

The State and industrial policy in Chinese economic development

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11.1 Introduction

The explanation of Chinese economic development over the past three decades, i.e. the era of market reform and increasing integration into the world market, has been a matter of scholarly debate. There exists a substantial body of studies that highlight the crucial role of the State in the development process (see, for example, Felipe et al., 2010; Gabriele, 2010; Heilmann, 2009; Kotz, 2005; Poon, 2009). These include studies that are in the tradition of theories of industrial policy that have been developed with reference to the broader experience of East Asian industrialization.

Conceptually, industrial policy is usually defined as addressing structural change of the economy – sustained rapid industrialization, in the Chinese case. But structural change is necessarily a complex process with multiple determinants, most importantly the productivity and demand regimes in question as well as the underlying institutional framework. Therefore, assessing the role of the State in the development process requires an analysis of the coherence of state influences over these multiple determinants. To ascertain the efficacy of state industrial policy further requires analysis of the appropriate match – or mismatch – between the policy design and implementation, on the one hand, and the interaction of these multiple determinants, on the other.

This chapter endeavours to show that the role of the State in Chinese economic development has been complex and multifaceted. It is much more than a case of East Asian-type industrial policy in action, where the State practises selective intervention in business activities with a view to promoting the development of targeted industries or projects. We seek to show that state influences on

Chinese economic development have taken the form of both creating the enabling environment and direct intervention, the latter encompassing industrial policy. We argue that, on the whole, the State has played a significantly positive role in Chinese economic development – in terms of promoting structural change and thereby growth in productivity and employment. There are, however, important policy lessons to learn from the complexities of the experience, which includes both successes and failures.

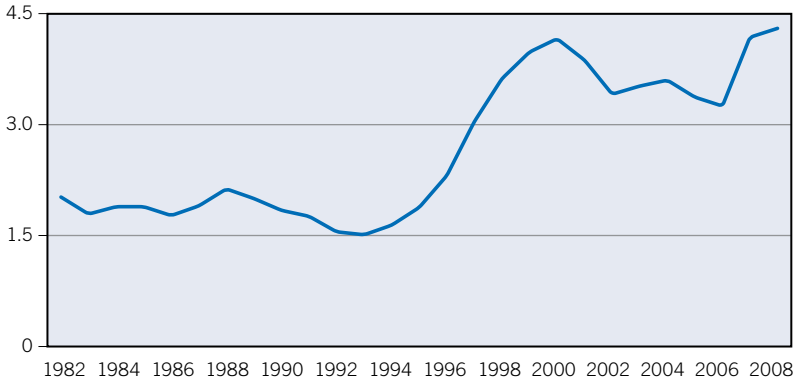
The chapter is organized in five sections. Following this introduction, section 11.2 identifies four main stylized facts of Chinese economic transformation that are posited to form the foundation for any plausible inquiry into the role of the State in the development process. The section then discusses the implications of, and relationships between, these stylized facts, with reference to the industrial policy literature and broader theories. Section 11.3 analyses the specific actions of the State with respect to promoting industrialization, at the levels of creating the enabling environment and direct intervention. It also analyses the efficacy of industrial policy with reference to the development experiences of three particular industries – automobile, semiconductor, and high-speed railways. Section 11.4 turns to discussion of the related issue of the evolution of the policy orientation of the State, particularly with respect to labour compensation and protection. Section 11.5 sums up.

11.2 Stylized facts of Chinese economic transformation and implications

Industrial policy, and state economic actions in general, can have positive, neutral or negative effects on economic development, depending on the nature of the overall process of structural transformation. In the Chinese case, any analysis of the role of the State and state industrial policy in the development process of the past three decades must take into consideration the following four important stylized facts (Lo and Li, 2011; Lo and Zhang, 2011).

Structural change. Chinese economic development has undergone a transition from labour-intensive industrialization in the first half of the reform era, circa 1978–92, to capital-deepening industrialization in the second half. Figure 11.1 charts the evolution of the incremental capital–output ratio (ICOR) of the Chinese economy. It is apparent that the economic growth path was characterized by the substitution of labour for capital in production in the first half of the reform era but has shifted to rely on capital deepening from the early 1990s onward.

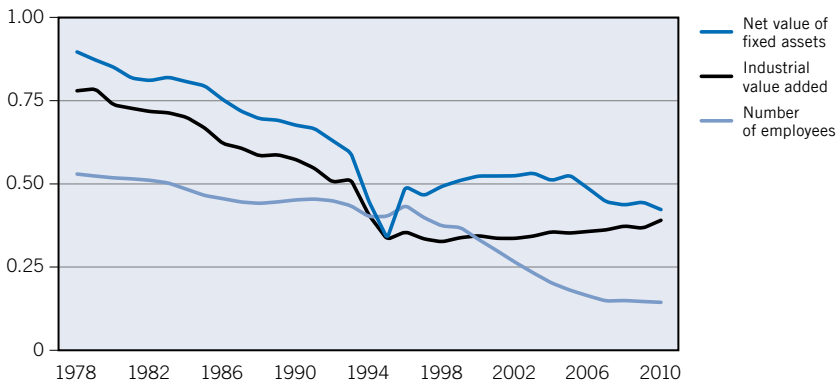
Figure 11.1 Incremental capital-output ratio
(five-year moving averages), 1982–2008



Note: $ICOR = dK/dY$, where $dK = I$ = total fixed asset investment, dY = GDP of current year minus GDP of the previous year.

Source: *China Statistical Yearbook*, various years.

Figure 11.2 Shares of state-owned enterprises in output, employment and capital of total industry, 1978–2010



Note: A significant proportion of non-state-owned enterprises also have state agents as the ultimate owners–controllers.

