

# How Expanding Capitalism to Overcome Its Accumulation Crises Has Triggered Global Institutional Crises

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## **Abstract**

This paper argues that the proneness of capitalism to recurrent growth and profitability crises – center stage in economics since the classical writers – is related to a technological characteristic of the capitalist mode of production, namely mass production. A strategy often chosen by individual producers to counter declining growth and profitability is to undertake innovations. In many cases these innovations amount to expanding the capitalist mode of production to serve new sectors, regions and domains of life in which this mode did not play a role before. If sufficiently momentous, innovative expansions like these may mitigate growth and profitability crises. But this mitigation comes at the price, it is claimed, of causing a new, different kind of crises. They arise from the fact that the expansion is not neutral with respect to formal and informal institutions in which the economy is embedded. An exemplary discussion of the global environmental degradation crisis and the recent mass migration crisis serves to substantiate the claim.

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## 1. Introduction

Capitalism has been prone to crises from its very beginning. Over time the character of the crises changed, however, as did the theories about their causes. 19<sup>th</sup> century capitalism saw dramatic bank runs, the serial ruin of factories and fortunes, and labor exposed to a humiliating pauperism. Responding to these conditions, Marx (1867) explained the recurrent crises by “contradictions” inherent to a private property based, capitalist mode of production that would eventually lead to the breakdown of capitalism. Yet economic growth gained momentum in the capitalist economies. Other writers were therefore more optimistic regarding the fate of capitalism.

Schumpeter (1912[1934]), the “prophet of innovation” (McCraw 2007), recognized the unsteadiness of the “capitalist engine of growth” (Metcalf 1998). But he insisted that each time the capitalist economy recovered from the recurrent slumps there had been growth and, consequently, a rising “standard of living of the masses” (Schumpeter 1942, Chap.7) rather than an exacerbating pauperism. Indeed, at the level of prosperity reached in the developed economies of today, the still recurring profitability and growth crises are felt less trenchant than a century or a half ago. The crises that dominate the headlines instead figure under catchwords such as “globalization”, “climate change”, and “mass migration”.

The question arises whether these crises, too, are a consequence of the capitalist mode of production. The technological characteristic of this mode is mass production. Capital accumulation takes place to realize the scale economies that mass production makes feasible. If production and accumulation are subject to recurrent profitability and growth crises, do they also exert a causal influence on the new, global forms of crises? The present paper is devoted to a discussion of this question. As will turn out, for an answer a rather long argument needs to be developed.

The starting point is Schumpeter’s observation that alert producers try to avoid or evade profitability crises by innovation strategies. Some of the innovations, sometimes called disruptive ones, amount to an expansion of the capitalist mode of mass production to ever new sectors, regions, and domains of life of the economy in which this mode did not play a role before. But these innovative expansions are not neutral with respect to the formal and informal institutional arrangements in which the economy is embedded. Where the innovative expansions change the conditions and the scope of production and exchange, a potential conflict may break up that is harbored by all living, complex adaptive systems (Wilson 2016). This is the conflict between individually advantageous behavior and behavior that is advantageous to the collective, i.e. the population as a whole. In the economy the conflict is channeled by institutional arrangements that emerge in a collective adaptation process to the prevailing conditions and the scope of production and exchange. Innovative expansions can disrupt these adaptations and the balance between individual and collective interests they support. Sooner or later the existing institutional arrangements then face a crisis.

More specifically, the argumentation in the present paper proceeds as follows. Section 2 outlines how, under conditions of competitive markets and private capital owners eager to earn revenues, mass production sets in motion an accumulation dynamics in an

industry that eventually leads to a profitability and growth crisis. Focus is then directed at the innovative expansions which alert producers initiate in order to evade the crisis and create new sources of revenues. To establish the causal nexus between the innovative expansions and the emergence of institutional crises, Section 3 discusses in a further step in more detail the potential conflict between what is good for the individual and what is good for the group or society, and how the conflict has been channeled over human history by different institutional safeguards. As it turns out, their effectiveness is contingent on the size of the group to which the safeguards have been adapted. A growth of the group size tends to undermine the existing safeguards with the consequence of an institutional crisis. Section 4 and 5 explain how the innovative expansion of capitalism causes in different ways a growth of the size of the relevant group and thus triggers respectively the global environmental degradation crisis (discernable particularly by the climate change) and the recent mass migration crisis. Section 6 presents the conclusions.

## **2. Capitalist Dynamics: Mass Production, Accumulation Crises, and Innovative Expansions**

The crisis-prone development of capitalism has kept economic theorizing busy at least since Ricardo (1813). However, as pointed out by Hodgson (2015), different writers used the notion of “capitalism” with quite different connotations. This resulted in both different perceptions and different explanations of the crises. Marx (1867), for example, saw recurrent crises as the result of an inherent contradiction of the capitalist mode of production and accumulation. Capitalists strive to appropriate surplus. But in his labor-theory-of-value framework the consequence of increasing capital accumulation is that the appropriable surplus shrinks. The average rate of profit therefore tends to fall over time, a tendency that periodically culminates in a breakdown of capital accumulation and slumps in production and employment. While the historical fact that capitalism nonetheless generated economic growth was largely ignored and, hence, left unexplained by the Marxist camp, this fact set the stage for Schumpeter’s (1912[1934]) explanation of capitalist crises. He claimed that capitalism overcomes the recurrent crises by innovations, i.e. ever new ways of expanding its scope in previously unknown ways, and is able to generate economic growth this way.<sup>1</sup> Accordingly, he attributed the recurrence of crises to an unsteady flow of bank-financed innovations.

