ON THE CHINESE SOCIALIST MARKET ECONOMY AND THE "NEW PROJECTMENT ECONOMY"

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Abstract: This article aims to show that the Chinese development process over the past four decades is not a self-explanatory fact. It is a process that may have revealed the ultimate limitation of the current capacities for interpretation represented by both orthodox and heterodox approaches. This limitation is due to two objective facts: 1) the transformation of the "socialist market economy" into a new socioeconomic formation (NSEF), a process that has accelerated since the financial crisis of 2008—the emergence of this NSEF results from a series of institutional innovations designed to accommodate a myriad of modes of production, all of them under the leadership of the public (socialist) sector; and 2) the continuous technical progress achieved by the state-owned enterprises (SOEs). Following the successful implementation of proactive industrial policies, the above-mentioned developments led to the appearance in China of new and superior forms of economic planning. This process can be understood as the re-emergence of Ignacio Rangel's "project economy," now under the title of the "new projectment economy." In our view, perceiving and understanding this change in the mode of production in China, and the theoretical resources involved in it, represents the greatest challenge before today's social science.

Key words: China; new projectment economy; socialist market economy; socioeconomic formation

Introduction

Over the past four decades, the world has undeniably experienced deep transformations. Financial deregulation, globalization and the emergence of a newly

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dominant financialized pattern of accumulation have drawn the world into a spiral of instability with unpredictable outcomes. These changes are presenting constant challenges to international economic governance, and are also raising questions concerning the very ability of liberal democracies to remain viable almost 30 years after the fall of the Soviet Union and the old socialist system of alliances. Some economists acknowledge the possibility that the capitalist system will experience what Alvin Hansen in the late 1930s called secular stagnation.¹

A side effect of so-called globalization is a phenomenon that challenges analysts from all schools of thought: the Chinese economic rise can be deemed the most impressive phenomenon of recent times. It is already the longest development and growth process in history, having overtaken the "miracles" that occurred in South Korea, Japan, Brazil and the Soviet Union in different periods. China's economic growth between 1980 and 2018 was outstanding: the real GDP annual growth average in this period was 9.2%. For more than four decades, almost without interruption, the country's economy grew at rates well above the international average. Over more than 35 years, the annual growth rate of GDP per capita in China averaged 9.0%, and income per capita (at purchasing power parity) has grown by 36 times, leaping from just USD 250 in 1980 to USD 8,827 in 2018. This process has been accompanied by high rates of investment, which averaged 36.9% of GDP in the period 1982–2011, and above 40% from 2004 to the present.²

Since 2013 China has had the largest share of foreign trade of any country, a performance that has had flow-on effects for practically all other economies. China has also become a significant capital exporter; its contribution to global foreign direct investment (FDI) rose from USD 0.8 billion in 1990 to USD 101.9 billion in 2017. The inward flow of FDI to China meanwhile increased from USD 1.4 billion in 1984 to USD 168.2 billion in 2017.3 While until 1991 foreign investment in China was directed almost exclusively toward export sectors, a high proportion of which were located in Guangdong, from that year on a significantly higher share of FDI took the form of joint ventures aimed at constructing and enhancing domestic productive capacity to serve the internal market.

The structural change in China's economy is reflected in the urbanization process that gained speed from 1980, when only 19.3% of the population lived in cities. By 2018 the urban population had reached 59.1%.⁴ Although this proportion is well below the average level for developed capitalist countries, the pace of urbanization suggests the specific challenges of planning and managing the intrinsic contradictions of a country where there is a strong cyclical trend toward a crisis of agrarian overpopulation.

A relevant fact that did not pass unnoticed in the latest *Forbes* magazine list of the world's 500 largest companies, and which indicates a steady if still slow transition of systemic power, is that for the first time since the list began to be published

in 1990 the United States is no longer home to the largest number of companies included on it. The United States has now been overtaken by China, which has 129 companies on the list (with six from Taiwan province), while the United States accounts for 121 (Colvin 2019). Most striking is the fact that among the Chinese companies on the list, 89 are state-owned enterprises (SOEs). In 2003, only six Chinese SOEs were listed in the *Forbes* 500.

How should we perceive the phenomenon of modern-day China, which given its dimensions, as well as its population and growing political power, is transforming the shape and horizons of the world's economy and society? Is China's social system a type of "state capitalism" or some other variant of "capitalist restoration," as occurred in most countries of the old socialist bloc? Is China's development process of the kind remarked by Arrighi (2007) and Nolan (2001), whose analysis, based on Smithian premises, sees the country's trading roots as producing a virtuous mercantile development? Might China's advance represent the triumph of a historically built system, currently claimed by Chinese leaders as "socialism with Chinese characteristics"?

The answers are not simple, and as a starting point it is necessary to recognize the monumental progress in China as part of the history of human civilization. It is not a miracle, or a product of chance, but an original human creation, historically constructed. In China, we are able to witness in real time the emergence of a "new economy" whose features reiterate, within a new socioeconomic formation (NSEF), new developments found in its dominant mode of production.⁵

A parallel can be sought in the mid-20th century, when a new economy, which Ignacio Rangel designated the "project economy," emerged on the basis of the forms and functional logic of capitalism.⁶ This economy would be the consequence of new emerging paradigms, which in turn corresponded to three historical developments: 1) the Russian Revolution, which made economic planning possible; 2) the development of monetarist economics; and 3) Keynesianism and the consensus around it.

When the face of the system changed, the logic it embodied was also transformed. This was the case for the world as a whole, when the three earliermentioned developments came to bear on one another. It is now the case with China as well, and in this context, it is possible to observe a certain exhaustion in the way the existing theories seek to explain how the logic has been transformed as a result of an evident change in the face of the system.

Historically, it is implied that the set of economic problems in capitalism changes radically when the system goes into decline after completing its ascending curve (Rangel [1957] 2005, 290). The paradigm underlying the three earliermentioned developments is related to the inability of concepts derived from Say's Law to satisfactorily explain reality, a fate that has also befallen the neoclassical

models of general equilibrium. Economic planning, in itself, is becoming the new economic paradigm, and part of the very core of economic theory. Thus, Keynes and the Soviet Gosplan have become the two sides of a single coin. According to Rangel, "Man, in both cases consciously intervening in history, looks to obtain through planning that which before was done by itself, for if a society does not guarantee these conditions, it experiences crisis and perishes" (291).

