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**In Transit: Chinese Economic Performance 1978-2001**

**by**

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Political and economic structural changes in Asia

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SIØS – Centre for international economics and shipping

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## 1. Introduction and Overview

During half a century of communist rule, China has been transformed from a relatively closed, predominantly rural and agricultural society into one in which the two major cities have more than ten million inhabitants and where modern industry and international trade and capital play major and increasing roles in the economy (c.f. table 1). In the process, it has experienced one of the fastest rates of economic growth in the world. Based on the income measure used in table 1, income per capita increased at an annual average of 5.4% from 1960 to 1998. Moreover, social indicators such as life expectancy and literacy and infant mortality rates have increased considerably over these decades. Starting out far below the average level of income for low-income countries, China has by now far surpassed it, and has started to acquire problems more reminiscent of high-income countries, such as a rapidly aging population.

Table 1: Basic Indicators 1960-99.

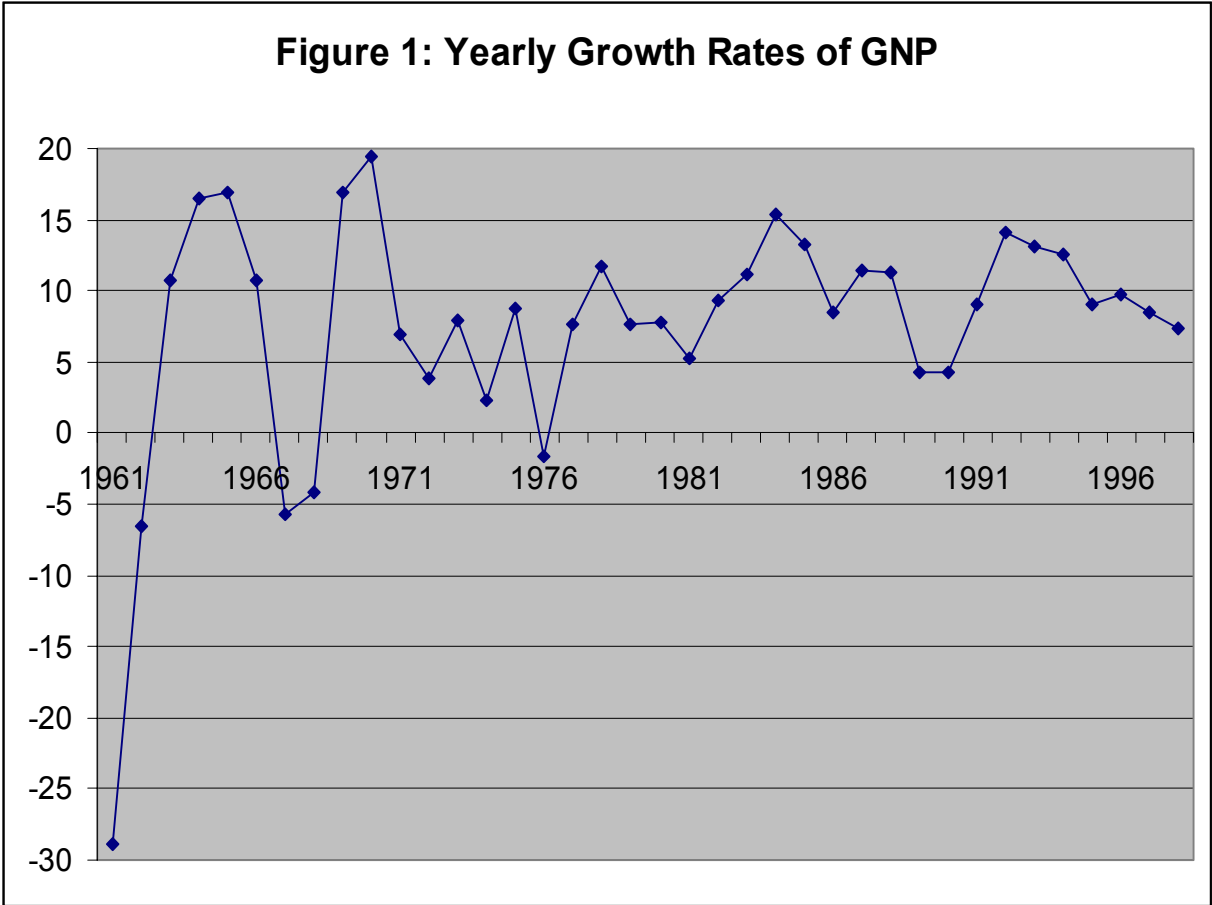
	1960	1970	1980	1990	1999
GNP per capita (constant 1995 US\$)	95.6	109.3	166.6	351.0	755.4
Gross domestic investment (% of GDP)	35.5	29.0	35.2	34.7	37.6
Share of Public Sector in Gross Industrial Output (%)	100.0	100.0	99.6	90.2	63.6 <sup>a</sup>
Trade (% of GDP)	6.3	3.8	15.5	31.9	41.3
Agricultural value added (% of GDP)	22.3	35.2	30.1	27.0	17.6
Labor force in agriculture (% of total)	83.2	78.3	74.2	72.2	47.4 <sup>a</sup>
Population (millions)	667.1	818.3	981.2	1135.2	1253.6
Urban population (% of total)	16.0	17.4	19.6	27.4	31.6
Share of population aged 65 and above (%)	4.8	4.3	4.7	5.6	6.9
Life expectancy at birth (years)	36.3	61.7	67.8 <sup>b</sup>	68.9	70.1
Adult illiteracy rate (% of people aged 15 and above)	n.a.	48.7	34.5	23.0	16.5
Infant mortality rate (per 1,000 live births)	132.0	69.0	42.0	33.1	30.2

Sources: World Bank (2001a) and author's calculations, except for the share of public sector enterprises in gross industrial output. For this indicator, the figures for 1980 and 1990 are from table 1.3 in Jefferson and Rawski (1999a); the figure for 1997 is calculated from the data in World Bank (1999). The figures for 1960 and 1970 are set at 100% since private ownership of property was not legal until 1981.

Notes: a. 1997. b. 1982.

The enormous progress that has been made has not been evenly distributed over time. The first thirty years of communist rule was characterised by periods of rapid growth from a low base punctuated by sharp regressions such as the one that occurred during the disastrous Great Leap Forward (1958-59) and the first years of the Cultural Revolution (which lasted from 1966-76). This is illustrated in figure 1, which also clearly demonstrates a marked decline in the variation of GNP growth rates after the onset of economic reforms at the end of the 1970s.

From then on, economic growth in China has been rapid on average, rarely being below 5% per year and often exceeding 10%.



Source: Author’s calculations based on data in World Bank (2001a).

Given the disappointing economic performance of socialist economies after World War II, the impressive post-reform growth of China might not be surprising. However, in contrast to the approach chosen by the countries in Eastern Europe and the former Soviet Union after the fall of the Berlin Wall, Chinese reforms, which started much earlier, have been introduced gradually, and so public sector enterprises have continued to play a major role in the economy. While agriculture was privatised at the onset of reforms, the boom caused by the switch from collective to household ownership had dissipated by the mid-1980s. It is industry that has created the Chinese “miracle”. As can be seen from table 1, as late as a decade ago publicly owned firms – state-owned enterprises and collectives of various types – still generated 90% of gross industrial output. The surprisingly dynamic response of the type of collectives known as Township and Village Enterprises (TVEs) was generated by a number of institutional changes that occurred during the 1980s and early 1990s. Even though the share of

output attributable to State-Owned Enterprises (SOEs) has been rapidly declining since, the Chinese state plans to retain some of the largest ones, particularly those belonging to sectors deemed to be of strategic importance. However, this fact will not differentiate China markedly from other non-socialist societies; it has indeed become a mixed economy. What is unique is the retention of political monopoly by the Chinese Communist party; in this respect too it has chosen another route than most of the other former communist countries in Europe and Asia.

Even leaving aside the difficult issue of political reform, the transition to a modern economy is not complete and further policy reforms and institutional changes are necessary.<sup>1</sup> Chief among these are i) improving labour productivity in agriculture through the reallocation of workers to other sectors while increasing investment; ii) continuing the restructuring and privatisation of state-owned enterprises in industry; iii) socialising the welfare system; iv) strengthening the financial sector, and v) reforming fiscal institutions. I briefly elaborate on these points in the final chapter. Prior to that, macroeconomic developments since 1978 are outlined in chapter 2. Chapter 3, dealing with enterprise reform in industry, is the main chapter, as industry was the backbone of the economy in the planning era. Hence, ownership reform in this sector was arguably the most important part of the reform programme. Since China now has become a member of the WTO, external trade and investment are important current topics, as well as having played a major role in transforming the economy to date. Chapter 4 is devoted to these issues. Chapter 5 contains the concluding summary just mentioned.

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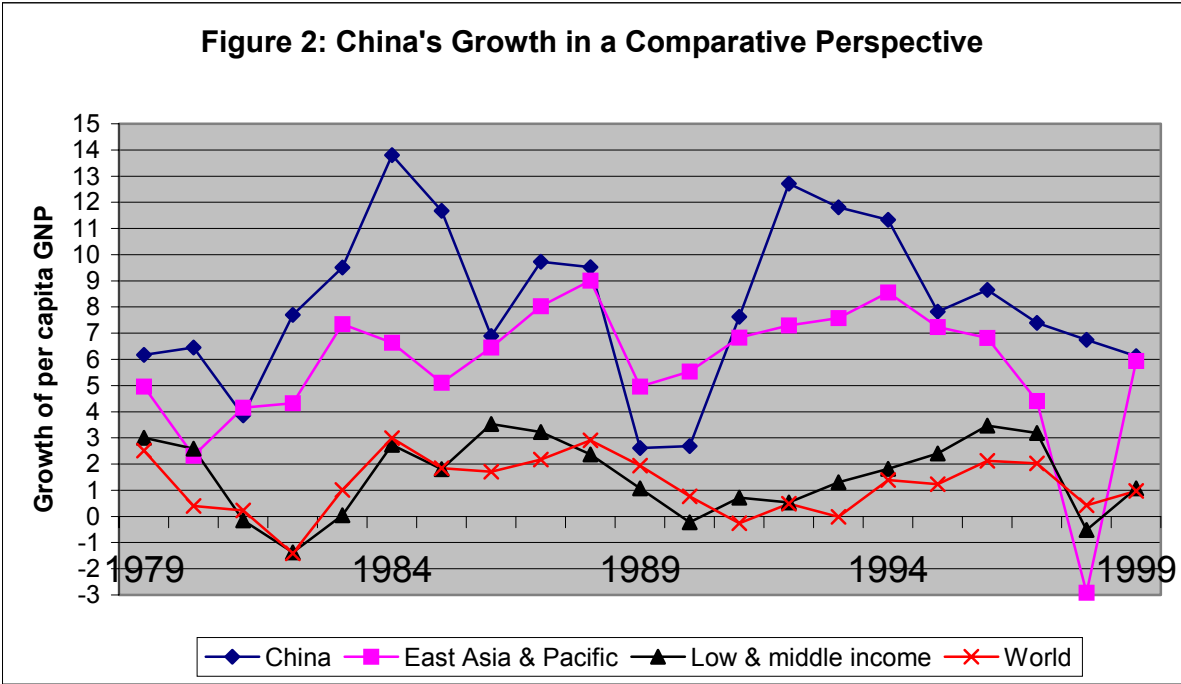
<sup>1</sup> The appendix contains a chronology of the most important reforms to date.



## 2. Macroeconomic Performance in the Era of Reform

### 2.1. China's Growth Performance in a Comparative Perspective

As already noted, the growth of the Chinese economy over the last decades has been extremely rapid. Figure 2 provides a comparative perspective on the achievements of China since the reform era commenced. In addition to the yearly growth rates of the Chinese GNP, comparable figures for three especially relevant country groups are added. These are, first of all, the East Asia and Pacific region, containing most of China's geographical neighbours. As is well known, some of these countries have been doing extremely well with respect to economic growth.<sup>2</sup> Still, we see that China has outperformed its neighbours for most of the period covered, with the exception of a few years in which the government was trying to cool down a seriously overheated economy.



<sup>2</sup> However, this group consists of twenty-three countries, including China, and there are also quite a few laggards here, such as the Philippines and North Korea. Moreover, the only East Asian Tiger included is South Korea (the other Tigers are Taiwan, Singapore, and Hong Kong). From the somewhat broader group dubbed “high-performing Asian Economies (see e.g. World Bank 1993 and Campos and Root 1996), in addition to South Korea, only Indonesia, Malaysia, and Thailand are included.

Source: World Bank (2001a).

Secondly, aggregate figures for the group of low- and middle-income countries (as classified by the World Bank) are included. At the end of the 1970s, China was a low-income country. As of now, it has become a lower middle-income country. Many low-income countries, particularly in Africa, have had a poor growth performance for decades. Hence, it is no surprise to find that China has grown faster than the average for this group in every single year contained in figure 2. Nevertheless, it demonstrates that achievements of this country stand out among those of all the countries at a comparable level of economic development.

Finally, we see that China is way above the world average for most of the period 1979-99. Only in the throe of 1989-90 was Chinese growth rates anywhere near the world average, and even at the height of the Asian crisis in 1997 this Asian country grew much faster than this benchmark.

Table 2: Annualised growth rates of GDP per capita 1978-99

Country	Growth rate
China	8.0
South Korea	5.8
St. Kitts and Nevis	5.4
Singapore	5.0
Antigua and Barbuda	4.6
Botswana	4.6
Thailand	4.6
Cyprus	4.3
Ireland	4.2
Hong Kong	3.9

Source: Author’s calculations based on data in World Bank (2001a).