However, the crises of unfolding capitalism do not only express themselves in symptoms such as temporary profitability squeezes and recurrent slumps in production and employment. Hodgson (2015 Chap. 4) rightly emphasizes that, for a capitalist economy to work, formal and informal institutional arrangements are required. It is not unlikely, therefore, that symptoms of a crisis can also occur at the institutional level. Several questions then arise: do the mentioned global crises now catching the attention reflect institutional crises of capitalism? Are these crises a consequence of the unsteadiness of the capitalist accumulation and innovation process. If so, how does the causal chain work? In

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<sup>1</sup> Schumpeter’s innovation optimism has not been shared everywhere. Keynes (1937), for example, was rather critical of the growth prospects of capitalism. In his view, profitable investment opportunities tend to decline due to an increasing overall market saturation, see Keynes (1930).

order to answer these questions, it is useful to first explain what may be considered the technological core feature of the capitalist mode of production.

A prerequisite of this mode of production is that products can be standardized and the various steps of their production can be decomposed and standardized as well. It is then possible to realize specialization and division of labor in the factory which, as the classical economists already knew, is an important step towards boosting labor productivity. Moreover, on the basis of decomposition and standardization it is also possible to automatize production, i.e. to transfer the task of transforming and relocating material objects to properly programmed machinery driven by non-human energy sources. Once human skills and knowledge have been programmed into machinery, they can be replicated over and over again and in parallel with little or no extra labor being required (which boosts labor productivity further). The production steps can be repeated faster, and often more reliably, in very large numbers. In short, mass production and the associated scale economies can be realized.

The increasing returns which result from scale economies allow to reduce unit costs. Consequently, producers introducing mass production technology to industries still based on a craft production mode enjoy a cost advantage. They can offer lower prices by which they are not only able to out-compete handicraft works but also to vastly expand the scope of the market. The very same effects are behind what happened, and still goes on, in ICT revolution. The only difference is that standardization, automatization, and mass production are now extended to sectors of the economy providing intangible goods and services of communicating, processing, and representing information. Where scale economies and unit cost reductions played much less of role before, they now drive the traditional, labor-intensive methods of communication and information processing out of the market.

In all cases it is of course necessary to invest into automated machinery and related equipment and inputs which presupposes the accumulation of capital. The very purpose of that accumulation is to realize the technological preconditions for mass production – which is why mass production can be considered the capitalist mode of production. From a technological point of view, the particular configuration of the property rights in the accumulated capital (the classical political economy question) is not essential.<sup>2</sup> It matters, however, for the question of what motivates the accumulation of capital. In case of private ownership, the motivation is to earn returns (rents and profits). But to earn profits in free markets it is necessary to gain a competitive advantage. Investing into mass production to reap scale economies is an attempt to do so. As just mentioned, the attempt can be expected to succeed when the competitors still rely on craft production (or, in the case of ICT, on labor-intensive information technology). Once such competitors are driven out of the market, however, only mass producers remain as competitor. To gain a cost advantage over them requires to operate at a larger scale of production (to move down a falling unit cost curve), i.e. to enlarge the production capacity.

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<sup>2</sup> As is well known, in the socialist economies of the 20<sup>th</sup> century, capital has been in communal or state ownership. Yet the purpose of their bold central investment plans pushing industrialization was no less to realize mass production and the related scale economies.

In free markets with private property in capital, capacity decisions are made independently by the producers. This means capacity extensions in the industry are not coordinated *ex ante*. The competitive striving for a cost advantage therefore tends to induce parallel capacity extensions that result in over-capacities in the industry. Market supply grows accordingly and brings the market price down to a level not anticipated by the individual producers.<sup>3</sup> The profitability of the investments made during the competitive expansion is eroded. A crisis emerges in which the industry has to undergo (usually wasteful) capacity adjustments. Some firms go out of business or shut down parts of their production facilities, capital is prematurely depreciated, employment opportunities are lost, net investment breaks down.<sup>4</sup>

In view of the incentives to increase the scale of production, a recurrent crisis resulting from the accumulation dynamics seems almost inevitable. Yet, alert producers can avoid or evade the crisis, if they find ways to escape the cost competition by innovations. The “creative response” (Schumpeter 1947) can take different forms and aim at different ends such as organizational change, technology improvements, product differentiation, etc. For the present inquiry two innovation strategies are important. The first is the expansion and/or off-shoring of mass production to less developed countries. In this way producers may save labor costs and/or costs of regulations of production processes by which they improve their competitiveness at home. But the strategy also implies foreign direct investments by which mass production is introduced to markets in the less developed countries that were previously served by domestic handicraft products. Depending on domestic economic and political conditions the foreign direct investment may trigger a transition to, and a subsequent growth of, mass production in the countries receiving them.