Reinforcing our initial argument is the following suggestive quote. Although the authors do not describe the new approaches involved, the quote demonstrates that one of the consequences generated by the Chinese development process is the emergence of new theories in the field of political economy. According to Enfu Cheng and Xiaoqin Ding,

China's rapid economic development in recent years is often characterized as "miraculous" [...] But as we have written elsewhere, "theoretical problems have started to emerge with regards to the very existence, content, and prospects of the China model." The key question, then, is what kind of economic theory and strategy underpin this "miracle." China's model has been variously described as a form of neoliberalism, or as a novel kind of Keynesianism. Against these positions, we hold that the country's major recent developmental gains are the achievements of theoretical advances in political economy, originating in China itself [. . .] (Cheng and Ding 2017, 16)

As well as the earlier-noted historical parallel, to which is added the difficult search for a way out of the current systemic crisis of capitalism, there is consistent evidence showing that both orthodox and heterodox theories are now insufficient to perceive and interpret the emergence of a new mode of production which we refer to as the new projectment economy. This new mode appeared in China and was constructed around a core consisting of 97 SOEs. The present article sets out to demonstrate that this new project-based economy emerged amid, and formed the core of, an NSEF whose characteristics became more evident as the role played by the SOEs in tackling the consequences of the 2008 financial crisis unfolded. The new projectment economy amounts to a new economy, designed in the midst of a particular historical process as a consequence of new productive and technological paradigms, and involving new and superior forms of planning largely conceived and executed in China.⁷

Because we are dealing with a recent phenomenon, there is no ready-made theory to explain it. What in fact is occurring is the *pari passu* formulation of a theory, on the basis of the internal qualitative transformation of the dominant mode of production in China. If we examine the history behind it, the new projectment economy can be observed as a new theoretical construct. Since economic

science itself changes and varies according to the mode of production, which in turn is in constant transformation, tracking the process through which this real practice is being transmuted into theory is a task faced by economists.

Besides this introduction, the article is divided into two other sections. The next section presents the fundamental characteristics of the NSEF now developing in China. It also presents the evolution and complete reorganization of the public sector economy that was initiated in 1990 with the emergence of the SOEs, which function as the core of the dominant mode of production in the NSEF. The following section presents Ignacio Rangel's view on the projectment economy, and its recent reappearance in China. Finally, we present some conclusions.

On the New Socioeconomic Formation Emerging in China⁸

Recent research has correctly pointed to the increasing control exercised by the state over wealth and income flows in China. Piketty, Yang and Zucman (2017), Naughton (2017) and Nogueira, Guimarães and Braga (2019) come to similar conclusions, demonstrating that the Chinese government currently controls about 30% of all wealth produced in the country.

Notwithstanding, this percentage has fallen a lot since China started its economic reforms; by then, the state controlled something like 70% of the national wealth (Piketty, Yang and Zucman 2017). Moreover, both an effective private sector and a proper market economy, whether at the regional or national level of organization, were non-existent. At the end of the 1970s, China could be compared to a myriad of hinterlands, taking the form of self-sufficient communes, geographically and strategically located in the countryside and presenting no level of productive specialization.

Despite this, the Chinese government today has a significantly larger capacity to lead and plan the development process than it had in the late 1970s. Reforms and permanent institutional innovations have conditioned the country to incorporate the tools needed for what Keynes typically called the "socialization of investment" (Jabbour and Paula 2018), to transform the Chinese government into a typical "entrepreneur-in-chief" (Burlamaqui 2015), and also to put into practice Minsky's prescriptions (1986), assuming the dual role of "big government" and "big banks." In China, a true antithesis to financialization emerges, completely oriented toward the productive sector and employing a high level of financial repression.

There are, of course, latent contradictions. The emergence of a new dynamics of accumulation, differing widely from the financialized dynamics, does not mean that this "new economy" is by any means free of deep and complex contradictions. Among these can be counted the internal pressures for a liberalization of the capital account; explosive levels of indebtedness in the provinces and in the private

sector; and even a system of shadow banking, directed toward providing credit to the private sector and disregarding the public sector, which enjoys preferential access to the official financial channels. The response to these contradictions by the emerging new project-based economy in China is aimed at securing a larger role for the state in regulating the financial system—which is in contrast to the usual treatment of financial systems in the centers of capitalism—and in maintaining its state-driven and, more important, political character.⁹

The existence of the state-driven productive and financial sectors enables the Chinese government to play the role that could be witnessed in the succession of fiscal packages put in place since the beginning of the financial crisis in 2008. The first of these, with a value in 2008 of USD 586 billion, corresponded at that point to 12.6% of annual GDP (Jabbour 2020). It can be said that a true and significant state-led and planned course of action on the economy was in place. In the course of just a few years, the country would be crossed by thousands of kilometers of new high-speed railroads, along with highways and metro lines. In As a consequence of the trade war waged against China by the United States, public expenses rose by 8.8% between January and August 2019 compared to the same period of the previous year (Rapoza 2019). In September 2019 another stimulus package was announced, now amounting to USD 126 billion. In 12

Such recent facts point to the protagonist role being played in the Chinese economy by the country's immense public sector, which forms the core of the NSEF and of the new projectment economy. We now move on to deal with these phenomena as a matter of historic construction.

The "Making of the Market" and the Emergence of "Market-Oriented Non-Capitalist Companies"

The historical turning point for the political, economic and social transformations in modern China was the 1949 People's National Revolution. It is possible to state that in the first five-year plans of the post-revolution government, a variant of Rangel's "project economy" emerged, one that he had glimpsed in the Soviet context as well as in the countries of the capitalist "center." The material foundation laid in the period between 1949 and 1978 was critical for the qualitative leap, whose results are evident today. This is pointed out by Jabbour and Dantas:

It is important to note that between 1953 and 1978, China's average annual GDP growth was 6.6% [...] This period laid the foundation for the implementing of large hydraulic projects (Ertan), for achieving the country's nuclear weapons capability (1964), for artificial satellite launches (1971), and for the construction of the Beijing subway (1975) using exclusively Chinese equipment. (Jabbour and Dantas 2017, 790)

The emergence of the NSEF in China is a historical process that was initiated in 1978,¹³ the point when economic reforms were introduced with the aim of bringing about a substantial change in the country's economic, industrial and property structures. The effect was to give birth to new modes of production that coexisted, from then on, with the state sector that had been present earlier. In essence, what occurred was "the making of the market" by socialism (Jabbour and Belluzo 2019, 40), something that points the way necessarily to Arrighi (2007, 24), for whom:

The economic resurgence of China whatever its eventual social outcome has given rise to a new awareness among a growing group of scholars that there is a fundamental world-historical difference between the processes of market formation and the processes of capitalist development. Integral to this new awareness has been the discovery (or rediscovery) that throughout the eighteenth-century trade and markets were more developed in East Asia in general, and in China in particular, than in Europe. (Jabbour and Belluzo 2019, 40)

Arrighi refers to Adam Smith and the differences he noted, in various parts of the world, between the processes of development of market economies¹⁴ that were not necessarily derived from industrial revolutions as seen in England. However, experiences such as the Meiji Restoration and the rapid post-World War II growth in Japan, as well as the cases of late industrialization in South Korea and Taiwan province of China, lead us to think that in these economies as in post-1978 China, the reinstatement of millennium-old institutions opened the way to new, dynamic and highly industrialized socioeconomic formations, of both a capitalist and socialist nature. In our view, post-1978 China represents the first of a new class of socioeconomic formations that can be termed "socialist market economies." The Socialist Republic of Vietnam can be framed as the second.

