

## **Hegemony within the ecological crisis: The China case.**

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### **Abstract:**

How can the concept of hegemony be reframed in light of the incumbent ecological crisis? This paper argues that the capitalist clash between the US and China should be analyzed by embodying the challenges imposed by climate change on the opportunities to carry on the reproduction of mankind and nature on the planet. Adopting the world-economy (Arrighi) and the world-ecology (Moore) approach, the paper outlines how China's hegemonic attempts seem to be far from representing ecologically sustainable development paths. After an in-depth theoretical exposure to the need to overlap Arrighi's works on China and hegemony with an understanding of capitalism as an 'ecological regime' proposed by Moore, the paper addresses two main issues on China's hegemonic strategy. On one hand, it will be discussed the Belt and Road Initiative (BRI), meant as a 'spatial fix' aimed at relaunching global accumulation amid an overproduction crisis. On the other, the technological run was taken by China to challenge the US current limping hegemony. The first issue will be defined as detrimental to any ecologically sustainable development project, as for the second one, it will be pointed out the insufficient attention paid by China to promote technological breakthroughs able to raise land profitability, meant as a 'technological fix' able to lower ecological and reproduction costs.

## Introduction

This paper will attempt to bring together two fundamental nodes intersecting international relations, capitalist development and the looming climate crisis.

On the one hand, there is a growing need to understand the confrontation between the US limping hegemony and China's ambitions. On the other, there is the need to relate this inter-capitalist competition to the drama of climate change and the ecological sustainability of human reproduction on earth.

This paper will be mainly oriented toward building consensus around the formulation of this research guide.

The first paragraph provides an overview of 'world-systems' theories, focusing specifically on Giovanni Arrighi's interpretation of capitalism as a succession of hegemonies and systemic cycles of accumulation. This reconstruction should enable the reader to understand the two main evolutionary features on which the alternation of systemic cycles and the succession of hegemonies are based. Firstly, the spatial reorganization of accumulation on a larger geographical scale than that experienced by the previous cycle. Second, is the ability of the hegemon to internalize new costs into the capitalist mode of production. In this regard, we will focus on the 'costs of nature and reproduction', identified by Arrighi as the next frontier of the ascendant hegemony.

The second paragraph illustrates Jason Moore's ecological update to Arrighi's theory of accumulation cycles. Indeed, his formulation of capitalism as a full-fledged 'ecological regime' allows us to understand why the long-term clash between the US and China can be interpreted as the quest for 'ecological hegemony'.

The third paragraph discusses why China is far from being an 'ecological hegemon'.

Firstly, the absence of conditions for China to produce an ecological surplus capable of solving the US crisis will be highlighted. Second, we focus on the inherent contradiction between the further spatial expansion of accumulation and the ecological sustainability of the system. This potential spatial expansion is traced in the physical and social infrastructure announced with the new 'Silk Road'.

## **World-systems theories: from the CEPAL's group to Wallerstein's work.**

The 'world-systems' theoretical strand is a paradigm of Marxist-inspired historical sociology that originated at Binghamton University (New York, USA) in the late 1970s and early 1980s with the individual and collective publications of the 'gang of four', consisting of Immanuel Wallerstein, Samir Amin, Andres Gunder Frank, and Giovanni Arrighi (1982, 1990).

The theoretical and semantic origins of this strand can be traced back to the 'dependency theory' developed in Latin America in the post-war period by the CEPAL group, a collective of academics so named since they were members of the 'Comisión Económica Para América Latina y el Caribe' established within the United Nations.

As early as 1950, Raul Prebisch, executive director of the aforementioned Commission, proposed a 'structuralist' thesis on the relationship between the global economic system and the persistent underdevelopment of certain areas of the planet.

It is to the Argentinian economist that we owe the theoretical and semantic insight that the global economy is stratified between an economically and militarily predominant 'core' and a weak 'periphery' systematically exploited through technological and commercial dependence (Prebisch, 1950; Philips, 2013).

While such a reading seems widely debated today, in the 1960s the academic environment of economics faculties was monopolized by 'modernization theories'. These justified the lagging development of the 'global south' through ethnocentric axioms that non-white peoples would catch up by merely imitating what the west had done, summarized in the adoption of the combination of liberal democracy and free markets.