Table 2 illustrates that the extraordinary aggregate performance of the Chinese economy is not due to the above country averages being the result of some particularly poor performers masking the fact that most countries do about as well as China. Over the last twenty years or so, China has been setting the pace in the world economy. Among the one hundred and twenty countries for which growth rates could be calculated, number two on the list, South



Korea, grew at a rate more than two percentage points below China's. Even though it came in fourth, Singapore was even further behind, and citizens of capitalist Hong Kong only managed to produce half the rate of output growth of communist China. Although data for Taiwan could not be obtained, there is no doubting that China outperformed all of the East Asian Tigers.

Nevertheless, a few words of caution are necessary. There are good reasons to believe that official Chinese statistics misrepresent the rate of growth of the economy. This goes beyond the usual problem of low data quality in poor countries, even though this problem is compounded in the case of China by several factors. Firstly, the government used a socialist conception of national accounts even into the 1980s.<sup>3</sup> Moreover, throughout the 1980s a significant, albeit declining, share of prices was determined by the planners. This has made it difficult to construct precise measures of real output even as China has started to introduce the standard international system of national accounting. A third factor specific to China is the revolutionary pace of structural change, including new and higher quality products. Even statistics bureaus in high-income countries would have trouble constructing reliable deflators in such circumstances.

More troubling is the growing consensus that Chinese officials are cooking the books. As Maddison (1998: 57-58) bluntly puts it: "Official statistics ... exaggerate GDP growth." His estimate of the growth rate of GDP per capita over 1978-95 is 6.0%, compared to the official estimate of 8.4%.<sup>4</sup> Furthermore, this seems to have become a more important problem over time; as the Chinese leadership has tied the fate of its bureaucrats' careers to their ability to foster growth, local officials have become preoccupied with producing evidence of it to

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<sup>3</sup> More specifically, the concept of Net Material Product (NMP) was used instead of the value added measures of the Standard National Accounts system used in most other parts of the world. Amongst other things, NMP exclude the output of many "unproductive" sectors (mostly services). According to Young (2000: 6): "freight transport, commerce, and even post were considered as output, but items such as passenger transport, real estate, television and radio broadcasting, education, research, finance, insurance, and public administration were not." Xu (2002) reports that until 1985 only the Material Product System (MPS) was applied in constructing China's national accounts; from 1985 on the MPS was used in parallel with the System of National Accounts (SNA) until 1992, when it was replaced by the SNA.

<sup>4</sup> He also finds that levels of GDP have been understated in official accounts up until around 1990.

further their careers.<sup>5</sup> The national government is aware of the problem; in 1998, the National Bureau of Statistics even discontinued the publishing of provincial growth reports due to perceived misrepresentation.<sup>6</sup> How large the distortions are is of course difficult to tell. Most evidence points to fairly sizeable gaps between official and true rates of growth. In the ironic words of Rawski (2001: 352-353): “Official performance measures for recent years imply that China’s economy has entered an unprecedented interlude that combines high-speed growth with declining energy use, falling prices, minimal employment growth, widespread excess supply, rampant over-capacity, low expectations, and large-scale pump-priming.” He goes so far as to suggest that the economy might have been declining in 1998 and 1999, whereas official statistics show increase of seven to eight percentage points. While his figures probably represents a lower bound on the growth rates of the Chinese economy around the turn of the century, it seems uncontroversial to knock two to three percentage points off the official estimate throughout most of the 1990s. This does take some of the shine out of the Chinese performance in the last decade, but does not change the fact that China’s economy has been among the fastest growing economies in the world in the reform period, particularly when the achievements of the 1980s are factored in.

## **2.2. Sectoral Performance and Structural Change from 1978 to Today**

Figure 3 shows the growth rates of value added by the main sectors of the economy from 1979 to 1999. In addition to the caveats just added about the reliability of GDP growth rates, which also extends to the growth rates of industrial value added, one should probably take the figures for the service sector with a grain of salt too. There are two reasons for such a suspicion being warranted. First of all, the conventional socialist method of national accounting did not include many services sectors. Therefore, the reconstruction of the size of

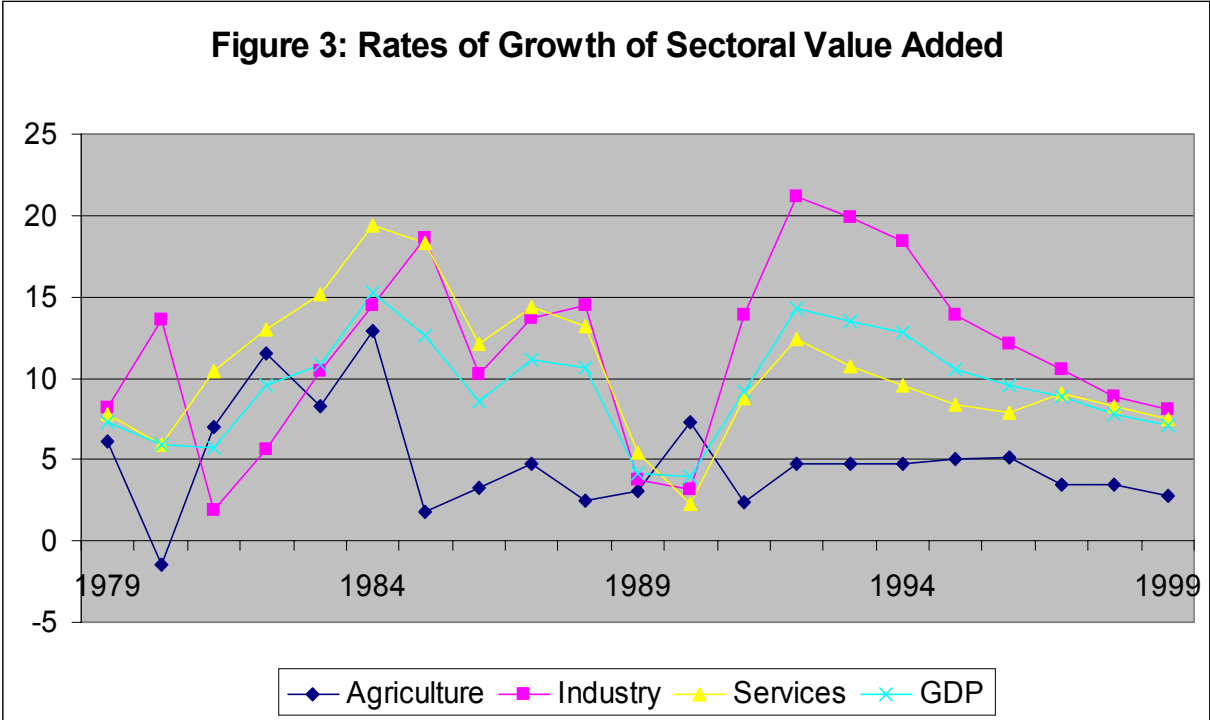
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<sup>5</sup> See the symposium on Chinese economic statistics in *China Economic Review* 12 (2001), especially Wang and Meng (2001) and Rawski (2001), as well as Wu (2002).

<sup>6</sup> Woo (1998: 166) claims that GDP growth is exaggerated due to misrepresentation of industrial growth for the following reasons: “1. The pervasive reporting by industrial COEs [collectively-owned enterprises] of nominal output value as real output value. 2. The incentives for officials at the local industrial bureaus to exaggerate output growth to advance their careers. 3. The procedure for reporting the base-year values of new product lines that overstates them. 4. The inconsistent use of base-year prices.” Thus, his estimate of GDP growth in 1993 is 8.9%, compared to the official figure of 13.4%.

this sector as measured by conventional systems of national accounts is necessarily fraught with uncertainties, especially in the early part of the reform period. Secondly, the service sector contains many very small firms, whose output is hard to register for governmental agencies, not least because many such firms do not wish to be accounted for as this would force them to abide with public regulations and pay taxes.

Still, the broad picture given by figure 3 is reasonable enough. The two most noteworthy features are, first of all, the temporal performance of the agricultural sector. At the end of the 1970s, the largest sector of the Chinese economy was still agriculture (c.f. table 3 below). It was in this sector that the reform process started. In 1979, the so-called household responsibility system was introduced. Agriculture was decollectivised, leaving peasants with the control of the residual income stream from their productive efforts once they had met their state-determined quotas. In combination with increases in government procurement prices, this led to a rapid increase in agricultural output and rural incomes in the early 1980s. However, once the initial spurt of growth was exhausted, the performance of this sector has been lacklustre. Except for the years 1989 and 1990, when contractionary central government policies hit the secondary and tertiary industries very hard, the primary sector has lagged behind the growth rates of the other parts of the economy.



Source: Author’s calculations based on data from World Bank (2001a).

The second important point made clear by the figure is the very impressive increase in industrial value added. Even discounting these figures somewhat,<sup>7</sup> growth rates have been above 10% in most years. This has clearly been a major factor in the good overall performance of China since 1978.

Table 3: Sectoral shares in GDP, selected post-reform years

Year	Agriculture	Industry	Of which:	
			Manufacturing	Services
1979	38.5	37.7	32.0	23.8
1984	35.3	37.2	30.7	27.6
1989	26.2	41.9	33.6	31.9
1994	19.9	51.0	39.4	29.1
1999	15.9	55.7	42.4	28.4

Source: Author's calculations based on data in World Bank (2001a).

Table 3 illustrates the consequences of these growth differentials for the structure of the economy. As already mentioned, agriculture was the largest sector at the onset of the reform era. At the time, industry was almost as large due to the development strategies pursued in the early years of the People's Republic, which favoured this sector at the expense of agriculture in particular. The great difference in economic structure twenty years later is that the share of agriculture in GDP has been more than halved, with most of the reduction being taken up by industry, which now accounts for more than 50% of GDP. For a country at its level of development, China has a very large industrial sector. For example, it is more important to the Chinese economy than the industrial sectors of the NICs of East Asia are to those economies (c.f. OECD 2002). On the other hand, its service sector is smaller than is to be expected at its level of GDP.<sup>8</sup> This is no doubt due to a combination of the legacy of socialism, during which

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<sup>7</sup> Perhaps by as much as four percentage points in the 1990s, c.f. Wang and Meng (2001).

<sup>8</sup> Given the uncertainties surrounding the Chinese national accounts, it should be noted that estimates of sectoral shares differ too. For example, Wu (1994) presents numbers indicating a much larger share for industry and lower shares for agriculture and services than those shown in table 3 (see his table 3A.1, covering 1978-91). However, these do not change the fact that the structure of the Chinese economy has been peculiar for a country

many service sectors were not valued, and to the continued emphasis on industrial growth during reforms.

Shifts in the allocation of the labour force have been accompanying the shift in shares of sectoral value added in GDP. As can be seen from table 4, the share of workers employed in agriculture has declined quite significantly. Yet, almost half of the labour force is still in agriculture even though that sector contributes less than a fifth of GDP. The problem of surplus labour in agriculture has thus not been solved by the extensive reforms that have been undertaken.

Table 4: Shares of labour force, selected post-reform years

	1980	1987	1990	1994	1997
Agriculture	68.7	60.0	53.5	49.7	47.4
Industry	18.2	22.2	19.0	20.8	20.4
Services	8.2	15.8	25.0	26.7	29.2
Unemployment	4.9	2.0	2.5	2.8	3.0

Source: World Bank (2001a) and author’s calculations.

Services have been the main provider of new jobs. It is currently employing a share of the labour force that corresponds quite closely to its share in GDP. Industry has only been increasing its share of the labour force marginally during this period even though its share of GDP has gone up drastically. To some extent the mismatch between the importance of industry in terms of valued added and employment is a legacy of the past emphasis on capital intensive heavy industry. Comparing tables 3 and 4, we see that the gap between these two shares was also quite large around 1980. Still, once reforms got underway, labour intensive industries started to grow quite rapidly. In particular, so-called township and village enterprises (TVEs) have been providing a large number of new jobs.<sup>9</sup> However, until recently, employment in state-owned enterprises (SOEs) has also been growing, contributing to chronic overstaffing in these firms.

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at its level of income. Moreover, the direction of structural change is the same, with agriculture losing ground to services and, in particular, industry.

<sup>9</sup> According to OECD (2002), they generated seven million new jobs each year from 1984 to 1996.

