#1

Economic Degrowth and the Collapse of Institutional Order: Theory and Propositions

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Abstract

Integrating insights from new institutional economics and studies on the collapse of past empires, we sketch a process model that links economic degrowth to the collapse of institutional orders. Our thought experiment starts from emphasizing the importance of institutions and enforcement mechanisms in maintaining a sufficient level of economic activity to sustain public costs. We flip this established logic and elucidate the negative role of economic degrowth in the weakening of the public sector's ability to enforce institutional rules. Internal and external shocks further shake the stability of the institutional order and, at some point, individuals' belief in institutional rules and norms weakens, resulting in system-wide collapse of the institutional order. We use historical literature on the collapse of Roman Empire as an "experimental prototype" (Meyer, Gaba, & Colwell, 2005: 471) to inspire and illustrate our thought experiment.

1. Introduction

Previous studies in institutional economics (e.g., Acemoglu, Johnson & Robinson, 2005) and economic history (Broadberry & Wallis, 2017; Persson & Sharp, 2015) have highlighted the efficiency of institutional order – the interplay of transparent and predictable formal and informal rules and enforcement mechanisms resolving disputes (North, 1990) – as a necessary condition for long-term economic growth (Acemoglu & Robinson, 2012). We turn this perspective upside down and suggest that the functioning of institutional orders might be reciprocally conditioned by economic growth. Accordingly, economic degrowth (cf., Kallis et. al., 2018) – defined as a long-term economic downturn – may be an existential crisis for the maintenance of institutional orders.

The collapse of institutional orders is far less studied than is the link between institutions and economic growth. The topic is indirectly touched upon in studies on collapses of political systems (e.g., Yoffee & Cowgill, 1988, Tainter, 2008), which consistently report how at some point individuals and organizations stop believing in the value and utility of established rules and norms, the institutional order of societies. Translated into the language of organization studies, accounts from the corpus of collapse studies reflect "...the erosion or discontinuity of an institutionalized organizational activity or practice" (Oliver, 1992: 563).

Earlier studies on the evolution of institutional orders (e.g., Hodgson, 2009; North, 1990) and collapses of political systems have remained separate streams of research. Meyer, Gaba, and Colwell (2005: 456) have observed that "...researchers acknowledge fieldwide flux, emergence, convergence, and collapse, but sidestep direct investigations of the causes and dynamic processes, leaving these efforts to political scientists and institutional economists." In this spirit and inspired by other similar approaches to organizational theorizing (e.g., Clemente, Durand, & Roulet, 2017), our motivation is to integrate these streams of research and study the collapse process of institutional order.

Existing studies and conceptual papers on the erosion of institutional orders mainly focus on micro-level practices (Maguire & Hardy, 2009; Ahmadjian & Robinson, 2001) and organizational forms (Davis, Diekmann, & Tinsley, 1994) as research objects (i.e., as something that decays without being simply replaced with an alternative institutional order). Scholars oriented to new institutional economics

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(Bjørnskov & Foss, 2016) and new institutionalism (Ingram & Silverman, 2000) share similar research interests while working with a different conceptual vocabulary and often focusing on more macro-level institutional change. Nobel laureate Douglass C. North (1990), for example, worked with a theoretical model in which the emergence and erosion of institutions are equally possible depending on the strength of enforcement mechanisms and the prices of transactions. More rarely, as in Ahmadjian and Robinson (2001) and Allen and Heldring (2022), economic and institutional pressures are analyzed as dynamic interactions within a political system – a logic we follow in this essay.

Building on collapse studies and assumptions from theoretical work on institutional change, we set out propositions to outline the negative effect of economic degrowth on the public sector's ability to enforce institutional rules, which can result in the potential rise of private ordering as a substitute for state-centered institutional order. We integrate these effects into a theoretical model that explicates the mutual roles of institutional orders and the availability of economic resources. In particular, the model expands current understanding by identifying the mechanisms and processes preceding the collapse of institutional orders.

Our model may be used for simulations and counterfactual modelling, thus becoming a starting point for an improved understanding of the relationship between economic growth and the development and maintenance of institutional order, and the possibilities for management interventions to prevent chaotic transformations and collapses.

