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State-Owned Enterprises in Chinese Economic Transformation: Institutional Functionality and Credibility in Alternative Perspectives

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Abstract: The institutions of China's state-owned enterprises have deviated fundamentally from the principle of individual(istic) property rights. The paradox is that the enterprises appear to have performed well in terms of productivity and profitability. This article examines the institutions in the light of alternative theoretical perspectives. The central message is two-fold. First, regarding functionality, the long-term oriented institutions could be conducive to productive efficiency but could also be detrimental to allocative efficiency. Second, regarding credibility, the actual performance hinges on the appropriate match between the institutions and the broader developmental conditions. The efficiency attributes are thus found to be context-specific. Further discussion on the notion of context-specificity reveals that relative efficiency is conjunctural rather than structural in the determination of the functionality and credibility. In the spirit of Original Evolutionary and Institutional Economics, it is submitted that the attributes of relative efficiency are themselves subject to the particular "social valuation" of China's prevailing political-economic conditions.

Keywords: China, ownership, institutions, development

JEL Classification Codes: B52, O12, O53, P26

Is it *dirigisme* die hard, or is it a new development model? From the late 1990s until the present day, China's economic transformation has progressively exhibited the character of a state-led model—so much so that it has come to be known as "state capitalism/socialism, Chinese style." The trend of evolution dubbed *guo jin min tui* (the state sector advances, while the private sector retreats) is a concrete manifestation of this model. No wonder, against the background of disappointments in world development in the era of globalization, especially post-2008, the nature and significance of this model have been hotly contested both inside and outside China.

State-owned enterprises (SOEs) have always been at the heart of Chinese economic transformation and associated intellectual discourses. A central characteristic of the institutions of Chinese SOEs is that their institutions have continued to deviate fundamentally from the principle of well-defined, individual(istic) property rights. Compared to other

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types of enterprises in China, SOEs are more subject to state controls. Their relationship with major stakeholders has tended to exhibit a higher degree of rigidities, or long-term orientation.

Conceptually, there exists a recurring thesis in the relevant literature which highlights the essential role of the state in promoting economic development. This thesis, commonly associated with the "catching up" theory of Alexander Gerschenkron, centers on the active participation of the state and of big firms and financial institutions, in guiding the allocation of resources toward long-term productive investment. In this connection, a close and long-term oriented relationship between the state and the firms, and between finance and industry, is hailed as a necessary constituent of a successful development model.[1]

It is discernible that the Gerschenkron-type thesis, by emphasizing productive investment, presupposes a particular understanding of the efficiency foundation of development—namely, the centrality of productive efficiency. This stands in contrast to mainstream neoclassical economics (the theoretical underpinning of the dominant doctrines of development policy in the era of globalization) where the emphasis is rather on the centrality of allocative efficiency. This latter theory tends to see rigid, long-term oriented institutions as obstacles to the free movements of resources in pursuit of high rates of returns and thereby of the supposedly most efficient uses. Any reasonable assessment of a development model, therefore, need to first clarify the balance between productive and allocative efficiency arising from that model.[2]

Still, insofar as a development model does need to have its efficiency foundation, there is the question as to whether or not the balance between productive and allocative efficiency is necessary and/or sufficient. Put another way, different development models could entail different attributes associated with the distribution of wealth, power, and status, the consideration of which is no less important than the production and accumulation of material wealth. The concept of social efficiency from institutional economics, with its emphasis on comprehensiveness of the social underpinning of institutions, suggests that a development model normally needs to be able to bring into agreement between social and economic outcomes, on the one hand, and the values or beliefs (about what is "good" or "just") broadly agreed and shared in the society, on the other hand. Institutions, in short, need to have sufficient social credibility. The balance between productive and allocative efficiency might indeed satisfy this criterion in a particular historical context, but this could only be tentative in nature.[3]

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[1] For a recent presentation and application of the Gerschenkron catching-up theory of late development, see Nadia Vanteeva and Charles Hickson (2015). It is of note that the theory emphasizes not only the advantage of backwardness (the opportunity for late developing economies to import technology) but also the required existence of state-led, long-term oriented institutions for utilizing the advantage.

[2] At the most general level, allocative efficiency refers to the allocation of the economy's resources—at a particular point in time—in a way that yields the maximum level of (demand-satisfying) output, subject to the constraint of the existing technical conditions in production. An economic growth path that is based on allocative efficiency can be envisaged as a series of time-points at every one of which the economy allocates its resources to produce the maximum level of output subject to the technical conditions of that time-point. Productive efficiency, in contrast, refers to the allocation of resources in a way that promotes the increase in the output-to-input ratio. A growth path that is based on productive efficiency implies a process of continuous increases in the output-to-input ratio, reflecting technological progress and therefore productivity growth, although the economy might or might not be producing at the maximum possible level of output at every point in time. William Lazonick (1991, especially chapter 5) provides the possibly most incisive exposition on the distinction between the two different concepts of efficiency.

[3] The concept of social efficiency, meaning the efficiency of the whole economic system in relation to the achievement of economic aims of the society, is from John Clark (1924). This concept is in the spirit of the emphasis

These theoretical views offer good insights for investigating into the Chinese experiences, particularly regarding the complexity of institutional functionality and credibility. The economic performance of Chinese SOEs has always been a matter of debate, irrespective of the fact that, compared to other enterprises, SOEs have simultaneously received favorable policy treatments from the state while also being asked to take up extra social and developmental responsibilities. Still, there are a couple of observations that are well-recognized in the literature and can be established, tentatively, as stylized facts of the performance of SOEs.

Broadly speaking, in both productivity and financial terms, the performance of SOEs appeared to be close to non-SOEs in the 1980s. They then underperformed in the 1990s but have broadly outperformed non-SOEs since the turn of the century. Taking into consideration of the broader economic conditions, which will be depicted in more details in the article, two inferences can be made. First, market-oriented, flexible institutions tend to do better than rigid institutions in the context of demand stagnation. The underperformance of SOEs in the 1990s could be seen in this light. Second, the opposite is likely true in the context of stable and expanding demands. The good performance of SOEs since the turn of the century might be a case in point. From these inferences, it might be possible to further pin down the exact functionality of aspects of the institutions of SOEs. An appropriate approach to accomplishing this task is to examine their institutions in the lens of the indicated alternative theoretical perspectives.

The development of "state capitalism/socialism, Chinese style" has attracted widespread scholarly interests. Existing studies have tended to focus on unravelling the structural dynamics of Chinese economic development and the role of the state sector thereof.[4] In contrast, studies on the institutional attributes of the model appear to be relatively underdeveloped. This is probably due to the predominance of the neoliberal (or fundamentalist) versions of neoclassical economics, where it is postulated that institutions that conform to principles of the market are by nature uniquely efficient irrespective of whatever the prevailing structural dynamics.[5] A notable exception is studies in the tradition of institutional economics, which tend to be more open-minded in making judgement on the attributes of the institutions of Chinese SOEs and the state sector in general (Nee 2003; Nee, Opper and Wong 2007; Nee and Opper 2013). On the whole, however, there does not appear to have scholarly attempts to integrate this institutionalist approach with the studies of the structural dynamics of Chinese economic development.

The present article seeks to contribute to filling this gap of the existing literature. The central message of the article is that there are both attributes of efficiency and inefficiency associated with the rigid, long-term oriented institutions of Chinese SOEs. It is because of the appropriate match, or otherwise, between the institutions and the broader developmental conditions that SOEs outperformed non-SOEs in some periods while being outperformed in some other periods. The relative efficiency of SOEs vis-à-vis non-SOEs is thus context-

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on "social valuation" in Original Evolutionary and Institutional Economics.

[4] See Jesus Felipe, Ustav Kumar, Norio Usui, and Arnelyn Abdon (2013); Alberto Gabriele (2010); Sebastian Heilmann (2009); Daniel Poon (2009).

[5] For mainstream neoliberal, or market-fundamentalist, interpretations of China's state-led model, see Joseph Fan, Randall Morck, and Bernard Yeung (2012); Xi Li, Xuewen Liu, and Yong Wang (2012); and *The Economist* (2012). In the tradition of neoclassical economics, there also exists a body of work that follows a theorem-of-the-second-best approach, rather than market-fundamentalist approach, in interpreting China; see Chenggang Xu (2011) for a review and synthesis. Still, this body of work does not attempt to integrate the analysis of institutions with that of structural dynamics.

specific. Meanwhile, recall from the discussion above, efficiency is not necessarily always the criterion for judging the credibility of institutions. It is necessary to move one step further to clarify what are the functions that the institutions of SOEs have performed for the broader scope of Chinese political economy—what is the source of their social credibility.