According to Jabbour and Dantas, the Chinese economic reforms, the "making of the market" and its gradualism can be synthesized as a combination, driven by the state, of the following factors:

1) market dominance by the state; 2) which in turn liberalizes trade for its benefit, creating opportunities to extend the higher forms of the social division of labor, in accordance with the plan; 3) drives energetically toward the formation of an internal consumer market; 4) initiates industrialization based on peasant entrepreneurship; 5) induces extensive competition among small, medium and large companies and encourages education to mitigate the effects of the market on the social body; and 6) plans to approach first industry itself, and then foreign trade, not in a traditional way, but as public goods to be planned and conducted by the state. (Jabbour and Dantas 2017, 794)

Regardless of whatever other definitions each author or researcher may find acceptable for the current Chinese experience, we propose that Chinese socialism, while "making" a market economy ended up creating conditions for the renewal not only of the Chinese material foundation, but also of socialism as a developmentalist project, posed as an alternative to the current financialized order of capitalism. This is a fundamental aspect of our hypothesis.

The "making of the market" begins with rural reforms that establish contracts of liability between peasant families and the state, seeking to guarantee food supply to the cities while dismantling the old Maoist communes, and thus legalizing market-oriented production. This is how small-scale mercantile production emerges, as the first mode of production intrinsic to a recently born NSEF. This form of small-scale mercantile production was fundamentally different from analogous systems around the world in the respect that the land remained in possession of the state; because of this, its basic unit can be understood as a variety of what we term a market-oriented non-capitalist company (MONCC). Another mode of production intrinsic to this NSEF can be observed in the capitalist sector of that economy, both national and foreign: between 1978 and 1994, about 9 million capitalist companies of different sizes appeared in China (CNBS 1978–1994).

The annual growth of Chinese agricultural output averaged 2% between 1952 and 1978, and after the instating of liability contracts it rose to an annual average of 4.5% between 1978 and 2018 (Huang and Rozelle 2018, 487). The reason for this accelerated growth lies in the appearance of small-scale mercantile production as a kind of MONCC, a clear example of "growing out of the plan" (Naughton 1995); here, economic development figured as both cause and consequence of the expansion of the market. This expansion reflected not only the effects of ending the rudimentary, static planning forms that had characterized the agroindustrial complexes in the communes established during the first three decades of the new China, but also the pressure placed by this new market economy on the semi-subsistence economy of the countryside; the effects of this pressure extended back into the market economy. The character that this expansion of agricultural output assumed is well synthesized in the following passage by Huang and Rozelle:

In the past four decades, agricultural output value in real terms has grown at an average rate of 5.4 per cent annually, while annual growth of grain production was 2.1 per cent. China's cropping economy has steadily changed from a priority on grain to the production of higher-value cash crops and horticultural goods. The average annual growth rate for cotton reached 3.8 per cent, 5.3 per cent for sugarcane, 6.4 per cent for edible oils and 11.5 per cent for fruit over the 40 years. Livestock and aquaculture products have been growing even faster.

Annual meat production rose by an average of 5.9 per cent and fish by 7.3 per cent per annum. Dairy increased most rapidly, at 9 per cent annually. (Huang and Rozelle 2018, 489)

Another form of MONCC that has emerged as a direct result of rural reforms consists of the township and village enterprises (TVEs), which in themselves constitute another mode of production intrinsic to the NSEF. As large collective/municipal property, the TVEs are a consequence of the disaggregation of the Maoist communes, but do not reflect their internal productive structure. In 1978, the total number of workers employed in the TVEs was about 28,265,000, a figure that tripled to 93,667,000 in the first ten years of economic reforms and reached 138,661,000 in 2004 (CNBS 2005). Between 1978 and 2004 agricultural employment in China's economy fell by 41%, while rural non-agricultural employment rose by 471% in manufacturing, by 582% in the construction industry, and by more than 3,000% in the services sector (Kang 2006, 291). The occupational shifts had a direct effect on the peasant income structure. In 1978, 7.92% of peasant incomes came from non-agricultural activities, which rose to 30.61% in 1996, causing the income from agricultural activities to fall from 90.08% in 1978 to 69.39% in 1996 (CNBS 1999).

The reorganization of the social division of labor, and the increased unification of the Chinese national market that resulted, relied heavily on the TVEs (Jabbour and Dantas 2017, 794). The scale of these changes was in accordance with the state strategy under which the TVEs were to act as a bridge for the insertion of China into the international marketplace, especially from the 1990s. By the end of that decade, the TVEs were responsible for 40% of all industrial production (Masiero 2006, 432) and for about 40% of the country's exports (Kang 2006, 137). In 1989, the export of textiles and footwear by the TVEs accounted for 47.7% of total exports of these products, a number that fell to 29.1% in 2002 and to 23% in 2007, while their share in the exports of durable consumer goods rose from 14.4% in 1989 to 29.1% in 2002, and to 30.3% in 2007 (CNBS 2008).

Among the numerous examples that can be cited to demonstrate the global expansion of China's TVEs are those of Haier, which came to supply 50% of the United States market for small, refrigerated units; Galanz, with a share of 33% of the world market for microwave ovens; Legend with 20% of the world computer components market; and China International Marine Containers, with 40% of the world market for refrigerated containers (Masiero 2006, 441). The TVEs have suffered a steep decline since the end of the 1990s, due to the fall in provincial income as a result of the fiscal reform of 1994, as well as to the increasing difficulty of gaining access to credit in China's recently reorganized state-controlled financial sector.

Institutional Innovations, State Reorganization and the SOEs

A fundamental hypothesis concerning what we see as the emergence of an NSEF in China relates to the fact that since 1978 the country has been home to a rapidly growing private sector, ¹⁵ while the state has played a more sophisticated role in driving and controlling big manufacturers and large-scale finance. Also, there have been remarkable increases in China's level of coordination and socialization of investment through an active determination of fiscal, monetary and economic policies, through foreign trade, and above all, through new and superior forms of economic planning.

That is a static description of the process, whose dynamics feature waves of successive institutional innovations driving an internal movement that affects not only the capitalist and socialist sectors of the economy, but also other property structures such as the MONCCs. Because it entails the coexistence of different modes of production—a true unity of opposites within a single socioeconomic formation—this coexistence demands a continuous reorganization within and between the private and public economic sectors (Jabbour, Dantas and Espíndola 2021). This permanent reorganization is mediated by a cyclical emergence of institutions whose function is to redefine the limits to the activity of both state and private sectors within the economy, and it is remarkable that the growth of the private sector has not been paralleled by a diminishing of the state role. In practice, there has been a strategic repositioning of the state.

In short, the continuous institutional changes taking place since 1978 have allowed the Chinese development process to proceed in a continuous fashion (Medeiros 2013, 435). But more than that, they have allowed the Chinese private sector to undergo a significant quantitative growth at the same time as the state has enhanced its role in qualitative terms by means of the political control (a fundamental characteristic of the NSEF compared to capitalist social formations) exerted by the Chinese Communist Party (CCP). The party has spread its influence throughout manufacturing, finance, interest rate policies, exchange rates, foreign capital flows and other mechanisms of the coordination and socialization of investment. This qualitative growth in the state sector has relegated the private sector to an ancillary role where it has become a beneficiary of chain effects that the SOEs have created. This study will now turn to assessing the transformation of state companies into SOEs.

