Workshop on Historical Systemic Collapse
Memo #2
Email from Miguel Centeno, Tuesday, June 26, 2018

Proposal for themes and cases

If there is one central theme in the "collapse literature" it is that there is notable disagreement about the meaning of the term "collapse." One area of debate is what exactly constitutes a "collapse." Another criticism is that our historical view of "collapse" tends to have all sorts of biases—cultural biases, survivorship bias, etc. Another critique is that speaking only of collapse ignores comparable scenarios where civilizations survived hardships and shocks, and thereby conceals or ignores significant elements of robustness and resilience that are important to identify.

In order to spend our time most productively, we hope to limit debate and discussion about terminology. We recognize that the term "collapse" is somewhat ambiguous with different definitions across academic disciplines, and so for the purposes of this workshop we propose that we borrow the usage of the term "collapse" from the literature on networks, systems, and complexity. In these fields, collapse refers to the disaggregation and breaking apart of a connected network. What happens is that complex systems break down or fragment into smaller units requiring less order, complexity, coordination, and organization to function. The systemic dynamics are thus reduced on a macro scale.

In this type of analysis, what "collapses" is not necessarily an entire society, but instead is the larger organizational framework. So, the Maya late-classic city states become smaller agglomerations of farmers, but the larger Maya "civilization" remains. The Western Roman Empire becomes a series of much smaller political units—with significantly fewer interaction between them than they previously experienced.

The purpose of this workshop is to identify some possible lessons from historical cases that would inform the state of the contemporary world and the modern global systems of transport, finance, agriculture, energy, trade, capital, migration, etc.

The first major focus for the workshop is to identify and study the potential stages or levels in the process of "disaggregation" of our current systems. That is, how could the system itself fail or bring about its own demise. Note that emphasis is not necessary on the nodes prior to breakdown, but rather on the connections linking these nodes, how they could fall into disuse, and what the consequences would be. In essence, we are not necessarily interested in a simple mass die-off, but instead in the downgrading of global connections leading to a forced return to some form of autarchy.

The term "disaggregation" focuses our attention on how a particular advanced social order is transformed into one requiring less "organization" or "complexity." Insights

about current modern systems that we hope to develop through this study of historical case studies might be:

a) How fragile are the connections between all the global nodes?
b) How could these connections be disrupted?
c) How could such disruptions lead to a catastrophic breakdown of our systems?
d) What would the costs associated be and who would bear these costs?

The plan is to match discussions of the contemporary scene with historical accounts of similar processes during our case studies. Two possible cases that we might select for the second workshop are:

1) The rise and fall of Eurasian empires from the 4th through the 13th centuries when we see a broad disarticulation—and reconstruction of—global linkages
2) The fall of empires in the 20th-21st centuries

The second major focus of the workshop is on the precipitating causes of collapse (environmental, governance, invasion, etc.). The consensus seems to be that univariate explanations do not work. Instead we should think of the accumulating difficulties, hardships, and shocks that reached a tipping point for a critical transition. The starting point and order of occurrence matters in a series of increasingly compounding crises (as in all complex systems that experience cascading failures).

We can divide causes into exogenous and endogenous. The cases of the exogenous shocks are less interesting and less useful to study in this context, as little can be done to either predict or survive them. Whether the dinosaurs had a robust or resilient ecosystem was made somewhat moot by the asteroid. The depopulation of the Western Hemisphere and the elimination of large-level native political authority cannot be understood without reference to the epidemiological draw. What we are interested in, however, are the endogenous factors and the ways in which failures might cascade through the system. Here, underlying "softer" variables come into play such as political legitimacy, system management techniques, and the danger of overextending.

These two focal points—the process and the causes of collapse or disaggregation—seem to nicely define the agenda for our first workshop. We have funding for two meetings—the first smaller and shorter one is to define a scholarly agenda including theoretical insights as well as case selection. The second and much larger workshop will include presentation on the definition of the phenomenon of "collapse" as well as presentation on selected cases.

Please note that we have created a website (http://risk.princeton.edu/collapse.html) devoted to this theme where we have posted some possible readings. Suggestions and any additions are welcome.

Please let me know if you would like to help plan the agenda for the first workshop, and we will schedule a phone conversation for the first week of July. Once we get a sense of

who is interested in participating in this first workshop, we will then send out a Doodle Poll for scheduling. We hope to hold the first workshop on either Friday, September 28th or Friday, October 5th. Please also let us know of your availability on those dates.

For future planning, we are thinking of scheduling the larger second workshop in early 2019, with a reporting session at the Global Studies meeting in Krakow in June 2019.