On the whole, this article is basically a work of conceptual discussion in quest of theoretical depth, rather than an empirical study grounded on rigorous data analyses. It is purported to be an analytical and synthesizing overview, constructed in the light of alternative theories and empirical stylized facts. The article is organized in seven sections. Following this section of introduction, there will be a brief review of the relevant theoretical literature for the purpose of obtaining some useful pointers for empirical investigation into the topic. The section that follows then provides concisely a narrative, and conceptualized, account of the evolution of the reforms of Chinese SOEs. The narration is common knowledge in the literature. The conceptualization seeks to characterize the various stages of reforms, in relation to different theories of the nature of the market economy. A subsequent section further seeks to identify major trends of the development of SOEs and the broader economic context. It highlights the observation that the development is complex, and its interpretation requires a more nuanced approach than simple application of existing theories. The article then proceeds to a section of pinning down the efficiency attributes of the institutions of SOEs, in the form of four propositions. These propositions are meant to be consistent with the preceding empirical observations as well as a nuanced employment of relevant theories. A further section discusses the strength and limitation of the preceding analysis. It cautions against the simplistic endeavor of reducing institutional functionality and credibility to a process of natural selection based on the competition between efficiency attributes. This recognition of the broader set of determinants is a necessary qualification for judging the functionality and credibility of the institutions of Chinese SOEs. A final section concludes the article.

Pointers from Institutional Economics

The dominant doctrines of development policy in the era of neoliberal globalization, associated mainly with the Washington Consensus, necessarily include privatization of public assets and services. For, the doctrines center on making all productive resources financially tradable, so that capital can have the maximum freedom for moving around in pursuit of high returns. Well-defined, individualistic property rights are necessary for this pursuit. State ownership is by nature antithetical to the pursuit.

This doctrine on ownership has been subject to controversies. Theoretically, the claimed superiority of individualistic property rights is based on the postulate that self-interested market agents, in making their decisions of financial investment, tend to fully utilize all the relevant information, and hence the decisions will tend to be more efficient than any other feasible alternatives. This theory, which stems from the work of Armen Alchian and Harold Demsetz, subsumes all kinds of efficiency under allocative efficiency. Institutional rigidities are deemed to inevitably cause inefficiencies because of their obstructing effects on the financial tradability of productive resources (Alchian and Demsetz 1972; Demsetz1983).[6] In contrast, the tradition of economic studies represented by scholars such as Alfred Chandler, Jr. and William Lazonick differentiates productive activities from speculative activities—

[6] For a more recent elaboration to take into account of developments in the era of globalization, see Simeon Djankov, Edward Glaeser, Rafael La Porta, Florencio Lopez-de-Silanes and Andrei Shleifer (2003).

hence the distinction between productive and allocative efficiency. Rigid, long-term oriented institutions (the "visible hand") could have the benefit of fostering productive efficiency, mainly through collective learning. Maximum freedom for financial investors, on the other hand, is prone to cause short-termism (that is to say, speculation undermining productive investment) (See Lazonick 1991, 2009).

There exist a range of theories in the economic literature on the firm, which can be seen as attempts to synthesize the aforementioned contrasting views on the efficiency attributes of rigid institutions. Oliver Williamson's theory of idiosyncratic exchange is an incomplete synthesis, as it assumes away the distinction between institutional forms and functionalities by leaving the existence or otherwise of the distinction to be determined by the market ("in the beginning there was the market," Oliver Williamson 1985, 1995). Masahiko Aoki's theory of comparative institutional analysis holds no notion of a universal determinant of optimal institutions, indeed no notion of optimal institutions altogether. It rather asks the following question: given the strength and weakness of the functionality of different institutional forms—in particular, shareholder accountability (flexible institutions with well-defined property rights) versus stakeholder accountability (rigid institutions with vaguely-defined property rights)—under what circumstances will one particular form be more efficient than the other? (Aoki 1990, 2001)

From the perspective of institutional economics, Aoki's question is open-ended at one level but close-ended at another level. The "open-ended" one, as mentioned, is that there seems no notion of optimal institutions being assumed in asking this question. There are multiple determinants of the functionality of institutions, and their credibility depends on the consistency or otherwise between the institutions and the unspecified, broader context. The "close-ended" one is that efficiency, whatever its forms and sources, is still upheld as the ultimate criterion of credibility. In policy discourses, the mainstream neoliberal view in recent years is simply to reduce the broader context, and the multiple determinants, to the working of the market. The market produces optimal institutions via a process of natural selection, based on the efficiency criterion. This is market fundamentalism *par excellence*, not different from the previous mainstream position of ignoring the role of institutions altogether.[7]

Looking back at the actual experiences of market fundamentalism, and reviewing the state of art of the literature on institutions, Ha-Joon Chang has reached a virtually antithetical view: "we are still some way away from knowing exactly which institutions in exactly which forms are necessary, or at least useful, for economic development in which contexts" (Chang 2007, 3). This view is not necessarily agnosticism. Ilene Grabel proposes that the principle of "democratic credibility" is essential, in any circumstance, to moving towards knowing what the literature on institutions seeks to know (as specified in Chang's statement). This being the case, the working of the market will necessarily be superseded by a multiple of mechanisms and the actions of multiple agents in the formation of institutions (Grabel 1999). As Peter Ho explains, "the credibility thesis posits that when certain institutions or property rights persist, they perform a certain function in society or a community. In so doing, they rally a given level of perceived support and are deemed credible by social actors or economic agents" (Ho 2014).[8] Only in exceptional circumstances that the said mechanisms

[7] This market fundamentalist view is clearly evident in the policy doctrines of the Washington Consensus (Chang 2007), as well as in the broader political establishments of the capitalist world (Grabel 1999).

[8] Ho moves on to posit: "the credibility is not about any desired or predetermined institutional form for economic growth and development, but it is about institutional function in its temporally and spatially determined

could be reduced to the market, and the multiple agents could be reduced to purely market agents. In this light, Aoki's view delineates a set of special cases, where relative efficiency (which can take multiple forms) happens to be accepted by the society as the most important criterion of institutional credibility. And the market fundamentalist view, which sticks to the criterion of allocative efficiency alone, is no more than a special case in this set.

The preceding exposition can be reframed in a more articulate way with reference to a long-standing tradition in institutional economics, namely, the tradition of Original Evolutionary and Institutional Economics. The concept of "social valuation" can be understood as tantamount to Peter Ho's interpretation of the social credibility of institutions, quoted above. Moreover, the credibility of institutions can be distinguished between their "instrumental" and "ceremonial" value base, which can be roughly characterized as productive and acquisitive, respectively. Given that ceremonial value is typically the product of particular "cultural mores, and institutionalized ranks, status, and authorities" (Hickerson 1987, 1129), the credibility of institutions therefore must be shaped by their associated pattern of the distribution of wealth, power, and status. And given that some degrees of ceremonial dominance (vis-à-vis instrumental value) must always exist, institutional change in the direction of progressively improving the social efficiency "will not automatically occur but will require discretionary public-policy support."[9] The extent to which members of the society participate in the public space—democratically or otherwise—in shaping the evolution of institutions will both influence the functionality and credibility of the resulting institutions.

Thus to summarize, the review of the relevant theoretical literature in this section aims to look for possible pointers for investigating the functionality and credibility of the institutions of China's SOEs. As a first step, it draws on alternative theories of the firm for clarifying the issue of functionality in terms of balancing productive and allocative efficiency. It then moves on to clarify the issue of credibility by drawing on theories from institutional economics. More detailed arguments pertaining to alternative theories of the firm will be invoked in the actual analysis of the efficiency attributes of SOEs in the subsequent section entitled "interpreting the efficiency of SOEs". A discussion on social credibility in the broader sense in the section entitled "beyond efficiency" will seek to pin down the concrete forms of social efficiency, and the social valuation thereof, in the particular conjuncture of Chinese political economy since the turn of the century.

Characterizing the Reforms of Chinese SOEs

With hindsight, the trend of *guo jin min tui* (the state sector advances, while the private sector retreats) since the late 1990s, and Chinese economic transformation in general over

context." In this light, this article submits that economic development as the criterion of institutional credibility is only conjunctural, rather than structural. Only in the specific circumstance in reform-era China that the demand for economic development commands the level of political and social supports that are stronger than other alternative demands. By extension, a pattern of development based on productive efficiency (and with it long-term commitments, cooperation, stability…) is more consistent with the social-political conditions than that based on allocative efficiency (and with it short-termism, competition, instability, etc.). See the section below, entitled "beyond efficiency", for elaboration.