A faithful picture of Chinese state-owned companies in the mid-1990s can be had from the situation in 1995, when they employed 70% of the country's manufacturing workers and accounted for 60% of manufacturing production, but were responsible for only a third of industrial income compared to other forms of

property (CNBS 1978–1994). Labor productivity in SOEs was a third of that in the TVEs, and a tenth of the figure for individual private firms and foreign companies. Posing a significant challenge was the key contradiction present in the management of state-owned companies: their profitability declined consistently in the environment of full state protection, at the same time as they retained their effectiveness as the core of a corporate system able to serve as the basis for a new class of socioeconomic formations. In practice, this was to represent a difficult conundrum with high social costs.

The reforms in state-owned companies accelerated in the face of macroeconomic restrictions imposed by then Prime Minister Zhu Rongji, following a cycle of institutional innovations initiated in 1994. The environment characterized by Soft Budget Constraints was coming to an end. The history of the Chinese development process demonstrates that a Keynesian-type market economy was emerging, and that it would require an arrangement featuring large state companies ready to cope with a growing demand for the large infrastructural works needed to achieve urbanization and nationwide connectivity, while implementing bold industrial policies that aimed for the technological frontier.

A cycle of institutional innovations launched in 1994 tightened the monetary grip over the state-owned companies through a variety of mechanisms, including:

- a hard fiscal reform that reversed the previous trend toward decentralization, reducing the provinces' powers of financial decision-making.¹⁶ The effects of this move would include strengthening the interpretations according to which the process of "grasping the large" reforms to state companies started at the province level;
- a reform of the system of tax subsidies applying to state companies. In practice, this meant the end of relationships between the bosses of stateowned companies and their superiors;
- 3) a diminution of the credit space through creating a more professionalized financial sector that included both commercial and development banks, with the latter gaining greater autonomy, and
- 4) the granting of permission to state-owned companies to focus exclusively on their core business, which in practice meant the end of the danwei system and of the obligation for companies to undertake a full range of social welfare responsibilities. The social cost of this specific measure was huge.

The main point of this cycle of institutional innovations, however, was not to be found in the measures listed here. Rather, these innovations marked the beginning of a process that would see decisive answers to questions being debated in political and intellectual circles both in China and abroad. Around the time when the

9th Five-Year Plan (1996–2000) was coming to an end, speeches by powerful leaders such as Wu Bangguo and President Jiang Zemin himself indicated the need to follow a new path, involving a new system under which only large publicly-owned companies would be administered by the state. A document drawn up by the World Bank in 1996 proposed that the government exercise direct control over only 1,000 elite state-owned enterprises, that it should maintain its ownership of another 14,000, and that in the case of a further 96,000, it should promote mergers, privatize the firms or allow them to go bankrupt (World Bank 2019).

This "keep the big" strategy was confirmed in 1996, when the "Report on the 9th Five-Year Plan of Social and Economic Development" read:

Institutional reform must be coupled with optimization of investment structure in order to selectively support those who are competitive and strong and allow the fittest to survive and prosper. The weak should be eliminated by merger, acquisition and bankruptcy to improve efficiency and reduce headcount [...] A number of key industries and business groups must be properly managed in order to use their capitals to trigger the reform and growth of other enterprises to pump up the entire economy. (Gabriele 2020, 55)

This huge cycle of institutional innovations incorporates an idea that eventually came to figure as a permanent element of the economic reforms. This was the transformation of large numbers of state companies into SOEs through a process of "corporatization," initiated using laws and measures passed between 1993 and 1994. The central concept was the (slow) disappearance of state companies to make room for SOEs (quoted in Naughton 2007, 314), whose status could vary to the point where equity in them came to be publicly negotiated in the stock markets (that is, where they became joint-stock corporations). That would be possible through the Company Law, which embodied the goal of separating management from ownership, with management exercised by professionally trained managers whose technical abilities had been proved.

Naughton (2007) shows how this Company Law was functioning in practical terms ten years after its implementation:

Despite the fundamental importance of corporatization, actual implementation of the Company Law has been slow. Traditional SOEs are still far from extinct. Indeed, at the end of 2003 there were still 23,000 traditional industrial SOEs, producing one-third of state-sector output, while there were 11,000 state-controlled corporations (not TSOEs) producing two thirds of state-sector output. Corporatized firms were four times the size of TSOEs, on average. (Naughton 2007, 317)

It is obvious that such a reform could not achieve its full results in short order, since it aimed to transform a property regime that had been developed over decades to serve an economy that was not market-oriented, where lifetime corporate positions were legally guaranteed, and in which strict control by a complex bureaucracy was in place. In order to take up the challenge, an agency (SASAC)¹⁷ was created in 2003 that made an important contribution to fulfilling the requirements of the Company Law. Cai has the following to say about the creation of this market orientation, or even market environment, with a view to developing the SOEs:

As the state-owned enterprises gained autonomous control over various self-marketed products and self-purchased inputs, and as non-public enterprises participated in competition, a gap was opened in the mode according to which means of production had uniformly been distributed, and products sold, on the basis of state planning. A certain amount of purchasing and selling was conducted in the market, outside the structures of planned distribution. Therefore, alongside the determination of prices by planning, mechanisms appeared for the formation of prices by market supply and demand, outside the planning system. As the share of planned production steadily decreased and the share of the non-public economy increased, the proportion of prices determined by the market also expanded, and the double-track system gradually unified around the track of market-determined prices. (Cai 2015, 48)

In this kind of analysis, however, political and social implications must be taken into account. Many academic studies of these matters suffer from a lack of comprehensiveness, resulting in a partial focus on purely economic or corporate aspects. The reform in China has not been of a typical variety. Rather, it has shown the ability not just to redirect corporate strategies and to set short, medium and long-term government goals, but above all, the ability to define the essential framework of an emerging NSEF. Large corporate bodies have become the flagships for the execution of huge projects by the Chinese state, both domestically and abroad. They make up the core element in the material foundations of the NSEF and the new projectment economy, whose genesis resides in the SOEs.

On the "Projectment Economy" and "New Projectment Economy" in China

A number of fundamental questions, which transcend the scope of this article, remain to be answered. These relate specifically to the implications that the accelerated Chinese process may have for economic theory. What exactly is the project economy, mapped out by Ignacio Rangel alone in his visionary book *Elements of*

the Project Economy, published in 1959? How has this "new economy" evolved since then, and how has it reappeared in China in the shape of a new mode of production intrinsic to the NSEF?