The first to take up Prebisch's lexicon and adapt it to his early formulations on world-systems theory was Wallerstein who, during the 1970s, identified two nodal macro-conflicts of the capitalist world-system. Firstly, the well-known Marxist dialectic between the bourgeoisie and the proletariat. Secondly, the Binghamton Professor conceptualizes the capitalist system as a single, integrated world-system, theorizing a spatial hierarchy between 'core', 'periphery' and 'semi-periphery', geographically shaped by the cyclical rhythm and secular transformations of the capitalist system that have occurred since the 17th century (1974, 1979). When observed from the point of view of the labour force and production, these three 'spaces' constitute an international hierarchical division of the labour factor capable of dissecting the global value chain between a 'core' producing high-value-added goods and services, and a 'periphery' on the fringes of the technological scale, and a dynamic 'semi-

periphery' area, namely one 'space' capable of combining elements of economic backwardness and development planning, when this is compatible with the political will of the 'core' (development by invitation: Wallerstein 1979, p.76).

This spatial tripartition is nurtured and governed by a hegemonic power that enjoys both technological, military and financial superiority and a recognized political leadership over the states that constitute the 'core' of the capitalist system. (Wallerstein 2004, p.94)

However, in the author's view, this hierarchical system is not static but marked by conflicts for hegemony both within the 'core' itself and from the quest for the autonomy of semi-peripheral state actors.

The introduction of the concept of hegemony and the constant unrest inherent in the system impose conceptual clarifications and allow for the introduction of the definitions and theoretical evolution elaborated by Arrighi from his early writings such as "Geometry of Imperialism" (1978) to the famous trilogy on the origins and transformations of global capitalism consisting of '*The Long 20th Century*' (1994, cited edition 2014), '*Chaos and World Government*' (with Silver 1999, cited edition 2006), and '*Adam Smith in Beijing*' (2008). In the next section, after outlining Arrighi's definitions of 'imperial order' and 'hegemony', I will expound on his theory of systemic cycles of accumulation, focusing in conclusion on their evolutionary dynamics. This theoretical framework is central both to justify the choice of China as a case study and to understanding Jason Moore's theories on capitalism as a full-fledged 'ecological regime' (2010, 2012).

### **Arrighi's hegemony and systemic cycles of accumulation.**

Since the first collective publication of the 'gang of four': Dynamics of Global Crisis in 1982, Arrighi focuses his analysis on the 'crisis of hegemony' experienced by the US imperial order in the chaotic 1970s. By the term 'imperial order', the Italian author means a manifestly hierarchical inter-state system characterized by prolonged peace, thus not to be confused with the concept of imperialism as the 'supreme phase of capitalism' developed by Lenin (Arrighi, 1978). US hegemony is not inherent to their military superiority but is based on the broad consensus obtained in the post-war period through the promotion of three processes: the American ability to rebuild and secure a global market, the transnational expansion of capital, and the spread of Fordism and Taylorism, understood not only as production paradigms but as new types of social relations (Arrighi 1982, pp.57-59).

Arrighi is among that group of academics who translate the Gramscian concept of hegemony from the sphere of power relations between dominant and subordinate classes to the sphere of inter-state relations.

"The concept of 'world hegemony' adopted here, in contrast, refers specifically to the power of a state to exercise functions of leadership and governance over a system of sovereign states." (...) This power is something more and different from 'domination' pure and simple. It is the power associated with 'dominance', expanded by the exercise of 'intellectual and moral leadership'. As Antonio Gramsci emphasized (...) hegemony will be understood as the additional power that accrues to a dominant group by virtue of its capacity to place all the issues around which conflict rages on a universal plane" (Arrighi, 2010, p. 29).

The centrality of the concept of hegemony, and its crisis, accompanies the author's entire production, leading him to provide a broad and fascinating definition of the development of capitalism as a succession of global hegemonies and systemic cycles of accumulation (Arrighi 2010, p.85). After having clarified the meaning of hegemony and the imperial character of the US order, both conceptual axes widely used in the various theoretical formulations of world-systems, it is necessary to introduce the specificity of Arrighi's theory: the systemic cycles of accumulation.

