


Inter-Systemic Cascades of the Ukraine-Russia War

Based on discussions of the Cascade Institute's Ukraine-Russia War Expert Panel

Diagram by Michael Lawrence





Stresses include

1. climate heating
2. biodiversity decline
3. zoonotic viral disease outbreaks
4. high uniformity and connectivity of global food supply
5. declining power density of energy sources
6. high uniformity and connectivity of global financial system
7. widening economic inequalities
8. ideological polarization and epistemic fragmentation
9. propagation of large language model AI
10. great-power hegemonic transition

Global stresses are

amplifying

and

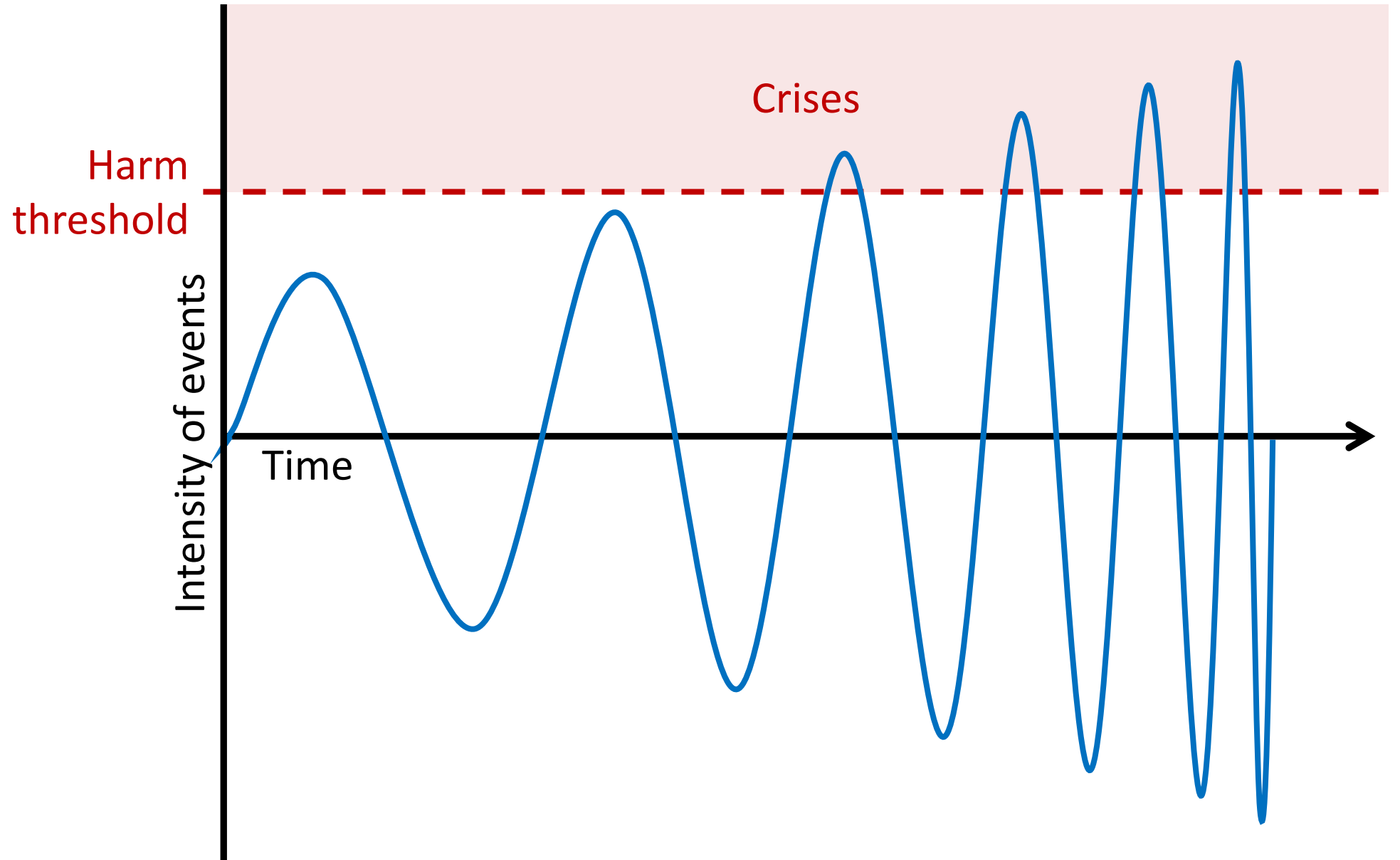
accelerating,

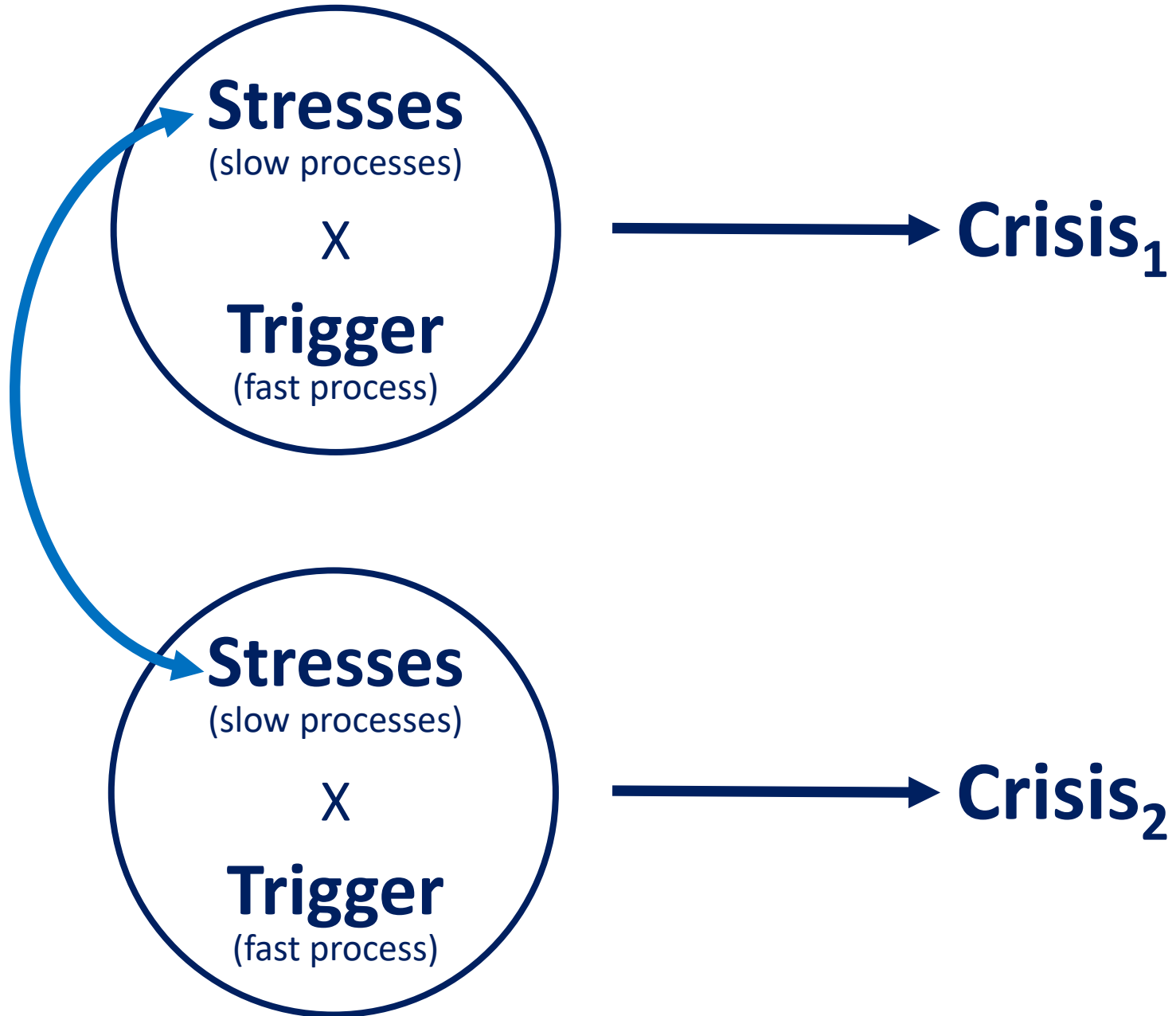
while the crises they're generating seem to be

synchronizing.