The second strategy focuses on creating new goods and services in order to expand the scope of mass production to domains of life which have so far not, or not to the same extent, been served by mass production. Recent examples of the successful outcome of this second innovation strategy are the mobile phone, the social media services created subsequently, and other new forms of interactive communication. They have been able to open up the domain of socializing and bonding activities for commercial offers of mass product, be it in the form of hardware, software, or content. These examples only add to the long history of how, under the competitive pressure on profitability, mass production has expanded into ever new domains of life. Earlier examples are the automobile industry expanding into all domains of life related to mobility and transforming them; the consumer electronics industry (radio, phono, television) and the complementary content providers

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<sup>3</sup> The decreasing price may in part be compensated by a growing demand. But sales of the same kind of standardized mass products can only grow until market saturation is reached. The leveling off of output growth in mature mass product – a stylized fact in the theory of product life cycles, see Klepper (1996) -- reflects this constraint.

<sup>4</sup> If, by negative multiplier effects, the crisis spills over to other industries, the economy at large may face a slackening aggregate demand, curbing investments further and raising unemployment rates. An argumentation like this was common in the older, today largely forgotten, over-investment theories of the business cycle, among them Schumpeter (1912[1934]), see Haberler (1963, Chap. 3).

transforming the way in which consumers entertain themselves; the tourism industry expanding into the domain of leisure and recreation where it managed to make traveling a mass product.<sup>5</sup>

If they have success with their innovation strategies, producers may be able to leave behind an industry struggling with market saturation and a profitability squeeze. Yet there is a good chance that the new market which they enter with, or create for, their mass production is sooner or later subject to the same competitive dynamics as the market they had left. The affected industries change, but the cause and effect of, and the responses to, an emerging profitability and growth crisis seem to repeat themselves quite similarly. The repercussions which the innovative expansion strategies may cause in the economy and its institutions more broadly are likely to vary with the properties of the innovations introduced. In some cases, however, institutional crises may emerge that follow a common pattern. These crises, it will be claimed, relate to a basic conflict in social and economic interactions. This is the conflict between individual interests on the one hand and the interest of the group or society on the other. Where formal and informal institutional arrangements accomplish a balance between the diverging interests, innovative expansion strategies may disrupt that balance and trigger an institutional crisis. To substantiate the claim, the institution-theoretic background needs to be explained in more detail in the next section.

### **3. Institutional Adaptations: Ambivalence of Social Behavior and the Effects of Increasing Group Size**

A fundamental problem common to all living complex adaptive systems is the potential divergence between individual interests and the interests of the collective (the group or society) to which the individual belongs (Wilson 2016). Behavior that benefits the individual can be at variance with behavior that benefits the collective and vice versa. When such a conflict of interests arises, human social behavior is ambivalent.

On the one hand, humans have a disposition to behave in a way that is individually advantageous and “selfish” in the sense of ignoring the effects of the own choices on others, on the group to which they belong, or on society at large. This mode of behavior is well represented in economics by the *homo oeconomicus* construct. But selfish behavior can take harmful, anti-social forms such as free-riding, deception, dominance striving, and

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<sup>5</sup> Major innovations were often introduced by producers coming from industries that had not only a technological affinity to the newly created products, but also served mass product markets having reached a phase in which the competitive accumulation had started depressing profitability. The mobile phone has been created by producers of telecommunication equipment such as Ericsson and Nokia facing an increasingly saturated market with few national telephone companies as customers. In the case of the automobile, many of the innovators had made bicycles, sewing machines, and other mechanical equipment before. Radio and phono were developed by producers previously engaged in the manufacturing of telegraphs. In both cases the markets for their original products faced saturation early on. Finally, packaged tourism services, though invented by Thomas Cook, were turned into mass products by department stores and mail-order firms in phases when these retailers became aware of declining sales growth rates.

exploitation of others. Such selfish behavior seems to have its deep roots in a behavior trait that is a legacy of our primate ancestors with their opportunistic and agonistic behavior towards their con-specifics. <sup>6</sup> On the other hand, there is an entirely different disposition which seems to be the legacy of the early hominids with their phylogenetically more recent (genetic as well as cultural) adaptations to a high degree of cooperation in the small groups in which they lived. As a result of that disposition humans can be observed to engage in other-regarding, “pro-social” behavior, i.e. in actions that benefit the group, but may involve concessions or sacrifices with respect to the individual’s interests. <sup>7</sup>

Which of the two inherited dispositions governs actual behavior depends on the context. Unlike in large, anonymous groups, other-regarding and pro-social behavior often occurs spontaneously in the family and small groups with intense bonding. The high frequency of rewarding face-to-face interactions in these groups fosters identification with, and loyalty to, the group which, in turn, leads to a high degree of group cohesion. <sup>8</sup> But even these groups are not safe against attempts to free-ride, to deceive, or to strive for dominance over others. To prevent these attempts from doing harm to the group or from undermining pro-social attitudes within the group they need to be kept in check by suitable safeguards.