Underlying the theory of accumulation cycles is Marx's formula of capital formation (or investment cycle): M- (Money) C- (Commodities) M' (Money), which is divided by Arrighi into two distinct phases of capitalist value creation.

The first part of the formula (M-C) corresponds to the initial moment of the hegemonic cycle when it experiences a phase of 'material expansion', which manifests itself in the ability to allocate capital in the best combination of subjective (labour) and objective (means of production) factors of production to increase (accumulate) the invested M (Arrighi 2010, pp.6-9).

This upward phase is interrupted by the process that Marx described in his law on 'the tendency of the rate of profit to fall', namely, the impossibility for capital to find adequate returns on investment due to the intensification of competition in the material dimension of the economy, in other words, in the production-business sector.

This is a crisis of over-accumulation, which occurs when: 'there is a surplus of capital seeking investment and when the productive and commercial sectors are saturated: inter-capitalist competition, therefore, allows real wages to flourish at the same or a higher rate than labour productivity' (Azzolini, 2018, p.112)<sup>1</sup>.

Indeed, when the material expansion of the productive forces reaches its limits due to competition, investment in the material economy becomes increasingly risky, prompting the accumulator to accentuate his preference for liquidity, which creates the supply conditions necessary for financial expansion.

In the lexicon adopted by Arrighi, this 'critical transition' from a phase of 'material expansion' to a 'financial' one is referred to as a 'signal crisis' and, as far as the US cycle is concerned, is identified with the end of the gold exchange standard in 1971 (Arrighi 2010, p.220).

Thus, the intrinsic increasing competitiveness of the system, theorized by Marx, in Arrighi becomes the transitional moment in which a hegemonic cycle passes from a material sphere of accumulation to a financial one. The latter is represented by the second part of the Marxian formula, C-M', in which money, not finding adequate returns on investment, "autonomizes" itself, becoming an "absolute commodity" and reproducing itself without the process of the "commodity metamorphosis" but "by purely financial channels" (abridged Marxian formula M-M') (Arrighi 2010, p.9).

This phase ends with the outbreak of a second, so-called 'terminal crisis', i.e., the end of the expansion of the dominant accumulation regime.

A crisis of overproduction is determined by the ability of capitalists "to transfer competitive pressure onto labour power, so that real wages do not keep pace with productivity increases and aggregate demand does not expand at the same rate as supply" (Azzolini 2018, p.113).

This could be identified with the 'great recession' of 2007-08 which, in line with the author's studies, sees its epicenter in the financialization of the US economy and the imbalance between global aggregate supply and demand. The alternation of these two phases and their crises constitute what Arrighi calls a 'Systemic Cycle of Accumulation'.

The historical establishment of this model and its evolutionary dynamics remain unresolved. In 'The Long 20th Century', Arrighi, drawing on the studies of Fernand Braudel, proposes chronological anticipation of the birth of the capitalist world-system from the 17th century proposed by Wallerstein to the 14<sup>th</sup> century (Braudel, 1977; Arrighi, 2010).

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<sup>1</sup> The translation of the quotations from Italian to English has been made by the author.

Indeed, in Arrighi's theory, the prodromes of the capitalist world-economy can be traced back to the city-state system of late medieval Italy and he configures four distinctive elements:

"The accumulation of capital from long-distance trade and high finance, the management of the balance of power, the commercialization of war and the development of residential diplomacy thus complemented one another and, for a century or more, promoted an extraordinary concentration of wealth and power in the hands of the oligarchies that ruled the northern Italian city-states" (Arrighi 2010, p. 40).

This system of city-states, having experienced the success of material expansion and faced the autumn of its financial dimension had to give way to ascendant hegemons.

Figure 1: Evolutionary Pattern of World Capitalism.

Leading Governmental Organization	Regime Type/Cycle		Costs Internalized			
	Extensive	Intensive	Protection	Production	Transaction	Reproduction
World-state		US	Yes	Yes	Yes	No
Nation-state	British		Yes	Yes	No	No
		Dutch	Yes	No	No	No
City-state	Genoese		No	No	No	No

Figure 1 shows the evolutionary dynamics of world capitalism theorized by Arrighi. The first column shows the evolution of the type of dominant governmental institutions, from the City-state form of the Genoese cycle to the US World state via the hybrid forms of Holland and Great Britain. Holland as seen in the third column is placed between the form of city-state and nation-state, while British hegemony is placed as something superior to a nation-state but not capable of representing a World-state.