TVEs have to some extent capitalised on the neglect of light industry, particularly consumer goods, under planning; taking advantage of the rapid increase in demand that has followed in the wake of income growth. These enterprises are located in rural areas. Hence, the fact that they have been the most dynamic force in industry (together with private enterprises) has contributed in a major way to the economic success of China in the last couple of decades. Furthermore, the Chinese gains from WTO membership will mostly accrue to labour-intensive industries. This gives some grounds for optimism with respect to job creation in the coming years. Even so, TVEs have not been able to keep up the rapid pace of employment growth in recent years. In addition, SOEs will have to keep on reducing their employment levels if they are to improve their currently abysmal financial performance. Coupled with the evidence of a large remaining labour surplus in agriculture, it is clear that the challenge of providing the inhabitants of the world's most populous country with jobs remains great.<sup>10</sup>

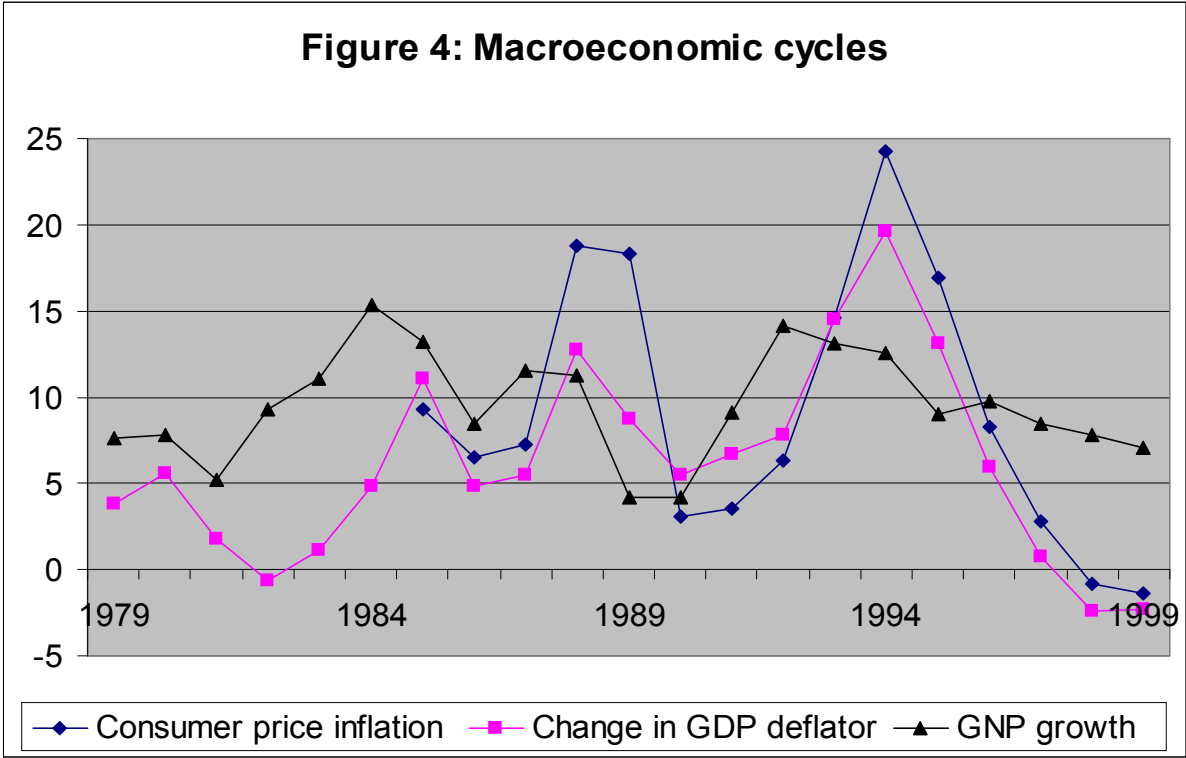
### **2.3. Macroeconomic Cycles in Post-Reform China**

Another angle at Chinese performance since 1978 can be gained by studying developments in macroeconomic aggregates such as consumption and investment. Among the main domestic macroeconomic aggregates, household consumption tracks the developments of GDP quite closely. Most of the volatility comes from general government consumption and gross fixed capital formation. The latter, in particular, changes a lot from year to year, reflecting the fact that it has been the main source of macroeconomic instability in China. Most episodes in which the economy has been in danger of becoming overheated have been precipitated by investment growing too fast. In turn, this has prompted the government to take stern action to reduce inflation by containing the rate of capital formation. In consequence, there were sharp drops in investment in 1981 and 1989, as well as consecutive reductions in the growth rate of investment from the peak in 1993 to 1997.

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<sup>10</sup> The estimates of surplus labour in SOEs and in agriculture are high. According to Fan, Lunati, and O'Connor (1998), the official estimate of surplus workers in SOEs in 1996 was 8.9%. In contrast, they claim that unofficial estimates "run as high as one-half of the work force in certain SOEs, with an average figure of perhaps one-fourth" (p. 38). The calculations of Chen and Diwan (2000) yield results that are in line with the high end of the unofficial estimates (43% in 1996, 57% in 1997). According to the OECD (2002), at least two hundred million workers could be considered surplus to requirements in agriculture.

Figure 4 provides a closer look at the macroeconomic cycles that China has gone through in the reform period.<sup>11</sup> Oppers (1997) outline four such cycles: 1979-81, 1982-86, 1986-1990, and 1991-1996.<sup>12</sup> As can be seen from figure 4, each new cycle seems to be more pronounced than the previous one. However, as the turn of the century approached, there was a radical departure from previous experience. As SOE reform proceeded, generating bankruptcies and lay-offs on a noticeable scale for the first time, deflation resulted. Thus, the focus changed from how to contain the productive forces of the economy to how to unleash them. In recent years, the government has therefore pursued expansionary macroeconomic policies, so far without strong signs of a new cycle emerging.



Source: World Bank (1996a, 2001).

The recurring macroeconomic cycles in China after 1978 can be seen as reflecting the reforms undertaken in the period as well as the lack of reform.<sup>13</sup> For example, price liberalisation in

<sup>11</sup> The consumer price index is not available until 1985. The retail price index, which is available for the whole period, shows increases of 2%, 6%, 2.4%, 1.9%, 1.5%, and 2.8% for the years 1979-1984 (c.f. table 32 in World Bank 1996a).

<sup>12</sup> For details of these episodes through 1993, see Naughton (1995a).

<sup>13</sup> Naughton (1995a: 51) observes that prior to 1978 “[t]he economy was locked into persistent stop-and-go cycles.” As explained by him, these pre-reform cycles were due to weaknesses in the planning system.

the context of excess consumer demand, which is a feature of socialist economies focused on industrialisation through heavy industries, naturally leads to inflation.<sup>14</sup> On the other hand, the decentralisation of decision-making authority to enterprises and local governments lead to a continuing increase in aggregate demand that was probably unexpected. Allowing enterprises to retain more profits and local governments to retain more tax revenues would of course reduce the revenues of the central government. This was intentional, but the effect was stronger than the government had foreseen.<sup>15</sup> Moreover, even though it also decentralised the responsibility for investment to the SOEs and managed to cut other budgetary expenditures such as defence spending and subsidies (for price-support and loss-making SOEs), the need for infrastructure spending in a rapidly growing economy meant that expenditures did not decline a pace with revenues. In the reform period, therefore, the government budget has continually been in deficit.

However, this was not the main source of inflationary pressures. As both the ability and willingness of the government to finance SOEs over the budget declined, these enterprises were given recourse to the banking system to finance their working capital and outlays for fixed investment.<sup>16</sup> The contract responsibility system regulating the relationship between the government and its firms resulted in a soft budget constraint for the latter. While the successful SOEs kept most of the above-quota profits, loss-making enterprises could always renegotiate their deals or turn to the banks to provide the necessary funding. Bankruptcy was for the most part out of the question and the government wanted to avoid the social disruptions that lay-offs would cause.

Moreover, with wages and bonuses rising fast, even profit-making SOEs turned to the banks to finance their investments. Borrowed funds were in any case cheap due to regulated lending rates and lax enforcement of repayment. Local governments, which were responsible for the operations of most small- and medium-sized SOEs, were keen to boost development in their

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<sup>14</sup> McKinnon (1994) argues that this factor was not important in China, in contrast to Russia and Eastern Europe. Whether or not a monetary overhang played a role, in addition to the increase in demand caused by rapidly rising incomes, price liberalisation was clearly necessary for explicit inflation to emerge.

<sup>15</sup> In relation to GNP, government revenues dropped from 30.6% in 1979 to 18.8% in 1988. After increasing slightly in 1988 and 1989, the drop continued until 1995, when the ratio was only 11.4% (see table 23, World Bank 1996a, 1999a).

<sup>16</sup> Loans for working capital were in fact the main part of SOE borrowing.



localities, and leaned heavily on the local branches of the People's Bank of China and other financial institutions to provide financing for "their" firms. But the central government also engaged in such "arm-twisting" in order to fund the projects of the mostly large SOEs under its control despite its reduced capacity to do so over the regular budget.<sup>17</sup> The result was a rapid increase in the non-financial public sector deficit. It actually exceeded 10% of GDP in the latter half of the 1980s and the first half of the 1990s (c.f. World Bank 1996). More than three-quarters of this deficit was due to the SOEs.

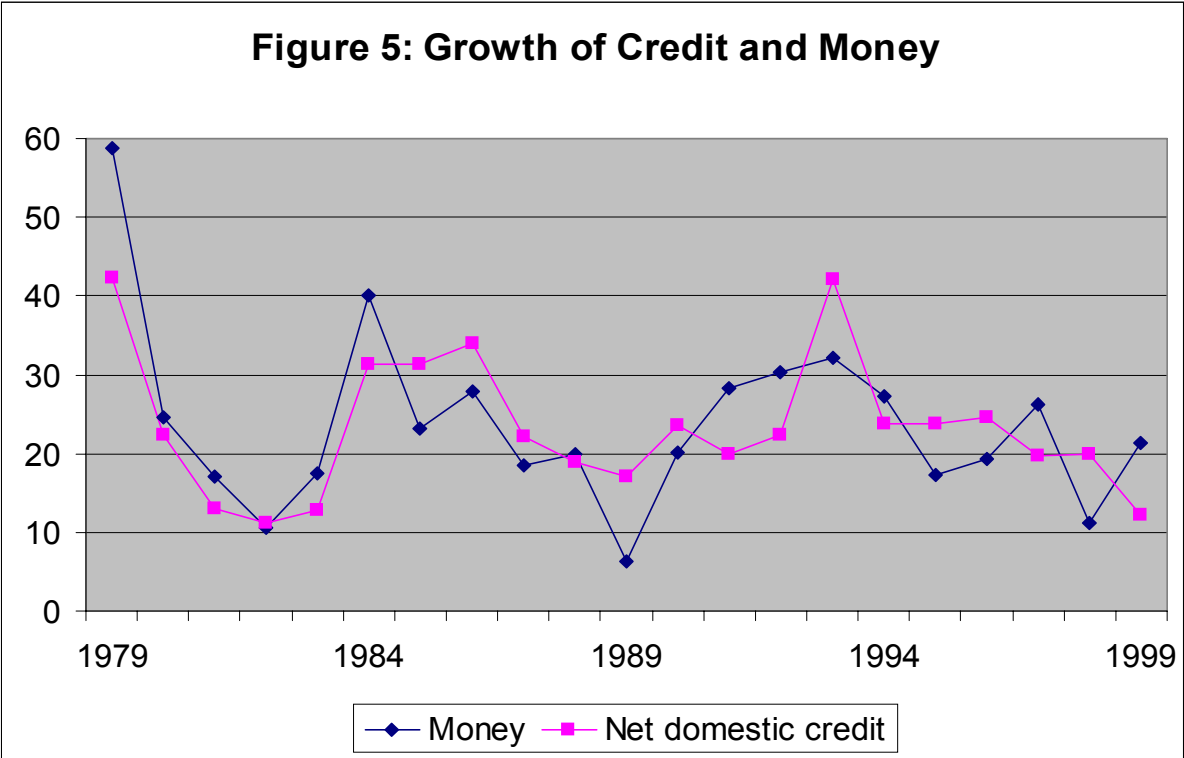
These developments might be partly attributed to excessive or uncoordinated reforms and partly to lack of reforms. For example, the early financial troubles of some SOEs were to some extent caused by reforms causing rising costs that could not be shifted onto prices because of controls; later, rising welfare burdens have added to the woes as SOEs, not the government, are still mainly responsible for providing welfare to its employees. Furthermore, the capacity of the state with respect to macroeconomic management has been weakened by reforms. In the planned economy, monetary policy played essentially no role; the "central bank" was more of a transfer mechanism, allocating credit to make sure that the physical part of the plan could be implemented (see Naughton 1995a). Conversely, fiscal policy was the main macroeconomic lever; with most of the savings and investment occurring in industrial SOEs, managing the flows among enterprises and between SOEs and the government was all that was needed to ensure a balance between savings and investment in the relatively closed economy.

As already mentioned, the role of fiscal policy in the economy diminished due to the reforms. Not only did government revenues and expenditures decline in relation to the size of the economy; fiscal policy became pro-cyclical due to profit-sharing. As the government only received a fixed (in nominal terms) amount of revenues in the form of profits and taxes, or at

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<sup>17</sup> Soft budget constraints and "investment hunger" among SOEs are central to most accounts of macroeconomic developments in China in the reform period, c.f. Blejer (1993), Naughton (1995b), and Yusuf (1994). Brandt and Zhu (2000) provide a slightly different emphasis by arguing that the core of the problem lies with government's attachment to sustaining employment in SOEs. When credit allocation was decentralised, banks diverted funds to the more profitable non-state sector, which was rapidly expanding, thus forcing the central government to resort to money creation to generate funds for the ailing SOEs. Growth and inflation therefore drops in periods when the government recentralizes credit allocation, as it did in 1985, 1989-90, and 1993-94. They provide some empirical evidence to support their hypothesis against the more conventional explanations.

most a small share beyond such a quota, enterprises got to keep most of the profits above the target. In a booming economy with considerable inflation, this left firms with plenty of money to spend.<sup>18</sup> In addition, monetary policy did not develop fast enough to enable the government to retain macroeconomic control. We have already noted that credit growth was considerable. One reason was that the People’s Bank of China (PBC), even though it had become a central bank in 1984, had a very decentralised structure and local governments exercised considerable influence over the branches.<sup>19</sup> It still retained a role as a provider of policy loans too, in spite of the fact that the four so-called specialised banks were supposed to take over that function in order to leave the PBC to central banking proper.