In a co-evolutionary, i.e. genetic and cultural, adaption process, such safeguards seem to have emerged already in the small groups of the early humans (see Richerson and Boyd 2005). From anthropological research into contemporary hunter-gatherer societies – likely to resemble the small groups and bands of early humans – it is known that they show moral aggression against anti-social behavior and engage in social ostracism. <sup>9</sup> In addition, the spontaneous formation of “blocking coalitions” within the group has been documented especially as a means to constrain harmful forms of selfish dominance striving (Boehm 2001). These safeguards can be considered the midwife of informal institutions such as rules

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<sup>6</sup> Eibl-Eibesfeld (1970, Chap. 5). The influence of heritable behavior traits is subject to the usual genetic variance and the conditioning influence of cultural learning processes.

<sup>7</sup> Under the living conditions in ancestral time, groups cooperating in defense against predators, in hunting efforts, in food sharing, and in child rearing had improved survival and reproduction chances. For that reason, groups with a high frequency of heritable behavior traits and culturally conditioned behavior dispositions favoring cooperation performed better in competition between groups, i.e. in group selection Nowak and Highfield (2012). Growing human cultural learning and imitation capacities enhanced the adaptation process (Bell et al. 2009). In view of the slow pace of genetic evolution, the innate social behavior traits that were shaped by natural selection in the ancestral past should still be present in the human population. For evidence for this hypothesis see Buss (2003, Part 2).

<sup>8</sup> Identification with a group is considered an innate trigger for pro-social attitudes, see Baumeister and Leary (1995), Brewer and Caporael (2006).

<sup>9</sup> Fehr and Gächter (2002), Henrich et al. (2004). Human morality may thus have evolved as an element of safeguarding against anti-social individual behavior that threatened the groups’ competitiveness in ancestral group selection, see Hodgson (2013, Chap.5) for a discussion. The extension of ancient morality tied to one’s identification with the own group to a modern ethic that claims universal validity would then appear an intellectual exaptation in the sense of Gould (1991).

of conduct and their spontaneous enforcement.<sup>10</sup> They can be observed to work ever since in small groups with a high group cohesion. However, it can also be observed that their effectiveness is strongly contingent on the size of the group that prevailed during the preceding adaptation process.

Significant increases in the group size are a trigger of institutional crises that follow a common pattern. When a small group with a high frequency of face-to-face interactions grows into a large group, within-group face-to-face interactions on average go down. If no counter measures are taken, identification with, and loyalty to, the growing group tends to decline accordingly. Group cohesion erodes. The costs-benefit ratio of taking part in spontaneously formed blocking coalitions and social ostracism increases and discourages participation in such collective actions.<sup>11</sup> Safeguards against individual behavior that ignores the group's common interests or even exploits pro-social behavior through free-riding and deception are weakened accordingly. The same holds for the safeguards against harmful forms of selfish dominance striving by strong and unscrupulous group members. Paralyzing infights, subduction, and exploitation are no longer excluded.

In human history these consequences seem to have become endemic for the first time when the population density increased significantly. Once the group size grows beyond a certain threshold, nomadic bands prevent or respond to a crisis resulting in their interactions and their informal institutional arrangements by fission into newly formed, smaller groups and their territorial separation. Yet, the more the population density increases, the less room there is for territorial disintegration. This point can be conjectured to have been reached some fifteen thousand years ago (Boserup 1965). Sedentariness and agriculture replaced the nomadic hunter-gatherer production technology. The fission option being lost, the safeguards against harmful forms of selfish behavior had to be adapted to a significantly larger group size. But agriculture, unlike the hunter-gatherer production technology, requires investments into seeds, livestock, dwellings etc., i.e. the accumulation of corresponding productive means. The accumulation needs had a double effect.

On the one hand, adequate new safeguards became necessary to provide protection for the investors' entitlement rights in the investments and their fruits (without which investment would break down). On the other hand, an effective protection means that the accumulation of personal wealth and, hence, an increasing income and wealth inequality become possible. Wealth owners can back claims to a dominant status and weaken the formation of blocking coalitions against them by buying support from less wealthy. It is not surprising therefore that, in the adaptation process of the enlarged agrarian groups, the egalitarian social structure of the hunter-gatherers was superseded by a new, hierarchical

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<sup>10</sup> The spontaneous formation of blocking coalitions by weaker group members is not least important for keeping in check the dominance striving of stronger group members. Domination by individuals with overriding social skills, charisma, and/or capabilities and experience is, however, accepted as long as it appears as pro-social, i.e. as benefitting the group (Eibl-Eibesfeld 1970, Chap. 4, Boehm 2001).

<sup>11</sup> These effects correspond to a well-known hypothesis in economics going back to seminal work on collective action by Olson (1965). He postulates an inverse relationship between the size of a group and its ability to engage in collective action (ibid. Chap.2).

governance structure. Increasingly consolidated by ceremonial action and religious aggrandizement a few, more or less unconstrained, superiors ruled over the mass of subordinates.<sup>12</sup>

It was this superior-subordinate template on the basis of which the new safeguards against free-riding, deception, and agonistic behavior evolved. Once the template was established it lent legitimation and authority to the superiors to devise rules of conduct dismissing harmful selfish behavior and to mobilize coercive power to enforce the rules – at least as far as the lower ranks are concerned.