2. Collapse in the Prior Literature

We follow Yoffee and Cowgill's (1988) conceptual definitions of collapse. Though our focus is on the collapse of institutional orders, it is important to distinguish the other levels of analysis since they indirectly touch upon institutional orders as well: *civilizations*, *societies*, and *political systems*. First, civilizations are broad entities (e.g., modern Western democracies) that consist of multiple human societies linked through economic and social interactions. These entities are geographically delimited and may retain distinctive institutional systems. Overall, collapses of civilizations that indicate a sudden or rapid disappearance of distinct cultural entities are scarce. Second, societies (e.g., nation-states) are homogenous ethnic groups or entities organized under one political, economic, and institutional system. A breakdown of society, often understood as a classic case of collapse, is not synonymous with a collapse of civilization since the cultural traditions of civilization are not customarily restricted to a single state and may be practiced in other societies within the sphere of influence (Frank & Gills, 1993). The third type of collapse is that of a *political system*, which is defined as an entity under a unified institutional order (e.g., the Roman Empire). This unified system may include multiple societies with distinct ethnic or linguistic nationalities that are institutionally and politically integrated by a centralized source of power. Collapses of political systems typically result in the creation of new, smaller political units that may preserve selected traditions and institutions from the previous culture. Institutional order, accordingly, is a necessary condition for the preservation of political systems.

Several grand theories of collapse emerged in the 20th century (Spengler, 1918; Toynbee, 1939; Sorokin, 1957; Coulborn, 1966) to explain and predict the cultural decline of civilizations. After these pioneering works, scholars turned to social science and archaeological methodologies, a move that resulted in a dramatic increase in the empirical body of evidence on a wide range of collapsed empires (e.g., Eisenstadt, 1969; Cipolla, 1970; Yoffee & Cowgill, 1988). Subsequently, the scope of scholarship extended to include collapses of civilizations and political systems. Alongside the decline of the Roman Empire, the collapse of the Mayan Empire between 600 and 1100 (Thompson, 1954; Culbert, 1973; Webster, 2002), the evolution of ancient Greece (Ober, 2015), and recently, the collapse of civilization in the ninth century Mesopotamia (Allen & Heldring, 2022) are ancient examples of collapse processes at the level of a political system. Finally, some studies have focused specifically on collapses at the level of a single society, such as Easter Island (Van Tilburg, 1994; Brander & Taylor, 1998).

A fundamental question in the collapse literature has been whether the breakdown and fall of societal entities can be explained by identifiable causal factors or whether these are explainable only in more complex systemic terms. In some cases, mechanisms of decline can be clearly identified, as in cases of severe environmental degradation (Diamond, 2011; Ponting, 2007) or changes in climatic conditions (Yu et al., 2000; Wang et al., 2005). These mechanisms may trigger or exacerbate more complex dynamics in social instability and disintegration that in turn contribute to collapse-related processes. This has led scholars to study the dynamics of collapse by using mathematical and economic models and to evaluate the importance of proximal and peripheral conditions of decline (Turchin, 2003; Motesharrei et al., 2014), illuminating specifically into those cases of collapse that lack historical data or seem to derive from a variety of sources (Tainter, 1988; Turchin, 2003). However, formal models that focus on the interaction of variables related to economic production and distribution (e.g., tax rate, productivity, level of technology) are limited in their ability to explain cultural or institutional reactions that arise from the actors' attempts to solve problems related to changing economic pressures (e.g., Ahmadijan & Robinson, 2001).