The second column defines the vocation of the accumulation regime by dividing it into two categories: extensive or intensive. The term extensive refers to an economy that cannot 'be grasped within the national context: (as) this unity is broken, and can be rediscovered only on a world scale. The category intensive refers to economies whose "constituent elements, (branches of production, producers and consumers, capital and labour, etc.) are integrated organically into a single national reality" (Arrighi 2010, pp.289-290).

Thus, a first evolutionary character of the ascendant hegemon 'has been based on the formation of ever more powerful cosmopolitan-imperial (extensive regime in Figure 1) or corporate-national (intensive regime) blocs of governmental and business organizations, endowed with the ability of widening (or deepening) the functional and spatial scope of the capitalist world-economy" (Arrighi 2010, p.225)

Leaving aside the dialectic between intensive and extensive regimes, I will focus on the meaning of 'deepening the spatial scope of the capitalist world-economy'.

The geographical expansion of the accumulation by which cycles and hegemonies follow one another, from the Mediterranean system of city-states to the globality of today's US order, is a nodal element. Indeed, such geographic reorganization on a larger scale is the 'spatial fix' by which the successor hegemon 'solves' the terminal crisis experienced by the declining cycle (Arrighi 2008, Harvey 2018).

China's ability to establish an accumulation cycle on a larger geographical scale than the US, and its ecological meaning, will be addressed in the third section, but for now we will focus on another evolutionary character of cycles: the internalization of costs.

This digression will bring us to a contradiction unresolved by Arrighi's theory, namely whether and how the future hegemon will be able to revive an accumulation capable of reconciling the reproduction of human and extra-human nature. This capacity defines what I have termed 'ecological hegemony'.



The third column in Figure 1 shows the costs internalized by the different accumulation cycles: the Dutch cycle asserts itself over the Genoese cycle due to the internalization of the 'protection costs', a military aspect that saw the city-state of Genoa dependent on the Kingdom of Spain. The British cycle, in turn, internalizes 'production costs' through the technological leap of the Industrial Revolution, while the US cycle introduces a paradigm of vertically organized industry by internalizing 'transaction costs' (the latter term refers to all costs related to the organisation of business activity both before and after the transaction itself)

As noted in the last sub-column on the right, Arrighi identifies two costs not internalized by the US cycle: the costs of social reproduction and the costs of nature. In one of his latest writings, the author identifies the internalization of these two costs as the element to test whether or not China and East Asia can initiate a new hegemonic cycle.

"The still unverified capacity of the agencies of the East Asian economic expansion to open up a new path of development for themselves and for the world that departs radically from the one that is now at a dead-end. This would require a fundamental departure from the socially and economically unsustainable path of Western development, in which the costs for the reproduction of humans and nature have been largely 'externalized', in important measure by excluding the majority of the world's population from the benefits of economic development. This is a challenging task whose trajectory will largely be defined by the pressure of protest and self-protection movements from below' (Arrighi 2010, p. 383).

Starting from this theoretical framework, the next section sets out Moore's theories on capitalism as a full-fledged 'ecological regime', through which an attempt is made to interpret the long-term confrontation between the US and China as a quest for 'ecological hegemony'. This is the affirmation, in the case of China, or the evolution, in the case of the United States, of a cycle of accumulation that is capable of internalizing the costs of reproduction and nature, giving rise to a development model compatible with the survival of both human and non-human nature.

## **From World-Systems to World-Ecology by Jason Moore.**

In the article 'The End of the Road: Agricultural Revolutions in the Capitalist World-Ecology, 1450-2010', Moore introduces his theoretical framework starting with the term 'neo-liberalism', proposing it as a concept capable of signifying the multiple transformations that occurred in the capitalist system from the early 1970s to the outbreak of the 'great recession' in 2007-08 (Moore, 2010).