[9] Wolfram Elsner (2012, 2) highlights the following as one of the core characteristics of Original Evolutionary and Institutional Economics in explaining institutional change: "[institutional change results from] changes of the degree of ceremonial dominance, where typically there will be either an ongoing (enforced) ceremonial encapsulation (i.e., no change of degree after a counter-movement) or a regressive or progressive institutional change (increasing or decreasing degrees of ceremonial dominance)."

this period, can be understood as the consolidation of a particular state orientation. This orientation, namely, is the fundamental shift from socialist commitments to developmental concerns. Up until the early 1990s, the reform of SOEs was strictly within the limits of socialist commitments. The neo-liberalization drive in the second half of the 1990s, which was most drastically represented by the privatization of SOEs on a systematic scale, for one time, seemed to indicate that the state turned to embrace the model of free market economy in toto. Yet, what has subsequently turned out is that the state has continued to maintain a sizeable and fast-expanding sector of SOEs. These SOEs are actually the sector of big corporations in China, reflecting the desire of the state to control the "commanding heights" of the economy and thereby to direct the path of overall development (Lo and Smyth 2005; Lo and Zhang 2011).

The reform of SOEs in the first half of the reform era first took the form of the practices of profit retention in 1979–1983. Enterprises began to be allowed to retain part of their profits at their own disposal, instead of handing over all profits to the government. They were also granted autonomy in decision-making after fulfilling state planning directives. These implied a significant departure from the centrally planned system, where SOEs operated under state planning and, in terms of status, they were mere administrative divisions of the state apparatus. Further measures to institutionalize the distinctive interests of SOEs, vis-à-vis the government, took the form of the tax-for-profit reform in 1983–1986. The reform sought to substitute a uniform system of income taxes for the case-by-case bargaining regime of profit sharing between the government and SOEs. This was in pursuit of the separation of the government and SOEs, so that SOEs could be forced to be responsible for their own profits and losses and to engage on an equal footing with each other in market competition.

From 1986 until 1992, the reform of SOEs turned to pursue the separation of ownership and control by means of adopting the contract management system. Now, instead of applying a regime of uniform tax rates, this system rather moved back to the case-by-case bargaining regime—it sought to fix the base of tax-and-profit remittance and to allow SOEs to keep all the above-base profits. It required SOEs to ensure steady increases in tax-and-profit remittance over the pre-contract amount which was taken as the base. And the bargaining was done between the state-owner and the management, the latter representing all the inside members of the enterprise. In practice, the inevitable information asymmetry between the state (as an outside entity) and the management (as representative of inside members) tended to result in soft-budgeted behavior of the enterprise. A systematic phenomenon was that there were serious asymmetries between the responsibility for profits and that for losses. Enterprise tended to over-expand in good times, and to demand re-negotiation over tax-and-profit remittance in bad times. The contract management system thus became unsustainable in the recession years of 1990–1992.[10]

Conceptually, all these twists and turns of enterprise reform in the first half of the reform era could be traced to the incompatibility between the socialist nature of Chinese SOEs and the state orientation toward building up a market economy. The socialist nature was such that the state had almost unlimited responsibility for the survival of the enterprise because, ultimately, it had the political commitment to protect the job security and even the income levels of the workers. This nature of SOEs was, in the first place, incompatible with the Walrasian notion of the "pure" market—the theoretical underpinning of the pursuit of the separation of the government and SOEs. In relation to SOEs, whether or not they

[10] Barry Naughton (2018, ch.5 and ch.14) provides a clear and comprehensive narrative account of the reforms and development of Chinese SOEs.

were socialist, the state is both the government (which collects taxes, ideally at a uniform rate) and the owner (which collects "dividends" that are bound to vary across enterprises). An arm's-length relationship between the state-owner and SOEs can only be exceptional, even in a market economy. It was thus a logical step forward for the state to modify its understanding of the notion of the market economy, to take into consideration of the possible separation of ownership and control. Yet, the compatibility between this modified notion of the market economy and the socialist nature of Chinese SOEs was still limited. The soft-budgeted behavior of enterprises under the contract management system, and the associated asymmetry of responsibilities, indicated this limitation.

The strive to break the limitation by means of mass privatization in the neo-liberalization years of the second half of the 1990s was, strictly speaking, unintended on the part of the Chinese state leadership. The strive was mainly due to local authorities of different levels which, seizing upon the center's call for *zhua da fang xiao* (keeping the large, liberalizing the small), simply privatized the assets of most small and medium SOEs while socializing their liabilities. What the state leadership wanted, or what it actually announced, was just to pursue the separation of socialist ownership from the state-owner's property rights in SOEs. By transforming SOEs into different kinds of limited liability companies or shareholding companies, the state's responsibility for SOEs would then be limited up to the actual capital it invests, and SOEs would have to be responsible for their own profits and losses up to the point of bankruptcy. Regarding control, the state would reserve the power over the selection of the top management of SOEs and over their strategic decision-making. SOEs would receive investment from the state and other legal entities, and the state would enjoy proportional returns from enterprise profits. In practice, these reforms were mainly applied to large-scale SOEs that have continued to be under the control of the state.[11]

Central to the evolution of reform described above is the changing relationship between the state and inside members of SOEs, along with other main stakeholders including the banks, related business partners, and the local communities. The arrangements of negotiation over tax-and-profit remittance concern the distribution of enterprise surplus between the two sides, as well as the multiple agents involved. Hence, the evolution of enterprise reform was characterized by a series of compromises among these stakeholders, particularly between the state and the inside members. The governance structure of SOEs tended to be characterized by a web of checks and balances among these agents, each having some degree of long-term commitment with the enterprises. Put another way, the governance structure could be characterized as comprising a system of rigid institutions—the state-enterprise relationship, the employment relationship, the finance-industry relationship, etc.—with a systemic focus on long-term orientation. For the remaining, large-scale SOEs this character has been significantly weakened but not eliminated by the neo-liberalization drive in the second half of the 1990s, at least in comparison with other kinds of enterprises in China. This is a far cry from the principle of well-defined, individual(istic) property rights.[12]

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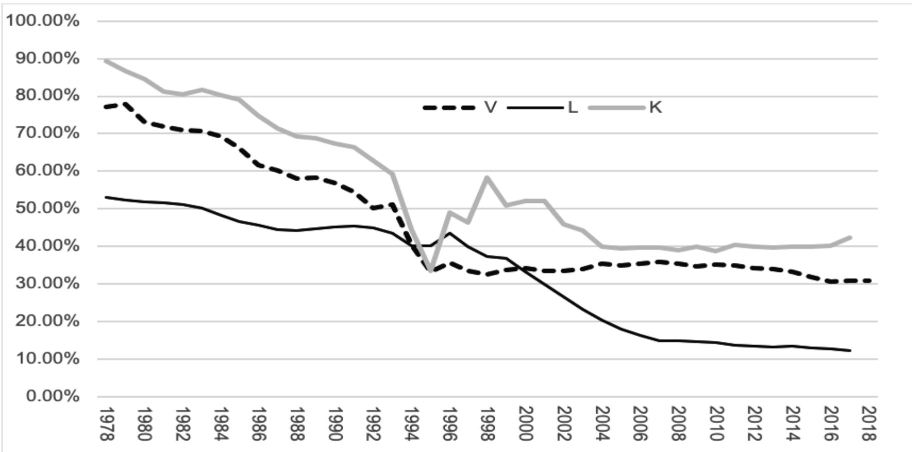
[11] Yi-Min Lin and Tian Zhu (2001) document in details the reforms of Chinese SOEs in the 1990s.

[12] According to a deputy minister of the State-Owned Assets Supervision and Administration Commission (SASAC), as of 2013, most SOEs were still burdened with a range of social obligations, which makes it impossible for them to be completely commercialized. And one of the main obligations was long-term commitments for the job security and well-being of employees. See Huang Shuhe (2014).

The Complexities of the Economic Performance of SOEs

Whatever the assessments of the efficiency of the reformed institutions from alternative theoretical perspectives, the actual performance of Chinese SOEs vis-à-vis non-SOEs has been far from clear-cut. In industry, the share of value-added of SOEs underwent a secular trend of decline from 77% in 1978 down to the lowest level of 32% in 1998. Thereafter, the share has stabilized to remain at the region of 30%-plus until 2017. Together with the output of mixed-ownership enterprises that were indirectly under state control, by 2017, the state sector probably accounted for almost a half of the total industrial value-added in China.[13]

Figure 1. SOEs' Shares of Output, Employment, and Capital in Chinese Industry



Sources: China Statistical Yearbook, China Statistical Abstract and China Industrial Economics Statistical Yearbook, various issues.