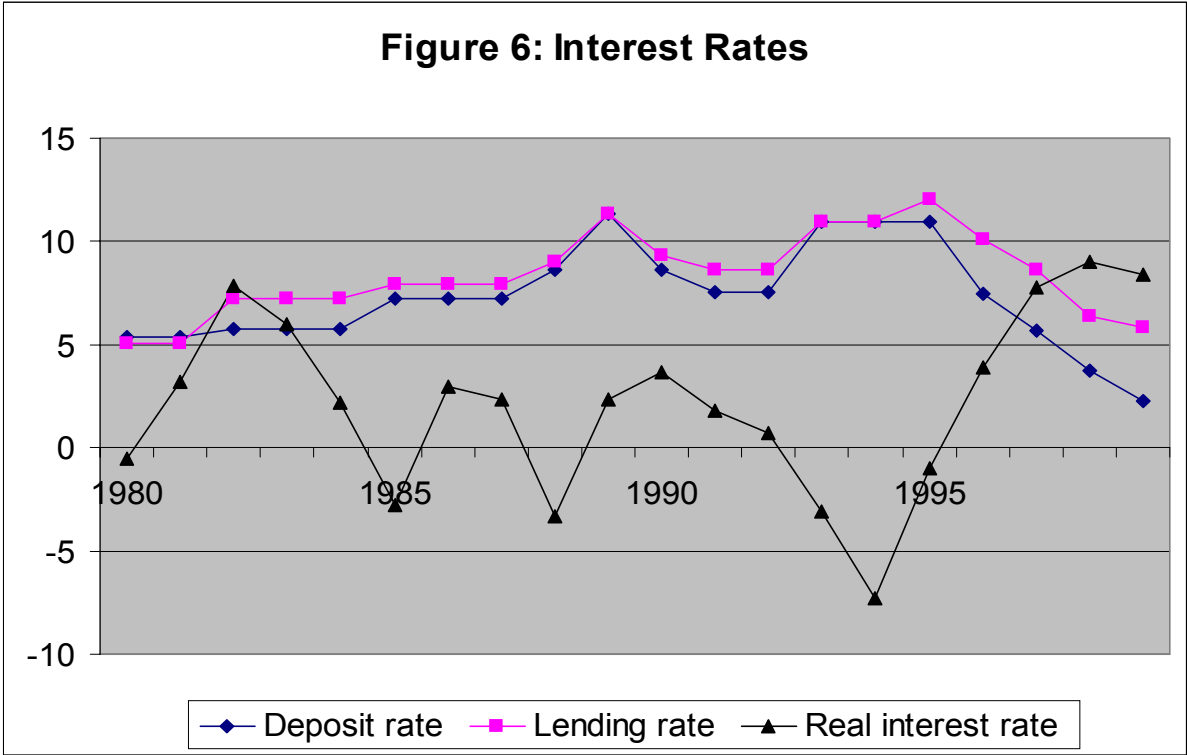
Source: Author’s calculations based on data in World Bank (2001a).

Hence, the PBC had little independence and could not pursue a restrictive monetary policy in the absence of political consensus over such a course. Even then, the insufficient development of financial markets showed up in the PBC having to use administrative measures to establish

<sup>18</sup> As already mentioned, there was a built in asymmetry in the system whereby failure to meet the targets often led to renegotiation of contracts. The pro-cyclicality was therefore more pronounced in upturns than in downturns.

<sup>19</sup> Woo (1998) describes why and how this influence was exerted.

control over credit creation. Interest rates were controlled and even though these were adjusted upwards to cool the economy when the pace of growth was too fast, this meant that action was often delayed because the authorities did not receive adequate signals of the underlying pressures. The controls exercised by the PBC were not always effective either. They also relied on a consensus that restraint was needed and such a common understanding was not always easily established. This allowed banks to avoid the restrictions imposed in various ways, for example by using the interbank market that was rapidly developing.<sup>20</sup> In addition, the demand side was not very responsive to changes in interest rates because of the soft budget constraint facing SOEs (Xu and Zhuang 1998).



Source: World Bank (2001a).

The government has taken steps to rectify these problems. In 1994, a Central Bank Law was passed, granting the PBC more independence from the government (World Bank 1996a). The PBC was given the legal right to formulate and implement monetary policy, as well as the responsibility for supervising the financial system. The law also explicitly forbids the PBC from extending overdrafts and direct loans to the central and provincial governments. The latter, in particular, was an important step as it centralised the control of the money supply. In

<sup>20</sup> Other ways in which the controls were avoided are described in Lou (1997).

combination with reforms regarding the financial sector and that sector's growth and development, these changes will aid China in establishing a monetary policy becoming of a market economy, where indirect policy instruments rather than a hands on approach are used. Without make any strong claims about causality, it is at least interesting to note that the growth rates of money and credit have gone down in the last half of the 1990s, and that financial repression (never particularly strong in China<sup>21</sup>) has ended with a bang, c.f. figures 5 and 6.

## 2.4. Sources of Growth

Analysing the causes of the macroeconomic cycles that China has gone through yield valuable insights into the mechanisms at work in the partially reformed economy. In a longer-term perspective, though, it is perhaps more important to investigate the sources of the phenomenal growth rates of the country. Uncovering the forces that have taken the country this far, will in turn allow us to surmise whether these can be expected to keep the growth process going.

Table 5: Savings and Investment in China, Selected Post-Reform Years (Shares in GNP)

	1979	1984	1989	1994	1999
Inventory investment	8.3	5.4	10.5	4.8	1.8
Gross fixed capital formation	29.4	29.5	25.6	33.8	36.6
Private fixed investment (% of gross domestic fixed investment)	18.1 <sup>a</sup>	35.3	36.3	43.6	45.8 <sup>b</sup>
Net foreign direct investment (% of gross capital formation)	0.0	1.4	2.8	15.1	10.5
Gross national savings	37.8	33.5	35.3	39.6	40.1
External balance on goods and services	-1.7	-0.1	-1.0	1.6	3.2

Notes: a. 1980. b. 1998.

Source: Kraay (2000), World Bank (2001a) and author's calculations.

An outstanding feature of the Chinese economy is the very high savings rate. As shown in table 5, gross national savings have exceeded 30% during the reform period, and reached more than 40% in the latter half of the 1990s. In a comparative perspective, these rates are equalled by no other country, whether one looks across space or time (c.f. Schmidt-Hebbel

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<sup>21</sup> For more on this issue, see McKinnon (1994).

and Serven 1999). China even outperforms other East Asian countries such as Hong Kong, Singapore, South Korea, and Taiwan, which are known for their very high rates of savings and investment.<sup>22</sup> Moreover, while the average savings rate in the world has been edging downwards over the last decades, the Chinese have been increasing their savings rate, and consistently so since the early 1980s.<sup>23</sup>

China's frugality is an outlier in a statistical sense as well. Kraay (2000) finds that after controlling for the determinants of savings based on a cross-country regression, there is a large unexplained residual of nearly ten percentage points.<sup>24</sup> Regardless of the causes behind Chinese savings rates, there is no doubt they have contributed greatly to the development of the economy, a claim that will receive substantial backing below. It has also contributed to keeping inflation low since money demand has been increasing fast, thus providing the state banking sector with cheap and readily available sources of funds that it could channel to the government and its enterprises.

Table 6: Composition of National Saving (shares in GNP)

	1979	1983	1987	1991	1995
Budgetary government	9.9	5.5	4.2	1.8	0.5
Extrabudgetary government	6.1	7.8	7.8	5.6	n.a.
Corporate sector	1.9	3.7	4.6	3.2	7.6
Households (survey measure)	9.6	13.7	11.9	10.3	10.6
Residual (using household survey measure)	8.7	4.2	15.7	17.0	22.6
Households (asset measure)	6.5	9.7	7.8	17.6	21.1
Residual (using household asset measure)	11.7	8.2	4.0	9.7	12.1

Source: Table A-1, Kraay (2000).

<sup>22</sup> See, for example, World Bank (1993, 1997a). Though, the World Bank (1997a) cautions that over 1978-95, the official average savings rate could overstate the true savings rate by three to four percentage points.

<sup>23</sup> When savings rates are weighted by population, the world average shows no time trend due to the high rate of savings in China.

<sup>24</sup> The Chinese save much more than is to be expected at their level of income. On the other hand, the rapid growth of income, the country's low old-age dependency ration, and its financial depth as measured by the ratio of M2 to GDP contribute towards explaining its higher level of savings compared to the sample mean.

What agents have been responsible for this formidable rate of accumulation? In table 6, gross national savings have been disaggregated at intervals of four years for the period starting in 1979. The savings of the public sector are split between budgetary and extrabudgetary accounts. The latter are mainly operating surpluses of SOEs plus informal levies. Corporate savings are estimated by using the fixed investment of the non-state sector, excluding individual and foreign-owned enterprises. The former is included in household savings, which are estimated in two ways. The first is the difference between household income and expenditures, taken from China's household survey, adjusted by the investment of individual enterprises. The second is derived from changes in the aggregate assets of households.<sup>25</sup>

Whichever measure of household savings is used, there is a large residual left between aggregate savings measured as the sum of the savings of various sectors and the standard national savings measure based on the national accounts. The main reason for this large gap is the accumulation of inventories, which has not been included in any of the disaggregated categories. While one may argue about whether or not changes in stocks of goods constitute savings, one may safely conclude that the very high levels of inventory investment in China (c.f. table 5) provide evidence of gross inefficiencies in the economy. As shown by Maddison (1998), with respect to this type of "investment", China's figures are way above what is found in many other economies. In high-income countries such as the US and the UK, the share in GDP is well below 1%. And even in India, which is not exactly paragon of economic efficiency, changes in inventories make up a share of GDP that is on average only one-fourth to one-half of the ratio in China. Most of these inventories presumably belong to SOEs which have been experiencing great difficulties in selling their goods, as well as facing strong pressures to keep up the level of production.<sup>26</sup>

A second important feature apparent from table 6 is the vanishing savings of the public sector. At the start of the reform period, the public sector was responsible for 40-50% of national savings. In 1995, the corresponding figure was just over 1%. Both of these numbers exclude

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<sup>25</sup> For more on the derivation of these estimates and the uncertainties surrounding them, see Kraay (2000).

<sup>26</sup> The level of inventory investment has on average increased during the reform period. This is most likely due to increasing competition from the non-state sector. The numbers were large in the pre-reform era as well (c.f. table 3.9 in Maddison 1998). However, according to Hu and Khan (1997), the so-called "circulating capital" of the planning period was working capital designated for the purchase of inputs, with inventories not being an important item in an environment of chronic shortages.

inventory investments, but in light of the discussion above, attributing most of these to the public sector would not make the picture much brighter. The main cause behind the disappearance of public savings is the decline in the operating surpluses of public sector enterprises. Of course, these surpluses were artificially high in the pre-reform economy because relative prices were rigged to channel funds to the state. Hence, it was to be expected that these would come down as liberalisation proceeded, particularly since non-state firms have been competing vigorously for market shares in many industries where SOEs formerly operated on their own. Still, the financial performance of the SOEs is now a major cause of concern. Moreover, the government is in great need of funds in order to be able to continue with remaining reforms, particularly with respect to restructuring of the banking sector and industrial SOEs, in a decisive and orderly fashion. Most analyses therefore stress the need to raise government revenues.

Given the above, it is not surprising to find that most growth accounting exercises find that the accumulation of physical capital is the most important source of growth in China. As can be seen from table 7, the rate of growth of this factor of production is generally estimated to be three to four times the rate of increase in labour input in the reform period. In this respect too, China resembles other East Asian success stories such as South Korea and Taiwan. From this perspective, the remarkable change in China's economic fortunes over the last quarter century can be interpreted as due to a virtuous spiral unleashed by the initial reforms: as income increased, so did savings; in turn these savings were channelled into investment that spurred growth and savings. Since China is a long way from reaching a point where the positive association between income and savings might taper off,<sup>27</sup> this bodes well for the continuing growth of the economy.

Scratching the surface, however, once again reveals a picture that is not nearly as pretty as the one created by official statistics. First of all, there is the recurring problem of faulty statistics. The World Bank (1997) argues that the consumption and investment deflators used to

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<sup>27</sup> See Schmidt-Hebbel and Serven (1999) for evidence of the positive correlations between income and savings, savings and investment, and savings and growth in cross-country data. They find that the cross-country evidence indicates that savings rates peak at a level of per capita income of about \$17,000 (measured in 1987 USD).

calculate real magnitudes in the national accounts are too low.<sup>28</sup> In this publication, the capital stock is estimated to have grown by almost a percentage point less per year over 1978-95 than the official statistics suggest (7.9% instead of 8.8%).

Secondly, Maddison (1998) demonstrates that the rate of growth of the gross non-residential fixed capital stock in China is not that impressive in a comparative perspective. True, it is much higher than in rich countries such as Germany, the US, and the UK. Yet, at an average of 20.3% per year from 1978 to 1994, it is lower than in Taiwan, Japan, and South Korea during the same period. For example, the latter invested at a rate of 26% per year.

Thirdly, the structure of investment in China hints at the possibility of investment funds having been misallocated. During the whole reform period, a majority of the fixed investment has occurred in the state sector. Most observers would argue that much of this investment has not been efficient. While the government and its enterprises have had nearly exclusive access to the banks' funds, non-state enterprises have had trouble financing their projects. These problems have been particularly severe for the private sector. Consequently, even at the end of the 1990s, the share of fixed investment generated by China's non-state sector was barely half of that accounted for by private firms in South Korea at the outset of the Chinese reforms (c.f. table 8).<sup>29</sup> In 1998, the private sector in all the other countries listed in table 8 was responsible for a share of investment that was at least twenty percentage points above the corresponding figure for China's non-state sector.

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<sup>28</sup> Another issue is raised by Maddison (1998), who claims that official figures for gross fixed investment include large items that would not be counted as investment in Western practice. Specifically, large amounts of expenses for repairs that should be classified as intermediate inputs and military investment that should be counted as current defence expenditure are contained in the official numbers. He therefore reduces the level by 10%.

<sup>29</sup> Even though the source labels this series "private fixed investment (% of gross domestic fixed investment)", it is evident from other sources that it includes investment by collectives. See tables 34 in World Bank (1996a, 1999a); combining the entries for collectives, individual enterprises, and other enterprises, one arrives at shares equal to those contained in table 8.