Although Arrighi, has only used the term 'neo-liberalism' in some of his later essays, not elevating it to a full-fledged phase of the capitalist system (Pianta, 2009), in this theoretical reconstruction for analytical simplicity the neo-liberal period is superimposed on what was described in the previous section as the financial expansion phase of US hegemony.

Moore poses two questions: "if neoliberalism is in crisis, what crisis is it? " And follows: "how does a production of nature perspective reshape our understanding of neoliberalism, and of previous crises in historical capitalism?" (Moore 2010, p. 389).

Starting from these two questions, the author expounded his ecological update to Arrighi's theory of systemic cycles. This approach defines capitalism as a full-fledged 'ecological regime' in which the accumulation of capital and the disciplining of nature form a single dialectical unity.

Through such a theory we can understand the costs of nature and social reproduction, theorized by Arrighi, not as the next frontier of the ascendant hegemon but as constituent elements of the ever-lasting dialectic between nature and society. The incorporation of ecology into world-systems theory allows, in my view, to better qualify what needs to be investigated in order to understand whether China can represent a new hegemon capable of reconciling human and extra-human reproduction on earth.

## **Crisis, Financialization of Nature and Ecological Surplus: Moore's Cycles.**

Moore retrieves Arrighi's concepts of 'signal crisis' and 'terminal crisis' and adapts them to his theory of 'ecological regimes'.

“we can say that a signal crisis of an ecological regime occurs when the initial conditions for a rapid expansion of the ecological surplus begin to erode and food, energy and inputs become more, rather than less, expensive” (Moore 2010, pp.391).

While the 'terminal crisis' “marks the definitive shift from one mode of organizing global nature to another, as in the transition from Dutch to British world hegemony and the simultaneous transition from charcoal and peat to coal as the decisive energy source” (Moore 2010, p. 391)

Moore argues that three decades of the financialization of nature have triggered a 'signal crisis' in the US ecological regime. Indeed, the author identifies as a defining characteristic of neoliberalism “the penetration of finance into everyday life and, above all, into the reproduction of extra-human nature” (Moore 2010, p. 390)

This concept of the 'financialization of nature', refers to a gravitational field that influences and shapes the rules of human and extra-human reproduction, namely, the disciplining of nature's consumption through the application of profit rates set in the financial sphere and subject to a purely financial capital circulation paradigm (M-M') and not intermediated by commodity transformation and the market laws, supply and demand, found in the investment cycle (M-C-M') (Moore 2010, p.399).

Thus, Moore reinterprets Arrighi's formulation of the alternation between material (M-C-M') and financial (M-M') expansion by integrating within it the constant relationship between nature and the incessant accumulation of capital. This joint dialectic leads him to define the overall system not as 'economy-world' but as 'ecology-world'.

"Capitalism, in this perspective, does not have an ecological regime. It is an ecological regime. ' (Moore 2010, pp. 391).

Thus, each hegemon asserts itself through its ability to organize human and extra-human nature in such a way as to overcome the terminal ecological crisis experienced by the previous cycle. This evolutionary capacity manifests itself in the implementation of 'agricultural revolutions' capable of generating an 'ecological surplus'.

Indeed,

"All the great waves of capital accumulation have unfolded through a greatly expanded ecological surplus, manifested in cheap food, cheap energy and cheap inputs. The creation of this ecological surplus is central to accumulation over the long durée. There is a dialectic between capital's capacity to appropriate biophysical and social natures at low cost and its immanent tendency to capitalize the reproduction of labour power and extra-human natures." (Moore 2010, pp.392).

Moore identifies two parallel movements capable of generating an ecological surplus: on the one hand there is the capitalized production of nature that is expressed in the progressive mechanization of agriculture. On the other hand, there is the capitalist desire to appropriate nature as a 'free good'.

This last concept is central as it provides a not immediately clear relationship between fossil energy production and industrial agricultural production. Indeed, the replacement of labour by energy-intensive agricultural technologies has certainly increased productivity by generating greater quantities of food, but this is made possible by the use of non-renewable biophysical resources that have been formed over geological eras.

The main result of obtaining the ecological surplus is to drastically decrease the cost of food. The latter is indeed central to the dynamics of extracting surplus-value from labour-power, since it is the fundamental element in determining the minimum wage necessary for the reproduction of labour-power itself.