Notes: V = value-added at current prices, L = labor employment, K = net value of fixed assets. The data are shares of SOEs from 1978 to 1995 and of SOEs plus state-controlled shareholding enterprises from 1996 in Chinese industry as a whole.

For output shares, the numerator refers to the value-added of SOEs in the "formal sector" of Chinese industry (i.e., "township-and-above independently accounting industrial enterprises" in the years 1978–1997 and "all state-owned enterprises plus above-scale non-state-owned enterprises" from 1998). The 1978-1991 data are converted from net value of industrial output. The 1992–2007 data are official. The 2008-and-after figures are estimates based on official data of real growth rates and assuming that their price deflators are the same as industry total. The denominator refers to the industry component of gross domestic product from national income accounting tables.

For capital shares, data of SOEs are official. Data of Chinese industry total are estimates, based on the assumption that non-SOEs in the informal sector have the same capital-output ratio as those in the formal sector.

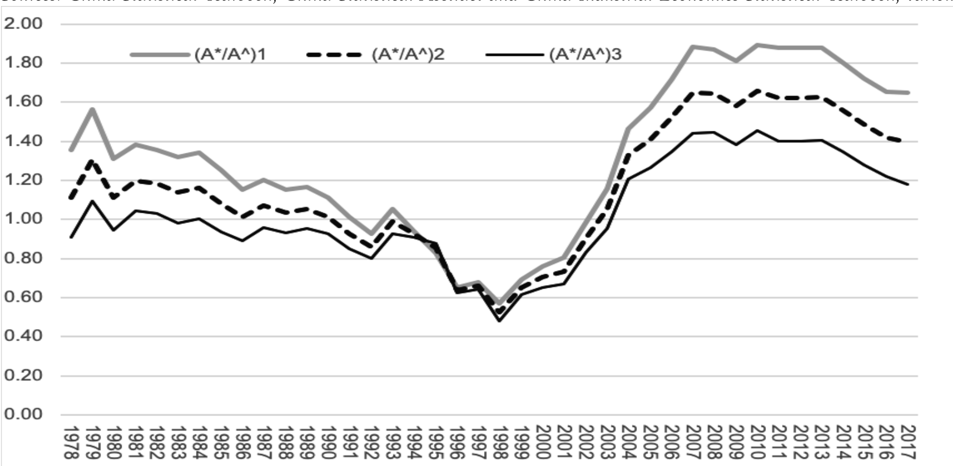
The 2011-2017 labor employment data of industry total are estimates, assuming that Industry's share of employment of the Secondary Sector (Industry plus Construction) is the same as the average of 2006-2010. The 2012-2013 figures of labor employment of SOEs are estimates, assuming that they grew at the same trend rate up until 2014. All the other labor employment data are official.

In the meantime, in 2017, the capital share of SOEs in Chinese industry remained at a high level of 42% whilst the employment share declined to a low level of 12%. It is clear from Figure 1 that there has emerged a pattern of division of labor in Chinese industry where SOEs, compared to non-SOEs, are more concentrated in capital-intensive, large-scale industries. In 2017, for instance, the capital-labor ratio of SOEs was 5.30 times of that of non-SOEs. Meanwhile, concerning the broader picture of the Chinese economy as a whole (establishments of industry plus non-industry), the annual survey by the business association China Enterprise Confederation reveals that, in 2012, up to 62% of the largest 500 firms by sales values were SOEs. Of the top forty firms all but one were SOEs. The sales value of SOEs within the top 500 was on average 2.78 times that of non-SOEs. Moreover, of the

Fortune Global 500 biggest firms in 2018, mainland China had 115, of which ninety were identifiably SOEs (which accounted for 84% of the sales revenue of the 115 firms). This number of Chinese firms in the Fortune Global 500 was very close to that of the United States, and that of the European Union.[14]

Figure 2. TFP Levels of Industry: SOEs Relative to Non-SOEs

Sources: China Statistical Yearbook, China Statistical Abstract and China Industrial Economics Statistical Yearbook, various



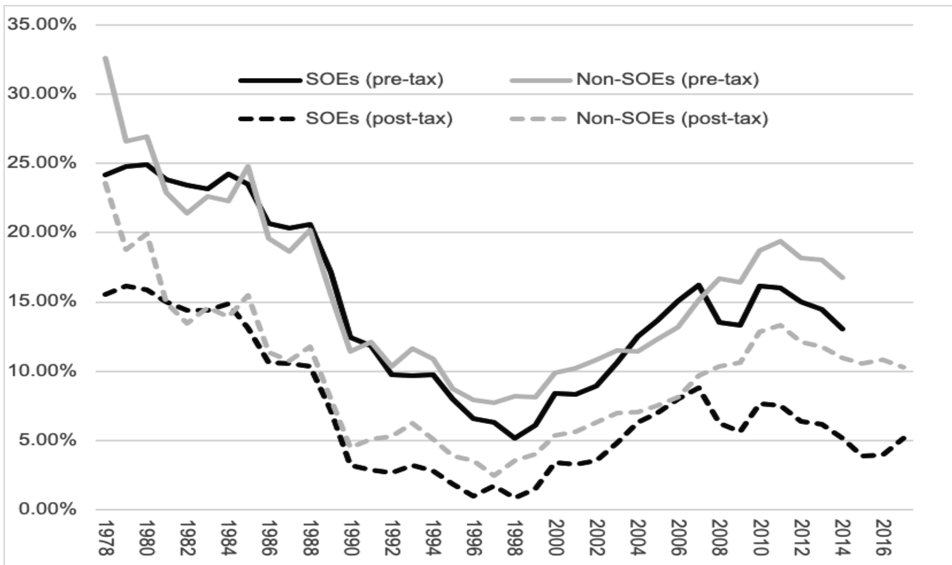
issues.

*Note: Assume the level of TFP, A = V/($L^{\alpha}K^{\beta}$), where $\alpha + \beta = 1$. The symbols * and ^ denote SOEs and non-SOEs, respectively. In the figure, the three curves of relative TFP, 1, 2, and 3, correspond to α taking a value of 0.6, 0.5, and 0.4, respectively.*

From the data of Figure 1 it is also possible to infer about the evolution of productivity performance of industrial SOEs vis-à-vis non-SOEs. This evolution, presented in Figure 2, is at any rate spectacular. Within a range of reasonable assumptions about the values of the output elasticity of capital and labor, there is a pattern of SOEs underperforming up until the year 1998 but then reversed the comparison. In 1998, the level of total factor productivity of SOEs ranged from 0.48 to 0.57 times of that of non-SOEs. By 2017, the comparison ranged from 1.18 to 1.65 times, which broadly surpassed the respective figures in 1978, the beginning year of economic reform. The much slower pace of productivity growth of SOEs in the period 1978–1998 has been almost a consensus in the literature. The reversal of the comparison in the period 1998–2017, in contrast, has rarely been recognized. What is most interesting from the point of view of this article is the observation that the comparison can fluctuate, by massive magnitudes, from one side to another. This suggests that the relative efficiency attributes and the credibility of the institutions of SOEs must be context-specific, rather than being determined by general theories. The suggestion could only be reinforced if, in line with the general thesis of institutional credibility, consideration is taken of further social and political functions (over and above relative efficiency) performed by the institutions of SOEs. This will be investigated later in the section entitled "Beyond Efficiency."

The complexity with the comparison is also evident in industrial profitability, indicated in Figure 3. In the early part of the reform era, 1978–1992, the levels and trend of evolution of the pre-tax profit rate of SOEs were mostly very close to non-SOEs. Thereafter, divergence between the two sectors has been the normalcy. In the next ten years from 1993 to 2003, SOEs had serious underperformance. Then, in the years 2004–2007, the pre-tax profit rate of SOEs exceeded that of non-SOEs. In the subsequent years of 2008–2014, however, SOEs once again registered serious underperformance. This complexity suggests that institutions analyzed in isolation might be insufficient for explaining the comparative performance of SOEs vis-à-vis non-SOEs. The trend of evolution of profitability, where both SOEs and non-SOEs exhibit a secular decline from 1978 to 1998 and a massive rebound thereafter, further reinforces this judgment.