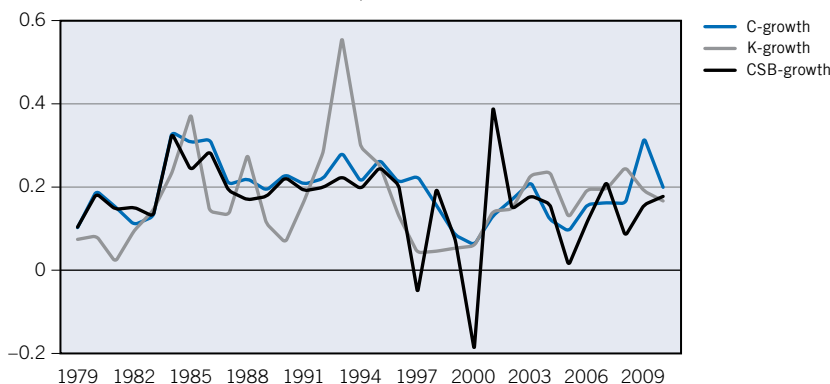
Source: *China Statistical Yearbook*, various years.

State ownership and control over economic activities. State ownership predominated in the first half of the reform era and has remained a significant part of the economy in the second half. For industry alone, the value added share accounted for by state-owned enterprises (SOEs) underwent a secular decline from 78 per cent in 1978 to 32 per cent in 1998. Thereafter, the share has increased steadily, reaching 38 per cent by 2010 (figure 11.2). What has remained of state industry is mostly large-scale, capital-intensive SOEs, as indicated by the fact that

the capital share of SOEs has significantly exceeded the output share, whereas the employment share has been far lower, i.e. SOEs are characterized by a much higher capital-labour ratio than other enterprises. SOEs have continued to control the “commanding heights” of Chinese industry. In the meantime, perhaps of equal importance is the continuing state control over the allocation of the financial resources of the economy. As of 2010 state banks still, directly or indirectly, accounted for more than 70 per cent of the total assets of the banking sector (Lo and Jiang, 2011). And the banking sector has remained the predominant part of the financial system as a whole.

State capacity. On the whole, decentralization of state power has characterized the Chinese economic transformation. Local governments at different levels have been powerful players in economic decision-making. The interaction between central and local governments – sometimes synergic, sometimes mutually defeating – has thus had strong influences over the direction and pace of economic development. These influences should be seen in the broader context of continuous market liberalization. State firms have become increasingly profit-oriented over the reform era. This shift has taken place amid the continuous expansion of non-state firms as well as the increase in competition in the market environment due to both internal and external liberalization. The character of these attributes of market liberalization is difficult to gauge in a clear and straightforward way. One possible indication is the working of the commercialized (and partly privatized) state banks, which are representative of the workings

Figure 11.3 Annual growth of capital formation and bank loans, 1979–2009



Note: K-growth = growth of gross fixed capital formation, C-growth = growth of year-end outstanding loans of the total banking sector, CSB-growth = growth of year-end outstanding loans of state banks.

Source: *China Statistical Yearbook*, various years.

of the mixed economic system. Figure 11.3 shows the annual growth of fixed-asset investment and total outstanding loans by state banks and the banking sector as a whole. Two important characteristics of the workings of the banks, and state banks in particular, are discernible. First, they have exhibited an inclination towards severe fluctuations between expansion and contraction – an amplified phenomenon of Minskyan-type financial instability that characterizes the notional market system. Second, they have been strongly supportive of productive investment over the long term. It is this system that the State has to work with in its action for promoting industrialization.¹

Evolution of demand regimes. It is well known that Chinese economic development in the first half of the reform era was mainly consumption-led, but it has become mainly investment-led (and, to a much lesser extent, export-led) since the early 1990s (Lo and Zhang, 2011). The share of aggregate expenditures accounted for by final consumption decreased by more than 10 percentage points from the first period to the second. Nevertheless, in both periods the reformed economic system has been able to provide the necessary demand conditions for industrialization – for promoting productive investment and for underpinning the increasing returns of the established industries. It should be noted that China started its reform era with one of the highest industry-to-GDP ratios in the world in the late 1970s and has witnessed a process of sustained rapid industrialization throughout the three decades that have followed.

What are the implications of these stylized facts for assessing the role of the State and of state industrial policy in Chinese economic development? In the first place, the stylized fact concerning structural change is immediately relevant to the literature on East Asian-type industrial policy, which has been dominated by the debate over comparative advantage-following (CAF) versus comparative advantage-defying (CAD) strategies (see the exchange in Lin and Chang, 2009). It seems reasonable to conclude that Chinese industrialization in the first half of the reform era was on a CAF path, whilst that in the second half has been on a CAD path. Even if this judgement is valid, however, analysing the CAF–CAD characteristics of structural change might be insufficient to ascertain the role of industrial policy. Theoretically, it could be argued that a CAF path of structural change is in line with market principles (although this begs the question of whether the market can actually produce such outcomes). Even so, it does not follow that a CAD path of structural change must be the product of state intervention or, more

¹ For further details on the characteristics of Chinese finance and state actions to curb excessive fluctuations and promote productive investment, see Lo and Jiang (2011).

specifically, of state industrial policy. In a world of increasing returns and demand-led productivity growth, the demand regimes matter in shaping the path of structural change. Thus, the question remains as to what, in the Chinese experience, has been the role of state actions in shaping the evolution of the demand regimes, as characterized in the fourth stylized fact.

