ENTERPRISE REFORMS AND INNOVATION AS KEY DRIVERS OF THE SOCIALISM WITH CHINESE CHARACTERISTICS

An Introduction to Enterprises, Industry and Innovation in the People’s Republic of China: Questioning Socialism from Deng to the Trade and Tech War by Alberto Gabriele

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Abstract: This article synthetically presents the key arguments and finding of a recent book of mine (Enterprises, Industry and Innovation in the People’s Republic of China: Questioning Socialism from Deng to the Trade and Tech War, Springer, 2020) on the gradual evolution of enterprise forms since the inception of rural and industrial reforms and the development of a modern innovation system in China. The book focuses mainly on the multi-causal processes of change occurring in the underlying socioeconomic relations of production and exchange, which cannot be adequately interpreted as a pure manifestation of the simple State–Market opposition. In fact, the complex and evolutionary interactions between state-led industrial and other development-oriented policies, on the one hand, and (relatively) automatic market mechanisms working in a quasi-by-default manner, on the other hand, constitute the essence of China’s distinctive economic model. From an epistemological perspective, the conceptual foundations of my work are those of the Classics and of the Marxian tradition, with the twin categories of the mode of production and socioeconomic formation as basic starting points. I try to partly re-interpreted these foundations taking into account the lessons of historical
experience, as tools that can help—along with other ones—to understand twenty-first-century complex socioeconomic systems.

**Keywords:** China; market socialism; enterprises; national innovation system

I

I am an international development economist, with over 30 years of experience in UNCTAD (United Nations Conference on Trade and Development) and other United Nations agencies and an extensive list of publications in areas such as agricultural, industrial, and innovation policies, international trade, food security, and income distribution. Since approximately the turn of the century, I have shifted the main focus of my research toward the specificities and challenges of socialist-oriented development strategies, focusing mainly on China, Vietnam, and Cuba. More broadly, I am particularly interested in the major challenges presented by the urgent task of perfecting and rejuvenating the Marxian approach in order to identify and understand the core laws of motion of socialist socioeconomic formations, to which I hope to provide some modest contributions.

II

I recently published a book on enterprises, industry, and innovation in China (Gabriele 2020). The book analyzes two key features of contemporary China: the gradual evolution of enterprise forms since the inception of rural and industrial reforms and the development of a modern innovation system. In this attempt, I strive to focus on the multi-causal processes of change occurring in the underlying socioeconomic relations of production and exchange. These processes cannot be adequately interpreted as a pure manifestation of the simple State vs. Market opposition. In fact, the complex and evolutionary interactions between state-led industrial and other development-oriented policies, on the one hand, and (relatively) automatic market mechanisms working in a quasi-by-default manner, on the other hand, constitute the essence of China’s distinctive economic model.

Most of the book is devoted to the perusal, interpretation, and targeted re-aggregation and re-elaboration of official Chinese statistics, without claiming to extract excessively ambitious and deterministic conclusions from the limited available evidence. This task is carried out in Parts I and II.

However, in my view, there is no such a thing as a fully objective and non-ideological human being. Social scientists are far from being an exception. Thus, the least dishonest stance consists in acknowledging our own interpretative perspective. I briefly expose my one hereafter.
From an epistemological perspective, the conceptual foundations of my work are those of the Classics and of the Marxian tradition, with the twin categories of mode of production and socioeconomic formation as basic starting points.

Yet, I try to partly re-interpreted these foundations taking into account the lessons of historical experience, as tools that can help—along with other ones—to understand twenty-first-century complex socioeconomic systems. The latter can be examined by judiciously juxtaposing their concrete performance with the main tenets of what are theoretically believed to constitute their core principles. In fact, socioeconomic systems can be synthetically described according to their position in a multidimensional space, determined by conceptual vectors that describe key structural economic and social characteristics. Such characteristics have both positive and normative components, and can be quantified *stricto sensu* only in some cases, while in others they can be evaluated only on the basis of heuristic assessments that are arbitrary to some extent. Complementarily, different real-world socioeconomic systems can also be appraised in a comparative fashion.

**III**

I focus on the evolution of some key elements of China’s ownership relations and planning and governance mechanisms (mostly in the industrial sector) and on the core characteristics of the country’s national system of innovation. On this basis, I propose a few basic conclusions on two main issues:

(i) the nature and effectiveness of the reforms and their impact on economic and technological performance;

(ii) the validity of the CPC’s (Communist Party of China) official claim that *Socialism with Chinese Characteristics* is a reality, and the key challenges and perspectives it implies.