We argue that there are at least two key reasons why a further integration of institutional and economic dimensions can advance the study of collapses of political systems. First, the interplay of social innovations and incentives of different societal groups plays a key role in state formation processes (North, Wallis & Weingast, 2009; Benati & Guerriero, 2020), in processes that *establish* stable societal conditions in the first place. Although certain economic conditions may represent a necessary condition in the functioning of political systems, they are not sufficient for maintaining and preserving the stability of political systems. Hence, institutional dynamics are important for understanding collapse processes from the perspectives of system (in)stability and (in)efficiency. Second, the insights from transaction cost economics (Williamson, 1985) strongly suggests that institutional orders evolve in connection with actor evaluations of their performance: at the level of individual transactions, a belief in the functionality of an institutional order becomes a psychological and sociological question. In particular, dysfunction in the institutional conditions for transactions can lead to the erosion or rejection of established forms of transactions, which can have substantial effects across the system (Hodgson, 2009). For example, when North (1990) and Greif (2003) characterize private ordering – enforcement and dispute resolution by private actors – as characteristic to underdeveloped institutional orders, the collapse studies indirectly refer to an alternative trajectory in which societies *regress* to private ordering in which "...action moves from the level of the polity to that of groups... or bilateral traders as they attempt to perfect their trading relations in a self-help way" (Williamson, 2002: 438). In aggregate, these dynamics are relevant for the study of collapse processes, since they extend understanding of how and why economic pressures may trigger threshold responses that threaten the stable and predictable functioning of institutional orders.

3. *Why* Institutional Orders Collapse

We focus on the collapse of institutional order as a process that erodes both the maintenance credibility of public authorities and the predictability of institutions from the perspective of economic actors making decisions on transactions. By the collapse of institutional order, we accordingly refer to system-level transformation processes that result in a radical reduction in the degree of institutional stratification.

Our theorizing builds on core ideas in new institutional economics (e.g., Libecap, 1997; Hodgson, 2009; Wallis, 2016) that focus on radical, long-term transformations of institutional orders from less stratified and custom based to highly organized and extensively stratified. Pioneering work by North (1990) and more recent advances in institutional theory (e.g., Allen, 2011; Williamson, 2000; Allen & Heldring, 2022) guide us in seeking rationalized explanations of economic behavior. These behaviors (e.g., decisions concerning transactions) are determined partly by higher order contractual arrangements and formal and informal institutions (North, 1990). However, these same behaviors can also be the engine of institutional change. Accordingly, seeing collapse from the perspective of the decision-making processes at the level of transactions requires us to focus on both the economic context in which the actors are embedded and the functionality of the broader institutional and contractual system (May, Rayter & Ledgerwood, 2016). In the following section, we discuss how institutional maintenance mechanisms may take a reverse role, contributing to an emerging downward cycle (cf. Benati & Guerriero, 2020). Figure 1 synthetizes our theoretical model.

Assumption 1: Economic growth and national wealth is a necessary condition for the building and maintenance of institutional systems. Likewise, economic degrowth makes institutional systems increasingly vulnerable the longer it continues.

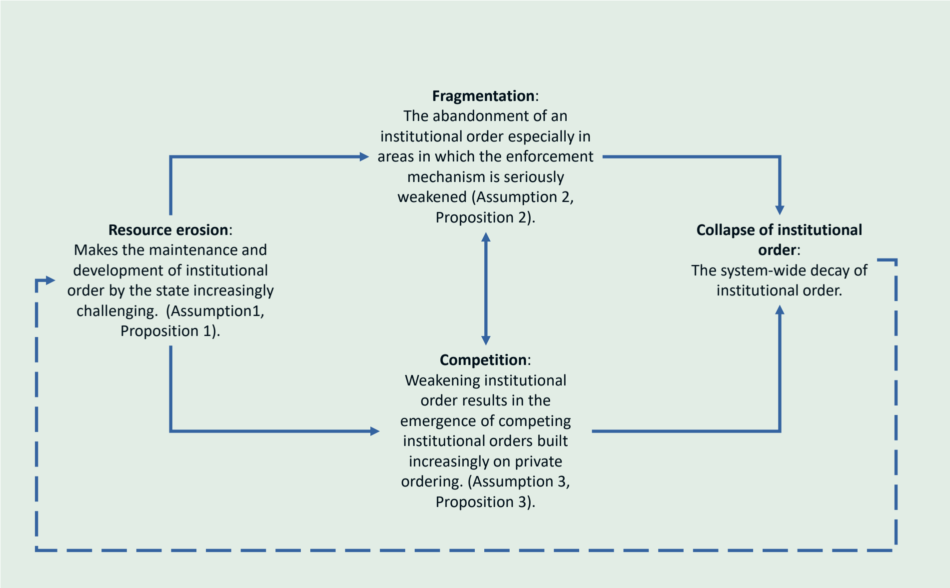

Figure 1: The Collapse of Institutional Order. Straight line=1st order causal effect; Dashed line=2nd order indirect effect.