Table 7: Selected Growth Accounting Exercises (% per year)

Study	Output measure	Period	Output	Capital	Labour	Human capital	Farm land	TFP
Hu and Khan (1997)	National income at factor cost	1953-94	7.2	6.8	2.6			2.1
		1953-78	5.8	6.2	2.5			1.1
		1979-94	9.3	7.7	2.7			3.9
	Non-agricultural economy	1953-94	8.5	10.1	5.0			0.9
		1953-78 <sup>a</sup>	9.3	12.1	6.5			-0.8
		1979-94	10.0	9.3	5.4			3.1
	National income at factor cost	1979-84	8.0	7.1	3.0			2.5
		1985-89	8.8	8.6	2.8			2.7
		1990-94	11.5	7.5	2.1			5.8
Maddison (1998)	GDP	1952-78	4.4	7.6 <sup>b</sup>	2.6	4.9 <sup>c</sup>	0.5	-0.8
		1978-95	7.5	8.9 <sup>b</sup>	2.6	4.2 <sup>c</sup>	0.0	2.2
Woo (1998b)	GDP	1979-84	8.4-8.6 <sup>d</sup>	4.9	1.3			2.2-2.4 <sup>e</sup>
		1985-93	8.2-8.5 <sup>f</sup>	5.5	1.1			1.6-1.9 <sup>g</sup>
World Bank (1997a)	GDP	1978-95	8.2	7.9	2.4 <sup>h</sup>	2.7 <sup>h</sup>		3.5 <sup>i</sup>
Wang and Yao (2001)	GDP	1953-77	6.5	6.1	2.6	5.3		-0.6
		1978-99	9.7	9.4	2.7	2.7		2.3
Young (2000)	Non-agricultural GDP	1978-98	8.1	7.7	4.5	1.1		1.4

Notes: a. Excluding 1958-70. b. Non-residential capital only. c. Quality adjusted labour input, i.e., growth in labour input and education combined. d. The official growth rate was 9.3. Woo (1998b) adjusts this downward by 0.2 for inconsistent use of base years and by 0.5-0.7 for overstatement of industrial output. e. Sum of reallocation of labour from agriculture (1.1) and “net TFP” (1.1-1.3). f. The official growth rate was 9.7. Woo (1998b) adjusts this downward by 0.3 for inconsistent use of base years and by 0.9-1.2 for overstatement of industrial output. g. Sum of reallocation of labour from agriculture (1.3) and “net TFP” (0.3-0.6). h. 1978-93. i. Calculated by author from information in source.

Table 8: Private fixed investment (% of gross domestic fixed investment)

Country	1979	1984	1989	1994	1998
Brazil	54.8	72.5	78.4	76.5	82.9
Chile	70.8	51.8	79.1	77.2	87.7
China	n.a.	35.3	36.3	43.6	45.8
India	55.1	47.9	57.0	60.0	69.6
Indonesia	n.a.	55.6	68.5	65.2	77.0
South Korea	87.2	84.6	88.0	85.9	79.5
Malaysia	66.3	52.7	63.1	67.8	65.4
Thailand	70.3	71.0	85.5	78.2	66.2

Source: World Bank (2001a).

Of course, if one excludes the share of collectives, the contrast is even starker: the “true” private share in Chinese fixed investment is only 22.3% in 1984, 24.9% in 1989, 26.7% in 1994, and 32% in 1997.<sup>30</sup> While the investment of many Chinese collectives (especially the TVEs) has probably been more efficient than that of most SOEs, and the social returns to private investment might also be low for a variety of reasons, it seems uncontroversial to claim that the returns to Chinese investment has continued to be relatively low in a comparative perspective even after the reforms began.<sup>31</sup>

These concerns about the quantity and quality of investment naturally have implications for the rates of growth of output and total factor productivity (TFP). The calculations of Young (2000), reproduced in table 9, are particularly instructive in this regard.

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<sup>30</sup> The numbers are from tables 34 in World Bank (1996a, 1999a). The true share of private firms is probably somewhat understated by these figures, for at least two reasons: i) some private firms have registered as collectives to avoid political risks and bureaucratic hassles; ii) some collectives have been run almost as private enterprises (e.g. through leasing to private individuals).

<sup>31</sup> Another factor that supports this conclusion is the limited mobility of capital within China. This has prevented investment from flowing to the most productive uses from a national perspective. The special incentives given to foreign direct investment, which has been specific to certain areas of the country, have at least not helped in this respect.

Table 9: Chinese Growth Rates 1978-98

	Official	Adjusted
<i>Aggregate</i>		
Output per capita	7.8	6.1
Output per worker	6.9	5.2
<i>Non-agricultural economy</i>		
Output per worker	6.1	3.6
Output per effective worker	5.0	2.6
Output per unit of capital	1.4	0.4
Total factor productivity	3.0	1.4

Source: Table XXVI, Young (2000).

The main story that these numbers tell is that the break with the past is less pronounced than official figures suggest; like the pre-reform experience, China's post-reform record is one of extensive growth based on factor accumulation. Although it has most likely increased, as demonstrated by most studies in table 7, productivity growth during reforms has been mundane. Concentrating on the non-agricultural economy, which is the focus of Young's study, output per worker only rose by 3.6% per year, substantially less than the productivity increase suggested by official figures. Factoring in ageing and the improvement in educational attainment means that the growth rate of non-agricultural output per worker is only 2.6%. Capital productivity does not increase much even if one takes official numbers at face value. This reinforces the conclusion just derived about the returns to investment.<sup>32</sup> If Young's numbers are correct, output per unit of capital has essentially been stagnant. Finally, a growth rate of TFP of 1.4% is nothing out of the ordinary. Still, this somewhat disconcerting conclusion simultaneously holds out the prospective that China might still grow fast by extending the reforms so that inputs are better allocated across sectors. In fact, Chen and Diwan (2000) argue that in 1997, the average labour productivity in the non-state industrial sector is 60% higher than in industrial SOEs. Their estimate of the gap in average capital productivity is an astonishing 100%. These divergences result in there being large potential

<sup>32</sup> More evidence comes from growth regressions, where studies such as Aziz and Duenwald (2001), Chen and Feng (2000a), and Lin (2000) find statistically significant negative effects of higher shares of SOEs in investment or GDP on growth rates in samples based on Chinese sub-national administrative entities in the reform period. The latter also finds that the share of fixed investment attributable to private firms had a statistically significant positive effect on growth rates.

gains from reallocating inputs from the SOEs to the non-state firms. For example, the simulations of Chen and Diwan (2000) indicate that in order to equalise productivities across sectors, 43% of the 1996 labour force of SOEs and 70% of their 1996 capital stock should be transferred to non-state enterprises. The former would yield a gain in output equal to 2.6% of 1996 GDP; the gain from moving capital out of SOEs would be 8.3% of GDP. Combining these measures would generate increases in output equal to as much as 17.4% of GDP! While such exercises are necessarily fraught with uncertainties, the sheer magnitude of the numbers indicate a very significant potential for productivity gains, and thus for future growth.

### 3. Industrial Reform and Performance

#### 3.1. Overview over the Chinese Enterprise System and Reforms

As has been typical of Chinese economic reforms, changes in the industrial sector began on a small-scale, experimental basis. In October 1978, a program of extended enterprise decision-making was introduced in six factories in Sichuan (Naughton 1995: 98-99). In July 1979, it was decided to expand the size of the experiment to a nationwide scale, and the following concrete measures were suggested for implementation (Naughton 1985: 226-227):

- 1) Profit retention;
- 2) Extended autonomy of enterprises over decisions related to labour and production, including the right to market output outside of the plan;
- 3) Charging fees for the use of fixed capital;
- 4) Paying interest to banks for working capital; and
- 5) Retention of depreciation funds and increased depreciation with expansion of production.

The final point concerns refers to the control over investment funds. In the Chinese planning system, depreciation funds were the levies charged for the wear and tear of fixed assets during production. The control of these funds had swung back and forth between enterprises and the central government, and the new round of decentralisation meant that a large share of the responsibility for investment allocation was handed over to the local level again. Indeed, the share of total fixed investment controlled locally jumped from 35% in 1979 to 49% in 1980, with new increases in the following years (table 21, Naughton 1985).

Extending the autonomy of state-owned enterprises over decisions related to labour allocation and production scheduling was clearly intended to rationalise decision-making in the industrial system.<sup>33</sup> More importantly, the fact that enterprises was allowed to market output outside of the plan was the beginning of the “dual-track” system in which market and plan

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<sup>33</sup> In the pre-reform system, there was both horizontal and vertical interference in enterprise affairs. In addition to the interventions of the administrative bureaus the enterprises were subordinate to, communist party officials within the enterprises also had some say with respect to many types of decisions.

allocation of goods co-existed. Authority to organise production was of course necessary to facilitate the expansion of output outside of the plan and the latter was a major incentive for enterprise managers to take responsibility for the organisation of the production process. However, without profit retention it is unlikely that the supply response of state-owned enterprises would have been significant. Although the retention rates were initially low, this aspect of the reform proved to be hugely popular. In fact, the program quickly expanded beyond the small number of enterprises initially designated for participation in the experiment to cover six thousand six hundred firms producing 60% of the output and generating 70% of the profits of the enterprises controlled by the central government (Naughton 1985, 1995).

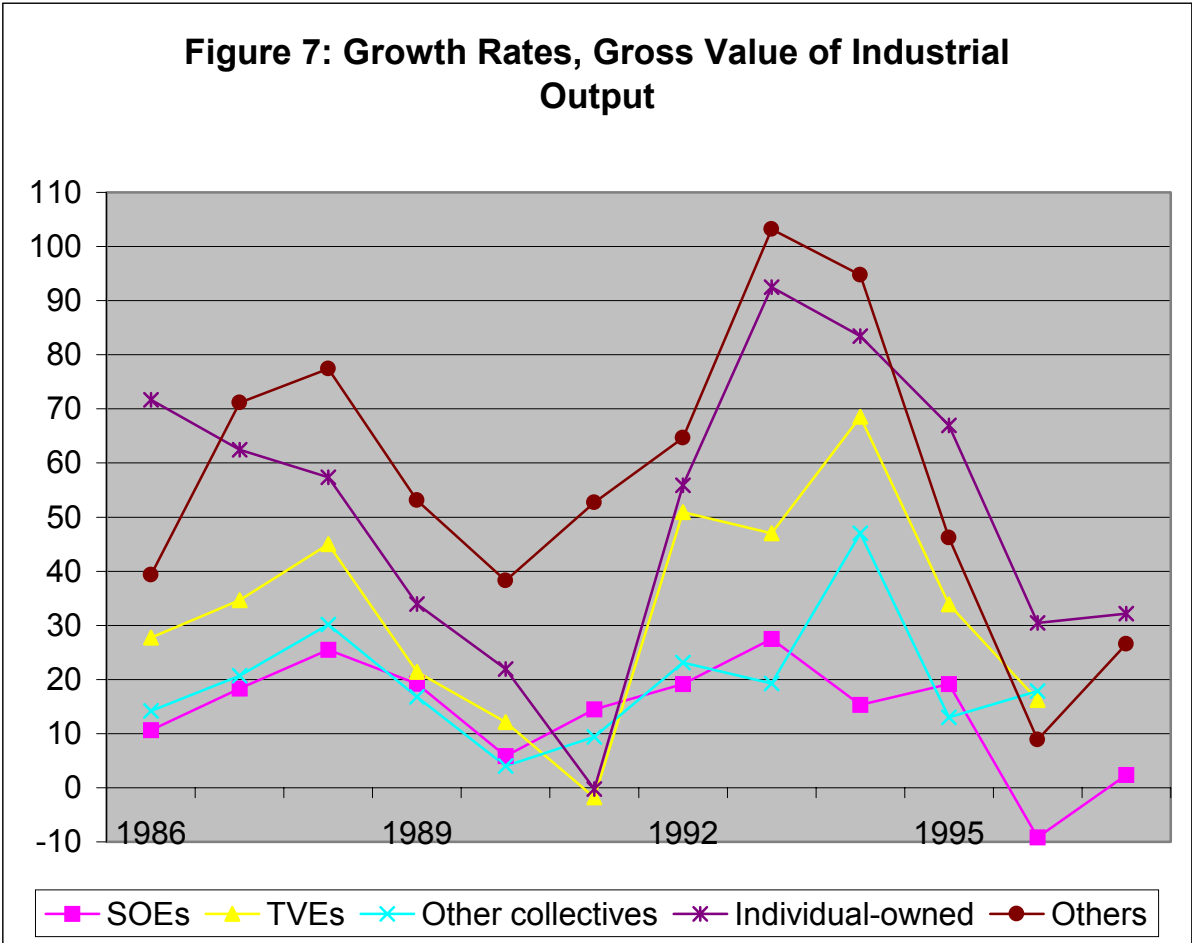
The rapid growth of industry output that followed was not solely a consequence of these reforms. The most dynamic industrial sector in China in the first years of reforms was actually township and village enterprises (TVEs). TVEs are government enterprises established in the rural areas by the lowest levels of the Chinese administrative hierarchy. There were three main reasons for the initial dynamism of these firms. The first was the agricultural reforms, which released surplus labour from agriculture. In combination with increases in the procurement prices for agricultural goods, the corresponding productivity increase raised savings and income in the rural sector, thus generating investment funds and demand for industrial goods. Liberalisation of (some) input and output markets made it both feasible and profitable to establish and expand rural industries.

The second major factor contributing to the rapid growth of TVEs was fiscal reform. Since taxes on enterprises, direct as well as indirect, have been the most important source of revenues for government at all levels, sub-national governments have been keen to develop firms under their control. Furthermore, most taxes were collected by sub-national governments,<sup>34</sup> which had substantial leeway in remitting funds to the centre by ad-hoc adjustments to taxes. The administrative structure of tax collection also implied that resources were mainly moving from the provinces to the centre. Hence, the budget constraints of sub-

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<sup>34</sup> According to table 2, p. 6 in Bahl and Wallich (1992), the centre collected only 19.3% of total government revenues in 1980. This figure increased steadily until reaching 39.3% in 1986. The share of government revenue collected by the centre then dropped to 35.3% in the next year, and had not regained its peak level by the end of the decade.

national governments were fairly hard. In combination with the fact that factor mobility has been limited, this created strong incentives for industrial development on their part.