The first issue is complex and challenging. Yes! It is relatively mundane, as it is one more example of a very common type of social science exercise—even taking into account that it is applied to a very large and very special country as China is. Conversely, the latter belongs to a qualitatively different epistemological level. In my view, given the peculiar teleological foundations of the People’s Republic of China (PRC), on which the CPC justifies its leadership and what it regards as its historical mission, an evaluation of China’s development trajectory cannot skip it altogether. Therefore, it is legitimate and reasonable to consider to some extent the relationship between empirical and quantifiable socioeconomic realities, on the one hand, and the hard-to-grasp, multidimensional, yet far from hollow concept of socialism, on the other hand. Of course, it has to be addressed with particular intellectual modesty.
Consistently, I try to discuss it in a very cautious and provisional framework, taking into account the limited scope of this work. In fact, the core of the book analyzes two key components of the PRC’s socioeconomic system, but leaves out other very important questions. For instance, I refer only fleetingly to the evolution of the state-controlled financial system, to China’s unique role in global international trade and the promotion of the Belt and Road Initiative (BRI), and to the relationship between the speed and pattern of economic growth and the emergence of geographic and social imbalances and inequalities (as well as to the targeted policies aimed at reining them in).

A fortiori, this circumscribed study cannot be expected to shed much light on other even more complex and intricate contradictions and challenges. Among them, the most paramount stem from the interactions and tensions between two distinct, albeit interrelated domains. One is that of economic development, planning and governance mechanisms, and of their impact on measurable socioeconomic indicators such as GDP growth, economy-wide structural change, productivity, poverty elimination, income distribution, and many others. The other domain is the quest for the enhancement of individual freedom, participation and capabilities, as well as the effective realization of socialist democracy.

The book sticks almost exclusively to the first domain. Moreover, it covers only a few of its multiple dimensions (for instance, as mentioned above, it does not explore the very important issue of income distribution). It does not venture into the second one.

Of course, this is easier said than done. Even if most of the argument does not cross the boundaries of economic science, I am aware that a specific epistemic risk cannot be totally ruled out. The risk consists of mixing up the positive (objective) level of analysis, on the one hand, with the task of comparing its results with the normative goals that have traditionally been associated with the worldwide socialist movement, on the other hand.

IV

In the first part of the book, I analyze China’s specific form of industrialization, which has been revolving around a mixture of capitalist and non-capitalist firms. Chapter 1 focuses in particular on the subsequent rounds of reform of the latter and on the increasingly crucial role of technical progress and innovation, spearheaded by the interactions between productive enterprises and other components of the country’s national innovation system. I also discuss the results of several empirical studies based on ample statistical evidence, questioning the orthodox assumption that all state-owned enterprises are by their own nature inefficient.
Part I describes the evolution of different types of non-capitalist enterprises in China—a topic that has not received the kind of detailed treatment that it deserves—in order to understand the nature of the industrial system of the PRC in the first two decades of the twenty-first century and its possible further evolution. Chapter 1 introduces and defines the concept of non-capitalist market-oriented enterprise, stressing that its scope is far wider than that traditionally associated with state-owned firms, collectives, and cooperatives. The concept is meant to identify a minimum common kernel shared by many, variegated forms of enterprises that have populated the landscape of China’s complex journey in the market-socialist era, and still constitute the backbone of its economy.

Chapter 2 focuses on the agrarian reform that led to the demise of the communes and the surge of two new forms of non-capitalist production units, the Household-based Farms and the Township and Village Enterprises. The following chapters are dedicated to an evolutionary investigation of the subsequent waves of industrial reform, from the timid experiments in the 1980s to the ongoing corporatization drive that has now reached its mature stage. In doing so, my vantage point is that of prioritizing the relationship between the mix of ownership structures and the behavior of enterprises.

In the subsequent chapters, I present a number of indicators on the deterioration and subsequent performance and profitability recovery of State-Owned and State-Held Enterprises (SOSHEs), showing that the recurrent rumors on the death of China’s public industry have been greatly exaggerated.

Part I ends with some concluding remarks. The impact of the 2007–2008 world capitalist crisis forced China to react swiftly, launching a powerful anti-cyclical expansionary investment drive that necessarily pivoted on directly and indirectly state-controlled industrial firms. The massive channeling of huge investments toward public industry led to a new stage in the traditional debate among more and less market-oriented observers and social scientists. Under the progressive hardening of the external geopolitical environment, eventually culminating with the launching by the US of the trade and tech war in 2018, these controversies eventually reverberated in the progressive re-orientation and firming up of the Party’s strategy toward a more complex and self-reliant development strategy.