Meanwhile, the industrial policy literature also addresses the conditions for the working of alternative development policies. In particular, there is the further debate on the developmental state versus crony capitalism. Stylized facts two and three, concerning the position of the State in the economic system, must be taken into account in a coherent framework of analysis. Whereas the existence of a sizeable state sector provides a powerful means for state intervention in shaping the directions of economic development, the economic agents in question – the enterprises, state banks, and local governments of different levels – might not necessarily work in line with the character of the developmental state. It is evident that, in the context of a mixed system associated with stylized facts two and three, these agents have from time to time fluctuated among characteristics of short-term profit orientation, long-term developmental concerns, and rent-seeking and crony capitalism. Ascertaining the role of the State and state industrial policy in the transformation process requires an analysis of the conditions that allow one set of characteristics to dominate the others.

The preceding discussion can be related to the literature of competing policy doctrines and theoretical positions concerning late industrialization. A convenient way to review this hotly contested issue is to start with the “orthodox” position, known as the Washington Consensus. Its canonical policy doctrine in this particular area, “trade regime neutrality” as an industrialization strategy, hinges on the assumption that technological transfer and thereby economic development is an automatic outcome of the market (Lo, 2012). This doctrine is consistent with standard neoclassical growth theory. But, even within neoclassical economics, the mainstream of theories of endogenous technological change suggests that technology is mainly the product of investment, and business investment typically presupposes some degree of exclusive rights over the utilization of the product (Romer, 1994). Hence, technological development necessarily requires the existence of a policy–institutional environment that is not confined to the market.

More recently, a modified position from the Washington institutions has been advocated by World Bank chief economist Justin Yifu Lin and shared by economists such as Dani Rodrik and Joseph Stiglitz. The central proposition is that structural change in line with the principle of comparative advantage (i.e. CAF) might not always materialize, because of market failures in delivering the necessary technological development. Thus, it follows that there is a need

for some forms of market-friendly government intervention to foster industrialization (Lin, 2010).

Yet another position further from the orthodox view is embodied in the theories of industrial policy associated with the work of economists such as Alice Amsden, Ha-Joon Chang, Ajit Singh and Robert Wade. The central proposition is that, given the importance of dynamic increasing returns and economies of scale and scope in economic development, industrialization is more than realizing the principle of comparative advantage. Hence, there is the need for market-orienting government intervention to foster industrialization, i.e. to deliberately distort the market in order to promote technological development (Chang, 2009). The precise means can vary, but the general point is for the government to create “economic rents” (for a clearly defined period) that are awarded to firms with good performance in technological and economic development.

Finally, the position of theories of the “national innovation system”, most clearly framed by William Lazonick (2004 and 2009), puts technological development at the centre of industrialization. The central proposition is that, in the era of the information revolution, the precondition for late development is the building up, not just of production capacity as such, but also of the innovation capability for absorbing, assimilating and improving upon imported technology. This requires a range of long-term oriented business institutions in addition to government promotion.

Across the various positions summarized above, there is a progressive shift from pure theory to realism. The Washington Consensus and the modified positions of the Washington institutions implicitly assume a pure market within which productivity-improving structural change takes place. The theories of industrial policy and the “national innovation system”, in contrast, are more aware of the complex and shifting nature of the world market in reality. In particular, in recent years an influential view has emerged claiming that the process of globalization, including North–South economic relations, has been increasingly shaped by financialization (Wade, 2006 and 2008). The rising predominance of speculative financial activities implies a tendency of short-termism, i.e. capital is increasingly forced to minimize fixed investment and demand “flexibility” in the productive sector (especially in labour employment). From the perspective of developing economies, therefore, relying solely on the working of the market might make it difficult for their industries to move out of the assembling stage and up the value added ladder. More important, in the context of financialization and the associated pressing demand for flexibility, developing economies need to find appropriate ways to raise their productivity fast enough to avoid being stuck in the “race to the bottom” in the world market (Lo, 2012).

11.3 The strength and limitation of state industrial policy in action

Against the background described above, the role of the State in Chinese economic transformation can be inferred from its action/inaction in two different respects. The first concerns its role in the creation of an appropriate condition (i.e. enabling environment), or otherwise, for industrialization. The second concerns its direct intervention in the process of industrialization.²

In the first half of the reform era, state action in the first respect and inaction in the second respect were the norm. Based on the capital accumulation of the pre-reform era, i.e. the building-up of a vast capital goods sector in the 1950s–1970s, it was possible to let economic development follow a path of consumption-led, labour-intensive industrialization. This path broadly accorded with the principle of comparative advantage. It arose mainly through the market-directed, explosive expansion of collectively owned rural (township and village) enterprises. The action of the State focused on fostering market reform, with SOEs being designated to take up the burden of the adjustment cost associated with the reform. SOEs together with state banks were responsible for sustaining the existing pattern of egalitarian income distribution. They provided job security and social services for virtually the entire urban population, thus fostering the “consumption revolution”, which was essential for the industrialization drive of that period.

In the second half of the reform era, state intervention was evident in both respects – after a painful, neoliberal process of restructuring public finance, SOEs and state banks in the mid-1990s. Public finance took the lead in massive infrastructural investment and investment in industrial upgrading. This gave rise to the path of capital-deepening, investment-led industrialization, carried out mainly by SOEs in upstream materials industries and transnational corporations (TNCs) in high-tech industries. What remained of SOEs was mostly big firms with a profit orientation; these characteristics fit well with the prevailing path of industrialization. Commercialized state banks, whilst for a time becoming reluctant to lend to productive activities, had to get back to industry because of severe state restrictions on the scope of speculative activities and capital flight.