Figure 3. Profit Rates of Chinese Industrial Enterprises



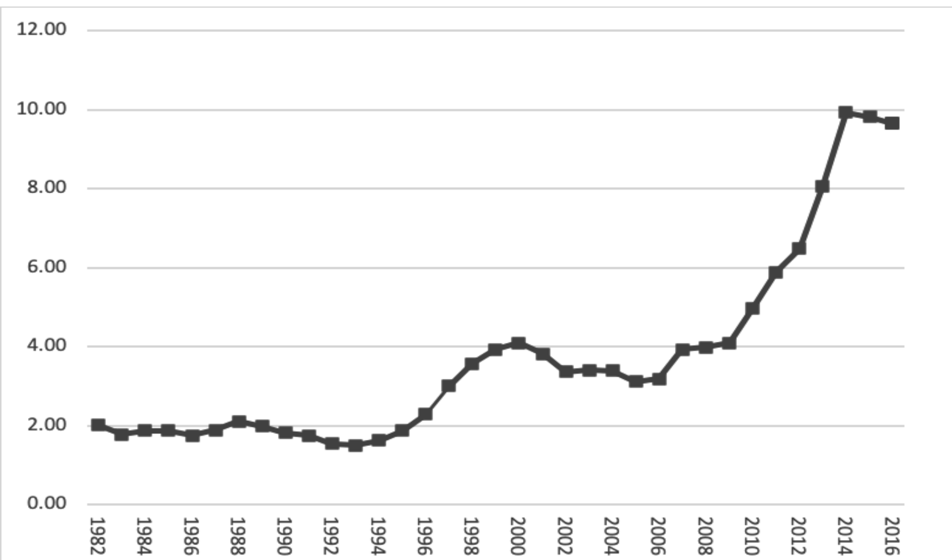
Sources: China Statistical Yearbook, China Statistical Abstract and China Industrial Economics Statistical Yearbook, various issues.
Notes: Pre-tax profit rate = (total taxes + total profits) / (working capital + net value of fixed assets). Post-tax profit rate = total profits / (working capital + net value of fixed assets).

Non-SOEs in this figure refer to non-SOEs in the formal sector of Chinese industry.

Tentatively, it could be judged that the performance of SOEs has tended to be more than proportionately influenced by the general developmental conditions. The neo-liberalization period of the second half of the 1990s might be an exceptional period, where SOEs were seriously adversely affected by the government measures of fundamental restructuring, unilateral privatization, and mass lay-off. Otherwise, SOEs had underperformance mostly in years of economic downturns—indeed in the years of deflation or stagnation associated with the East Asian financial crisis (1998–2002) and the world recession emanating from the financial crisis in the United States (2008–2014), respectively. The boom years of 2004–2007, in contrast, witnessed the reversal of the comparison. In the existing literature, the explanation of the comparative performance of the profitability of SOEs is a matter of debate, between the story of ownership differences and that of increased market competition. Given all the twists and turns of the performance as characterized above, it might be possible to add a third story: namely, the differentiated influences of the general developmental conditions on SOEs and non-SOEs.[15]

In this connection, it is worth-noting that the evolution of the general developmental conditions has been reflected in a transition from labor-intensive industrialization up until the mid-1990s to a new path of increasingly capital-deepening industrialization thereafter. Figure 4 shows the changes in the incremental capital-output ratio (ICOR) of the Chinese economy. It can be seen that from the beginning of the reform era until the mid-1990s, the ICOR curve was rather flat. This implies that economic growth during this period was associated with the substitution of labor for capital in production (massive transfers of labor from the rural-agricultural sector to industry). From the mid-1990s onward, the ICOR curve tended to move upward and became rather steep. Capital-deepening became a prominent characteristic of economic growth. This new growth path is likely to have been consistent with the fast expansion of large-scale enterprises, which are mostly SOEs. Put another way, the changes in the comparative performance of SOEs as characterized above might have been related to this evolution of the economic growth path.

Figure 4. Incremental Capital-Output Ratio of Chinese Economy (5-Year Moving Averages)



Sources: China Statistical Yearbook, various issues.

Notes: Incremental Capital-Output Ratio = dK/dY, where dK = I = total fixed-asset investment, dY = GDP of current year minus GDP of last year.

Thus to sum up, over the reform era, both the productivity and profitability performance of SOEs underwent a trend of secular decline from 1978–1998 and then a massive rebound up until the mid-2010s. This appears to be basically consistent with the concurrent change in the general developmental conditions, associated with the transition from labor-intensive growth to capital-deepening growth. The situation with the comparative performance of SOEs vis-à-vis non-SOEs has been more complex. Whilst the same trend of secular decline and then massive rebound is clearly observable with the indicator of relative productivity, there have been far more twists and turns with the comparative performance in profitability. This situation appears to confirm a recurring thesis of the literature: that Chinese SOEs might have been able to improve their productivity, but they also have the instinct to excessively expand their pay-outs for inside members thus eating into their profitability.[16] Whether or not this characteristic of SOEs is indeed problematic, or whether it is an outcome of their institutional function in the Chinese economy, however, is not straightforward. Its implications need to be analyzed in the broader context of the Chinese model of social and economic development—the broader determinants of the credibility of the institutions of SOEs. This issue will be dwelt on later in the section entitled "Beyond Efficiency," after the exposition on the comparative efficiency of the institutions of SOEs in the next section.

Interpreting the Efficiency of SOEs: Institutional Functionality and Credibility

If the characterization of Chinese SOEs and the analyses of their economic performance in the preceding sections have elements of truth, it is possible then to view their otherwise theoretically "sub-optimal" institutions in different lights. For, the reason why the institutions are deemed sub-optimal is that the theoretical perspective in question—of well-defined, individual(istic) property rights—focuses, rather too narrowly, on allocative efficiency. Once the focus is broadened to incorporate the concern for productive efficiency, the relevant neoliberal judgments on Chinese SOEs might become partial or even misleading.

In the perspective of economic development under neoliberal globalization and drawing on a range of theses on late development from heterodox economics, it is plausible to raise the following four propositions from China's actual experience of economic transformation and the role of SOEs thereof. These propositions are meant to highlight the point that the efficiency of particular institutions is context-specific. Hence, the economic performance of Chinese SOEs has been determined by both the functionality and credibility of their institutions in the specific context of changes in the general economic conditions. An integrative discussion on these propositions towards the end of this section will relate the Chinese experience to the various strands of general (though still efficiency-centered) theories on institutions and late development.

Proposition 1: Soft Budget Constraints are Necessary for Corporate Entrepreneurship.

SOEs, it is claimed as almost a consensus in the existing literature, necessarily entail soft budget constraints. And soft budget constraints must be antithetical to allocative efficiency. The reasoning is two-fold. First, as most sharply defined by Janos Kornai, soft budget constraints arise from deviations from individualistic property rights: "the residual income that emerges as the difference between receipts and expenses does not pass into the pockets of natural persons, and the losses are not covered by the same natural party" (Kornai 1990, 57). Second, as phrased in "modernized" terms (to incorporate theories of endogenous technological change and human capital into the notion of allocative efficiency)

[16] The World Bank made the famous assertion: "China's state-owned industrial enterprises remain a drag on the economy during the reform era—even though their efficiency might be improving." (See World Bank 1996). This assertion is consistent with the work of Chongen Bai, David Li and Yijiang Wang (1997) which argues that Chinese SOEs has the instinct of excessive pay-outs for inside members over and above their productivity gains.

by Simeon Djankov and associates, the security of individualistic property rights are of the upmost importance for economic development because "by encouraging people to invest in themselves and in physical capital, such security fosters economic growth" (Djankov et al. 2003, 596). [17]

From the perspective of productive efficiency, it can be argued, theoretically, that strictly hard budget constraints have the problem of producing short-termism and volatility. The planning horizon of financing entities—which must be utility-maximizing, natural-personal individuals if hard budget constraints are to be achieved—can be much shorter than what is required for productive or entrepreneurial activities. A certain degree of soft budget constraints is necessary for the long-term pursuits of firms (Lazonick 1991; see also David Teece 1993).

In the context of China, amid systemic and structural changes of exceptionally large scales, the development of entrepreneurship conceivably takes time and this development can be interrupted by fluctuations in the economic environment. Hence, a soft budget constraint—based on the close state-business and finance-industry relationships—is instrumental in protecting potentially efficient firms from being wiped out by the fluctuations. Recall that quite a number of Chinese firms have entered the rank of the world's top 500 nowadays and have competed successfully in the world market. These are mostly large-scale SOEs. Yet, virtually none of them could be regarded as internationally competitive just a decade ago.