"The price of food is so pivotal because it conditions the price of labour. The great eras of capitalist development have always been conditioned on massive demographic expansion and massive proletarianization. The signal contribution of agricultural revolutions to the course of capitalist development can be found here, in driving down the relative cost of food while driving forward proletarianization" (Moore 2010, p.395).

This reconstruction allows us to understand why for Moore the concept of hegemony should even be seen as an ecological project, but what is the US agricultural revolution and why is it experiencing a 'signal crisis'?

The United States based its hegemony not only on weapons, imperial order and the operation of an open economy on a global scale, but also had the ability to implement what Moore calls a 'green revolution' (Moore 2010, p.399).

This is essentially represented by the capital-intensive agro-industry, namely the adoption of cutting-edge chemical and energy technologies that in the first decades of the 20th century made the United States the world's leading agricultural producer.

American hegemony is thus based on the ability, since the 1960s and 1970s, to extend the use of agro-industrial techniques to vast areas of the planet still cultivated with less productive traditional methods. The result is that between the 1980s and the early 2000s food became progressively 'cheaper' allowing, as pointed out above, the wage demands of the global proletariat to be lowered and profits to be pushed forward. However, the surplus of innovation cannot last forever.

Actually, in 2001 food had never been so cheap while in December 2007, food prices were at their highest in real terms since 1846 (Moore 2012, p.245). What has happened in just seven years?

Moore provides three answers, the first two can be related to the hierarchy of the world-system, while the third answer requires to reason about the limits reached by the technological development of the US-based 'green revolution'. First, what has happened to food prices since the early 2000s can be seen as a realignment towards fair market prices. In fact, the main origin of the collapse of food prices in the 1980s, almost 40%, cannot be attributed solely to the adoption of technologies that increase yield (output) while holding other factors of production constant, but must be sought in the condition of subalternity of the periphery within system. In fact, the debt crisis experienced in the 1980s by many countries producing agricultural goods (Brazil and Mexico are two good examples) forced these states to maximize their exports in order to balance their balances of payments.

This maximization occurs by deepening the conditions of exploitation of the local labour force and further intensifying agro-industrial food production based on profitable mono-crops. This process creates the conditions for the decoupling of production costs and market prices, the realignment of these two elements from 2001 onwards triggers the inflation of primary goods described above.

A second response, closely linked to the first, is the collapse of profitability in the agricultural sector, which triggers the typical process of capital concentration, which, by seeking an oligopolistic or monopolistic condition, attempts to recreate adequate profit margins.

The attainment of oligopoly and monopoly conditions on global food by multinational corporations allows them to push prices up.

Finally, it is necessary to dwell on the limits reached by the biotechnological progress established by the US 'green revolution'.

Moore argues in detail how the "globalization of agricultural biotechnology has failed to slow the progressive decline in yield growth worldwide, now for the better part of a quarter-century" (Moore 2010, p. 400).

What does it mean? It means that bio-technological progress, embodied by super-fertilizers and GMOs, would seem to have reached its limits, as the earth's profitability is at a standstill.

This takes on dramatic traits if we focus on the fact that, unlike in the past, the earth's cultivable geographic space is almost exhausted while at the same time the population and thus the global demand for food is growing.

This brief reconstruction of Moore's ecological update to Arrighi's cycle theory allows us to understand the value of the question of whether China can represent an 'ecological hegemon'.

"If the crisis of neoliberalism today is in fact a developmental crisis, one open to resolution within the capitalist mode of production, we should expect to see an agricultural revolution taking shape in the most dynamic new centre of accumulation, China" (Moore 2010, p.402)

## **Hegemony within the ecological crisis: The China case.**

The reconstruction carried out in the first section on Arrighi's theories of accumulation cycles allows isolating the two evolutionary characters that China would have to manifest to initiate a new cycle. First, the ability to internalize the costs of nature and reproduction; second, the initiation of a further spatial expansion of accumulation.

In the second paragraph, I attempted to integrate the concepts of cost of nature and reproduction, using Moore's theories on capitalism as a full-fledged 'ecological regime'.

These hypotheses make it possible to overcome the smokiness of the unresolved knots left by Arrighi, by not separating nature and accumulation in the overall analysis of capitalist development.

