

HISTORISK TIDSKRIFT
(Sweden)

133:3 • 2013

Explaining China's Development

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Turaj S. Faran, *The industrialization process in the Chinese mirror: continuity and change in transition from collective agriculture to market economy in China*, Lund studies in economic history 57 (Lund: Lund University 2011). 191 p.

The aim of this ambitious and stimulating dissertation by Turaj S. Faran is “to provide a re-interpretation of China’s economic transition from a socialist to a market economy” (p. 1). That transition was one of the key developments of the late twentieth century and one that has enduring implications in the twenty-first. As the title suggests, the author’s core concerns are with the theories and models of political economy, specifically industrialization, rather than the empirical tradition of Chinese Studies. The dissertation centres essentially on an application of the model of Alexander Gerschenkron to China’s twentieth-century development and is divided into two main parts: four chapters elucidating and developing the model with reference to third-world socialism and four chapters applying that model to China. A final chapter examines the implications of the analysis.

A central feature of the dissertation’s model building – one that readers might regard as a strength or a weakness depending on their own theoretical preferences – is its heavy emphasis on structure rather than agency. A country’s industrialization strategy is “quite objective and structurally determined” (p. 143), and the dissertation offers a “purely economic interpretation” (p. 71) of third-world socialism, arguing that socialism adjusts itself to the objective requirements of the economy. In similar fashion, it argues that “the term strategy need not imply a conscious choice” (p. 137) and comes down strongly against a “policy choice paradigm”, contending instead that state policies “merely accentuat[e] and reinforc[e] causal sequences that are

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inherent in the economic situation of the country" (p. 45). The author recognizes that the absence of the agent is a limitation of the dissertation and, although the focus is on the structural, he does not deny the role of politics or of agency. However, his structural explanation is certainly an approach radically different from the way most scholars have analysed Chinese economic policies and strategies (or, indeed, those of other countries).

The development of the model begins with a distinction between Russian and third world socialism. For socialism in the USSR and Eastern Europe the key was the system of economic organization (i.e. central planning) and its implications and weaknesses. For developing countries, however, the author sees socialism centrally as a nationalist project, the key to which was an economic *strategy* of industrialization. The latter conclusion would gain wide acceptance and resonates with the work of other scholars such as Theda Skocpol, though it would certainly be possible to include the experience of the USSR under that category (Gerschenkron himself, however, distanced his model from the experience of the Soviet Union). Seeing socialism as a strategy of industrialization implies a focus on dynamic rather than static efficiency, thus rendering irrelevant many of the criticisms of the socialist system from the point of view of allocative efficiency. The author goes on to review past models of the industrialization process, dismissing a focus on entrepreneurship as irrelevant to the socialist situation, and rather concentrating on models that see trade, capital accumulation or a revolution in agriculture as the decisive determining factors, or even the prerequisites, for successful industrialization.

The author concludes that Gerschenkron's model has most to offer to a study of industrialization. This model rejects the idea of a single path to industrialization, but rather identifies several paths, which centre on the use of different substitutes for missing prerequisites for development. The key variable determining the differences is the initial level of backwardness. Particular models of industrialization are not a function of policy choices by the state but, instead, the level of backwardness determines the strategy implemented and the organizational forms that implement it. In general, Gerschenkron's typology predicts that the greater the initial level of backwardness, the faster growth will be, the greater the role that will be played by the state and by the banks (this is the best known aspect of the model), the larger will be the size of plant, the greater the role for heavy industry, the greater the pressure on consumption, the more passive the role of agriculture, and the more mystified the ideology of industrialization. As a country develops, its level of backwardness declines, and the appropriate strategy and substitutes change; thus the state played the major role in Russia's first period of rapid industrial growth in the late nineteenth century, but by the

second period – 1907–1913 – the economy had developed to such an extent that the banks took over the leading role.

A stagnant agriculture can almost be seen as a definition of backwardness, and the author then goes on to analyse agriculture's role in industrialization, citing the work of Simon Kuznets to emphasise the importance of its contribution in terms of supplying agricultural products, of constituting (in the rural sector) a market for industrial goods and of transferring resources (in many cases predominantly labour but also sometimes capital) to the modern sector. The tension between these various contributions underlay the famous Russian industrialization debate between Yevgeni Preobrazhensky, who emphasised a factor (capital) contribution through extraction of resources from agriculture, and Nikolai Bukharin, who laid greater stress on the market contribution. In any event, productivity gains in agriculture are almost always a necessary condition for successful industrialization.

The application of the model to the Chinese case begins with a careful analysis of pre-socialist Chinese agriculture. The author rules out a decline in average per capital incomes or output; in this he may well be correct, even though the breadth of the assertion is perhaps a bit cavalier, and one would certainly need to specify the start and end dates covered by such a statement. The pre-socialist agrarian system, which consisted predominantly of free operators of small farms, allocated resources efficiently, and successfully avoided the Malthusian and low level equilibrium traps. Although it maintained per capita incomes, however, it produced insufficient surplus over subsistence to make the necessary contribution to industrialization. Even after the beginning of international trade in the late nineteenth century, it was unable to take the path to “Smithian development” through commercialization and specialization.

In support of his interpretation, the author draws on the concepts of “involution” and of the “high level equilibrium trap”. The former, a micro-level theory, had its origins in the work of Alexander V. Chayanov on the Russian peasantry and was further developed (and given its name) by Clifford Geertz in relation to Indonesia; it has been applied to the Chinese case most famously by Philip Huang. The theory holds that ever increasing intensification of farm labour, growing commercialization and household engagement in off-farm activities succeed in increasing total product and even output per capita, but at the cost of ever decreasing marginal product of labour, and thus decreasing surplus. The high level equilibrium trap, a macro-level theory developed by Mark Elvin, emphasizes that China had reached a high technological level in many sectors but, in the absence of an externally generated input of modern technology, was moving ever closer to the production frontier, and thus again producing decreasing levels of surplus and rendering

the system unable to make the necessary contribution to industrialization.