The retreat of private industry caused by the world crisis and the enhanced dominance of the state-owned and state-controlled sector of the economy led some Chinese and foreign observers to worry whether—in spite of the official lip service paid to the decisive role of market forces in allocating resources—too many barriers were still unfairly and inefficiently protecting SOSHEs in many competitive sectors. However, many other voices—in the Party, the community of social scientists, and the public at large—found in the new international crisis and in the subsequent deterioration of the domination by the US and EU of the WTO-sanctioned multilateral
globalization regime new ammunition to criticize neoliberal monopoly capitalism. They also strongly criticized the excesses carried out under the pro-market drive (which included some debatable forms of financial liberalization), and the inordinate expansion of the private sector that had been taking place since the 1990s.

The most crucial question was still revolving around the developmental, growth-enhancing, and stabilizing function of SOSHEs in a developing socialist-oriented country like China. In my view, the main outcome of this dialectical confrontation was to lead the Chinese leadership to prioritize the task of strengthening, innovating and revitalizing the socialist core of PRC foundations.

*A fortiori,* this set of strategic questions is becoming more salient under the new Cold-War-like geopolitical *new normal* presently prevailing worldwide, which has been exacerbated by the devastating impact of the COVID-19 pandemic on the economic, political, and ideological fabric of Western core capitalist countries.

In this respect, it is essential to realize that—in the complex, nonlinear, non-deterministic context in which all large modern economies operate—the more an activity is strategic with respect to the functioning of the national economy as a whole, the more crucial its systemic enabling function. Conversely, considerations about firm-level competitiveness and profitability take a back seat—as far as conditions related to budget constraints and sustainability are met. SOSHEs operating in relatively competitive markets shall concentrate on innovation, technical progress, and the nurturing of international competitive national champions, maintaining healthy financial and profitability conditions. Their strategic function is indeed mostly sector-specific and firm-related. Other not-so-strategic firms operating in natural or quasi-natural monopolies shall focus relatively more on the systemic goal of smoothing, enabling, and enhancing the functioning of the rest of the economy, besides producing surpluses in order to provide dividends to state coffers.

Besides that, however, SOSHEs shall fulfill other two key functions. One of them is a classic macroeconomic one—to act as anti-cyclical stabilizers and structural, growth-enhancing investors of last resort. China’s experience appears to confirm that a socialist-oriented State with a sizable public sector can effectively push up aggregate investment beyond the level that would prevail under even state-guided capitalism. The other key function of SOSHEs—one that becomes more and more crucial as a developing country advancing on its catching-up path—is to perform as innovation engines.

V

Some more general and theoretical observations are also warranted. The constraints imposed by the permanent applicability of the *law of value* apply both to capitalism and socialism, limiting planners’ degrees of freedom. Therefore, the
advantages of public property are maximized where planning-compatible, but flexible and relatively self-propelling forms of socialist-oriented social relations of production and exchange can unfold—particularly so in partly competitive and not very strategic sectors. In other words, in a system strategically moving away from capitalism, the law of value applies more stringently to those sectors that concentrate most relatively standardized and ordinary commodity production and exchange activities.

Consistently, large public productive assets should chiefly be managed through multiple layers of holding bodies. Only managers and workers in productive enterprises have access to first-hand, firm-level and production-line information. Thus, these actors shall directly focus on production, the lower link of the overall value chain. Conversely, higher-echelon governance shall operate mainly via indirect financial levers, pursuing monetary-denominated objectives.

There is nothing simple in such a twenty-first-century strategic socialist-oriented industrial planning approach. Socialist ownership must be realized by means of a complex and multi-layered chain of command, which deals with capital in its own proper and distinctive form, that of value. In fact, there is ample justification for the need of maintaining and enhancing the value of public industrial capital, thereby striving to maximize public wealth. On balance, corporatization-oriented reforms of public industry appear so far to be suitable to the present stage of development of China’s economy. In the longer term, only time can tell whether, and to what extent, the most recent reforms of SOSHEs will be ultimately successful.

VI

Part II focuses on the new type of National Innovation System (NIS) that China is attempting to develop and institutionalize, aiming to achieve a smooth interrelation among the various sectors and layers of activities aimed at the generation and diffusion of knowledge, through a pragmatic blend of planning and market mechanisms.

For any at least relatively advanced country, the NIS constitutes the most crucial component of any path toward sustained and sustainable development. China’s innovation strategy has the ambition of adapting and perfecting world-class best practices from technological global leaders and successful late industrializers. Part II of this book analyzes the main features of China’s NIS and tries to evaluate, in light of available evidence, to what extent it has been able to advance so far.