The first element in our theorizing emphasizes the resource base of institutional systems. All institutional orders face resource constraints that are hard to manage, especially without technological advances (Goldstone, 2002). Historical research on past collapses (e.g., Tainter, 1988; Allen & Heldring, 2022) emphasizes the limitations in carrying capacity of agricultural production and the consequent pressures on population growth. The premise in pre-industrial societies, for example, would be that population size affects the number and magnitude of economic transactions as well as the availability and price of labor. Earlier in history, the role of population was essential, as the productivity and the size of markets were functions of population size in the pre-industrial era (Goldstone, 2002). For modern economies, the role of population growth is more ambiguous because of the increased role of technology in facilitating transactions and the link between overpopulation and environmental problems. Yet when generalized as resource generation and a source of economic transactions, we continue to lack evidence of economies growing without concurrent population growth and likewise, no large-scale evidence on stratified institutional systems without long-term economic growth. For the building our process model, economic growth, or the lack of it, appears as a fundamental assumption.

Assumption 2: Transparent and predictable institutions are a necessary condition for an efficient system of transactions. Likewise, the absence of such institutions potentially reduces the number of more complex, contract-based transactions.

The second important notion from the literature is the necessity of predictable and functioning institutions (e.g., Langlois, 1986; Allen, 2011). Institutions are needed because each economic transaction is a risk. Safeguarding against these risks is costly for the reasons explicated in the research on transaction cost economics (Williamson, 1991), concerning especially the costs of monitoring and searching. The role of institutions – formal and informal – is to create a transparent and predictable framework that helps to lower transaction costs and subsequently increase the number and volume of transactions. In other words, large-scale economies without a sufficient institutional framework would logically fail or at least the lack of such a framework would prevent economic growth (e.g., Acemoglu, Johnson, & Robinson, 2005). The literature also demonstrates the evolutionary nature of institutions: institutional systems emerge and develop as a function of power positions and interests in a society (North, Wallis, & Weingast, 2009). These same dynamics may render the system obsolete, resulting in the erosion and demise of institutional orders (cf. Argyres & Liebeskind, 1999). Institutionalists also emphasize the role of external system shocks (e.g., Mantzavinos, North, & Shariq, 2004; Robertson & Langlois, 1994) as important mechanisms in the transformation of institutional orders. Individual events and external shocks may disrupt institutional stability and loosen the contextual constraints for diverging development paths (Soifer, 2012). Critical events may also challenge the legitimacy of existing institutional orders and thus launch change processes in institutional and organizational fields (Hardy & Maguire 2010; Clemente, Durand & Roulet, 2017).

Assumption 3: A sufficiently strong public sector is a necessary condition for the development and enforcement of institutions. Likewise, a relative weakening of the public sector results in the rise of private ordering when repeated over time.

The theoretical literature emphasizes the importance of enforcement mechanisms, third-party monitoring and securing contacts between economic actors. The enforcement role typically belongs to governments and other public sector organizations (North, 1990; Greif, Milgrom, & Weingast, 1994) and to private organizations, even voluntary communities (Leeson, 2007) based on private ordering (Greif, 2003). Hodgson (2009: 160) addresses the mutually reinforcing roles of public and private ordering and the fundamental role of state in the evolution of institutional orders: "...law is neither entirely spontaneous nor reducible to custom, and the constitutive role of the state in legal systems has once again to be acknowledged". If the private ordering is the primary dispute resolution mechanism, the economic transactions presumably are smaller, local and, as indicated by transaction cost theory (Williamson, 1975), controlled by private actors such as clans or guilds (Kieser, 1989). Accordingly, dramatic transformations of power structure necessarily challenge the resilience and functionality of enforcement mechanisms. Overall, any large-scale transactional system requires a public sector, a state, to design and maintain institutional order ultimately by judging disputes.