Source: Author’s calculations based on the data in World Bank (1996a, 1999a).  
 Note: Other types of firms are private businesses with more than seven employees, wholly owned foreign enterprises, and joint ventures between foreign and Chinese firms.

Private ownership of business was first legally recognised in 1981, although it was confined to firms with less than eight employees (so-called individual firms in Chinese official parlance<sup>35</sup>). In 1988, private businesses were allowed to exceed this limit on the number of workers, and firms of this type are denoted “privately owned” in Chinese statistics. Obviously, the impact of these types of business establishments was initially small. However, they have grown rapidly and started to matter in absolute numbers in the 1990s. Together with foreign firms and joint ventures between Chinese and foreign enterprises, they are currently transforming the country’s industrial sector from one in which publicly owned entities

<sup>35</sup> For discussions of the classification of enterprises according to ownership categories in Chinese official statistics, see Jefferson and Rawski (1999a) and OECD (2000).

dominate to one in which private businesses are the major players. In figure 7, the growth rate of these types of enterprises is shown under the heading “others”. The combined share of privately and foreign owned firms and joint ventures in the total gross value of output was still below 10% in 1990. By 1997 it was 36.3% (c.f. table 10 below), and it will keep growing as SOEs and collectives are privatised. Thus, while the phenomenal growth initially might be partly attributed to the low base, in the 1990s the absolute level of additions to output value was high.

### **3.2. State-Owned Enterprises: from Dominance to Strategic Core**

Before reforms were initiated, SOEs dominated the Chinese economy.<sup>36</sup> In 1980, more than three-fourths of the gross value of industrial output were produced by these enterprises. However, their dominant position was rapidly eroded by the large output response from enterprises under other ownership forms caused by the policy changes. In 1985, the share of SOEs in the gross value of industrial output was down to 65% (table XX). The drop continued and even accelerated: from still dominating in 1990 (a share of 55%), SOEs had been reduced to a minor part of industry by 1997, generating only 25% of the gross value of output. The decline was the logical outcome of fifteen years of restructuring through the foreclosure, downsizing, merging, and divestiture of SOEs.

As mentioned in the introduction to this chapter, SOE reform started on a large scale in 1979. The most important measure was arguably profit retention; instead of having to hand over any surplus to the state, enterprises were allowed to keep a part of their profits. The share of profits varied among enterprises because it was the ratio of the bonuses, collective welfare funds, and allocations for new products and expanded production received the year before divided by that year’s actual profits (Naughton 1985). Most importantly, since the share

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<sup>36</sup> It is important to note that even though these enterprises were “owned” by the state, control over them had swung back and forth between central and regional administrative units ever since the People’s Republic was established. For example, both during the Great Leap Forward and in the late 1960s, there were major transfers of enterprises from the central government to sub-national governments (c.f. Xu and Zhuang 1998), while in 1978 a massive recentralisation occurred (Naughton 1995a). During the reform period, with the exception of the largest enterprises, most SOEs have been controlled by provincial or local governments, though units below the county level have never controlled such firms.



retained was fixed the formula gave incentives for improving the bottom line as the total amount kept by an enterprise was increasing in total profits generated. This also exposed the enterprises to risk.

Table 10: Shares in Gross Value of Industrial Output 1985-97

Year	SOEs	TVEs	Other collectives	Individual-owned	Others
1985	64.9	14.7	17.4	1.9	1.2
1986	62.3	16.2	17.3	2.8	1.5
1987	59.7	17.7	16.9	3.6	2.0
1988	56.8	19.5	16.7	4.3	2.7
1989	56.1	19.6	16.1	4.8	3.4
1990	54.6	20.2	15.4	5.4	4.4
1991	56.2	17.8	15.2	4.8	6.0
1992	51.5	20.7	14.4	5.8	7.6
1993	47.0	21.8	12.2	8.0	11.1
1994	37.3	25.3	12.4	10.1	14.8
1995	34.0	25.9	10.7	12.9	16.6
1996	28.5	27.7	11.6	15.5	16.6
1997	25.5	n.a.	n.a.	17.9	18.4

Sources: World Bank (1996a, 1999a).

However, the system soon changed in an ad-hoc manner. In 1981, enterprises complained of unrealistically high profit targets in the context of the central government's deflationary policy. The centre responded by negotiating new targets on an individual basis (Naughton 1985). Each enterprise was to hand over a specified sum to the government and was allowed to keep a large share of any profits exceeding this level. By the beginning of 1982, more than 80% of SOEs worked under some contractual form of profit-sharing with their industrial bureaus.<sup>37</sup> Still, the changes made did not constitute an improvement and refinement of the initial reforms. To the contrary, instead of being based on actual performance, the new targets negotiated were deduced by "back-of-the-envelope" calculations of what enterprises might achieve. Moreover, contracts turned out to be renegotiable. The justification for these changes was that in an economy still dominated by central government plans, the state was the main source of economic uncertainty for enterprises. Hence, it was widely perceived to be unfair to

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<sup>37</sup> A difference between the first two rounds of reform was that profit retention largely involved the largest enterprises whereas profit contracting mostly concerned small SOEs.

let enterprises bear the burden of adjusting to changes in input and output prices and other parameters during the course of the year. Of course, enterprise managers were quick to spot the weakness of the system and became adept at finding “objective” factors to explain poor performance. An asymmetry was built into the system whereby enterprises were responsible for profits and not for losses. The asymmetry was strengthened by the fact that most SOEs were controlled by sub-national governments and these were busy building their own industrial empires. For them, taxes accruing locally and retained profits were practically indistinguishable, so they had every incentive to collude with enterprises in evading taxes due to the central government.

The squeeze on central government revenues caused by increased profit retention under the contracting system caused the path-dependent industrial reforms of China to change yet again.<sup>38</sup> In a combined reform of fiscal and industrial governance dubbed “tax for profits”, certain taxes and levies were levied on enterprises, which in turn were allowed to retain most of the after-tax profits. In addition to charges for capital used, which the government had tried to implement since the start of reforms, tax payments included the sales tax, an income tax, and an adjustment tax. In practice, the changes made in 1983 amounted to a flat 55% income tax; after-tax profits were then divided between the government and the enterprise such that the level of retained profits was basically unaltered (Naughton 1985).

These events demonstrate the intimate connection between reforming enterprises, prices, and the fiscal system in socialist economies. The adjustment tax was designed to be a tax on “excess profits”, that is, profits accruing to enterprises due to artificially low prices of inputs such as raw material and capital. For example, the latter had been allocated free of charge before reforms began. Thus, older enterprises which had accumulated capital before the government started to charge for this input had an advantage over newer enterprises or those making substantial new investments. Of course, the difficulty of assessing such advantages contributed to the arbitrary nature of financial flows between enterprises and the government.

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<sup>38</sup> The incremental and piecemeal nature of Chinese reforms makes the exact dating of reforms impossible. The origin of this system was an experiment instigated for small county-run enterprises in Guanghua county, Hubei, as early as 1979.

The adjustment tax was included in the new tax system adopted in 1984-85 (World Bank 1990). With respect to enterprise taxation, the system was based on further developments in management responsibility contracting. However, this did not imply more uniform treatment, for several variants of contracting were established from 1986 on. For the large- and medium-sized SOEs, three major types were employed.<sup>39</sup>

- 1) The Enterprise Management Responsibility System (EMRS), in which the manager agreed to meet profit targets for a specified number of years. Profits above target were usually taxed at a rate much lower than the standard 55% income tax;
- 2) The Contract Management Responsibility System (CMRS), where targets were usually specified in terms of tax remittances instead of profit; and
- 3) The Asset Management Responsibility System (AMRS), where potential managers bid for the right to manage the enterprise by specifying the profits they expected to be able to generate. However, taxes were usually levied on actual income.

The largest survey of Chinese enterprises done so far, carried out in 1991-92 by the World Bank, contains a variety of data for more than nine hundred SOEs (see Jefferson, Zhang, and Zhao 1999). Almost 90% of these operated under either CMRS or AMRS. When it came to the specific formulae for performance contained in the contracts, less than 20% of the SOEs enterprises surveyed indicated that their targets were in terms of output and productivity. The remainder operated under some form of taxes for profits.

A potential benefit of the new types of contracts was that their duration was longer than the annual nature of the first experiments in contracting. As such, the problem of ratcheting could potentially be reduced, i.e., managers did not have to fear that good performance in one year would result in stricter targets the next year. However, critics pointed out that the system did not change the fact that contracts were in most cases negotiated on a bilateral basis, leaving substantial power with insiders to frame their own working conditions (Naughton 1995). Moreover, even though these contracts had a binding legal status not accorded to previous ones, Hay et al. (1994) note that in practice targets could be renegotiated on a yearly basis if

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<sup>39</sup> This is a simplified description focusing on conditions regarding profits and taxes. See Koo (1990) for details of a specific contract, which also included provisions such as improving technology and developing new products.

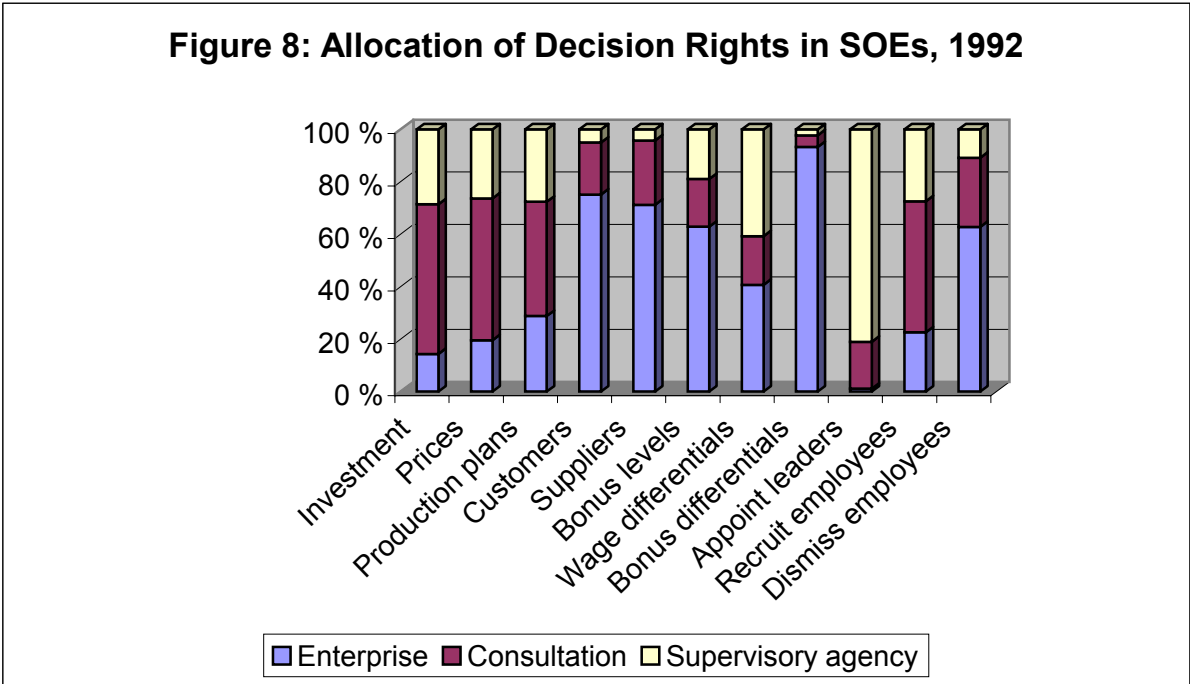
exceptional circumstances could be pleaded. Thus, even though formally the enterprise carried more risk than before in that profits could only be retained if profit quotas had been fulfilled, it is questionable whether budget-constraints were hardened appreciably by these measures.

Likewise, simultaneous moves at strengthening the autonomy of state-owned enterprises looked better on paper than on the ground. Efforts at increasing the autonomy of the managers of SOEs were included from the start of China's industrial sector reforms. However, they did not become formalised until the Factor Director Responsibility Regulations of 1986. While these designated the manager as the legal representative of a SOE and stipulated that he was to have the power to make all decisions regarding the operations of the enterprise, the Regulations in reality represented little change from the way the system had been working previously (World Bank 1997). Starting with the SOE Law of 1988, progressively stronger specifications and protection of enterprise autonomy have been legislated. The SOE Law first introduced the firms as legal persons. It also included the precursor of the fourteen autonomous rights of management, which was articulated more fully in the Autonomous Management Rights Regulations of 1992. The regulations regard the manager's right to decide on the following issues:

- |                            |  |
|----------------------------|--|
| 1) Production;             | 8) Disposing of assets;                            |
| 2) Prices;                 | 9) Operating jointly or merging with other unites; |
| 3) Sales;                  | 10) Hiring and firing workers;                     |
| 4) Selection of suppliers; | 11) Personel management decisions;                 |
| 5) Foreign trade;          | 12) Wages and bonuses;                             |
| 6) Investment;             | 13) Organisation of international divisions;       |
| 7) Use of reserve funds;   | 14) The refusal of prorations                      |

Even though there has been a continuous process of strengthening enterprise autonomy since the reforms began, progress has been slow. Utilising the data from the World Bank study reported in Jefferson, Zhang, and Zhao (1992), figure 8 illustrates that the SOEs surveyed generally enjoyed the freedom to choose their own customers and suppliers without intervention from their supervisory agency. However, while more than 70% of the enterprises studied made these decisions on their own, only 28.8% could set production plans

independently. Price setting and investment decisions were even more restrained, although more than 50% had some influence in these matters.



Source: Jefferson, Zhang, and Zhao (1999).