Indeed, in Moore, the costs of reproduction and nature, identified by Arrighi as the next frontier of ascendant hegemony, become pivotal elements in the establishment and succession of hegemony itself.

The conclusions of both these authors lead us to the question of whether or not China can provide the system with a new 'ecological surplus' capable of reviving accumulation through a new cycle.

Beginning by examining some of the evidence against an imminent Chinese agricultural revolution, I will focus on the People's Republic's potential ability to expand the space of accumulation through the enhancement of the core Eurasian platform.

This immense geographical area with relatively little physical and social infrastructure is at the heart of the famous 'new silk road' (Belt and Road Initiative), the success of which is contradictory. On the one hand, it could represent an evolution of the geographical scale of accumulation; on the other hand, its realization would continue to promote an extractive development model incompatible with ecological hegemonic ambitions.

If one adopts the parameters used by Moore in his historical description of the agricultural revolutions of the hegemonies, China in no way seems to be on the verge of providing an ecological surplus similar to that created with the emergence of agro-industry in the 20th century United States. The United States on its upward trajectory became the world's leading producer of food and a net exporter, managing to implement economies of scale that significantly lowered the cost of food, and thus labour, compared to the competing European economies at the time.

Today's China, on the other hand, is not only the largest polluter in absolute terms and the largest importer of fossil fuels, but it is also the largest importer of food and, despite being internationally recognized as a technological powerhouse, but the field of biotechnology also is not at the heart of its innovation.

Chinese technology research, as elsewhere, continues to be strongly oriented towards the creation of patents that have short- or medium-term spin-offs in economic and military competition with the US. I am mainly referring to research and development spending in both the public and private sectors that have energy at their core, such as electric cars, hardware, smartphones, or digital infrastructure and big data.

In fact, even though China ranks first in terms of the number of patented inventions since 2011, biotechnological research is one of the areas where Western countries, led by the United States, continue to maintain a clear lead (World intellectual property organisation, p. 104).

Moreover, China is the single most peasant country in the world, with almost two hundred million. While this agrarian rigidity of the Chinese labour market is fascinating, it is clear that the productivity of the agricultural apparatus cannot, for the time being, compete with that of the other great powers.

Food and land consumption in the long-term plans of the Chinese Communist Party (CCP) seem to continue to find a little place.

The CCP has certainly taken on 'responsible' climate rhetoric, attempting to fill the void left by Trump's denialist posture, but despite appeals and partial decarbonization initiatives, China still seems very committed to defending its political and development model.

'Socialism with Chinese characteristics' has seen many undeniable successes in terms of improvements in the material living conditions of the population, but this success has been based on a dialectic between nature and capital that is not far removed from what we inherited from western capitalism.

This assertion is reinforced by the second node with which this article concludes, China's ability to revive accumulation on a larger spatial scale than the US.

The 'New Silk Road', officially launched in 2015 by President/Secretary Xi Jinping, is a contemporary reinterpretation of the historic Silk Road and consists of six economic corridors within the Eurasian platform.



This transcontinental infrastructure project crosses countries that collectively account for 55 per cent of global GDP, are home to 70 per cent of the population, and hold 75 per cent of energy resources (Gabusi, 2017).

The areas most affected by the project are transport, communication and energy infrastructures aimed at increasing the connectivity of the entire Eurasian platform (Andornino, 2017).

This implies that the spatial re-launch of accumulation, as in the past, passes through a flood of concrete and earth-moving in one of the least anthropized areas of the planet.

From a theoretical point of view, the valorization of this large geographical space could be considered a 'spatial solution' to the crisis experienced by the United States.

However, this initiative, even if it is capable of bringing global supply and demand back into balance (Stiglitz 2015), is heading in the same self-destructive direction it has been going so far. Indeed, the consumption of land to build surface connections, as well as the extraction and moving of earth in search of energy sources and materials, especially rare-earth and lithium, will only deepen the pollution and destruction of biodiversity.

In this conclusion, I have only sketched out avenues of research that deserve more in-depth investigation; however, I think that they restore the profound criticality of the relationship between Chinese ascendancy in the world-system and the quest for what I have called 'ecological hegemony'.

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