The defect built into the new safeguards – that superiors were factually the more exempted from the constraints imposed by the safeguards, the higher their ranks – is characteristic of most of the history of the agrarian epoch. The defect was only overcome by further adaptations, building on the earlier ones, in more recent times and in only few places. In Europe<sup>13</sup> the enlightenment movement and the increasing economic importance of a newly aspiring class of “subordinates” – merchants, bankers, proto-industrialists, civil servants, as well as enlightened members of the aristocracy – changed the prevailing beliefs and self-perceptions. The religious rectification of a divine feudal order was challenged by calls for a rational justification of the role of the sovereign.<sup>14</sup> New and powerful civilian blocking coalitions became feasible. They pressured for formally instituted checks and balances that established effective safeguards against defection of the powerful. As pointed out by Weber (1956, Chap.9, Sec.8), a decisive step was the emergence of an administrative and juridical elite that followed a professional ethos of impartiality and functioned as the backbone of the formal institutions (see also Wegner 2016).

#### **4. The Expansion of Mass Production and the Global Environmental Degradation Crisis**

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<sup>12</sup> When groups grow to a size such as that of the territorial agrarian groups, internal differentiations are likely to occur in the form of subgroups characterized by more intense internal face-to-face interactions. Since individuals can develop identification with, and loyalty to, multiple groups, the emergence of subgroups does not necessarily undermine the cohesion of the larger group (see Hogg and Vaughan 2008, chap.11). If, however, subgroups develop a strong in-group out-group antagonism, multiple identities and loyalties of their members are less likely. While identification with, and loyalty to, the subgroup are strengthened by the antagonism, the opposite is true with regard to the larger group whose cohesion is destabilized.

<sup>13</sup> Already in the Middle Ages the increasing rivalry between sovereigns ruling over different European territories had made it possible again to form effective blocking coalitions. Lower ranked feudal lord could coordinate their threats to withhold resources when higher ranks asked for support in the frequent military and diplomatic conflicts. In this way, higher ranks, particularly the ruling sovereigns, could be forced to seek formal legitimization that not only constrained their actions but also provided a legal basis for the full-fledged feudal estate system (Jones 1987).

<sup>14</sup> A voice clearly expressing the altered views in the British society, at that time leading in the emancipation movement, is Hobbes' 18<sup>th</sup> century *Leviathan* in which the legitimacy of sovereign power is tied to its pro-social use in protecting and defending the subordinate people.

As briefly outlined, formal and informal institutional safeguards have been developed in initially co-evolutionary and later cultural adaptation processes to constrain forms of selfish behavior with a harmful effect on the common good of the collective (a group or society at large). In the previous section it has been submitted that the effectiveness of the safeguards depends on the group size to which they have been adapted and that further adaptations became necessary when the growth of the size of the relevant group undermined the existing safeguards. It will now be discussed how the innovative expansion strategies by which alert producers evade profitability crises inherent to the dynamics of the capitalist mode of production and accumulation can affect the size of the group relevant for controlling harmful selfish behavior. If, as a result, the group size increases, existing formal and informal arrangements tend to lose their constraining power over such behavior leading to an institutional crisis.

The strategy to begin with is the expansion of mass production to less developed economies by foreign direct investment. It will be claimed that this expansion of the capitalist mode of production is causally connected to the occurrence of a crisis of the global environment. To explain the connection it needs to be clarified first what harmful “selfish” behavior means in this context and what existing safeguards are affected. Industrial mass production (and to a lesser extent also mass production in the ICT sector) not only mean to substitute labor by capital and to realize scale economies. It is also associated with a massive increase in what has been labeled the “industrial metabolism” (Ayres and Simonis 1994), i.e. a rapidly growing throughput of materials and mostly fossil energy in production. These resources have to be tapped, processed, and eventually disposed in the form of material and thermic waste. All three stages of the value creation process – extraction, transformation, and dumping – can cause serious damages to collective goods.

Harmful selfish behavior in this context means to contribute as a producer to these damages in order to obtain a personal advantage. Waste emission into the air and water is a cost saving device (at least in the short and medium term), and so is the depletion of non-renewable collective resources, the degradation of soil and groundwater, and ignorance with respect to the diversity of the species. If producers get away with such behavior they gain a cost advantage over competitors who refrain from such behavior. Without effective safeguards against selfish behavior of this kind, all producers will have to adopt it or will be driven out of the market and the environmental resources will be damaged or destroyed (the “race to the bottom” syndrome). Obviously, the basic conflict highlighted in the previous section between the interests of the individual and the interest of the collective turns up here in new disguise.

When the capitalist mode of production expanded during the industrialization process in Europe and North America the existing local informal and formal safeguards against behavior damaging collective resources were not adapted to the unprecedented growth of the industrial metabolism. As a consequence, air, water, soil and other collective resources in the vicinity of the local industries degraded dramatically. With growing experience the problem was soon also recognized in economics as (technological) “externality” (Pigou 1920). This generates social costs which markets fail to allocate. As a remedy Pigou already recommended that the government taxes the activities causing the externality. Also suggested were regulations by government (imposing norms and standards) or the creation an artificial market for trading entitlements to these activities.