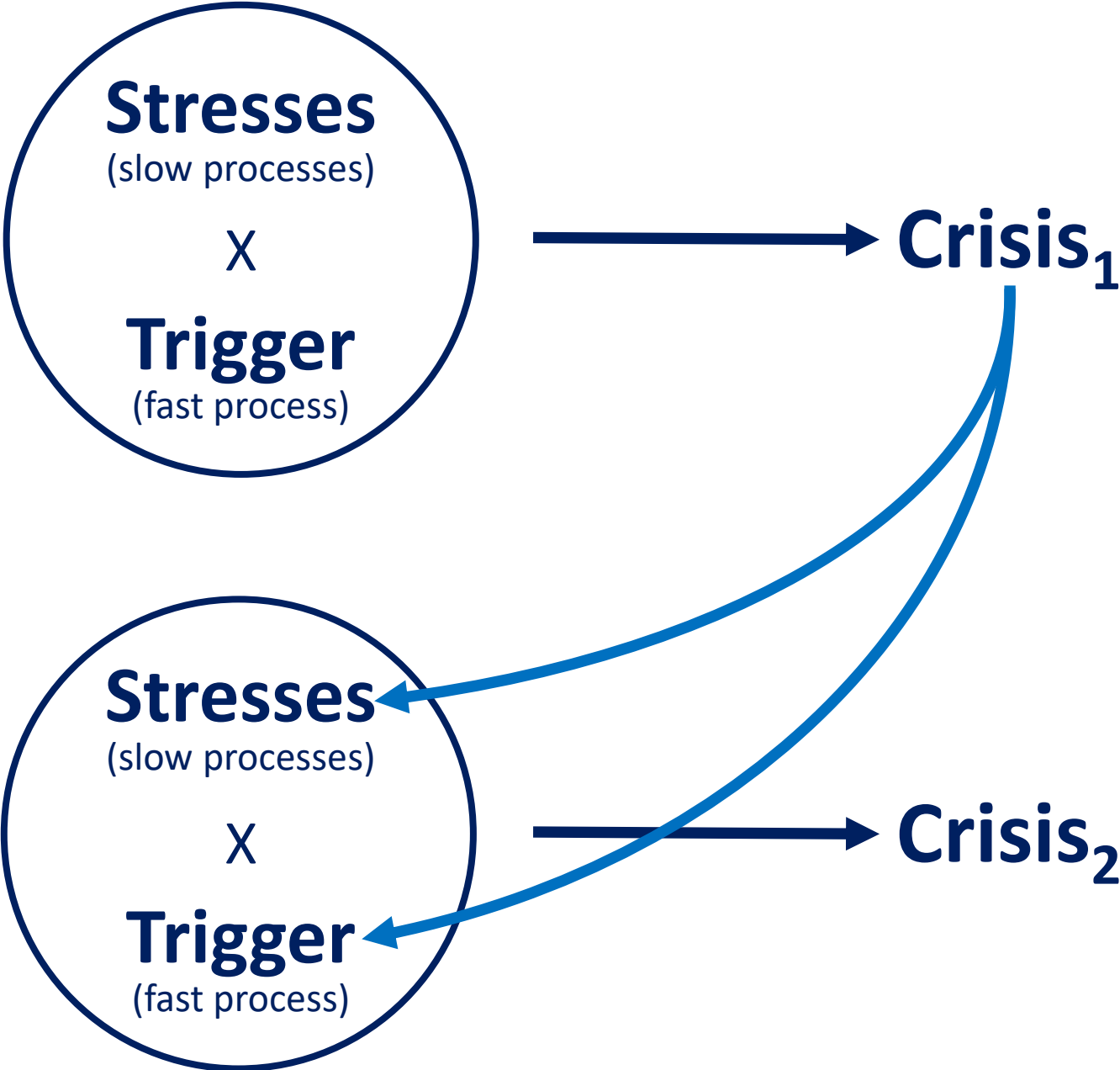
Amplification and acceleration

Michael Lawrence, 2023

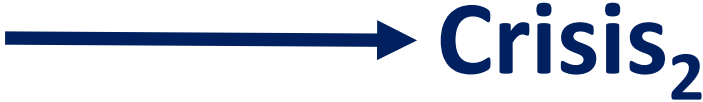
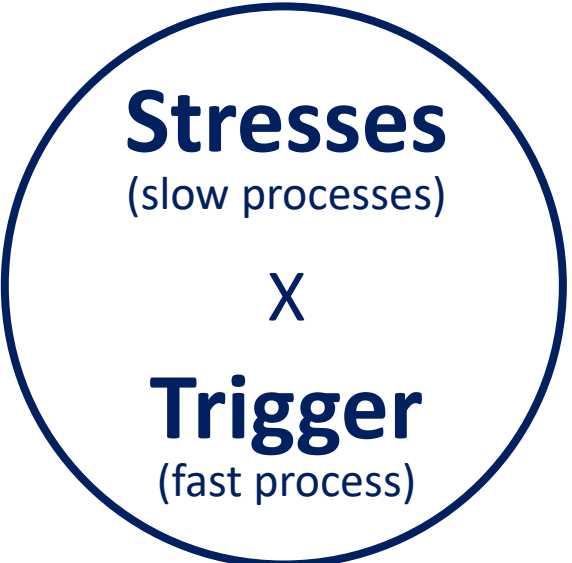
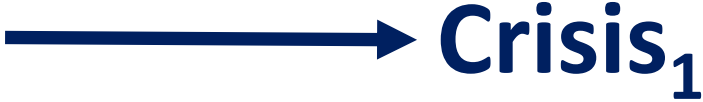
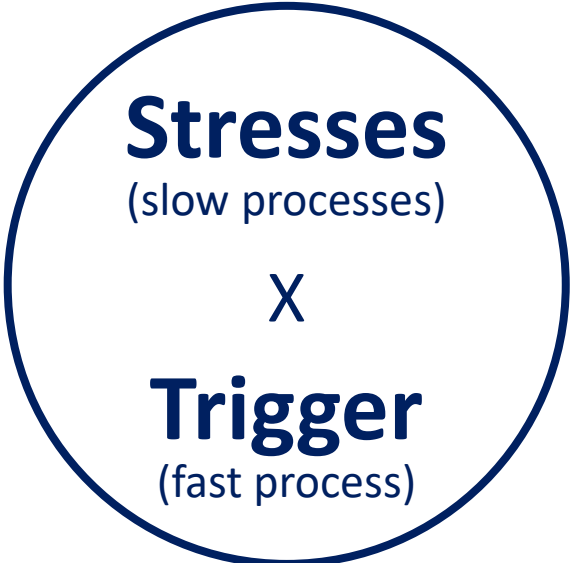




Synchronization



Synchronization



Synchronization

Public Policy Implications

1. Policymakers need to recognize and plan for:

- amplification and acceleration of underlying stresses,
- inter-systemic feedbacks causing synchronization among stresses,
- potential for multi-system nonlinear response (“tipping”), and
 - system hysteresis.

2. Policymaking instruments must be better adapted to:

- integrate technical knowledge across system boundaries,
- anticipate inter-systemic interactions and cascading impacts,
- function in the context of fundamental (Knightian) uncertainty, and
 - respond at speed.