Proposition 2: The Government Can Serve as a Surrogate for Corporate Entrepreneurship.

In the context where corporate entrepreneurship is underdeveloped, government actions might be able to act as a surrogate. This is a general thesis that has emerged from the literature on late development. Scholars like Alice Amsden, Robert Wade, and Ha-Joon Chang have developed the argument that an essential feature of the successful experience of East Asian industrialization, particularly in Japan and South Korea during their respective "take-off" periods, is the entrepreneurial role played by the state (Alice Amsden 1989; Robert Wade 1990).

The argument derived by this group of scholars from East Asian experience focuses on industrial policy. It need not be that restrictive. As is well established in the classics of heterodox economics, state entrepreneurship extends to carrying out large-scale industrial construction (Alexander Erlich), promoting technology imports and assimilation (Thorstein Veblen), and directing corporate financing and governance (Alexander Gerschenkron) (Erlich 1960; Veblen [1915] 1964; Gerschenkron 1962). In the modern presentation of these views, Post-Keynesian scholars highlight the crucial role of the state in reducing system-wide uncertainties confronting economic development, while Schumpeterian scholars emphasize the role of the state as the most farsighted and least risk-averse investor in the market economy.[18] Even moderate neoclassical economists that follow a market-failures

[17] Harold Demsetz (1983) develop the argument that well-defined property rights are essential to allocative efficiency. Kornai (1990) makes it explicit that soft budget constraints can be avoided only under well-defined property rights. For a more recent and much fuller exposition on the theories and realities (in the era of globalization) of soft budget constraints, see Janos Kornai, Eric Maskin and Gerard Roland (2003).

[18] For the Post-Keynesian view on "the state as an uncertainty-reducing institution," see Steven Pressman (2006). Mariana Mazzucato (2013), who frames the concept of "transformative mission-oriented investments" (meaning innovation investments that are of paradigmatic importance) as the main task of the entrepreneurial state, is perhaps the most influential Schumpeterian work in recent years. See also James Cypher (2014) for a schematic review of the modern literature on the role of the state in late development.

approach, such as former World Bank chief economist Justin Lin, accept that the need of market-friendly interventions is sufficient to establish the crucial role of the state in the development process.[19]

The same thesis has been applied to studying Chinese economic development over the reform era. The findings from these empirical studies are mixed, but there are multiple cases of government actions being found to be significantly conducive to economic development. The successful development of a series of high-tech industries has been partly ascribable to the helping hand of the government. The emergence of most of the internationally competitive large-scale enterprises, both SOEs and non-SOEs, has also been significantly assisted by government actions. The general point is that, given the late-comer status of the Chinese industries and firms in the world market, purely market-conforming commercial activities might not be sufficient for their development. By extension, for the development of the Chinese industries in question, the closer of the industries to the world technological frontiers, the less capable of purely commercial activities to accomplish it, and hence the stronger the need for government helps.[20]

Proposition 3: The Employment Relationship Can Be Idiosyncratic Exchange in Nature.

An enterprise system characterized by low labor mobility and rigid wage adjustment is deemed intrinsically inefficient from the neoliberal point of view. But, the idea of idiosyncratic exchange raised by Oliver Williamson and associates posits that some degree of rigidities in the employment relationship can help to establish the long-term commitments of both the employers and the employees, and thus can be conducive to the performance of the firm. This idea rests on the premise that there are significant gains from idiosyncratic knowledge, such as firm-specific skills (Williamson, Wachter, and Harris 1975). The thesis of collective learning from the literature on late development, where the acquisition of productivity-enhancing knowledge is found to be a collective endeavor and requires the active cooperation of the multiple agents involved, has given further emphasis on the importance of such gains.[21]

Over the reform era up until today, the employment system of SOEs has been infused with a much higher degree of rigidities than non-SOEs. In relation to this characteristic, it is also observable that SOEs have had higher levels (and faster rate of increases) of productivity,

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[19] The development policy literature on the role of the government has had its focus on the debate over comparative advantage-defying (CAD) versus comparative advantage-following (CAF) industrial policies. Ha-Joon Chang argues that CAD policies are often needed for the development of industries that are characterized by dynamic increasing returns. Justin Lin, in contrast, argues that the principle of comparative advantage is good enough to guide late development—it is just because the market as an entity often suffers from intrinsic failures, and hence cannot always function in line with the principle, that government interventions via CAF policies are needed. Both thus agree that the government does have an entrepreneurial role to play in development. See Justin Lin and Ha-Joon Chang (2009).

[20] The edited volume by Yu Zhou, William Lazonick and Yifei Sun (2016) collects a range of case studies of the development of high-tech industries in China and the crucial role of the state thereof. In a similar spirit, William Lazonick's (2004) work on IT industries, and Michael Renner and Gary Gardner's (2010) work on the development of high-speed railway are studies that support the argument that, in the Chinese experience, the closer to the world technological frontiers the stronger is the need for government helps for the development of the industries in question. For theoretical underpinnings for this argument, see Aoki (1990, 2001) and Chang (2007).

[21] Amsden (1989) has gone so far as to develop "the learning paradigm of late development," meaning that the capability to learn to assimilate and improve upon imported technology is a necessary condition for late development, as is evident in the successful experience of East Asia. Michael Best (1990) relates the capability of learning to different forms of firm organization, including the organization of work and the employment relation.

as well as the wage rate, particularly since the late 1990s. The cost and benefit of the faster increases in the wage rate need to be analyzed in the broader context of social and economic development, which will be dwelt on in the next section. Yet, there is still evidence suggesting the existence of a mutually-reinforcing relationship between faster productivity growth and wage growth in SOEs, relative to non-SOEs. The implication is that the faster wage growth, and behind it the higher degree of labor protection and job security, helps to promote learning effects—which, in turn, promote productivity growth (Rong 2013). This is consistent with the thesis of idiosyncratic exchange, as well as that of collective learning.

Proposition 4: The Competitiveness of Enterprises Depends on the Match Between their Institutions and the General Development Conditions.

The exposition above highlights the general thesis that the substitution between market-conforming and market-supplanting institutions could imply a trade-off between allocative and productive efficiency, and that the seemingly sub-optimal institutions of Chinese SOEs can be seen in this light. Theoretically, the net outcome of the trade-off depends on the appropriate match, or otherwise, between the institutions and the general developmental conditions. This thesis is most sharply framed by Masahiko Aoki's work on comparative institutional analysis. The focus is on the consistency between the organizational forms of the firm and the demand environment. A rapidly changing environment tends to favor the atomistic firm of the Walrasian arm's-length market relationship, which is flexible in adjusting to adapt to the instability. A stable environment tends to favor the working of hierarchical firms that rely on top-down planning, such as the traditional Soviet-type enterprises or the American Big Business prior to the neoliberal era. In comparison, it is in an environment of continuously but also steadily changing demand that enterprises with institutions of long-term and cooperation orientation can do well, via collective learning and therefore productivity growth (Aoki 1990).

In the tradition of heterodox economics, there exists a well-established thesis concerning the appropriate combination of institutions and the industrialization path in achieving successful late development. Clarence Ayres summarized the thesis in the following statement: "The overall economic development of any people is conditioned by the interaction of the dynamism of technology and the inhibitory force of institutionalized tradition." And the dynamism of technology in late development is what Thorstein Veblen termed the "merits of borrowing." This is more than simply importing technology from the advanced economies. It also necessarily involves a process of assimilating and improving upon the imported technology through the co-evolution of the technology and the institutional conditions (Clarence Ayres 1960, 50; Thorstein Veblen [1915]1964, ch.2).[22] In a sense, Aoki's argument depicted above is a restatement, and a concrete presentation, of this general thesis from heterodox economics.