Obviously, the recommended safeguards against selfish behavior in this context presuppose formal institutional adaptations. It took more than a century in Europe and North America before environmental regulations and taxation were implemented with a significant effect. The implementation had to overcome the powerful opposition of blocking coalitions in the political process. These coalitions were organized by the producer associations fearing cost and competition disadvantages. Only by reversing the blocking coalitions these influences could be neutralized. But the success was also contingent on the fact that executive and judicative powers with a professional impartial ethos had already evolved by which the safeguards were enforced.

The institutional safeguards effectively constraining the new form of harmful selfish behavior and improving the environmental situation in Europe and North America are adapted to a group size that corresponds to the nation state. However, the strategy pursued over the last decades by alert producers under the conditions of a globalized free trade extends the capitalist mode of production to developing countries (partly actively solicited and supported by the industrialization policies of those countries). As a consequence, mass production expands worldwide to economies which have few or no such safeguards and often also lack uncompromised enforcement agencies. The result is waste emission into the air and water, depletion of non-renewable collective resources, degradation of soil and groundwater, and species extinction now taking place in the developing world with its huge population, by far exceeding in scale and scope the safeguards created in the first world.

Thus, the innovative expansion of the capitalist mode of production has made the conflict between individually advantageous behavior and behavior that would be advantageous to the collective one of a global dimension. This can be noticed most prominently now in the form of the global climate change crisis and its severe implications. For the race to the bottom with respect to the protection of the global commons it is sufficient that mass production in some countries has a competitive advantage in the world market when it saves costs by contributing to the degradation of the global commons. Indeed, a good part of the changing division of labor associated with the present “globalization” can be conjectured to be driven by precisely a competitive advantage of this kind. With the relevant group size now extended to the global level, adaptations of the institutional safeguards against harmful selfish behavior – environmental regulations and taxation – would be required in order to avoid a tragedy of the global commons and aggravation of the climate change crisis.

A lesson from previous adaptations of the institutional arrangements to an enlarged group size is that there will be forces defending selfishness in this context and downplaying its harmful consequences. This time it will not only be national producer organizations, but also entire nation states that oppose and resist constraining efforts. The remedy that works against these forces will again be organizing blocking coalitions (or reverse blocking coalitions) pressuring for regulations and taxation. Where it worked previously at the level of the nation state it would now have to work at the level of *all* nation states – the largest possible group which, moreover, is highly fragmented due to differently developed institutional and economic conditions. This hurdle notwithstanding there are efforts under way within the framework of the United Nations Organization world climate conferences to organize such coalitions. The 1997 Kyoto-protocol is a step in that direction.

However, all international treaties reached so far are rather noncommittal and contingent on the good will of the various nation states in honoring their commitments. There is neither an international enforcement agency nor is it clear on what coercive means such an agency could rely in order to force nation states to comply with international environmental regulations. In addition, the efficacy of any such agency would strongly hinge on the professional and impartial ethos of its staff, an attitude that needed centuries to develop in Europe and North America and may also need considerable time to develop in other regions of the world. Indeed, a sobering lesson from all successful adaptation processes of the institutional safeguards against harmful selfish behavior in human history is that they always took a lot of time. In view of the critically degrading global commons, particularly the potential tipping point problematic of climate change, the most important lesson to be learned from history may therefore be that all attention should be directed at a dramatic, unprecedented *acceleration* of the institutional adaptation process.

## **5. Innovative Expansion of Mass Production and the Recent Migration Crisis**

Human social behavior has been argued to be ambivalent. Depending on the context, it can be “selfish” in the sense of ignoring the effects of the own choices on others. Or it can be other-regarding and pro-social, even at the expense of the individual’s own interests. Formal and informal institutional arrangements can be observed to emerge as safeguards where selfish behavior threatens to do harm to the collective or group. These safeguards are adapted to the respective group size and may lose their power in case of a significant growth of that size. The innovative expansion of mass production can cause an enlargement of the group size and thus trigger a crisis of these safeguards. Indeed, this effect, it will now be claimed, also results from the second innovation strategy by which alert producers evade emerging profitability crises that are inherent to the dynamics of the capitalist mode of production and accumulation.

That strategy focuses on creating new goods and services in order to expand the scope of mass production to domains of life which have previously not, or not to the same extent, been served by mass production. The case to be discussed here is the innovative expansion of mass production to the information and communication industry. More specifically, focus will be on the consequences of the disruptive innovations both in hardware and content: the mobile phone, internet-based information dissemination and advertising, and the social media services. These innovations have triggered an institutional crisis which, on first sight, does not appear to relate to the innovative expansion, namely the recent mass migration crisis. The causal connection becomes clear, however, when the conditions are examined more closely under which – mostly young – people in the emigration countries take the incisive and risky step to leave their home and the group in which they grew up.