The strength or limitation, and success or failure, of China’s state industrial policy can be assessed in this context. In the first half of the reform era, the State’s broad policy of promoting manufacturing exports (to substitute for primary commodities) was evidently a success. Meanwhile, the specific, or selective, Japanese–Korean-type policy of promoting the development of some particular sectors or

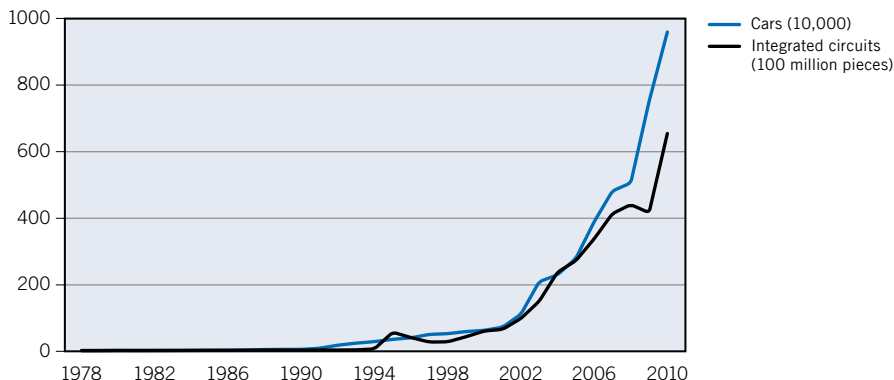
² The discussion in the next three paragraphs draws on Lo and Zhang (2011), which provides further details.

projects was evidently a failure in China. Entering the second half of the reform era, both broad and selective state policies have seemed to succeed in promoting industrialization. Market-based incentives together with fast productivity growth have been sufficient to promote the export of manufactures. Also, state industrial policy targeting the development of particular industries has appeared largely to have achieved its objectives. Over the reform era as a whole, the success or failure (and the strength and limitation) of state industrial policy has been determined by the following two conditions working together: the sufficiency (or insufficiency) of the enabling policy environment, and the nature of the economic agents that undertook the actual activities selected (e.g. SOEs, private firms, TNCs). The development experiences of the following three industries, which we will be analysed in some detail – automobile, semiconductor, and high-speed railway – appear to substantiate this conclusion.

Before we turn to the three case studies, however, it will be useful to quickly summarize the evolution of official positions on industrial policy over the reform era. The first state document to explicitly use the term “industrial policy” was the seventh Five-Year Plan (1986–90). In 1989 the State Council released the document *Decisions on the Important Issues of Current Industrial Policies*, which stated that industrial policies would be used to enhance industrialization and macro controls. This idea was made concrete in the subsequent eighth Five-Year Plan (1991–95). The State Council, in the document entitled *Outline of National Industrial Policy in 1990s*, published in 1994, stated that industrial policies would be used to promote the development of the “pillar industries” of the economy. Nevertheless, the mid-1990s was a period of neoliberalization, with state efforts focusing on internal and external market liberalization (mass privatization of SOEs, commercialization of state banks, restructuring of public finance, liberalization of foreign trade and the current account, etc.). It was really starting from the tenth Five-Year Plan period, 2001–05, that industrial policies in the spirit of selective intervention were put into practice on a systematic scale. The 16th National Congress of the Communist Party in 2002 put forward the notion of pursuing “a new path of industrialization”, with emphasis on the development of science and technology capabilities, environmentally friendly and resources-saving technology, and information engineering and related industries. The culmination of these emphases was in the speech by President Hu Jintao in 2006, entitled “Medium-to Long-Term Plan for the Development of Science and Technology”. It set out the target of transforming China into an “innovation society” by the year 2020.

As forerunners of the practice of state industrial policy in China, the development experiences of the automobile and semiconductor industries are revealing. The automobile industry had its industrial policy as early as 1987, which was

Figure 11.4 Output of cars and integrated circuits, 1978–2010

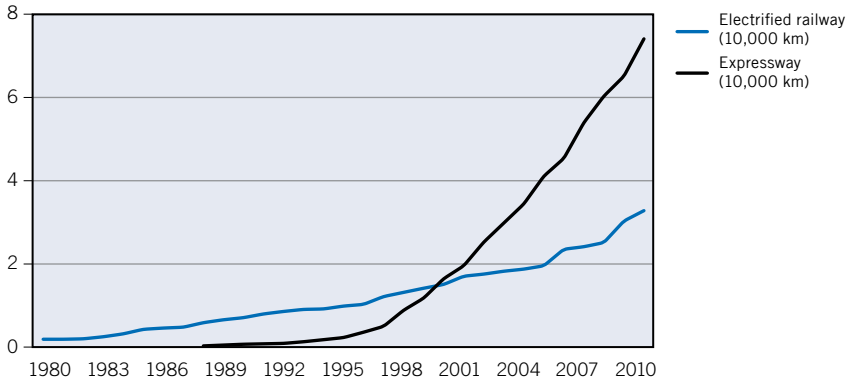


Source: *China Statistical Yearbook*, various years.

subsequently refined into a fully fledged version in 1994. The main thrust of the policy was the strategy of “market protection in exchange for technology transfer”. Protection from imports, and from the pressure of market entry, was granted to six designated car makers, all of which were Sino-foreign joint ventures: the “Big Three”, composed of Shanghai Volkswagen, First Auto Work Volkswagen and Second Auto Work Citroën, and the “Small Three”, composed of Beijing Chrysler Jeep, Guangzhou Peugeot and Tianjin Daihatsu. Meanwhile, the semiconductor industry also had its industrial policy first worked out in 1986, and then revised to come out with a fully fledged version in 1992. The main thrust of the policy was the strategy of “concentrating investment in key enterprises for technological development”. The key enterprises in question were all SOEs (and their subsidiaries in partnership with TNCs in various forms including joint ventures): Wuxi Huajing, Shouxing Huayue, Beijing Shougang NEC, Shanghai Beiling, and Shanghai Philips. Again, protection from the competition of imports was an important ingredient of the policy.