The first question is answered by Castro:18

Reading the content reveals the author's goal: to build, out of the Economics archive with all its different approaches and schools, an economic theory of the project economy, understood as an economy designed along 20th-century lines on the basis of the historical process and informed by the experiences of financial capital, Keynesianism and Soviet planning. (Castro 2014, 202)

Fundamental Characteristics of the "Projectment Economy"

If we take Rangel's work as a whole, the emergence of a "project economy" was consistent with his views—which were mainly influenced by Marx, but also to a lesser extent by Kant. He regarded economics, as a social science and therefore essentially a historical field, as being subject to a dual evolutionary process as noumenon and phenomenon (Rangel [1959] 2005, 204). When we recognize the historical character of "vulgar economics," and consequently, its dual evolutionary movement, the boundaries within which it restricts itself become clearer. According to Rangel,

The vulgar conception explicitly admits only the phenomenal evolution of Economics. Each new theory emerges as the result of a more precise representation of the transcendent reality, which seeks explicitly to remain forever as a likeness of itself. Thus, the Smithian analysis, if compared to that of the Physiocrats, would be no more than a more perfect representation of it, addressing aspects that Quesnay and his friends left in the dark. The same nexus would link the neoclassical to the classical analysis. (Rangel [1959] 2005, 204–205)

Evolution as "noumenon" is directly related to history, meaning that the project observed by Rangel in the evolution of capitalism under the Keynesian Consensus, and above all in the economic development of Soviet Union, ¹⁹ was something more practical (phenomenon) that developed (and still develops) in parallel with theories and categories (noumenon) that change over time. These theories and categories harness the problems and solutions faced in the course of successive approaches, and synthesize the experiences of analysts (Castro 2014, 206). In short, this means that historical evolution and the new ways to plan and produce goods create a space for the emergence of theories that are better equipped to explain the processes of history and of the present. It is from this point of view that

we should perceive the project economy in its time and the new projectment economy of today.

The starting point for Rangel is to highlight costs and benefits as the fundamental considerations underlying the project. In his view,

Costs and benefits, as understood here, are the fundamental categories of the project: useful abstractions for devising solutions to implicit problems [. . .] The entire theory of the project is merely an effort to precisely define these two terms, so that with them we can construct a reason [. . .] (Rangel [1959] 2005, 366–367)

Along with the fundamental categories of the project, at least two quotations from Rangel are critical to constructing the hypothesis. These are as follows:

The mission of the economic project consists in finding a common denominator for the two terms of reason and benefit/cost, in line with the economic point of view. Wealth is the quality certain things have of being useful to human society [...] (Rangel [1959] 2005, 367)

From the quotes above, we can learn some of the primary and fundamental characteristics of the project economy. The first is the role played by planning in the allocation of national production factors and resources. Hence the term "reason" as something to be constructed in the search for an appropriate balance between costs and benefits. This desirable balance between costs and benefits is reached through subordinating the project to the material and spiritual needs of the nation and of the whole population that the project affects. Here Rangel, like the present authors, avoids certain polemics that discuss the differences between plan and project—for us it is clear that planning relates to macro variables, while the project is about micro variables related directly to the development of companies and their projects.

In a new capitalist socioeconomic formation, what is the specific element that the (new) project economy represents? What is the noumenon in this new historical moment that made possible the emergence of a new mode of production? First, and still referring to the emphases applied to the quotes above, Rangel's "project economy" can be defined as the maxi-rationalization of the production process, which sets this economy at the opposite extreme of the current dominant dynamics of accumulation, that is, financialization.²¹ Likewise, this economy sets itself at a far remove from the belligerent Keynesianism of the United States and other socioeconomic formations, both capitalist and socialist.

The project economy, together with its new seeds that are now sprouting in China, is an economy that like all others seeks to create use value, or utility.

Anticipating possible polemics related to this statement, we acknowledge along with Castro (2014) that there are issues with the metrics for utility as a reference category. But when we connect this category to a more Aristotelian vision, closer to what Marshall developed,²² we move away from the neoclassical paradigm in which the maximization of utility can be seen as an individual's response to competition and the market—and thus, according to the Marxian point of view, as a response associated with subjectivity and with the parameters of the last stage in human's pre-history (capitalism).

Regarding the difference between the noumenon in a capitalist economy and in a project economy, it is important to state that in capitalism the noumenon is the market, as the driver of and basis for the making of wealth, while value is its fundamental reference. In a project economy, by contrast, the commodity is transcended as the core of society and of its moral systems (e.g., commodity fetishism as society's general consciousness), and it is replaced by a new noumenon called the project—the element that produces utility by synthesizing cost-benefit balances into wealth and allowing them to be socially absorbed. Thus, in brief and according to Castro, in a projectment economy

The category of utility [...] is the new foundation for the economic calculation. Plan and project are its fundamental instruments, put in place through a selection of techniques and through resource allocation. This differs from capitalism, where the production of use value is regulated by the market through value, whether explained by labor, as in the classical, or by marginal utility, as in the neoclassical version. (Castro 2014, 208)

The earlier-mentioned maxi-rationalization of the production process can be seen as a consequence of what Rangel ([1959] 2005, 378) termed an "invitation to change," which was represented by the global and specific effects of each project on the economy and society as a whole. In a Hegelian fashion—thus marking a divergence from the views of Cepal, derived from Rosenstein-Rodan's theory of "balanced development"—it is critical for Rangel that the development process is not a permanent search for equilibrium. Instead, it is a process that takes place after the introduction of factors that cause disequilibrium of a new and special nature. For Rangel, the changes (disequilibrium) assume two forms, one of technological order and the other more related to the distribution of social resources among different industries (379).

In a less abstract fashion, we may state that projection comes to planning by means of leaps from one disequilibrium to another, until a moment arrives when technology becomes a fundamental instrument for highlighting reason as attractive to the production process. The fundamental logic of the development process is maintained: technology leads the social division of labor to superior levels, thus changing the face of the system.

If all the above quotes are taken into consideration, Rangel was undoubtedly dealing with the modus operandi of an economy whose character and strategy have a socializing function. This is implied in his own words, when he states:²³ "The development project is that which, by itself and through the changes induced in others, leads to the desired result of raising the utility per capita" (Rangel [1959] 2005, 378).

The Projectment Economy Is Reborn in China

Let us return to a historical and contextual analysis. The project economy studied by Rangel had its most notable expression in the Soviet Union, where technical progress did not override the convergence between the production of utility and the full employment of human factors. The collapse of the Soviet Union led to a worldwide regression from the project economy in favor of financialization and a belligerent Keynesianism under the orders of North American imperialism.²⁴ New and powerful varieties of neocolonial domination appeared in the form of trade and financial liberalization, followed by international institutions created for the maintenance of a "new market order."²⁵ An unprecedented environmental crisis emerged, with China at its core.

Attacks on social rights and unions in England under Thatcher, and the return of the old view of supply-led development in place of the principles such as solidarity and the value of labor that are fundamental to the Rangelian project economy, have resulted in a turn away from socioeconomic project formation as the means to generate wealth and utility in the service of human welfare. In North America, the policy of fiscal bail-outs for the richest has generated growing social inequality.