Mass migration recently perceived as critical in the immigration countries – mostly in the highly developed regions of Europe and North America – refers to the uncontrolled movement of huge numbers of emigrants from countries with significantly less favorable living conditions in the Middle East, Black Africa, and parts of Asia. As mentioned in Section 3, the poor conditions in the emigration countries are due to a lack of safeguards

against selfish dominance behavior of those in power and their allies. Neo-patrimonial governance structures characterized by a lack of checks and balances, corruption, repression, and absence of rule of law (see Eisenstadt 1973) are associated with political suppression and economic stagnation. Even worse are cases in which a failed state prevails, i.e. anarchy and civil war. Under such conditions, other-regarding and pro-social behavior can be expected only, if at all, in the family and small neighborhood groups with intense face-to-face interactions. Investment activities and capital accumulation are impeded, and the majority of the population faces poverty, unemployment, or exploitation.

In historical perspective, poverty and repression following from the fact that safeguards against harmful dominance behavior are lacking is certainly nothing new or exceptional (see the discussion in Section 3). Nor is it something new when those who suffer from such conditions consider emigration as an alternative. There have been many migration waves earlier in history that were driven by the hope to conduct a better life elsewhere. What is new is the influence of massive world-wide flow of information revealing the extreme discrepancies of the living condition in different regions of the world. This information is provided by internet-based communication devices, mobile phones, and social media services.

As a result of their socialization humans have a natural tendency to identify themselves and feel emotionally tied to the group in which they have been raised, which they frequently interact with and are most familiar with. Although there are exceptions (individuals opposing tradition and feeling attracted to unknown territory), group identity and solidarity are strong barriers that tend to prevent people from reflecting about leaving their place in the native social environment. Under poor living conditions the binding force is the less challenged, of course, the less information there is about alternatives associated with migrating to a different place and the less familiar the conditions in those place are. Large migration waves in recent history have therefore been supported, if not induced, by propagation agents advertising emigration options associated with concrete personal benefits.<sup>15</sup>

However, in the case of the present mass migration wave there is no such active solicitation. Instead, the mass production and, accordingly, the low price of internet-based information and communication hardware and the provision of content and social communication services at low or no pecuniary costs to the users has created an unprecedented international availability of information. It not only allows to make comparisons by which particularly the younger, technology-minded inhabitants of in poor and badly governed countries can learn about how much different life could be. The information accessed often enough also presents an image of life in the first world that is typical for the commercial advertisement and entertainment industry: a grotesque overstatement of the easiness, affluence, and laissez-faire lifestyle in those countries.

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<sup>15</sup> An example is the active advertisement of land grants by colonial agencies in countries such as Britain, the Netherlands, Portugal, and Spain in order to establish settlements in unsettled regions of their colonies in the 17<sup>th</sup> and 18<sup>th</sup> century, see Page and Sonnenburg (2003).

By continued exposure to the biased, rosy portrayal a good part particularly of the receptive adolescent part of the population is lured into an illusionary familiarity with that lifestyle, into a wishful identification with a phantom group, the “young and dynamic Western people”. The traditional identity and the emotional ties to the native home and the group to which one belongs are undermined, and so is the barrier against “selfish” (in the sense of discounting or ignoring the impact of the own decisions on others) reflections about whether or not to leave. The more concrete the imagination of participating in the better life in the immigration country becomes, the more likely the incisive and risky emigration option will be chosen and the loss which the departure means for those left behind will be discounted. As more and more migrants communicate back via mobile phone and the social media how they carried out their plan, a self-augmenting pro-emigration attitude can be expected to emerge and trigger a mass migration.<sup>16</sup>

The mass migration induced in this way can be seen as a confirmation of the economic group selection hypothesis launched by Hayek (1988, Chap. 1). In his attempt to prove the superiority of capitalist free market societies he argued that these societies have the more effective formal and informal institutions and therefore perform better economically. Their better performance attracts migrants so that these societies also grow in population size and eventually outcompete their rivals despite the fact that their own birth rates are significantly lower (see Beck 2018 for a detailed discussion). In view of the large discrepancy of the birth rates between the rich countries in Europe and North America and the emigration countries in the Middle East, Africa, Latin America, and parts of Asia further increases of the migration pressure to which Europe and North America are exposed can indeed be expected. However, the effects of a growing mass migration to the latter regions are not necessarily as beneficial for their societies as Hayek’s optimistic assessment suggests. Mass migration is widely conceived as causing a crisis, after all.

The ability of a society to integrate migrants decreases the more so the larger the share of migrants in the population becomes who have been socialized in very different cultures and are used to different rules of conduct. A frequently observed consequence is a segregation of immigrants along ethnic and religious lines. It tends to result in subcultures fostering an in-group out-group antagonism<sup>17</sup> by which social cohesion is restricted in the indigenous population to their likes and among immigrants to the own ethnic or religious group. Conflicts that occur provoke a now widespread populist political polarization. Moreover, with an increasing number of insufficiently integrated migrants, the existing formal and informal institutional safeguards against harmful selfish behavior may be weakened with consequences that have been described before. Contrary to Hayek’s expectation the advantage in terms of his economic group selection hypothesis arising from attracting migrants may thus turn in its opposite, namely a mass migration crisis.