In terms of actual development, a clear pattern is observable for both the TNCs-led automobile industry and the SOEs-led semiconductor industry. In the first half of the reform era, both failed to develop. In the second half of the reform era, the two industries, like other high-tech industries, finally took off, with explosive output expansion and fast technological progress (figure 11.4). Lack of investment was the immediate cause of development failures in the former period, against the background of massive investment and very fast technological progress of these two industries in the world generally. In the case of the automobile industry, the strategy of “market protection in exchange for technology transfer” did not work: the TNCs did not have sufficient incentives to invest in

Figure 11.5 Length of expressways and electrified railways, 1980–2010



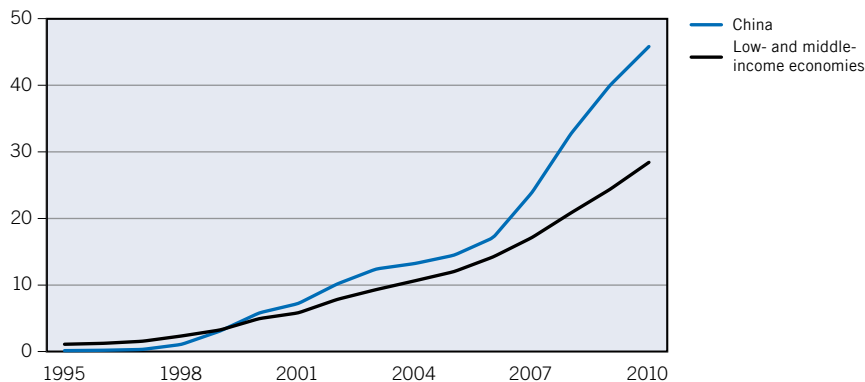
Source: *China Statistical Yearbook*, various years.

technological upgrading. In the case of the semiconductor industry, the designated SOEs did not receive the investment funding as envisaged and promised in the industrial policy. Insufficiency in (domestic) demand reinforced the insufficient incentives to invest, both for the TNCs and the domestic agents (SOEs, state banks, local governments, and even the central government itself).

Three factors account for the successful development of the two industries in the second half of the reform era: state creation of demand, state action to foster investment in technological upgrading, and the formation of innovation-based market competition. State infrastructural investment in infrastructure accomplished the demand creation: the building-up of the highway system (figure 11.5), which boosted the demand for cars, and of the telecom infrastructure (figure 11.6), which boosted the demand for semiconductors. Massive state investment in infrastructure was initially implemented as a response to counter the East Asian financial crisis, but it seemed to become a long-term strategy. This was a complete reversal of the policy doctrine of the 1990s – more precisely, of the neoliberalization period of 1993–97 – when the overarching objective was to balance the state budget via austerity measures (Lo and Zhang, 2011).

Put in the broader context, the successful development of the two industries since the late 1990s can be accounted for by both market responses to the favourable investment-led demand conditions and state activism in investing in the industries and/or creating the necessary conditions for their development. State activism was not confined to the central government. There were also prominent cases of success at the provincial level, the Guangdong provincial government's automobile industrial policy being a case in point. The policy lesson that the provincial government derived from the failure of Guangzhou Peugeot in the 1990s

Figure 11.6 Internet users (per 100 people) in China relative to low- and middle-income economies, 1995–2010



Source: *World Development Indicators* data bank, accessed 26 January 2012.

was that government investment and market competition are both necessary for the development of the industry. Thus, it has restructured the industry by taking the lead in the formation of several joint venture companies with TNCs, including Honda and Toyota. Meanwhile, at the broader, national level, state action to foster technological progress has recently manifested itself in the form of massive increases in research and development (R&D) expenditures. This has been a general policy, not confined to particular industrial sectors (table 11.1).

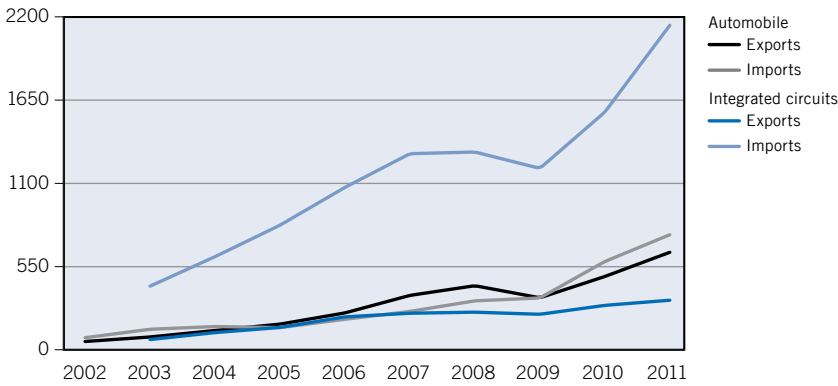
The nature of the immediate carriers of industrialization has also changed, amidst the formation of an environment of basically innovation-based market competition. For both the semiconductor and auto industries, the predominance of joint ventures and increased competition among these companies characterize the model that has emerged. Until the late 1990s SOEs dominated the semiconductor industry, but since then joint ventures have dominated. Joint ventures have always dominated the automobile industry, but the number of players has

Table 11.1 Research and development (R&D) expenditures

	R&D expenditure as % of GDP				Relative to low- and middle-income countries			
	1997	2000	2004	2007	1997	2000	2004	2007
High-income countries	2.29	2.43	2.31	2.37	4.09	3.68	2.85	2.42
Low- and middle-income countries	0.56	0.66	0.81	0.98	1.00	1.00	1.00	1.00
China	0.64	0.90	1.23	1.44	1.14	1.36	1.52	1.47

Source: *World Development Indicators* data bank, accessed 26 January 2012.