As can be seen from figure 8, enterprises generally had great leeway with respect to wages and bonuses. The exception was the determination of wage differentials, in which the supervisory agency had some say in the majority of cases. The picture with respect to personnel decisions was in many ways the mirror-image of situation with regards to the remuneration of employees. Thus, only with respect to dismissing employees were enterprises relatively autonomous. In a mere 1.1% of the sample firms were leaders appointed internally and the supervisory agency interfered with recruitment in three-fourths of the enterprises.

Overall, there was clearly substantial administrative interference with enterprise decisions after more than a decade of reform. Moreover, these figures do not reveal the full extent of such interference. For example, the party secretary of the enterprise branch of the Communist Party appointed assistant directors in 85% of the cases. The authority of management was further eroded by employee councils. In the majority of the firms, they decided on dismissals, and in 25% or more of the enterprises they took decisions on bonus levels and wage and bonus differentials.

Mergers and acquisitions have played a role in the restructuring of Chinese industry. However few of these have been part of a market-driven effort to build competitive enterprises. Instead it has been a tool utilised by the government for several purposes. One has been consolidation of enterprises in preparation for their divestiture. This has mostly involved small and, to some extent, medium-sized SOEs. A second purpose has been the creation of state enterprise groups modelled on the Korean chaebols. The government envisages these groups, at present numbering one hundred and twenty, to become strong enough to face the competition from multinational companies. A third intention behind the mergers and acquisitions directed by the government is to rationalise industries without generating lay-offs. Usually this has involved sound firms being required to take over loss-making firms. While this strategy has reduced excess capacity and is understandable in an environment where social safety nets are underdeveloped, it might jeopardise the long-term viability of otherwise sound enterprises.

Bankruptcy of SOEs was until the mid-1990s an option that was rarely utilised. Although the Bankruptcy Law was adopted in 1988,<sup>40</sup> the total annual number of bankruptcies was only two hundred and seventy-seven over 1989-93 (World Bank 2000b). The SOEs involved were mostly small. As progress towards pooling the welfare obligations of the SOEs and vesting them with municipal governments as well as developing unemployment insurance was made, the number of bankruptcies involving SOEs multiplied to thousands of cases per year in 1996-97. A substantial number of these have involved industrial SOEs under the Capital Structure Optimisation Program (CSOP) initiated in 1994. Moreover, large and medium-sized state-owned firms are starting to be affected by the Bankruptcy Law.<sup>41</sup> Even so, the interrelationships between government finances, social service reform, and enterprise restructuring continue to present obstacles along the road to the government's goal of retaining only one thousand internationally competitive SOEs in core industries.<sup>42</sup>

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<sup>40</sup> A trial version was introduced as early as 1986 (World Bank 2000b).

<sup>41</sup> In 1999, four hundred and thirty-five large and medium-sized SOEs that were making losses went bankrupt or were closed (OECD 2000).

<sup>42</sup> According to OECD (2000), for example, two provisions of the current Bankruptcy Law hinder a more widespread application of it: 1) new jobs must be found for all workers or compensation equalling three years' wages must be paid; 2) all bank debt must be written off. A new law has been drafted which would make the Chinese system similar to those found in other market economies (World Bank 2000b). However, it has not yet been submitted to parliament.

As with mergers and acquisitions, most SOEs entering bankruptcy proceedings under the CSOP were chosen administratively. This reflects the still intimate connections between enterprises and their supervisory state organs. The Company Law, which was enacted in 1994, was intended to be the main vehicle for corporatising SOEs. It established these enterprises as legal persons, with limited liability.<sup>43</sup> The objective of corporatisation is to facilitate ownership diversification, whether within the public sector or by allowing for partial or complete privatisation of firms by transferring shares to private individuals or enterprises. But, as is currently the case with respect to many aspects of Chinese reforms, while the legal framework is in place, progress in implementation is slow. The World Bank (1997c) reports that the share of industrial SOEs having been corporatised by 1996 was less than 5%. Even within the group of one hundred large and medium-sized SOES hand-picked as pilot firms for transformation into companies (receiving support for financial restructuring and technical upgrading as well) as part of the “10,000, 1,000, 100, and 10 SOE reform” program unveiled in 1994, the process has taken time.<sup>44</sup> In late 1996, ninety of these had had their *plans* approved by the State Council. OECD (2000) claims that by the end of 1999, more than seven thousand large and medium-sized SOEs had been corporatised. This is almost half the number of such firms. However, given that as late as 1998 there were still a total of sixty-five thousand SOEs in industry (OECD 2000), there is clearly still a long way to go.

The potential for ownership diversification engendered by turning SOEs into corporations governed by the Company Law has not been fully utilised so far. The will to change ownership structures seems to have been lacking somewhat.<sup>45</sup> For example, even the plans for corporatising the one hundred pilot firms just mentioned did not entail much scope for ownership diversification. Most of them were conceived to be staying wholly state-owned. The state has promoted cross-ownership within the public sector through allowing state asset management companies, SOEs, and local and provincial governments to take up shares in

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<sup>43</sup> The law covers corporations in general, not just SOEs.

<sup>44</sup> The “10,000, 1,000, 100, and 10 SOE reform” initiative consisted of the following measures (World Bank 1997c): i) evaluation of the assets of 10,000 large and medium-sized SOEs; ii) placing the assets of 1,000 large SOEs under the supervision of new asset management committees; iii) transforming 100 large and medium-sized SOEs into corporations under the Company Law; iv) undertaking “comprehensive capital optimisation” (debt restructuring, technology upgrading, mergers, bankruptcy, and divestiture of social services) for SOEs in 10 municipalities.

<sup>45</sup> Some observers, e.g. Lin (2001), argue that corporatisation is a substitute for privatisation.

companies in which they did not previously have a financial stake. However, sub-national governments have resisted sharing the revenues from their “cash cows” with other entities, in particular those coming from outside their jurisdictions (OECD 2000).

This does not mean that there have been no changes in the ownership structure of Chinese SOEs. There are three major ways in which change has occurred. Firstly, some state-owned enterprises, mostly small ones, have been privatised, turned into some form of collective, or have merged with or been acquired by other firms. Mostly, control seems to have been vested with insiders, and the number of firms that have actually been transferred to the non-state sector not very large. Contrasting the numbers in Jefferson and Rawski (1999a; table 1.1) with those in OECD (2000; table II.I), one discovers that the number of state-owned firms in the industrial sector has declined markedly from almost one hundred and fourteen thousand in 1996 to sixty-five thousand in 1998. Yet during the same period, and in spite of the rapid pace of privatisation of TVEs, the number of collectives has increased by more than two hundred thousand. Still, since 1997 it has been the government’s intention to “grasp the large and let go of the small”, and in 1999 it was formally announced that the medium-sized SOEs will have to go too. Hence, given that currently the number of industrial SOEs is so large relative to a future strategic core that will contain at most a few thousand firms, one must expect this process to accelerate in the coming years. Furthermore, it also seems likely that many of the SOEs which were turned into collectives in the late 1990s will soon follow the route of most TVEs and exit to the private sector.

Secondly, some diversification of ownership has occurred through joint-ventures with non-state actors and listing of companies on the stock exchanges established in Shanghai and Shenzhen in 1990 and 1991, respectively. Some three hundred SOEs have been listed so far. This has allowed these companies to raise equity and diversify their ownership structure to a certain degree. However, the scope is limited by restrictions on the trading of the shares held directly or indirectly by the government.<sup>46</sup> For example, the state cannot lower its holding of listed SOEs below 35%. With the state owning about 70% of the shares of listed companies in 1999 (OECD 2000), only a minority of the shares in these is actively traded.

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<sup>46</sup> There are four types of so-called A-shares, that is, shares that can only be held by domestic Chinese residents or legal entities (Xu and Wang 1999): state shares, legal person shares, tradeable A-shares, and employee shares. Most legal person shares are currently held by government entities.



Thirdly, the holding companies and state enterprise groups that have been established as part of the ongoing restructuring process have to some extent been diversifying their portfolios through taking minority positions in other companies. Debt-equity swaps, mainly involving banks, have also brought new owners into some SOEs. However, given the weak position of minority share-holders in China today, the extent of diversification achieved through this route is likely to remain limited until further reforms are made.

Of course, ownership diversification is no panacea for solving the problems of China's SOEs. Indeed, since outside interests acquiring minority share-holdings have little influence over the enterprise, it might amount to window-dressing for the self-serving actions of the dominant insiders. Xu and Wang (1999) find that even for the publicly listed companies, boards of directors and supervisory committees are dominated by insiders. For example, individual shareholders, who on average hold 30% of the shares, have on average no more than 0.3% of the board members. Instead, board membership is dominated by management, which holds approximately 50% of the positions. On the supervisory committees, the participation of individual shareholders is similarly limited, while employees make up a majority of the committees in the companies on both of China's stock exchanges. The situation is presumably no better in corporations that are not publicly listed. In fact, while the concentrated ownership exercised by the Chinese state (or entities under its control) in principle can alleviate the free-rider problem with respect to monitoring enterprise management inherent in dispersed ownership, the current structure of control of even wholly-owned enterprises is unlikely to contribute to maximising the value of the state's assets.

With the exception of the national enterprise groups, which are directly responsible to the State Council, this organ of the state carries out its function as the representative of the ultimate owner, the people of China, through the National Administrative Bureau for State-Owned Property (NABSOP).<sup>47</sup> In turn, NABSOP is the uppermost level in a three-tier structure comprising holding companies at the intermediate level and operating enterprises at the bottom. Similar structures are found at the sub-national level with respect to the SOEs controlled by lower-level governments. The incentives are weak at all levels and this system does not in practice differ significantly from the earlier system of bureaucratic control. For

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<sup>47</sup> The following is based on the description in World Bank (1997c).

example, holding companies have often been formed simply by converting the old line-ministries into legal persons. The staff remains civil servants and retain many of their former administrative tasks as governmental bodies. Neither the NABSOP nor the state asset management boards established in the provinces have much power over their subsidiaries; nor do these in turn have the rights necessary to control the SOEs nominally under their ownership. None of the superior bodies have the power to elect the board of directors of their subsidiaries. Nor can the holding companies appoint the management of their SOEs, which are chosen by party or government organs. Incentives are lacking too: promotions and pay for the staff of the state asset management offices and NABSOP are not linked to the commercial success of the corporations for which they are responsible.

The theory of common agency implies that incentives for an agent will be weak when there are multiple principals. This holds even when the stakeholders themselves have a direct interest in the actions of the agent. When the incentives of the principals are weak too, the situation can only get worse. Moreover, even though the new system and corporatisation in combination are meant to separate the state's roles as regulator and owner, they are still mixed up through the continuing interference of state and party entities in the daily affairs of the enterprise system. Further reforms are thus needed; when and how they are implemented remain to be seen.

### **3.3. Autonomy, Incentives, and Performance in China's SOEs**

In the previous section, I described how reforms started out timidly and testingly with respect to enterprise autonomy and incentives. As the 1980s wore on, the scope for these measures to work their way widened considerably. Moreover, in the late 1980s and early 1990s, there was a gradual evolution in the legal framework governing enterprise autonomy in the state sector and performance contracts specifying targets for managers and other personnel became widespread. What were the effects of these measures on the performance of China's SOEs?

It should be noted from the outset that the measurement problems connected with answering this question are severe due to the mix of plan and market prices that have existed during the

reform period.<sup>48</sup> This is one reason why there has been a heated controversy over the changes in productivity of SOEs. In an early investigation, Chen et al. (1988) find a marked brake in the growth of total factor productivity in the state-owned industry in 1978.<sup>49</sup> Before the reforms, the growth rate was 1% or less per year depending on the functional form estimated for the production function; in 1978-85, it accelerated to 5-6% per annum according to their estimates. In later work, some of these authors have consistently found substantial increases in productivity in SOEs during the reform process, although the estimates have been somewhat lower than the first ones. For example, Jefferson, Rawski, and Zheng (1992) report 2.4% annual growth in SOE-productivity over 1980-88, and most recently, the calculations of Jefferson et al. (2000) yield a corresponding growth rate for 1980-96 of 1.72%.

Woo et al. (1994) claim that some of these earlier studies underdeflated the value of output and overdeflated the value of inputs and that this is why they find positive growth rates in the state industrial sector. Their conclusion is that over 1984-88, productivity growth in industrial SOEs was zero at best. However, other economists, using survey data that differ from the aggregate data used by Jefferson and his colleagues support their findings of productivity improvements in the state-owned industry in the post-reform period.<sup>50</sup> It therefore seems safe to conclude that the reforms did have a positive impact on productivity in Chinese SOEs during the first fifteen years or so.

Still, it is the case that not all reform measures have had the intended effects.<sup>51</sup> Indeed, an empirical investigation based on a survey of about five hundred SOEs found that performance contracts did not on average improve performance as measured by labour productivity

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<sup>48</sup> A particular problem in this respect is to find appropriate shares for the contribution of growth in inputs to growth in output so that the residual known as total factor productivity can be calculated.

<sup>49</sup> As is common, these data refer to so-called independent accounting units, i.e., enterprises that maintain separate financial accounts. This excludes industrial activity carried out by subsidiaries or divisions of non-industrial enterprises.

<sup>50</sup> For example, Gordon and Li (1995) report 4.6% annual productivity growth in their sample spanning 1983-87, Li (1997)'s sample firms recorded 4.68% TFP-growth per year during 1980-89, and Perkins (1996) estimates an improvement of 38% for the whole of the period 1980-92. For other studies, see the overview in Jefferson et al. (1999), where data on labour productivity and profits are also provided.

<sup>51</sup> Given the complex mechanisms involved, this is of course not surprising. Choe and Yin (2000) show that if incentive schemes are not carefully designed, managers will not find it in their interest to maximise expected profits. They argue that the CMRS has failed in this regard.

