

Introductory Chapter: CAPITALISM – ANALYTICAL AND HISTORICAL DIMENSIONS

Abstract

Since the end of the Middle Ages a new mode of production took hold of human societies: Capitalism. This new book tries to improve our understanding of its basic mechanisms as they appear along the lines of its analytical and historical development. Capitalist societies manifest themselves as systems of political economy. They are political – meaning that they organise power relations via direct coercive power and institutional power – and they are at the same time economic frameworks – meaning that they enable and stabilize the reproduction of society. A more adequate formalisation of our contemporary global political economy so far has not been proposed, but the chapters of this book shall be elements necessary to put together such an enhanced wholistic perception. As capitalism seems to arrive to the end of its capabilities – in particular with respect to the looming environmental collapse – such a reconceptualization becomes urgent.

Keywords: Global political economy, Social Dynamics, Scientific Progress, Evolutionary Theory

1 – Capitalism running out of steam

This book aims to provide insights into the essence of the current mode of production, into capitalism. It appears at a time when capitalism has reached an unprecedented level of influence with respect to almost all areas of human life. It is *global*, meaning that the whole world, the entire territory inhabited by the human species is penetrated by capitalism. It has not only conquered the dynamics shaping the macroscopic movements of human institutions – ever larger corporations dominating the ways what is produced with which means of production, and for whom; nation states consolidating class struggles and leading wars, etc. – capitalism has also entered the microscopic sphere of the interpretations shaping the decision processes of single human individuals. The shadow of a capitalist algorithm tends to force human individuals to behave like tiny ego-firms, short-term maximisers of an imagined private capital stock. In a sense, this extension into individual thought processes is a complementary process to macro dynamics, it tends to produce a kind of *absolute* capitalism¹. In short, the success of the capitalist mode of production in spreading its message cannot be denied.

Nevertheless, the recent two decades in the new millennium were characterised by **severe crises of capitalism**: The Great Financial Crisis of 2009, the European migration crisis, the Corona pandemic, the approaching Climate Collapse, to name just a few. And this happened despite an exceptionally promising end of the previous millennium – at least for the proponents the capitalist mode of production². Communism and socialism had been given up by Russia, China's cooperation as part of global capitalism seemed to be secured. The two World Wars of the 20th century could be explained as anomalies, Fascism and Racism were ghosts of the past. Capitalism could be celebrated as the final best world that history had led the human species to live in. What a harsh waking up in the 21st century!

It should not have been a surprise that mankind will not return to a heavenly paradise. Even a most successful mode of production (say from 1500 till now) is only an episode in the finite

¹ Compare (Hanappi, 2025).

² Compare (Fukuyama, 1992)

existence of a species. And as the philosopher Hegel already wrote, ‘The owl of Minerva takes flight only at dusk.’ Only now, when the episode of capitalism approaches its end, we can see clearer what the essence of its historical mission was, what the problems are that will mark capitalism’s end. They will as well be the obstacles, which a possible next progressive mode of production will have to master. Of course, when the owl of Minerva starts to fly it first will have to look around, take stock of the available different perspectives on capitalism. This is what the chapters in this book try to provide.

2 – Analytical and historical sciences as reasons for hope

A major contribution of the capitalist mode of production consists in its **development of knowledge as a commonly shared treasure of mankind**. The many material conveniences that capitalism enabled usually overshadow the role that scientists, who took human understanding out of the hands of the religious darkness of the Middle Ages, played. There indeed is a wealth of trajectories of human knowledge that provided the necessary background for the surprising plethora of goods and services brought about by innovative firms³. It is this, often ignored analytic dimension that makes capitalism the executive force of enlightenment. We have to acknowledge how Galileo, Descartes, Euler, Gauss, Leibniz, Newton, Voltaire, Adam Smith, Karl Marx, Darwin, Maxwell, Goedel, John von Neumann, Einstein, Schrödinger and many others made our world accessible by their analytical contributions. Only then, we – the contemporary generation of scientists – will be able to stand ‘on the shoulders of giants’ (Isaac Newton, 1675) again. To enhance analytic foundations is an extremely difficult task. The standard trick of the capitalist era, namely division of labour⁴, has led to an unsurmountable split-up of scientific disciplines. In particular, the science of political economy, which combines the above-mentioned macroscopic sphere with the microscopic sphere of individual thought, depends on profound synthetic work across disciplines. The capitalist mode of production has led science to this state of affairs, but the remaining synthetic efforts mostly go beyond the possibilities enabled by capitalist corporations looking for profits; in particular as far as the looming environmental problems are concerned. John von Neumann and Oscar Morgenstern felt these substantial difficulties to develop an **analytical breakthrough to describe social systems** already in 1944 when they formulated game theory. ‘The importance of the social phenomena, the wealth and multiplicity of their manifestations, and the complexity of their structure, are at least equal to those in physics. It is therefore to be expected - or feared - that mathematical discoveries of a stature comparable to that of calculus will be needed in order to produce decisive success in this field. ... *A fortiori* it is unlikely that a mere repetition of the tricks which served us so well in physics will do for the social phenomena too. ... These observations should be remembered in connection with the current overemphasis on the use of calculus, differential equations, etc., as the main tools of mathematical economics.’ (Neumann and Morgenstern, 1944, p. 6). The two fathers of game theory did not expect that such a fundamental analytical breakthrough will happen during their lifetime; in physics the distance from the descriptive work of Tycho de Brahe (1546-1601) to the analytical revolution of Isaac Newton (1643-1727) had been around hundred years. Given the backwardness of political economy the hopes for a new pivotal