The European Union, having weakened the fiscal liberty of its member countries, has stifled their ability to project and design distinct national economies, leading to a disparate reality in which a powerful Germany coexists with a vulnerable European periphery. The technical progress observed after new technological paradigms appeared in Japan has not, for the most part, created utility in the service of human welfare. In the view of Guttmann, it has instead strengthened the logic of financialization:

The driving force of that technological progress, focused on communication capacities and processing information elaborated in the worldwide networks (internet, SWIFT, CHIPS etc.), serves the financial webs of transactions and money transfers beyond national borders. Given the inherent mobility of money, the cross-border impulses of finance have been driving the wider globalization process. (Guttmann 2008, 18)

Developmentalist socioeconomic formations in Asia, such as Japan and the Republic of Korea, were practically dragged into the financialized order that came to underpin "North–South" relations from the second half of 1990s on (Wade 2006, 2008), in large measure due to the geopolitical strength and weight of the United States that allowed it to exert a heavy influence on their own projects. In these countries, project possibilities were reduced proportionally to the state losing control over its own financial apparatus.

To understand the rebirth of the project economy in China, we propose an analysis based around three fundamental landmarks. The first of these was touched on earlier when we discussed the recomposition of the state sector in the Chinese economy, with the corporatization of old state-owned enterprises and the formation of SOEs under the control of SASAC. The second landmark is the evolution of Chinese industrial policies, mainly since the 10th Five-Year Plan (2001–2005). The third consists of the many transformations undergone by economic planning as a strategy of development, and in the adaptation of the planning process to a new economy where the project is able to take the place of the market as the core of the economy and of the new mode of production (intrinsic to the state/socialist sector), as is occurring within the NSEF.

Here we open a necessary parenthesis to clarify the relation between this resurgence of the project economy in China and what is conventionally described as the socialization of production. Rather, our debate concerns a process that involves a totality consisting of the socialist state, economic planning and the people themselves. The way China faced the pandemics provides an empirical proof of our theoretical proposition (the new projectment economy) and of its connection to an economy and society mediated by the socialization of production. We clearly defend the new projectment economy in China as the product of a historical process that includes the revolution in 1949, the reforms initiated in 1978, and the formation of a large publicly-owned productive and financial nucleus. This means that the project economy is the product of a totality. This totality incorporates the emergence of new and superior forms of economic planning, with large-scale public ownership of the means of production. There can be no "project" that is not founded on a large publicly-owned sector.

Let us highlight a quote by Aglietta, who disagrees with the secular stagnation hypothesis, and who goes further to point out that the new cycle of innovations will have China as the central stage. In his view,

The industrial revolution necessary to mitigate the environmental damages and adapt to a hostile habitat would involve transnational public assets, heavy investment and the institutions required to tackle new systemic risks. China has

not only an acute need, but also the financial resources and the political will to allocate large reserves to this supreme priority. (Aglietta 2016, 124)

Simultaneously, revolutionary transformations are occurring in the production sphere, in a process of the emergence/spread of new technological paradigms that is commonly known as the Fourth Industrial Revolution, and that features new patterns of manufacturing with still-unimaginable impacts on the world.²⁷ According to Coutinho,

Manufacturing in future will be part of this immense digital global network that is now in formation. Industrial automation will be articulated by the internet, covering all productive chains including raw materials supply, inputs, parts and components, all the way through the manufacturing processes, distribution, commercialization and finally the consumers. The possibility of using advanced computing systems to virtualize entire chains, online and in real time, will allow a significant optimization of efficiency and productivity [. . .] This new pattern of connected and smart manufacture will also harness the notable advances in robotics and in so-called additive manufacture (3D printing). Machinery, equipment, robots and 3D printers will gain their own cognitive capacities, based on advances in Artificial Intelligence (Al). In truth, the connected digitalization of production networks will allow the large-scale accumulation of data (so-called Big Data). (Coutinho 2018, 33)

It is evident that China is a part of the international effort to reach the technological frontier, and that the new projectment economy accords with this process, since its existence is conditioned to assimilate and reproduce the most advanced techniques available anywhere in the world. The Chinese effort has put the country among the forerunners, and has spurred a trade and technology war with unpredictable outcomes. This contest began in the first decade of the present century and has its roots in the exhaustion of a growth model based on imported technologies, with a corresponding decline in China's technological complementarity with the United States and Japan.²⁸ A degree of exhaustion became evident in Chinese development dynamics, with the model that during the first 20 years of reforms had assigned little priority to income distribution, and that had been established on the basis of investment rather than consumption, now losing its dynamism. It is fair to state that this accumulation had also encountered a limitation in the form of its high environmental cost. The new projectment economy in China can be understood as a response to these challenges.

During this century, Chinese industrial policies have become more proactive in terms of permanently seeking state-of-the-art technical development and

producing endogenous innovations. It is this proactiveness that is opening the way for the project to be the likely successor to the market as the functioning core of the economy. The emergence and corporatization of China's SOEs has put them on the front line of technical progress and of the management of new and superior forms of planning, as may be seen from the absorption of "technical progress" by the real economy. The case of high-speed rail systems, in which China has attained a technological frontier, is a case in point. According to Lo and Wu,

In this connection a new model has emerged in recent years, in which the main vehicles of the development of frontier technology are the SOEs. The development of high-speed railway technology is a prominent case [...] China started to import world-frontier technology in high-speed rail in 2004, with the targets of building up 200 km/hour trains in the first stage and 250 km/hour trains by 2009 [...] The targets were more than achieved. Not only did domestic firms fully assimilate the imported technology, but they also managed to improve upon it. By 2010 quite a number of railways had put into full operation trains with speeds ranging from 250 km/hour to 350 km/hour. By 2011 an entirely domestically produced train even managed to test the speed of 500 km/hour. (Lo and Wu 2014, 320)

High-speed railroads in China, the emergence of the associated productive chains and the rapid construction of train lines of this type throughout the country provide indisputable proof that the economy is each day more project-focused, with planning now able to perform resource allocation for large projects. The technological frontiers that remain to be reached still demand commitments in the form of massive state investments. The "stronger effort" being made to attain a new and more advanced mode of production can be witnessed in the mega-project "Made in China 2025" that was launched in 2015. If this plan achieves its goals, China will probably become the greatest technological power of the present century. Of course, this will bring with it many geopolitical consequences.

The plan aims to put China at the forefront of technical development through the attainment of a range of goals. The ten key sectors specified are as follows: 1) new information technology; 2) tools for numerical and robotic control; 3) aerospace equipment; 4) marine engineering equipment and high technology microchips; 5) rail equipment; 6) new sources of energy and energy management; 7) electrical equipment; 8) new materials; 9) biomedicine and medical equipment, and 10) agricultural machinery. The critical importance given to Artificial Intelligence throughout the project deserves to be highlighted.

The Chinese economy is moving rapidly toward superior levels of output and productivity. In our view, the problems being encountered in this process are related to the need to plan change as well, in order to adjust to an economy

centered in the project and no longer in the market itself. Here is the third milestone of the recent transformations that are intrinsic to the socialist sector of the Chinese economy: the new forms of planning in a new environment and in other technological landscapes.