Figure 11.7 Exports and imports of automobile and integrated circuits (US\$100 million)



Source: Ministry of Industry and Information Technology, official website.

increased to involve virtually all of the world's main car-making TNCs – over and above the protected “Big Three, Small Three” before the turn of the century. There have also emerged some purely indigenous car makers (notably, Geely, Qirui and Jianghuai), which by 2010 had successfully entered the ranks of the top ten car makers in China. The predominance of local production by joint ventures in the two industries, rather than by wholly TNCs-owned enterprises or imports, reflects the intention of state industrial policy and the action of the domestic economic agents – in particular, local governments – that are the main domestic decision-makers in forming the joint ventures.

Besides output expansion, the fact that local producers have been able to keep up with the pace of TNCs in the world market of turning out the latest automobile models indicates the production capacity – and the innovation capability – that has been built up in China. Another important indication is the rapid export expansion of the two industries in recent years, although from a modest base (figure 11.7). However, whereas exports and imports have been basically in balance in the automobile trade, very large and rapidly expanding trade deficits have been the case for integrated circuits. It might thus be possible to infer that there is a serious limitation with this model of industrial development, i.e. joint ventures as the main vehicles for the development of high-tech industries. Specifically, this limitation is the greater difficulty, as is in the case of semiconductors, of acquiring and developing a frontier technology, as contrasted with a mature technology, as in the case of car making. Hence, the broader picture shows China's persistent and expanding deficits in technological trade, which is spectacular compared with the average of the developing world (table 11.2).

Table 11.2 Royalty and license fees, receipts and payments, China and low- and middle-income countries compared, 1997–2010 (balance of payments, current US\$ million)

	1997	2001	2005	2010
Low- and middle-income countries				
Receipts	980	852	1 862	3 689
Payments	5 419	8 851	18 140	37 319
Balance	–4 440	–7 998	–16 279	–33 630
China				
Receipts	55	110	157	830
Payments	543	1 938	5 321	13 040
Balance	–488	–1 828	–5 164	–12 209

Source: *World Development Indicators* data bank, accessed 26 January 2012.

Put differently, a serious limitation with the prevailing nexus of state industrial policy and industrialization, especially where local governments are the main policy-makers, might arise from the predominance of TNCs as the main vehicles of development. TNCs might be instrumental to industrialization in the stage or areas of technological catching up. But when it comes to the development of frontier technology, serious constraints might arise from a possible mismatch between the strategies of the headquarters of TNCs and the objectives of the Chinese government. The fact that there have been virtually no car exports from subsidiaries of TNCs (quite in contrast to indigenous Chinese car makers) might not necessarily be a symptom of such a mismatch, but neither does it support the view that the industry has become internationally competitive.

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

Within a short period of time, between 2008 and 2011, China built up the largest network of high-speed rail in the world, in conjunction with massive

government investment as a response to the worsening world economic environment ensuing from the financial crises in the advanced countries. Now it has started to compete in the world market with world-frontier TNCs. This development has been characterized by: (i) a state industrial policy that is based on the anticipation of an enormous demand, i.e. high-speed rail as a more efficient and environmentally friendly substitute for domestic air flights, (ii) ample funding from state-controlled finance, (iii) oligopolistic, large-scale SOEs as the immediate carriers, i.e. the two designated companies, China Northern Railways (CNR) and China Southern Railways (CSR), and (iv) well-defined targets for technology transfer and business operations in dealing with TNCs.

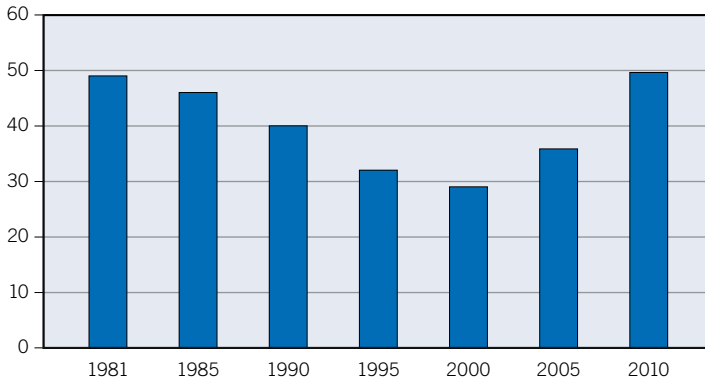
In terms of technological development, the emerging new model is clearly succeeding in promoting the development of high-speed railways. This experience offers important lessons for the development of other frontier technology industries. But there are potential dangers associated with the new model, as have been raised in the debate on crony capitalism. Already, there have been symptoms of bureaucratic excess and corruption. It remains a challenge for the further development of the model whether and when the relevant agents – SOEs, state banks and government bodies – will behave in an entrepreneurial way rather than indulging in unproductive rent-seeking or inefficient monopolistic practices.