³ Compare (Smil, 2021), who produced a remarkable account of the transitions enabled by scientific progress.

⁴ At the firm level this is the topic of Taylor (Taylor, 1911), while at the macroscopic level it is the core of Adam Smith’s ‘The Wealth of Nations’ (Smith, 1776).

analytical revolution still are minuscule. The contemporary hype of a marketing-initiated technological fashion labelled 'Artificial Intelligence' certainly does not count as such an event. But it is significant for an earlier stage of scientific progress, which Neumann and Morgenstern describe with respect to game theory as follows: 'This preliminary stage is necessarily *heuristic*, i.e. the phase of transition from unmathematical plausibility considerations to the formal procedure of mathematics. ... At this early stage the application serves to corroborate the theory. The next stage develops when the theory is applied to somewhat more complicated situations in which it may already lead to a certain extent beyond the obvious and the familiar. Here theory and application corroborate each other mutually. Beyond this lies the field of real success: genuine prediction by theory. It is well known that all mathematized sciences have gone through these successive phases of evolution.' (Neumann and Morgenstern, 1944, pp. 7-8). The analytic dimension of the capitalist mode of production with respect to its self-understanding – to understanding of the global political economy – evidently so far has not reached beyond some outdated analytical tools provided by natural sciences. What the chapters in this book can provide is only a kind of *implicit* analytical method. Eventually it is built on the classical ideas of dialectics – on the succession of doubts, variety, creativity and test – and eventually it is built on the emerging understanding of quantum theoretic considerations in physics. Both routes today clearly are bound to remain heuristic, pretty preliminary, and as such they point explicitly at the *historical* dimension of capitalism.

This historical dimension of the capitalist mode of production can be approached in a much more straightforward way⁵. It is evident that historians educated and working in the centres of capitalism in Europe and Northern America usually had the bias to describe the way towards their own capitalist country as a success story. In doing so they relegated the rest of the world to be only *developing* countries. Note that this already includes the assumption that capitalism is a kind of goal, even of an endpoint of human development. More precisely, it is assumed that the capitalist algorithm is characterized by infinite flexibility, is able to overcome any kind of impasse it encounters in the finite world inhabited by the human species. Seen from this perspective, *capitalist ideology is a religious belief*.

But religious ideologies typically include an internal enemy, which has to be repeatedly overcome to confirm the superiority of the supreme dominator. The belief in the eternally continuing survival of this supreme dominator, vulgo God, is what distinguishes religious from scientific approaches. Scientific historians also see and describe emerging contradictions in societies. They structure history into phases of relatively stable ages with the same form of central social mechanisms, e.g. capitalism, some shorter stages within these stages, e.g. industrial capitalism, and then rather short transition periods – sometimes called revolutions – that cut into the long-run evolution. There is no endpoint necessary, what is of interest is to describe how contradictions along each of these time frames emerge, grow stronger, and eventually explode to give room either for new creative solutions or to simple extinction. What is of utmost importance is that the direction of historically emerging contradictions – the shortest line between opposing forces – often changes, creates new opposing forces.

It is this procedure of the scientific historian, which distinguishes her or him from the apologetic priest of capitalism, that refers back to the hope for the next breakthrough in

⁵ A classic contribution is (Hobsbawm, 1975).

analytical methods mentioned above. The preliminary stage of analytic scientific progress has to be filled by narratives, by heuristic stemming from the research of scientific historians. This book shall be read as a collection of selected pieces for a mosaic of a future global political economy. The owl of Minerva just has started its flight; we can only hope that it is not too late to prevent a new Middle Ages.

Literature

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