I argue that China’s innovation strategy during the reform period shares many elements with the best practices of past and present experiences in now-advanced capitalist countries, and even more so in Asian Newly Industrialized Countries (NICs). Yet, it is peculiarly Chinese in at least two crucial aspects.
The first is China’s sheer size, which has allowed it to build up a NIS that ranks first worldwide according to the absolute level of many indicators (i.e., the number of Research and Development [R&D] personnel, the number of patents), and ranks second (after that of the US) according to the holistic criterion of evaluating its overall innovation potential. In this respect, it is important to remark that China has accomplished this feat at a stage when it still lags far behind all traditional technological leaders in terms of educational achievements, as well as in terms of per capita income.

In fact, China’s NIS has progressed along both the quantitative and the qualitative dimensions much faster than the economy as a whole, making PRC the only outlier among all countries. In fact, China has developed a NIS of unique absolute size and of a relative size and quality close to those of the most advanced capitalist countries, while its overall average degree of economic development is still that of a middle-level developing country.

The second aspect is related to China’s specific form of synthesis of markets and state mechanisms. While cautiously stressing the idiosyncratic and heuristic usage of the term, I refer to this mechanism as twenty-first-century Chinese market socialism. It confers on its leaders, at least potentially, an outstanding advantage in the crucial area of strategic planning, i.e., a superior capability to command the allocation of national resources, in order to earmark them strategically toward key goals accordingly to a clear set of priorities. This superiority is particularly apparent in the decisive area of innovation.

There are three distinctive characteristics that make this NIS unique and strongly socialistic in nature (more so than probably any other part of the Chinese socialist-oriented socioeconomic system), to a degree that qualitatively sets it apart from those of both developed and developing capitalist countries:

(i) the ability and determination on the part of the State to channel toward R&D a very high and growing share of national surplus;
(ii) the predominant role played by non-private actors such as public universities, research centers, government organizations, SOSHEs and other non-capitalist market-oriented enterprises;
(iii) the scope, impact, relevance and ambition of long-term national R&D and innovation plans.

Nevertheless, such a powerful interventionist role of the Chinese State in the task of developing and shaping the NIS is carried out in a market-compatible strategic framework, utilizing heavy-handed planning tools along with price- and incentive-based policy instruments.

China’s R&D expenditure has skyrocketed, shifting mostly toward productive enterprises, following a trend similar to that of Western technological leaders.
However, most of the (still insufficiently developed) basic and applied research—the activity with the strongest impact on truly radical innovation—is still carried out by public universities and research centers. Conversely, most of China’s R&D is less intrinsically innovative and short-term market-oriented, and a large part of it is carried out by private enterprises. Having reached this stage of development, China faces the new challenge of re-balancing R&D’s internal equilibrium, supporting mostly basic and applied research.

The overall outcomes of the huge R&D effort in China appear so far to have fallen somewhat short of the extraordinary achievements realized decades ago by the first Asian NICs. However, R&D outputs have risen very rapidly, and so have overall labor and industrial productivity, high-tech production and exports, measured both by engineering criteria and by the intrinsically flawed but still popular and (usually) roughly and heuristically useful economic concept of total factor productivity, or TFP.

Among industrial firms, private enterprises exhibit a high propensity to engage in R&D (mostly in the D component) and more able to translate it into new salable products. Their innovative capability appears to have been improving more rapidly than that of SOSHEs. Yet, most private enterprises still fail to carry out any R&D, and most entrepreneurs are risk-averse and not particularly tech-savvy.

However, SOSHEs are actually performing better than private ones, at least along some dimensions of overall innovative capability. Two elite groups of state-controlled enterprises have been performing best. One is constituted by the very large state-owned enterprises and other SOSHEs controlled by the State-owned Assets Supervision and Administration Commission of the State Council (SASAC). These firms are highly prioritized by planners, and follow a long-term strategy aimed at maximizing their overall systemic impact on the development of China’s economy as a whole. The other group is formed by SOSHEs run through a more indirect, multi-tiered and longer command chain. These corporatized entities operate autonomously in competitive markets, and in the domain of Science and Technology (S&T) and R&D policies exhibit a behavior that is intermediate between that of SASAC enterprises and that of private firms. My own empirical findings, stemming from an analysis based on official Chinese statistics, shows that the research capabilities of non-capitalist market-oriented enterprises have made important progress. Along with other publicly-controlled organizations, they are responsible for the bulk of the PRC’s R&D and innovation activity.