11.4 State orientation: Market reform, economic growth and labour

The preceding discussion on the role of the State in Chinese economic development should be viewed in connection with the evolution of the policy orientation of the State, particularly with respect to labour and broader social development. Immediately following the outbreak of the East Asian financial and economic crisis, in the years 1998–2002, China’s state leadership adopted a range of economic policies that, in effect, reversed the previous, unidirectional pursuit of market reform (Lo and Zhang, 2011; parts of the discussion in this section also draw on Lo, 2007). While designed to be short-term, anti-crisis measures, the policies have become an essential part of the new policy line known as “constructing a harmonious society”. The state leadership established this policy line in the early years of the new century. It represents a quest for a model of economic and social development that avoids worsening social polarization under market reform.

At the heart of the new policy line has been the emphasis on labour compensation-enhancing economic growth, rather than growth based on “cheap

Figure 11.8 Proportion of workers who are unionized (percentages)



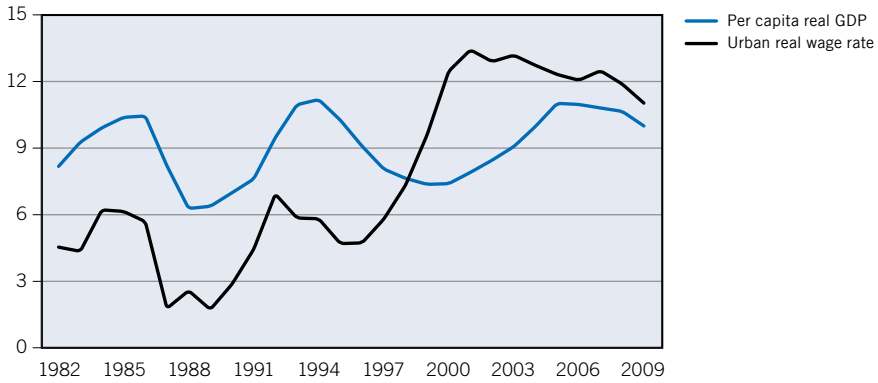
Note: Figures are the number of members of All China Federation of Trade Unions divided by the total number of employees in the secondary and tertiary sectors.

Sources: National Bureau of Statistics, China Statistical Yearbook, various issues; All China Federation of Trade Unions, China Statistical Yearbook of Trade Unions, various issues; and http://www.china.com.cn/2011/2011-03/03/content_22041017.htm, accessed 16 June 2012.

labour". Policy measures of this nature have included increasing protection of labour rights, the enforcement of proper employment contracts, the implementation of minimum-wage legislation, and the promotion of the establishment of trade unions. It is of note that, before the turn of the century, the Chinese state leadership had basically adopted a *laissez-faire* approach towards employment, particularly outside the state sector. This was particularly evident in the declining influence of the only existing official trade union, the All China Federation of Trade Unions. Union members as a proportion of the total of employees in the secondary and tertiary sectors decreased from 49 per cent in 1981 to 29 per cent in 2000 (figure 11.8). The situation has changed since then, with union membership up to a level of 36 per cent in 2005 and 50 per cent in 2010. The rebound in unionization owes much to the enforcement by the central government of the stipulation that enterprises of all types of ownership are required to allow unions to be set up and for workers to join unions. For a long time local governments, private employers and most notably foreign capital-funded enterprises have fiercely resisted this requirement. Yet, from the point of view of the state leadership, this requirement is essential to the promotion of collective bargaining over labour compensation. Collective bargaining is, in turn, considered indispensable for reversing the decreasing trend in labour's share of national income.

To the extent that unionization is indicative of enhancing labour rights in employment, its evolution does appear to be consistent with that of the wage rate. It is a spectacular (and socially worrying) phenomenon that, until the late 1990s,

Figure 11.9 Annual growth rate of real GDP per capita and real urban wage rate (five-year moving average, per cent)



Source: National Bureau of Statistics, *China Statistical Yearbook* and *China Statistical Abstract*, various years.

labour compensation had experienced very sluggish growth, quite in contrast to the sustained rapid growth of the economy. Indeed, there have been widespread reports that, outside the formal, mainly state-related sector, the wage rate had been almost frozen for fully 20 years, since the beginning of reform. This was especially true in the labour-intensive, export-oriented factories in the coastal provinces, owing to the almost unlimited supply of unprotected, un-unionized labour from the rural areas of inland provinces. Even in the formal sector, the evolution of the wage rate has seriously deviated from that of per capita GDP. As figure 11.9 shows, before the turn of the century, the growth rate of the real wage rate in urban areas persistently lagged behind that of per capita real GDP. Indeed, in the neoliberalization period of enterprise downsizing and mass unemployment in the mid-1990s, the two indicators moved in opposite directions: the growth of the real wage rate slowed while the growth of per capita GDP accelerated. Since the turn of the century the reverse has emerged. The growth of the real wage rate now substantially exceeds that of per capita GDP, while both are moving upwards.

The labour sector policies described above – together with other, broader social development policies that have been incorporated into the policy line of “constructing a harmonious society”, such as the expansion in social welfare provision and the attempts to reconstruct a government-funded health-care system – are not simply wishful thinking. Rather, these policies have a solid material base: they appear to be consistent with the prevailing capital-deepening path of industrialization. Put another way, the transition from labour-intensive

Table 11.3 Average annual growth rates (per cent) of real GDP, employment and labour force

	(a) Real GDP	(b) Employment	(c) Labour force	(a) – (b)	(b) – (c)
1978–1992	9.39	3.63	3.60	5.76	0.03
1992–2010	10.33	0.78	0.89	9.55	–0.11

Note: A revision of statistical coverage in 1990 implies that employment and labour force data before and after that year are not strictly comparable. For the period 1978–89, the growth rates of real GDP, employment and the labour force are 9.50 per cent, 2.96 per cent and 2.90 per cent, respectively.