4. *How* Institutional Orders Decay

The theoretical assumptions above summarize some of the key assumptions in the new institutional economics and are as such an answer for *why* institutional orders collapse. However, earlier research does not say much about *how* an institutional order transforms from a relative state of equilibrium to disequilibrium, meaning a subsequent transformation from public sector enforcement to increasing importance of private ordering. To approach a more nuanced processual understanding of the collapse process, we use the literature concerning Rome in late antiquity as an example of the long-term collapse of a stratified institutional order.[1] Despite scattered evidence, the latest empirical research (Scheidel, Morris, & Saller, 2007; Ward-Perkins, 2005) establishes a clear overall picture on the fall of the Western Roman Empire. In AD 250, the Roman Empire was prosperous and had a complex economic and political system based on large-scale trade, specialized production (Temin, 2001; Geraghty, 2007), and a relatively stable institutional framework and enforcement system (North, 1990). After the overthrow of the last emperor in AD 476 and before the re-emergence of large-scale European commerce, the western regions of the former Roman Empire lost population, commerce became marginalized and localized, engineering skills deteriorated, and institutional order was shattered (Ward-Perkins, 2005). Although there were dramatic regional differences in the severity of the downturn (McCormick, 2001; Demandt, 2007) and the following centuries included some better periods, the picture that emerges is of the near destruction and rebuilding of a unified institutional order in the western parts of the Empire.

Our reading of the collapse of the Roman institutional order emphasizes the erosion of institutional enforcement mechanisms. Accordingly, the collapse of the Roman Empire looks like a thorough dissolution of formalized and state-instigated institutions (Hodgson, 2009) that metamorphosed into private ordering enforced by different usurping institutional groupings (clans) that began to provide rules for economic and social organization at the level of local communities (see Eisenstadt, 1969; Williamson, 2000).

An illustrative reading of Rome's history elucidates three processual characteristics resulting in the collapse of institutional order.

Proposition 1a: Extended periods of economic degrowth result in resource erosion, which subsequently makes the maintenance and development of institutional order by the state increasingly challenging.

The process of *resource erosion* describes the joint effect of population decline and the decrease in market transactions embedded in a context characterized by extended periods of economic degrowth and periodically exacerbated by exogenous shocks, such as military conflicts and widespread plagues (e.g., Ward-Perkins, 2005). Resource

1 The history of Rome is an archetypical analogy that has been used for different types of theoretical purposes. In management and organization studies, Rueff & Harness (2009) and Carmeli & Markman (2011) are recent examples of such uses and interest.

erosion resulted in a declining and ultimately insufficient capacity to maintain institutional order, which then reflected in the decline of economic activity in various ways. As Bang (2007: 52-53) summarizes, "[...] the provincial magnates of old stock and new "barbarian conquerors" found it impossible to maintain extraction at the previous level and sophistication. Their capacity for concentrating and mobilizing agricultural surplus resources was much more circumscribed, and their monopoly powers in "selling" protection were seriously weakened".

The whole western part of the Roman Empire increasingly "...was not equal to the task of administering the whole Empire...." (Clark, Collingwood, & Myres, 1956: 275), especially on the periphery. Accordingly, the declining volume of trade and population and the resulting difficulties in maintaining and developing the enforcement mechanism jointly resulted in difficulties keeping the institutional order integrated.

Proposition 1b: If economic actors estimate that future long-term commitment to the established institutional order will increase the risk of transacting over accepted limits, they are prone to resort to private ordering, resulting in the fragmentation of institutional orders.

Proposition 1c: If economic actors estimate that future long-term commitment to the established institutional order will be an economically inferior option compared to alternative institutional orders, they will switch their transaction context, resulting in competition between institutional orders.

Resource erosion leads economic actors to re-evaluate the utility of the institutional order in the prevention of contractual hazards. Hence, resource erosion can trigger processes of fragmentation and competition via the following mechanisms.

Proposition 2: The abandonment of an institutional order especially in areas in which the enforcement mechanism is seriously weakened results in fragmentation and, subsequently, collapse.