Once again the institutional crisis induced by the innovative expansion of the capitalist mode of production ultimately relates to the conflict between individual and collective interests and the size of the group relevant for defusing the conflict. Quite

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<sup>16</sup> The frequency-dependency effect that is implied here is a well-known feature supporting the emergence of self-augmenting migration dynamics, see Haag and Weidlich (1986).

<sup>17</sup> See footnote 12 above.

naturally, a migrant dissatisfied with the living conditions in his or her native home and lured into an rosy perception of life in the first world does not consider the potentially detrimental effects of his or her migration decision on the institutional safeguards in the country to which he or she moves. But as an uncontrolled mass phenomenon such decisions can sum up to a wave that threatens to destabilize those safeguards. To prevent this, it would either be necessary to tackle the causes of the migration, or to find some way of regulating the freedom to move and settle. In any case, migration would have to be constrained to levels at which a successful integration of migrants is possible. However, the innovative capitalist expansion process has enlarged the size of the group relevant for accomplishing such adaptations. It now exceeds the size of the nation state and includes the entirety of the countries connected by the migration streams. (There is, of course, also the solution that countries exposed to mass migration cut off migration streams unilaterally by closing and defending their borders more or less violently.)

Realizing any of the two alternatives – eliminating the causes of migration in the countries of origin or creating regulations of migration streams and enforcing them – does not appear very realistic, at least in the short run. Even the blocking coalition strategy that has so often been a prime mover in the institutional adaptation process does not seem to have good prospects in this case. The unprecedented international availability of information could theoretically be neutralized as a cause the crisis by technically constraining information dissemination. (The technique is already practiced by dictatorial regimes in their respective territories.) But this option would contradict the enlightened idea of freedom of information as a value in its own. Moreover, it would contradict the very business model of the powerful information and communication industry – Apple, Google, Facebook, and company.

The poor living conditions in the emigration countries could be eliminated as a cause by creating better institutions (see Acemoglu, Johnson, and Robinson 2002). This option has already been pursued by international developmental agencies and development banks since long with rather mixed success. The main reason for institutional failure is unlikely to be remedied quickly, namely the lack of institutional safeguards against selfish dominance behavior of the political elites in the emigration countries.<sup>18</sup>

As in the case of international environmental regulations, the prospects of reaching and enforcing an international agreement regulating the migration streams would require an agency that does not yet exist. It is presently not conceivable whether it could be rapidly created and if it could be endowed with coercive means. (If so, however, the use of such means by such an agency would presumably not make much difference from how individual countries would defend their borders unilaterally more or less violently against illegal migration.) It does not seem unlikely therefore that a rather one-side fencing-in and walling-up against migrants on the part of the countries exposed to mass migration will be the future and dictate the conditions for further adaptations.

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<sup>18</sup> Spolaore and Wacziarg (2017). The fate of the “Arabic Spring” in recent years is a disillusioning example.

## 6. Conclusions

In this paper it has been argued that a causal nexus exists between the recurrent profitability and growth crises of the capitalist mode of production and the institutional crises reflected by the global environmental degradation and the present mass migration crisis. To explain the causal nexus a long argument has been developed. It started from the technological characteristic of the capitalist mode of production, namely mass production. The capital-based mass production mode generates scale economies that allow productivity increases and unit cost reductions. However, under conditions of competitive markets and private capital owners wishing to earn revenues an accumulation dynamics is set in motion that eventually induces profitability and growth crisis in the mass product industries. The fact that, in the longer run, capitalism nonetheless thrives and improves the standard of living is now commonly attributed to innovative activities of alert producers as suggested by Schumpeter. Some of these innovations amount to an expansion of the capitalist mode of mass production to ever new sectors, regions, and domains of life of the economy in which this mode did not play a role before.

In a next step it has been argued that these innovative expansion of mass production are not neutral with respect to the formal and informal institutional arrangements relating to a basic conflict in social behavior solved. This is the potential conflict characteristic of all (living) complex, evolving systems between individually advantageous behavior and behavior that is advantageous for the group or society to which the individuals belongs. The safeguards by which societies try to contain harmful forms of selfish behavior are contingent on the size of the group to which the safeguards have been adapted. This size increases, it has been claimed, as a result of the innovative expansion triggering a crisis of the existing safeguards.

In the case of the global environmental degradation crisis the institutional adaptations that kept environmentally harmful behavior in check at the national level are undermined by the expansion of mass production to the developing world in which such adaptation have not yet been accomplished. In the case of the global migration crisis the natural tendency to identify oneself with, and feel emotionally tied to, one's native social environment is undermined in the less developed emigration countries by the expansion of mass production to the information and communication industry. More specifically, this is the innovative mass production of both hardware such as the mobile phone and content such as the internet-based information dissemination and advertising, and the social media services that has caused an unprecedented international availability of information. This not only allows to make comparisons by which almost everyone in poor and badly governed countries can learn about how much different life could be. The information is also drawing a biased, rosy portrayal that lures particularly of the receptive adolescent part of the population into an illusionary identification with a phantom group, the "young and dynamic Western people", and damages their traditional identity and the emotional ties to the native home. "Selfish" considerations (in the sense of discounting or ignoring the impact of the own decision on those left behind at home) of choosing to emigrate become more likely and the number of those in fact taking the incisive and risky step go up massively.

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