Source: *China Statistical Yearbook*, various years.

to capital-deepening industrialization is consistent with the prioritizing of the new policy line, which puts labour compensation enhancement on a par with employment and productivity growth. As table 11.3 shows, in the 1978–92 period, along with fast growth of output and productivity, the growth of employment outpaced that of the labour force. In the period from 1992 to 2010, both output and productivity growth have accelerated, while employment growth has lagged slightly behind the growth of the labour force. Staying on the prevailing path of economic growth and employment expansion, and therefore the relevant state policies, depends on whether the productivity gains in industry can be effectively channelled into the development of the labour absorption capability of the services sector. What is of note at this point, though, is that the fast productivity growth associated with this development path forms the material base for the pursuit of the policy objectives.

In so far as the policy orientation of “constructing a harmonious society” reflects the State–society relationship in China at this particular stage, the assessment of the economic role of the State can go beyond the previous discussion. The point can be made that the efficacy of a specific industrial policy, and of the role of the State in economic development, can be ascertained only in connection with the overall objectives of social and economic development. Both the labour-intensive path and the capital-deepening path of industrialization might have comparative efficiency attributes. And the industrial policy for promoting the development of high-speed rail or large-scale civilian aircraft manufacturing based on SOEs, for instance, might be deemed inefficient from the perspective of the former path but not of the latter path. The emergence of a prevailing path is as much a process of evolution as the choice about the interaction between the State and society.

11.5 Conclusions

Throughout the reform era the State has played a significant positive role in Chinese economic development – in the form of shaping the conditions for industrialization as well as direct intervention via industrial policy. There have been cases of both success and failure. With hindsight, we can infer that successes have been achieved when there was an appropriate match among state policy, market conditions, the demand regime, and the actions of the business entities. Conversely, failures have been due to mismatches.

Chinese economic development has undergone a fundamental transition from labour-intensive industrialization in the first half of the reform era to capital-deepening industrialization in the second half. This transition has accelerated productivity growth, which forms a solid material base for the concurrent social development objectives of the State. In turn, these broader social goals, with their emphasis on enhancing labour protection and compensation, are consistent with the capital-deepening path of industrialization. In this sense, the prevailing pattern of social and economic development has internal coherence. An appropriate match seems to be in place.

References

- Chang, H.-J. 2009. *Industrial policy: Can we go beyond an unproductive confrontation?*, paper presented at the Annual World Bank Conference on Development Economics (ABCDE), Seoul, Republic of Korea.
- Felipe, J. et al. 2010. *Why has China succeeded – and why it will continue to do so*, Working Paper No. 611 (Annandale-on-Hudson, NY, The Levy Economics Institute).
- Gabriele, A. 2010. “The role of the state in China’s industrial development: A reassessment”, in *Comparative Economic Studies*, Vol. 52, pp. 325–350.
- Heilmann, S. 2009. “Maximum tinkering under uncertainty: Unorthodox lessons from China”, in *Modern China*, Vol. 35, No. 4, pp. 450–462.
- Kotz, D.M. 2005. *The role of the state in economic transformation: Comparing the transition experiences of Russia and China*, Department of Economics Working Paper Series (Amherst, MA, University of Massachusetts).
- Lazonick, W. 2004. “Indigenous innovation and economic development: Lessons from China’s Leap into the Information Age”, in *Industry and Innovation*, Vol. 11, No. 4, pp. 273–294.
- . 2009. *Sustainable prosperity in the new economy?* (Kalamazoo, MI, W.E. Upjohn Institute for Employment Research).
- Lin, J.Y. 2010. *New structural economics: A framework for rethinking development*, World Bank Policy Research Working Paper series, No. 5197 (Washington, DC, World Bank).

- ; Chang, H.-J. 2009. “Should industrial policy in developing countries conform to comparative advantage or defy it? A debate between Justin Lin and Ha-Joon Chang”, in *Development Policy Review*, Vol. 27, No. 5, pp. 483–502.
- Lo, D. 2007. “China’s quest for alternative to neo-liberalism: Market reform, economic growth, and labor”, in *Kyoto Economic Review*, Vol. 76, No. 2, pp. 193–210.
- . 2012. *Alternatives to neoliberal globalization: Studies in the political economy of institutions and late development* (Basingstoke and London, Palgrave Macmillan).
- ; Jiang, Y. 2011. “Financial governance and economic development: Making sense of the Chinese experience”, in *PSL Quarterly Review*, Vol. 64, No. 258, pp. 267–286.
- ; Li, G. 2011. “China’s economic growth, 1978–2007: Structural-institutional changes and efficiency attributes”, in *Journal of Post-Keynesian Economics*, Vol. 34, No. 1, pp. 59–84.
- ; Zhang, Y. 2011. “Making sense of China’s economic transformation”, in *Review of Radical Political Economics*, Vol. 43, No. 1, pp. 33–55.
- Poon, D. 2009. *China’s evolving industrial policy strategies and instruments: Lessons for development*, Working Paper series (Pretoria, Trade and Industrial Policy Strategies).
- Renner, M.; Gardner, G. 2010. *Global competitiveness in rail and transit industry* (Washington, DC, Worldwatch Institute).
- Romer, P. 1994. “The origins of endogenous growth”, in *Journal of Economic Perspectives*, Vol. 8, No. 1, pp. 3–22.
- Wade, R.H. 2006. “Choking the South”, in *New Left Review*, Vol. 38, pp. 115–127.
- . 2008. “Financial regime change?”, in *New Left Review*, Vol. 53, pp. 5–21.