Consequently, the evolution of planning in the Chinese economy must be seen as resting on three key developments:

- 1) the successful incorporation of Soviet-type central planning, responsible for constructing the industrial base prior to the 1978 reforms;
- 2) the "making of the market" from 1978 on, and the corporatization of old state-owned enterprises through the emergence of the SOEs and of SASAC. This completed the transition from a centrally planned economy to something that can be classified as "planning compatible with the market." This type of planning is not only valid for socialism. However, to advance toward the new projectment economy (socialism) amid the constraints of a world still dominated by market-capitalist forms of production and value exchange requires the adoption of an updated approach to planning, which has to be solidly based on a vast array of information and forecasts, and which must necessarily be compatible with the market. The need to make the transition to a historic form of planning compatible with the market is reinforced by the following quotation from Zhang and Chang (2016, 90):

On the other hand, since China's economic system was still in the process of transition, use of the traditional planning methods continued to decline, but was never completely abandoned by the decision makers. Instead, it came ultimately to figure in a certain form in macro-control as one of the optional policy tools in the hand of the decision makers. Under the great flag of macro-control, planning and market were properly integrated, and eventually formed the macro-control system integrated with the planning of the fiscal and financial sectors. The role of state-owned enterprises, local governments and the NDRC in macro-control, and the integration of market-oriented and administrative regulation and control represented therein, had become unique features of China's macro-control system. (Zhang and Chang 2016, 90)

Ultimately, compatibility with the market is a necessary condition for any kind of planning to be sustainable. Meanwhile, a political intervention compatible with the market is one that, though possibly inefficient with regard to the current structure of relative prices, aims to achieve superior socioeconomic results in the long term. Some very suggestive examples of this mode of planning lie behind the surprising results China has been attaining in the area of "green industries."

1) China's technical advances, and the large-scale production of goods characterized by the latest available technology, have represented the beginning of the long transition of the economy (and consequently, of planning) to forms no longer based on or compatible with the market. The first signs of a mature new projectment economy include a qualitative change in the level of planning: it gradually ceases to be compatible with the market, and becomes the generator of future markets directed toward the solving of today's great obstacles such as the environmental issue.

In 2017, for example, a fifth of all the world's sales of electric vehicles occurred in just six Chinese cities, where new legislation is in place to constrain the use of fossil-fueled cars. Total sales of electric cars in 2025 are forecast to be 11 million, of which 19% will be sold in China, 14% in the whole of Europe and 11% in the United States. In 2040, it is forecast that 40 million electric vehicles will be in use in China (World Economic Forum 2018). The city of Shenzhen was recently chosen as a future "socialist model city." Currently, public transportation and taxis in Shenzhen are not fueled by gasoline or diesel. Big Data techniques will be available for the management and administration of the city. According to Lifeng He, the Minister in charge of China's National Development and Reform Commission,

We [China] will be the world's first modern powerhouse that is not built by following the road of capitalism, but by practicing socialism with Chinese characteristics. The leadership of the Communist Party of China is the most essential feature of socialism with Chinese characteristics. (quoted in *South China Morning Post* 2019)

Final Remarks

This article has sought to feature the new projectment economy and to demonstrate that it is a reality in China, where it is beginning to form a counter to the financialized dynamics that dominate most capitalist socioeconomic formations. This situation may well be enough to establish the importance of a project or research agenda. So far, these projections have been based on forecasts rather than actual results, but the research agenda put forward in this article is not only the result of a great deal of research born out of analysis of the development process. To us, it was already evident at the time of the financial crisis in 2008 that something new was arising. At that point, the synthesis consisted of the role in tackling the crisis played by the Chinese government, as well as by its SOEs and the statemanaged financial system. It was clear to us that the process had already got underway earlier; as explained in the first part of this article, a path that was to

culminate in the maturation of an NSEF in China had been followed ever since 1978. However, the emergence of an NSEF seemed increasingly to be only the tip of the iceberg. To us, understanding the essence of those transformations and their impact on economic theory amounts to the greatest challenge for the social sciences in our age.

Revolutionary changes within the public economic sector were giving birth to a "new economy," or to be more daring, to a new mode of production resulting from the technological evolution of the public sector of the economy, the 97 SOEs. Because this was something new, occurring in the present, the available theories had little to offer, since all of them, both orthodox and heterodox, reflected the history of a mode of production that had served as the basis for their creation. In heterodox fashion, we might state that even Marxism needs to adapt to this new reality if it aims to demonstrate its universality. The discovery of Ignacio Rangel and of a book almost unknown to large audiences opened new possibilities, because similar phenomena had already been scrutinized in it—phenomena occurring mainly in the USSR and in a number of capitalist economies. The analysis of a genius, it must be said.

We have dedicated our efforts to reviving Rangel, and we recognize how right he was in his original hypothesis. The project economy, until recently rejected, has reappeared in China as part of that country's efforts to overcome the contradictions generated by its own development. When a country finds solutions to its own contradictions, it acquires an immeasurable power to point out new possibilities to the world, not only in terms of accumulation, but even in terms of the widening possibilities of humanity itself.

Through a maximum rationalization of the productive process, humanity can look forward to overcoming the market-centered economy and creating one that is centered on project, an economy that produces wealth and utility in the name of the common good. This is a real prospect, even if it remains a remote future possibility, and one that can be realized only very slowly. The potential that will open up as the new projectment economy emerges is indicated by such examples as the exponential growth of green industries in China, or the future projections for Shenzhen with its 12.5 million inhabitants. In devising his formulation, Rangel acted as the very antithesis of *homo oeconomicus*, and put economic science at the service of mankind. We conclude with some unassuming words by Castro, who takes up our research agenda in philosophical and humanist terms, and who carries forward the influence of Ignacio Rangel's humanism that is present in our propositions:

[...] a philosophical anthropology that conceives of man in his rational affirmation, without fetishes and as lord of his own destiny. A belief in progress and a range of

Prometheus-like traces in the relationship with nature complete the vision, whose roots lie in classical rationalism. Socialism is not an incidental fact; it is the becoming of the expected, which is in the process of historical construction. (Castro 2014, 222)

Notes

- 1. On the hypothesis of secular stagnation, see Summers (2014) and Gordon (2012).
- See the World Bank Data. Accessed January 4, 2020. https://data.worldbank.org/indicator/ NE.GDI.TOTL.ZS?locations=CN.
- See the World Bank Data. Accessed January 4, 2020. https://data.worldbank.org/indicator/ BX.KLT.DINV.CD.WD.
- See the World Bank Data. Accessed January 4, 2020. https://data.worldbank.org/indicator/ SP.URB.TOTL.IN.ZS?locations=CN.
- On the socialist market economy as an NSEF, see Gabriele and Schettino (2012) as well as Jabbour, Dantas and Espíndola (2021).
- 6. On this topic, see Rangel ([1959] 2005) and Castro (2014).
- 7. For us, the "new and superior forms of economic planning" being created and implemented in China are instruments to maximize state activities, based upon the relation between 1) central planning inheritance; 2) a wide range of mechanisms for state intervention, from capital flux control to the management of foreign exchange as a public and state planned asset (Jabbour and Dantas 2017); and 3) the incorporation of the whole contemporary technological landscape into planning, notably Big Data, the 5G platform and Artificial Intelligence.
- 8. On the concept of "socioeconomic formation" as we use it and apply it to China, see Jabbour, Dantas and Espíndola (2021). On that occasion, we explained it as follows:
 - [...] the static and the dynamic levels of analysis are being mixed up, and the result is a misleading interpretation of history. In the reality of the modes of production, we must follow the path suggested by Ignacio Rangel to realize that the degree of complexity of a society—where his famous expression "contemporaneity of the non-contemporary" (Rangel [1957] 2005, 498) is a general rule—requires us to engage in the difficult search only for that which is essential, necessary.