Empirically, there is good evidence suggesting that China's economic growth path in a good part of the reform era was favorable to the long-term-oriented institutions of SOEs. Economic growth since the mid-1990s has been associated with a process of large-scale, capital-deepening industrialization. This provides ample scopes for the utilization of dynamic increasing returns as the main source of productivity improvement. As a

[22] Complementary to Veblen's concept of the "merits of borrowing," both Erlich (1960) and Gerschenkron (1962) argue that large-scale industrialization together with its appropriate institutional conditions –big firms with long-term oriented financing and governance, in the view of Gerschenkron—are essential to the dynamism of technology in late development.

consequence, the capabilities of collective learning of Chinese industrial firms, SOEs in particular, underpinned by their high degree of rigidities in institutional arrangements, are likely to have been an important source of their competitiveness.[23]

On the whole, the above four propositions can be understood as an application of Albert Hirschman's influential theory of "exit," "voice," and "loyalty" to the analysis of an experience of late development that is China during its reform era. The exit option refers to the Walrasian pure market, while the voice and loyalty options refer to long-term-oriented institutions. And there are both cost and benefit associated with the three options, depending on the specific circumstances under investigation (Hirschman 1970). What distinguishes between voice and loyalty is the existence, or otherwise, of market competition as the ultimate and pervasive determinant of the economic relationships involved. Thus, Williamson's theory of idiosyncratic exchange is in line with the notion of voice, because the choice of long-term relationships is considered to be outcome of the self-interested, rational decisions of the agents involved. In contrast, cooperation (rather than competition) is the defining characteristic of loyalty. The emphasis on the importance of collective learning, and therefore cooperation, in late development implies the work of scholars such as Amsden, Aoki, and Wade is basically in line with the notion of loyalty.

These four propositions appear to constitute a coherent explanation of the relationship between the institutions and actual performance of Chinese SOEs, depicted in the preceding sections. As indicated earlier, SOEs tended to outperform non-SOEs in boom years but the opposite tended to be the case in stagnation years. This is clearly evident in terms of relative productivity performance. The likely reason is that fast output growth provides an increased scope for the utilization of dynamic increasing returns via learning, which is the strength of rigid, long-term oriented institutions. Stagnation or recession, in contrast, increases the advantage of the ability to change and to adapt to the changing environment, which is the strength of flexible, short-term oriented institutions. The comparative financial performance of SOEs vis-à-vis non-SOEs basically follows the same pattern, although, in this regard, the benefit of rigidities has tended to be lesser and the cost has tended to be larger. Yet, these financial benefit and cost for the enterprises could become of rather different implications from the perspective of the broader context of social and economic development, as will be discussed in the next section.

Beyond Efficiency: SOEs in "State Socialism/Capitalism, Chinese Style"

The preceding exposition on the functionality and credibility of the institutions of Chinese SOEs gives much emphasis to the performance of relative efficiency. This seems to implicitly hold an assumption that is in fact a basic postulate of neoclassical economics: namely, there is a process of natural selection of institutions based on the competition between their respective efficiency attributes. The Williamson-type theory of institutions, which is founded on the notion "in the beginning there was the market," is in line with the postulate. Applying the same approach to study institutional change in China, Chenggang Xu asserts: "As I argue in this paper, the lessons of China's reforms suggest that an answer to this fundamental question [à la Ronald Coase regarding the boundary between the market and

[23] Dic Lo and Guicai Li (2011) explicitly analyze the interaction between structural changes and institutional attributes in China's economic growth. Their econometric work reveals that, in the context of large-scale, capital-deepening industrialization, SOEs tend to be more capable than non-SOEs in generating productive efficiency but being less able in reaping allocative efficiency. This finding is consistent with the propositions of the present article.

the government] is ultimately determined by the trade-offs between costs and benefits of different forms of the government" (Xu 2011, 1078).

Unlike neoclassical economics, Original Evolutionary and Institutional Economics holds a broader concept of the efficiency foundation of institutions—social efficiency, as opposed to the efficiency in the production of material wealth alone. In the spirit of this latter tradition, in the exposition above, the emphasis on relative efficiency (and hence the implicit assumption of natural selection, to some extent) is treated as conjunctural, rather than structural. There is no assumption of the ubiquitous existence of market competition between different kinds of institutions. It is just due to the specific context of Chinese political economy over the reform era, where efficiency and hence economic development are regarded by the entire society as important, that makes natural selection of importance. Even so, efficiency need not be uniquely defined as per the neoclassical concept of optimality. It could be of different meanings in conjunction with different models of social and economic development. A quick review of the model of "state socialism/capitalism, Chinese style" should make this point clear.

Succinctly, in terms of economic development, the model has simultaneously achieved the following, all on unprecedented scales, particularly since the turn of the century: rapid expansion in both investment and consumption, rapid rises in both productivity and the wage rate, and rapid increases in job creation. All these have provided the necessary material conditions for broader social development: the fundamental enhancement of the power of labor, the reconstruction of a publicly-funded comprehensive healthcare system, and the acceleration of the process of urbanization.[24] The relative efficiency of SOEs, and the functionality and credibility of their institutions, should all be assessed in conjunction with these developments.

Table 1 indicates the real growth rate of per-worker GDP in three sub-periods over the reform era, of which the first two are the focus of the discussion here. In the years 1978–2000, an average rate of 7.6% per annum was recorded. In the subsequent years of 2000–2012, the rate increased to reach the high level of 9.7% per annum. At any rate, an average annual real growth rate of labor productivity by 8.3% for the entire period of 1978–2012 must be regarded as respectable, or even miraculous. The acceleration of the rate of growth from the first to the second sub-period is therefore all the more spectacular. Note that the years 2000–2012 were exactly the period when the trend of "the state sector advances, while the private sector retreats" was in full swing.

The productivity improvement has been translated into rises in the living standard. Table 2 indicates the real growth rate of total consumption and investment. In the years 1978–2000, the average annual real growth rate of consumption was 8.2%, which was close to the investment growth rate of 9.2%. Entering the years 2000–2012, consumption growth accelerated to a rate of 10.1%, amid the even faster acceleration of investment growth to reach a high rate of 15.0%. These trends of evolution indicate that the investment-led, capital-deepening path of economic growth has been associated with an acceleration, rather than a slowdown, in consumption growth.

[24] For the fundamental changes in social development in China since the turn of the century, see Wang Shaoguang (2013). For the fundamental changes in the policy-institutional regime and actual performance of labor employment during this period, see Chang Hee Lee (2009).

Table 1. Average Annual Growth Rate (%) of Real GDP and Employment

	(a) Real GDP	(b) Employment	(a)-(b)
1978-2018	9.4	1.4	8.0
1978-2000	9.7	2.1	7.6
2000-2012	10.2	0.5	9.7
2012-2018	7.0	0.2	6.8

Sources: China Statistical Yearbook, various years.

Table 2. Average Annual Real Growth Rate (%) of Consumption and Investment

	Consumption	Investment
1978-2018	8.7	10.4
1978-2000	8.2	9.2
2000-2012	10.1	15.0
2012-2018	7.9	6.0

Sources: China Statistical Yearbook, various years.

Notes: Data are consumption and investment (gross capital formation) components of GDP by expenditures approach. Consumption growth is deflated by the consumer price index; investment growth is deflated by the investment price index.

The productivity improvement has also been associated with an enhanced capacity of the economy in job creation, defying the capital-deepening character of the growth process. In the Chinese statistical system, agricultural labor is assumed to be in full employment. This is dubious. To verify the job creation capacity of the economy, one needs to look at the transfer of labor from agriculture to industry and services. Again, it is precisely in the years 2000–2012 that there was an unprecedented record of labor transfer. In twelve years' time, the agricultural share of employment decreased by a hefty 16.4 percentage points. The fact that there were still problems of urban unemployment was rather due to the even faster pace of urbanization during this period: agricultural employment on average decreased by a hefty magnitude of 8.56 million people a year, compared with the figure of net increase of 3.51 million a year in 1978–2000.

Working together, and in conjunction with the rather healthy state of public finance, these trends of social and economic development suggest that—since the turn of the century—China has been on the path of converging to a model that is said to operate in most advanced capitalist countries in the "Golden Age" of 1950–1973. The model can be simply characterized as having as its pillars the three agents of "Big Business, Big Labor, and Big Government." Big Business refers to the prevalence of a capital-deepening growth path and the associated predominance of large-scale enterprises. Rapid productivity growth based on dynamic increasing returns is the raison d'être of Big Business. Big Labor is typical of the voice option, taking the form of collective bargaining and having the property of fostering idiosyncratic exchange. Big Government, in the first place, refers to the welfare state, which is considered to be helpful both for lowering labor cost for individual business firms and for supporting mass consumption that is necessary for the utilization of dynamic returns from mass production. It also refers to the essential role of the state in initiating, or supporting, basic innovation activities and infrastructural investment that facilitate systematic capital accumulation (Glyn, Hughes, Lipietz, and Singh 1990).[25]

Insofar as the judgment of China converging to the "Golden Age Model" has elements of truth, the institutions of SOEs could then take on new meanings. Efficiency attributes might be essential to the crucial role of SOEs in the model, but so is their ability to promote the voice and/or loyalty option in the employment relationship. The underperformance of SOEs in business profitability, in conjunction with their superior performance in productivity, might turn up to be an advantage rather than a disadvantage. Promoting wage growth might be bad for profitability, but, in the particular context of the "Golden Age Model," it could be good for overall social and economic development. The institutions of SOEs might thus have credibility transcending the narrow confine of efficiency. They might function in a way that is in appropriate match with the overall development model, thereby satisfying the congruence of the multiple forces—economic, political, ideological, etc.—that leads to the convergence to the model.