The *process of fragmentation* refers to the joint effect of resource erosion and competition. Because of this process, the Roman Empire lost its hierarchical nature (Williamson, 1985), and the power was seized by local authorities, landlords, and war chieftains. In other words, the history of the Roman Empire illustrates a transformation from hierarchy as the dominant organizational design (Roberts & Greenwood, 1997) to clans (Ouchi, 1980). This regressive process was especially prevalent in the frontier provinces, such as Gaul and Britain, where civil wars had weakened defenses, causing migration to safer areas. Under these conditions, it was difficult to maintain tight imperial control over areas, and they eventually escaped from its direct control. The situation eventually evolved toward a patronage system and more independent power centers (e.g., Walbank, 1969). In parallel, self-sufficient manors and monasteries were increasingly less dependent on multilateral trade and accordingly did not need the Pax Romana anymore. Instead, the inert bureaucracy and heightened public costs became a burden for local – and often isolated – economic entities. As Heather (1995: 127) has noted, the loss of legitimacy of Imperial Rome and its administration occurred rapidly. :

...because of the appearance of new military forces, the Roman state was no

longer capable of sustaining local elites in this fashion (and hence of constraining their loyalties either), the whole point of attachment to the Empire disappeared. As a result, they naturally tended in such circumstances to look elsewhere for props to their position, notably to whichever barbarian immigrant group was currently most powerful in their own locality. In practice, such switches of loyalty could happen surprisingly quickly.

Proposition 3: Weakening institutional order results in the emergence of competing institutional orders built increasingly on private ordering. Likewise, economic actors with abundant resources may switch to already existing institutional orders perceived more predictable and cost efficient.

As a joint result of resource erosion and institutional fragmentation, the process of *competition* resulted in hundreds if not thousands of institutional systems and enforcement authorities instead of one or a few, such as in the case of usurper regimes. The Roman Empire's failure to fully integrate its territories into a single administrative whole is also an important issue (Hopkins, 1980: 101). In Britain, for example, the institutional setting was a mix of pre-Roman practices and norms and Roman rules and laws enforced by local authorities as well as Roman administration. The competition between institutional orders concerned not only geographic locations but also subgroups across the Empire. In particular, the rise of the Christian church and Christianity "… caused the status of citizenship to lose its meaning, which involved no consciousness of an obligation to maintain the Roman Empire against its enemies (and thus) the population lacked a strong sense of shared interest" (Liebeschuetz, 2001: 133). Similarly, the overall decline of the population during turbulent times led to a rivalry between landlords, who needed labor, and the state, which suffered from a lack of recruits for its army. Accordingly, an important sub-process resulting in the transformation away from the larger and more centralized institutional order was the emergence and return of various smaller institutional orders often based on private ordering.

5. Discussion

The purpose of our essay has been to theorize and explicate the mechanisms and processes predicting collapses of institutional orders. The identified mechanisms corroborate and clarify theoretical assumptions from new institutional economics literature, illustrated with a stylized reading of the collapse of the Roman Empire.

For institutional scholars, our thought experiment offers complementary ideas to the existing historical knowledge on institutional evolution (e.g., Allen, 2011; Allen and Heldring, 2022; Greif, 2003; Ober, 2015) by offering a nuanced picture of the mechanisms and processes resulting in the collapse of institutional orders. Particularly, we highlight the fundamental importance of economic resources not only as the results of institutional framework (cf. Acemoglu, Johnson, & Robinson, 2005) but even more so as the antecedents of the legitimacy of this framework. According to our model, institutional orders which undergo extended periods of degrowth, whether intentionally (as assumed in the sustainability-oriented degrowth literature, see Kallis et. al., 2018) or not, are susceptible to decline and collapse because of resource erosion and its negative effect on the enforcement capacity of the public sector. Even today, when the threat of environmental collapse under capitalism drives political decisions (Hoffman & Jennings, 2021), both system-based (Gills & Morgan, 2021) and management-oriented degrowth approaches (Banerjee et al., 2021) can only work if they can counter the inevitable processes of fragmentation and competition with institutionally legitimate alternatives, such as shared, non-economic value systems. Given the incentives for private ordering and the institutional complexity of the global world system, however, this task remains far from simple. While turning into a reduced level of stratification may in some circumstances maximize economic value at the individual and organizational level or promote alternative societal goals, the overall effect may be fatal, as in the case of the Roman Empire. Our essay emphasizes the need to study collapse processes not only as being based on individual and organizational mechanisms but also as results of system-level evolutionary dynamics.

Kirjoittajat

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