The author develops his ideas in a sophisticated and informed way and provides on the whole a logically coherent picture of the history of Chinese agriculture. Both involution and the high level equilibrium trap are, however, controversial constructs and a number of empirical issues remain. For example, was the surplus as small as the author claims? Trends in per capita product or income are also, as the author states, very much open to question. Moreover the closing off of the "Smithian growth" route to agricultural development is a conclusion that not everyone – certainly not many neo-classical economists – would accept. Finally I wonder whether a clearer distinction might be made between the period before the Western impact, where we are asking whether the inherent dynamics of the Chinese system might have led (independently from or earlier than in Europe) to modern technology and industrialization, and the later period, when the question becomes why the system was unable to take advantage of technology that was already known.

In a situation where agriculture was not able to generate its own modernization or make the necessary contribution to industrialization, the author draws on Gershenkron's ideas to argue that the basic role of the system of collective agriculture was to substitute for the missing prerequisite of a productive agricultural sector. In this context the collective system played four major roles. It was the means whereby the Chinese socialist economy was able to supply food for the industrial and urban workers in the context of low agricultural productivity. Together with the household registration system, it ensured that labour was not drawn out of the agricultural sector, a necessary condition for maintaining supplies of goods to the cities, given that the marginal productivity of agriculture was far from zero. By enforcing a relatively egalitarian system of distribution, it also (on the whole, though with one catastrophic exception) ensured minimal subsistence livelihoods to the rural population at the same time as supplies were guaranteed to the urban population. Finally, together with the socialist industrialization strategy, the communes and collective farms played the key role in developing the rural industry that provided the modern inputs necessary for the modernization of the agricultural sector.

In the end, China's industrialization under the five year plans and agricultural development under the collective system relaxed the constraints imposed by an unmodernized agriculture. The flow of modern inputs, accelerating from the early 1970s, meant that, by the end of the Mao period, agriculture could no longer be regarded as backward. The appendix to the dissertation includes some dramatic charts showing an almost vertical trend in the application of modern industrial materials and technology to Chinese

agriculture from 1970: albeit starting from very low levels, the total amount of chemical fertilizer used increased fivefold between 1970 and 1985, the use of large tractors sixfold, that of small tractors by over fifty times, that of trucks by over twenty times.

Indeed the very success of the collective system meant that its *raison d'être* – its role in substituting for agricultural development – disappeared, and the early post-Mao reforms centred on the dismantling of the system. The author advances an economic explanation for this change, rather than the much more usual political one (involving agency and policy choice). Individual farming had not been an appropriate mechanism for the modernization of agriculture up to the end of the 1970s, but the collective system was an inappropriate mechanism for translating technological change into productivity gains. When the latter became the most important task, the system therefore changed. The dissertation thus argues that a Gerschenkronian framework – whereby changes in the level of backwardness leads to changes in the need for and the nature of substitutes – provides the most convincing explanation both of the logic of the collective system and of the subsequent switch to a more market-based economy.

A key issue in this respect is the explanation of the rapid rise in agricultural production and productivity from 1978 to 1990 and especially from 1978 to 1984. Theories that focus on improved incentives and the benefits of privatization have to explain why most of the growth took place before the process of privatization was completed. A technological explanation on the other hand can point to the rapid increase in modern agricultural inputs from the early 1970s, and their generalization by the early 1980s. By 1984 these technological gains had on the whole been fully absorbed so that growth could be expected to slow.

This is an interesting explanation for what is an important and somewhat puzzling phenomenon. In most cases, the rapid growth of modern inputs continued, as indicated in the tables and charts (pp. 163–170), up to 1990 (large tractors tapered off). The question why output growth slowed even though technological inputs continued to increase could be answered along the lines that the marginal productivity of the inputs was declining. The author argues that by 1990 his story is told, as his model is only aimed at explaining a particular stage of industrialization and China had become a fully industrialized economy by that time. Since 1990, however, the use of chemical fertilizers has doubled again, as has the use of small tractors, while large tractors, which had tailed off in the late 1980s and through the 1990s, resumed rapid growth in the 2000s, quadrupling over that decade. The author's hypothesis linking the growth of output centrally to increased technological inputs could be usefully tested empirically by examining time

series and cross sectional data for Chinese agriculture over the whole of the PRC period. As the author says, that is not his aim, and his interest is instead in general explanations of the process of China's development, but he has provided stimulating ideas that others can take up in a more empirical way.

Some of the author's specific arguments have been foreshadowed elsewhere – for example by Chris Bramall in the case of the key role of the collective system in laying the basis for rural industrialization, or by Albert Feuerwerker in pointing to the relevance of Gerschenkron to the Chinese case. No previous scholar, however, has attempted to apply the model in such a systematic way to pre-socialist, socialist and post-socialist China.

The dissertation therefore makes a contribution to both political economy and Chinese Studies. For scholars of political economy, that contribution lies in the systematic application of the Gerschenkronian model to China's transition from socialism, thereby challenging the dominant "market" explanation for China's success, which has been an important bulwark of the neo-liberal hegemony since 1980. For scholars in Chinese Studies, the dissertation makes an innovative and clearly argued explanation for important phenomena in recent Chinese economic development, providing fruitful hypotheses for more empirically-minded scholars to develop and test.