The exposition above seems to depict a "China story" that fundamentally contradicts, or at least deviates from, the mainstream neoliberal literature. Before closing, however, it will be useful to see if the depiction does hold water in the face of the critical, anti-neoliberal literature. All too often, studies from this latter literature tend to portray a dismal, or even miserable, picture of China's social and economic development, especially since the turn of the century. Philip Huang, for example, states: "The big question for China's development is not whether state firms should play a key role, or exist at all, but rather where the profits of state firms are to go. Thus far, a great deal has gone for the enrichment of capitalists, officials, and the state itself rather than society at large and the public good, to result in massive social inequalities, well captured by the oft-used term 'state capitalism'" (P. Huang 2012, 622).

There is indeed an unsettled question in the exposition above, particularly in this section, when it uses the term "state socialism/capitalism, Chinese style." Is the reality socialist or capitalist in nature—or, more up to the point, is it fundamentally different from neoliberalism? The "Golden Age Model" embodies a strong character of compromise between capital and labor, where the arrangements for economic production-reproduction are subject to society-wide negotiations. In this sense, it is qualitatively different from neoliberalism. Yet, the suggestion that China's economic transformation since the turn of the century has tended to converge to that model might be viewed with suspicions. There have been worries among critical scholars that, insomuch as there was such a convergence, it has already been killed off after the demise of the "Chongqing Model" in 2012. According to these scholars, the Chongqing experience was representative of the rather scant attempts in China of the quest for equitable development based on the working of the "third hand," —in essence, the government using SOEs as a main vehicle to allocate the latter's earnings mainly to fund social equity programs and infrastructural investment (P. Huang 2011).[26]

[25] Andrew Glyn (2006) further compares and contrasts the "Golden Age Model" with the "neoliberal globalization model." William Lazonick (2009) provides a complementary, more micro-focused work by comparing what he calls the "Old Economy Business Model" with the "New Economy Business Model." These studies inform the discussion in this article on comparing the model of "State Socialism/Capitalism, Chinese Style" with its neoliberal alternative. Dic Lo (2016) provides a detailed account of China's convergence to the "Golden Age Model" since the turn of the century, and the systematic forces to undermine the convergence arising from financialization particularly after 2010.

[26] Yuezhi Zhao (2012, 6) suggests that "the Chongqing Model attempted to find a way that allows the complementary growth of state, transnational, and domestic private sectors in a mixed economy." The demise of the model thus leads to her worry that it could "represent the last milestone in the Chinese path of negating socialism." (16)

Ultimately, the suspicion over China's economic transformation among critical scholars arises from their particular understanding of the fate of labor in the process. The notion of "super-exploitation" seems to have occupied a central place in the critical literature ever since the early work by Martin Hart-Landsberg and Paul Burkett (2004), David Harvey (2005), and the like. In their views, the perceived miserable fate of labor is sufficient to qualify Chinese political economy as neoliberal—indeed putting China among the most neoliberal in the world. Philip Huang's statement below can be considered as culmination of these views: "But the reality is that 86 percent of the workforce, and hence of the population, remain in the second-class informal economy, low paid, overworked, outside of the protection of state labor laws, without (or with only second-class) health and retirement benefits, and without access to schools in the city." (P. Huang 2012, 622).

Is this real? Maybe, but presumably it is just about the fate of workers with non-SOEs relative to those with SOEs. And it might well be just a partial reality. Three points need to be noted. First, it is plainly not true that China's economic growth has been mainly based on "cheap labor," noting that labor productivity grew at a hefty average annual rate of 9.0% in the years 1990–2018. Second, it is also plainly not true that this productivity growth has been mainly based on raising work intensity. Suppose the average working hours of workers increased by 50% (an exaggeration) over this 28-years period, the average annual growth would then be 1.46%, which would account for just one-sixth of the realized labor productivity growth. Third, wage rise has been substantial: over this same period of 1990-2018, the average annual growth rate of the real wage of urban workers and migrant workers was 9.3% and 6.9%, respectively. Finally, it should be noted that, since the turn of the century, productivity growth has accelerated and the wage growth for both urban and migrant workers has persistently outpaced productivity growth. Given all these observations, the suggestion about the convergence to the "Golden Age Model" thus seems to carry more truth than the perception of "super-exploitation."[27]

What about socialism, or, what remains of socialism? An important thesis from Original Evolutionary and Institutional Economics concerns creative conjecture. Social valuation of existing institutions necessarily requires clarifying how do they compare with alternatives.[28] The preceding exposition seeks to establish that Chinese economic transformation has been a more equitable, progressive alternative to neoliberalism. It will be equally legitimate, and desirable, also to compare the transformation with the inspirations of socialism, or similarities of socialism. The emphasis on participatory democracy in corporate governance, which had its tradition in Chinese SOEs (in the form of the famous "Angang Constitution") but has been largely suffocated by market reforms, remains an aspiration (Xie, Li, and Li 2013). The exploration for SOE reforms in the direction of social sharing of property rights and social management of national wealth represents another promising direction (Shi and Chang 2012). These all deserve scholarly efforts in the study of the institutions of SOES, and the model of Chinese economic transformation as a whole.

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[27] Data from China National Bureau of Statistics, China Statistical Yearbook and Annual Report from the Monitoring and Survey of Migrant Workers, various issues. It is of note that these trends of growth in productivity, wage rate, consumption and investment are consistent with China's outstanding performance, by international comparison, in the major indicators of social development (human development, life expectancy at birth, etc.). The performance in economic and social development, both in the short and long term, is at any rate far removed from the perception of China being bogged down in a great social-economic crisis.

[28] Clark (1924, 102) makes the point: "We may describe existing institutions, but we cannot know their effects on man without knowing what alternative institutions would be like."

Conclusions

Viewing Chinese economic transformation in the light of alternative theories of institutions and late development can provide good insights. From the analysis in the preceding sections, it can be posited that a central characteristic of China's market reform is, at the micro-level of corporate governance and development, the gradual shift of state orientation from socialist commitments to developmental concerns. The massive shrinkage of the employment share of SOEs, along with the changes in their institutions, is a clear indication of the decline in socialist commitments. Yet, the retention of a sizeable and expanding sector of large-scale enterprises under state control indicates that the state has not re-oriented itself to embrace the free market model. It rather indicates a primarily developmental concern: the state is to retain control over the commanding heights of the economy and thereby, hopefully, to direct the overall development.

There are well-developed theoretical arguments in support of the model in achieving late development in the context of neoliberal globalization. It could be argued that the sources of entrepreneurship, which is central to development, could be multiple. Entrepreneurship could be a collective activity as well as an individualistic one. Conversely, the relative advantages of competing institutions—notably, stakeholder versus shareholder accountability—depend on their appropriate match or otherwise with the general developmental conditions. Notions such as the "entrepreneurial firm" and the "developmental state," which flow out from the literature on East Asian experience, are thus of relevance.

It could be judged that the relatively more rigid, long-term oriented institutions—despite their deviation from the principle of well-defined, individual(istic) property rights—have not been a drag on SOEs and Chinese economic development as a whole. Their functionality has rather established SOEs as a driving force of Chinese economic development in the context of global neoliberalism. Nor is their prevalence a symptom of dirigisme die hard. The institutions of SOEs can be judged to have credibility in the sense that, with their positive attributes, their evolution has been endogenous to the prevailing path of capital-deepening, large-scale industrialization.

More generally, under the direction of "state capitalism/socialism, Chinese style," the institutions of SOEs appear to have fulfilled the functions of broadly-based social and economic development. They have been consistent with the social and political demands, over and above the narrow confine of relative efficiency. The experiences of Chinese SOEs provide a telling case that is in line with the general thesis of institutional functionality and credibility, namely, "credible institutions and property rights are not ours to design or engineer but appear through the interaction of social actors and economic agents bound together in an endogenous, spontaneously ordered development" (Ho 2013).

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