VII

My main conclusion is that the core, qualitatively, and dynamically decisive component of China’s NIS is still constituted by fully public, non-market-oriented
organizations. Virtually all basic research and the bulk of applied research in China is carried out by public universities and research centers. Central SOSHEs are also increasingly capable of engaging in strategic research activities, in order to achieve systemic breakthroughs in key scientific fields.

China’s NIS is developing along a dual but not necessarily contradictory path:

(i) private enterprises and market-oriented SOSHEs focus on market-oriented development, and are responsible for most of the R&D spending and patented national innovations;
(ii) higher-echelons of the NIS—public universities and research centers, giant SASAC-managed conglomerates and some other large SOSHEs—are more strategic-oriented. Since the mid-2000s, these strategic state-controlled industrial enterprises have become much stronger financially and institutionally. Many of them have been restructured and merged, and participate in several large national and local R&D and innovation plans.

The scope of the Made in China 2025 plan is more ambitious than those of its predecessors, as it poses numerical targets for production and market shares in key innovative sectors. Not surprisingly, it has alarmed the West and has been used as a key justification by the US for the launching of the trade and tech war. To achieve the goals of the plan under the present and forthcoming conditions of weakened cooperation and increasingly antagonistic confrontation with the world’s technological leaders, China needs to properly coordinate both tiers of its NIS as well as the rest of its industrial, financial, trade, and macroeconomic policies.

China’s overarching goal is to achieve a decisive qualitative leap in its NIS, drastically reducing its technological dependency on foreign powers and developing a systemic ability to generate world-class indigenous innovations.

VIII

The book ends with some (very brief) conclusions and two Annexes. In the conclusions, I emphasize two key points, which put forward a partly novel interpretation of two key aspects of China’s unique development pattern.

The first point is related to a crucial principle that has been reiterated again and again—albeit with slightly uneven nuances in different historical contingencies—by China’s leadership: the crucial and hegemonic role of public ownership on the country’s core means of production, and more broadly the absolute primacy of the State as leader and master of the country’s development trajectory, in the framework of a harmonic market context where different types of property
coexist. The latest rounds of industrial reforms have striven to modernize and sharpen the realization and operationalization of public ownership and its institutional modalities. To this end, the PRC has been gradually superseding old-fashioned and unsophisticated administrative command tools, relying more and more on indirect and value-based forms of strategic control over productive assets. This transition has been steered along with the opening of ample market opportunities for a fast-growing domestic private sector, while the weight of foreign investors has moderately declined.

The second point is the strategic centrality of technical progress and innovation and the purposeful endeavor for their endogenization, in order to overcome China’s knowledge-based dependence on foreign powers. China’s venture to become a first-class technological power and a breeding ground for indigenous innovation depends upon the quantitative and qualitative enhancement of China’s NIS. Indeed, China’s NIS has already reached a degree of development far more advanced than that of the national economy as a whole. Major high-tech companies, many of which developed autonomously in a classical Schumpeterian fashion, play a very important role in spearheading China’s innovation drive—although the State and the Party rightly keep a watchful eye on the real, yet unavoidable risks posed by the hubris of some of the most flamboyant entrepreneurs. However, the main engines of this vast and rapidly evolving structure are state-controlled enterprises, universities and research centers.

Annex 1 cautiously and tentatively explores the relationship between China’s socioeconomic reality and the category of socialism, taking into account the findings of the preceding chapters. CPC’s narrative claiming that China’s socioeconomic system is indeed a form of Socialism with Chinese characteristics is taken as the starting point. The argument leads to a qualified provisional validation of this claim.

Notes

1. I dislike the wanton, abusive, and misleading use of the term state capitalism that is now very popular among both conservative and ultra-leftist social scientists and commentators. Many of these analysts appear to forget that the concept of state capitalism, which had been anticipated theoretically by Engels, was correctly and properly applied by Lenin as a useful tool to analyze some economic problems of the newborn USSR. However, it was subsequently hijacked and distorted in so many different ways by other, far less acute and intellectually honest thinkers, to the point that at present it has been reduced to little more than a vague and ill-defined insult, not different from other pejorative expressions such as, for instance, populism or authoritarianism. In my view, it is particularly improper and erroneous to apply the concept of state capitalism to present-day China.

2. As this book is about China and socialism, I did not deem it worth to include a discussion on the nature of capitalism in its core parts. However, for the sake of theoretical clarity, I present a
stylized synthesis of my view on this point in Annex 2. One of its key arguments is that—contrary to the popular view of capitalism as a system intrinsically and foundationally based on perfect competition and a formally even playing field for all social actors—primitive accumulation fueled by predatory military aggression and wanton monopoly rents have been the original and key drivers of capital accumulation until World War II, and are a still far from a negligible pillar of the system.

Reference