As Lenin has done at his time, it is necessary to go beyond the mode of production concept. In the words of Sereni ([1971] 2013, 314):

What was it that most of the "Marxists of the International II" had [...] falsified and that Lenin restored, deepened and developed in the Marxian notion of social-economic formation? The most reliable material to answer that question is offered to us by Lenin himself, who from his first work—in his essay Who Are the Friends of the People? written and published in 1894—begins to place not only the notion, but also the term social-economic formation at the heart of a fundamental category of historical materialism, just as Marx had done. It was emphasized [...] that this category expresses the unity (and, we will add, the totality) of the different economic, social, political and cultural spheres of the life of a society, and expresses it, moreover, in the continuity and at the same time in the discontinuity of its historical development. (Jabbour, Dantas, and Espíndola 2021, 24)

- 9. For an account of how China is responding to provincial government and private indebtedness and the emergence of an NSEF, see Jabbour (2020).
- See "China unveils \$586 billion stimulus plan." New York Times, November 10, 2008. https://www.nytimes.com/2008/11/10/world/asia/10iht-10china.17673270.html.
- See "China Injects \$126 Billion into Its Slowing Economy." New York Times, June 9. https:// www.nytimes.com/2019/09/06/business/china-economy-reserve.html.
- 12. It is useful to note that: 1) According to World Bank Data China's investment/GDP ratio in 2011 reached a staggering 47. 6% (accessed December 18, 2020. https://data.worldbank.org/indicator/NE.GDI.FTOT.ZS?locations=CN), allowing the creation of installed productive capacities sufficient to respond not only to internal challenges but also to international ones, such as the Belt and Road Initiative, launched by Chinese President Xi Jinping in September 2013; and 2) Data from the China National Bureau of Statistics shows that the Chinese railroad network expanded from 86,000 kilometers to 121,000 kilometers between 2009 and 2015 (accessed December 18, 2020. http://www.stats.gov.cn/tjsj/ndsj/2016/indexeh.htm).
- 13. Between 1949 and 1978 there was both continuity (with regard to the ideals of the Revolution in 1949 and the role of the state in economic planning) and discontinuity (the renouncing of a Soviet-type command economy in favor of a flexible set of dynamics that combined central planning, the market and the coexistence of a dominant public sector with multiple forms of ownership). As we will demonstrate, this process of change gave rise to the first experience of a new kind of socioeconomic formation, which can rightly be called a "socialist market economy." Other types of socialist socioeconomic formation, still based on the "Soviet model," may be observed in Cuba and in the Democratic People's Republic of Korea.
- 14. We believe there is a false controversy regarding socialism and the market. Markets are not a product of capitalism. There are records of functional markets in the Persian military market economy and in Roman-Greek slave society. Within socialism, markets are instruments used consciously in the interests of all society.
- 15. Along with the laws and regulations required to legitimize it (Naughton 2007, 2), its scope of activity widened in response to a massive transfer of state assets to the sector between 1994 and 2000, mainly in the area of small and medium SOEs. In that process, see Nogueira (2018).
- 16. On the 1994 fiscal reform, see Ki and Yuk-Shing (1994).
- 17. SASAC is the acronym for "State-Owned Assets Supervision and Administration Commission of the State Council." It is the agency in charge of managing the state assets employed by the SOEs. It is clearly evident that this agency is responsible for transforming the old state companies into SOEs able to face competition within the country and abroad. SASAC can be considered the manager of the socialist market economy in China. For more on SASAC, its development and the role it plays in China's economic and entrepreneurial system, see Chen (2017).
- 18. Curiously, despite being considered as "probably the most original analyst of Brazilian economic development" (Bresser-Pereira and Rego 1993, 98), Ignacio Rangel remains little discussed by people interested in Brazilian affairs, economists included. His book *Elementos de Economia do Projetamento* is a work of 110 pages, highly technical and fairly difficult to understand for beginners. It needs to be read more than once and with extreme care, given his seminal reasoning and intent, and his readiness to work with different schools of thought, even though his reasoning is openly based on German historicism and historical materialism.
- 19. In 1957 the Soviet Union showed the world the most advanced aspect of its then infant project economy, when the dog Laika became the first living being launched into space. Four decades earlier, the country's economy had been predominantly semi-feudal.

- To ensure the full employment of labor, the macroeconomics of the projectment economy allows, and may even recommend, resource allocation without technical progress (Castro 2014, 219).
- 21. On financialization as a systemic pattern of accumulation, see Braga (1997).
- 22. Things are useful when people can employ them to satisfy their needs (Rangel [1959] 2005, 367). According to Castro (2014), this is a genuinely Marshallian quote from Rangel.
- 23. Humanism in Rangel can be observed in his understanding of unemployment as something inherent to capitalism. Our view of Rangel's proposition leads us to believe that the project economy (which might be regarded as "socialism") includes the overcoming of unemployment through devising a "macroeconomics of project" entirely directed toward this goal. According to Rangel,

The project man, when deciding between two techniques, must feel an agent of society, which requires him not to accept anything without previous examination. His action must be oriented by a general master plan [. . .] and this plan will be different according to whether or not there is unemployment. All his actions must be subordinate to it, as the man of development tactics that he is. If there is unemployment, he must work to induce full employment; once it is achieved, he must seek the gradual retreat of labor from among the production factors. (Rangel [1959] 2005, 405)

This view is highlighted by Rangel once again: "In this case, the general strategy of development must adjust to this circumstance, and the project man as the man of development tactics must adjust his criteria to this circumstance" (Rangel [1959] 2005, 405)

- 24. According to Fiori (2007, 88), the United States under the Clinton administration involved itself in 48 military interventions, many more than in the course of the entire Cold War, when 16 operations were recorded. On belligerent Keynesianism, see Medeiros (2003).
- 25. On the "new market order" and the theoretical throwback in economics, see Fiori (1997) and Bresser-Pereira (2009). Belluzzo (1997) points to the inherent fallacy of the Washington Consensus and the strengthening of the role of the state within "globalization."
- 26. Gabriele and Jabbour (2022, Chapter 16) study the relation between the new projectment economy and the socialization of production.
- 27. On the consequences of technological transformations, see Coutinho (2018).
- 28. Some complementary information: According to Medeiros (2013, 423) since the 11th Five-Year Plan (2006–2010), the priority has been investment in key technologies such as semiconductors and software, with the quest for dominance in Artificial Intelligence included from 2010. Some SOEs, in coordination with Huawei, are already working on the 6G platform. Between 2005 and 2010 the level of public investment in science, technology and innovation rose by 170%. A 2018 report (available in https://tind.wipo.int/record/28222) by the World Intellectual Property Organization (WIPO) indicates that of some 12 million patent applications filed during the previous year, 5.7 million were made by Chinese institutions and individuals.

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