(Shirley and Xu 2001).<sup>52</sup> Moreover, even though bidding for management rights potentially can reveal the value of the firm, the fact that insiders were participating in the process allowed them to make use of their superior information: incumbent managers won most of the bids and in these cases auctioning had no statistically significant effect on worker productivity. New managers, though, suffered from a “winners curse”. Their enterprises had substantially lower productivity. Shirley and Xu (2001) interpret this finding as indicating that incumbents only bid for productive enterprises, leaving outsiders to win the contests for the unproductive ones.<sup>53</sup>

These researchers do, however, find that well-designed contracts did have positive effects, particularly in the context of strong competition. For about 57% of the firms in their sample, performance increased productivity, and the mean gain in productivity in these enterprises was as large as 67%. Among the specific provisions that had a positive impact on labour productivity were the marginal rate of profit retention and the elasticity of the wage bill with respect to profits. The length of the contract term was also a significant variable, with longer contracts providing stronger incentives, while there was some evidence that the commitment provided by managerial bonds increased performance. In a more detailed account of the effects of enterprise reforms in general, Xu (2000) shows that even though performance contracts reduced the growth of labour productivity in the sample enterprises over 1980-89, the positive impact of autonomy over production and wage setting, a higher marginal rate of profit retention, a lower output share under the state plan, and other changes in institutional arrangements more than compensated for this. In total, more than 35% of the increase in productivity is explained by the reforms, including increased competition.<sup>54</sup>

However, the rise in productivity has not resulted in improvement in the more important performance indicator of profit. On average the pre-tax rate of return in Chinese SOEs declined from 23.8% in 1985 to 12.4% in 1990 and was halved again by 1995 (to 6.6%; see

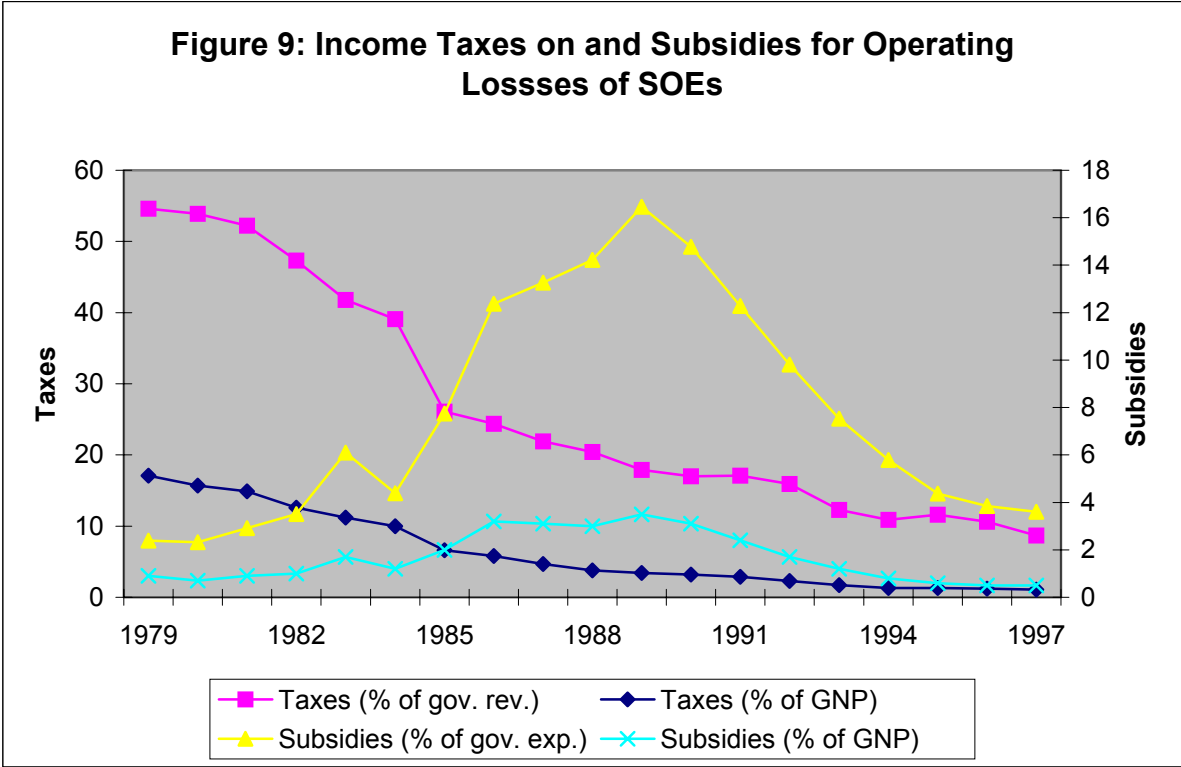
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<sup>52</sup> Supporting evidence, albeit based on a much more limited sample, emerge from the studies of Huang and Duncan (1997) and Huang and Kalirajan (1998), where different performance measures are used.

<sup>53</sup> In qualitative terms, the findings of Groves et al. (1995) are the same: there was no improvement in performance (measured as output per worker relative to the industry average) under new managers, while if auctions were won by the incumbent, relative productivity did pick up afterwards.

<sup>54</sup> Groves et al. 1994, Li 1997, and Jefferson et al. 1999 also conclude that bonuses inspired workers to become more productive. Zhuang and Xu (1996) find that bonuses increased TFP in their sample of eight hundred SOEs.

table 3.2 in Jefferson and Rawski 1999b). During the same period, the average after-tax rate of return dropped precipitously from 13.2% in 1985 to 3.2% in 1990 and was only 1.9% in 1995.<sup>55</sup>



Source: World Bank (1996a, 1999a).

From the government’s perspective, the disappointing performance of the industrial SOEs in terms of their contribution to public finances is perhaps equally disturbing. Profit retention was of course meant to leave a greater share of total profits to enterprises. However, it also resulted in lower absolute levels of government income from SOEs. As shown in figure 9, income taxes from SOEs dropped sharply from 1984 to 1985, both in percent of GNP and as a percentage of consolidated government revenues. Subsidies to loss-making SOEs, on the other hand, jumped upwards. Furthermore, as enterprise management contracting spread, the financial impact of SOEs on public sector budgets worsened. From 1985 on, these enterprises have on average been taking more resources from the government than they have contributed. Actually, as the combined after-tax earnings of industrial SOEs declined, they continued to invest heavily and thus their borrowing requirements grew (table 1.1, World Bank 1996b).

<sup>55</sup> The profit figures are defined as the sum of the relevant profit measure across firms divided by the sum of the value of fixed assets (net of depreciation) and the average amount of working capital.

While the government increasingly switched the financing of these losses from the budget to the banking system, this created strong inflationary pressures (c.f. chapter 2). Thus, SOE profitability has become a macroeconomic problem.

How can we explain the fact that SOEs have experienced declining profitability and have contributed to macroeconomic instability when reforms did improve productivity? Actually, there is not much of a paradox here. Of three not mutually exclusive explanations for the co-existence of higher productivity and reduced profitability, increased competition is probably the most important one. Due to the weight placed on regional self-sufficiency during the Maoist era, there were almost complete industrial systems in every region when the reforms started (see e.g. Naughton 1991 and Xu and Zhuang 1998). SOEs belonging to the same industry in different regions did to some extent start to compete with each other. However, given the importance of enterprises for public revenues at all levels of government, sub-national governments have done their best to keep out competitors from other regions. The main threat to SOE profitability has therefore been TVEs from the same region. TVEs have been highly successful because they have enjoyed several advantages relative to SOEs. Their tax and welfare burdens have been lighter and they have been subjected to less stringent regulations. For example, they have been free to lay off workers and have had more flexibility in choosing their wage systems.<sup>56,57</sup> This has allowed them to capture market shares from the SOEs despite the latter's initial advantages in terms of scale and capital-intensity: Li (1997) demonstrate that mark-up ratios declined in state-owned industry over 1980-89. As China has opened for foreign direct investment, firms owned by foreigners have increasingly used their advantages (such as superior technology and tax concessions) to contribute to this onslaught on the SOEs' bottom lines. Import liberalisation has also implied increased competition for SOEs. Since FDI began to really matter at about the same time as major reductions in import barriers were implemented - in the first half of the 1990s - it is not surprising to find that the

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<sup>56</sup> Thus, Jin and Qian (1998) note that the dampening in the growth of the economy during 1988-90 caused by the government's austerity program made employment in the TVEs fall by three million. At the same time, employment in the SOEs expanded.

<sup>57</sup> See e.g. Song (1990), Lane, Broadman, and Singh (1998), and Jefferson, Zhang, and Zhao (1999). Table 2.1 in the latter shows that in their sample TVEs had much greater leeway in deciding on wage differentials than SOEs had (79.2% vs. 43.6%). Thus, presumably they were more able to tie wages to effort and thereby raised productivity and profits.

financial status of the SOEs deteriorated rapidly thereafter.<sup>58</sup> Table 11 show that the market shares of SOEs have declined drastically in range of industries, with variations across branches reflecting differences in the remaining degree of government intervention, particularly in strategic industries and utilities (c.f. Naughton 1995b).

Table 11: Shares of State Industry in Gross Industrial Output

Industry	1987	1995	Industry	1987	1995
Coal	83.3	77.7	Raw Chemicals	82.4	56.0
Petroleum	99.4	95.4	Chemical fibres	89.4	34.7
Ferrous metals	70.8	45.3	Plastics	26.0	12.4
Nonferrous metals	79.5	56.9	Metal products	28.9	13.8
Food Manufacturing	83.1	38.1	Machinery	70.3	40.1
Beverages	75.8	53.2	Transport equipment	74.4	51.5
Tobacco	98.2	96.8	Electrical equipment	50.9	22.8
Textiles	62.6	39.6	Telecommunications eq.	69.7	25.1
Timber	52.5	17.6	Electricity	97.6	77.6
Furniture	13.3	8.9	Gas	82.0	89.7
Petroleum processing	97.5	88.2	Water	93.0	84.8

Source: Table 1.4 in Jefferson and Rawski (1999a).

A second possible explanation for declining profits in the face of higher productivity is that in general SOEs are not yet maximising (expected) profits. Bai, Li, and Wang (1997) argue that if SOEs pursue goals other than profits, higher-productivity need not imply higher profits. In their model, output as well as profits enter the objective function of SOEs. They show that if a sufficiently high weight is placed on output relative to profit, an increase in productivity will actually lead to lower profits because the chosen level of output will be even further away from the profit-maximising one. Size might of course be an advantage in a bureaucratic battle for status or government transfers. An emphasis on output could also be due to misconceived incentive schemes; in the sample investigated by Groves et al. (1995), sales but not profits raised managers' wages.

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<sup>58</sup> As will be discussed in the final section, returns to assets have actually been declining throughout the reform period in firms of all ownership types. A major downward shift, particularly for SOEs, occurred during the retrenchment of 1988-90. This might reflect sharpened competition in the face of restrictive aggregate demand policies as well as the extension of price reform that occurred at the same time.

Moreover, during the reform period SOEs have certainly had tasks besides profits. The provision of services to their workers is an important example of this. Indeed, the welfare burdens of the SOEs have been mounting in recent years as their work force has been aging. In 1978, there were 30.3 workers per retiree; in 1996, the corresponding figure was as low as 4.6 (table 1.8 in Jefferson and Rawski 1999a). According to the data in Fan, Lunati, and O'Connor (1998), the share of subsidies and allowances in the total wage bill of the state sector was about 24% in 1996, up from just under 19% in 1986 when the performance contract regime started. The numbers presented by Chen and Diwan (2000) are even higher. They find that the share of insurance and social welfare funds in the total wage bill was 33% in 1997 and suggest that if housing subsidies and costs of dealing with redundant workers were added, the welfare costs of SOEs could constitute 75% of their employment related expenses! Bai et al. (2000) argue that in absence of a social safety net, it is optimal for the authorities to have SOEs continue to provide welfare for workers. This will inevitably lead to SOEs being less efficient than private firms. The gap will also reflect the fact that in order to induce SOE managers to deliver these services they cannot be given too strong incentives with respect to profits.

The third factor that could explain the coexistence of rising productivity and declining profits is excessive autonomy. If managers have too much leeway, they might take the opportunity to further their own interests at the expense of those of the state. This could include collusion with workers in maximising the diversion of resources from the owner to enterprise employees. Diversion need not be illegal. Overly generous welfare benefits or bonuses will also reduce remitted profits. From the start of the regime of performance contracts proper in 1986 to 1993, the share of bonuses and overtime pay in the total wage bill of Chinese SOEs increased from 14.7% to 23.3% (table 8 in Fan, Lunati, and O'Connor 1998).<sup>59</sup> While part of this increase probably was a well-deserved reward for higher productivity, it is also possible that it partly reflects insiders exploiting their position to take such a large share of the higher surpluses generated by productivity increases that the state's share declined. Unless the rate of profit retention is 100% it is no remedy against this sort of behaviour because managers control 100% of the resources diverted. Thus, it might be argued that while managers clearly

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<sup>59</sup> From 1993 to 1994 it declined rapidly, and in 1997 it was down to 17.1%. Whether this decline reflects the continuing fall in profits, government efforts at controlling bonuses, or a mixture of both is difficult to say.



had too little autonomy under the old planning system, they have by now acquired far too much power.<sup>60</sup>

The development of the state-owned industry in China in the reform period may thus be summarised as follows. At the start, the onset of the reform process did produce a positive response from the SOEs. However, firms under other types of ownership, TVEs in particular, responded even more strongly to the dismantling of the chains of planning. Since SOE-reform was only partial, these firms were at a disadvantage relative to their competitors. SOEs had less autonomy, and had heavier burdens imposed on them by the government with respect to taxes and the provision of social services and goods under the plan. Thus, they did not compete on an equal footing. In the second half of the 1980s, the autonomy of SOEs was strengthened and became more formalised. SOE-managers did respond with providing greater incentives for their workers and these measures did increase labour productivity. The managers themselves were also exposed to greater incentives and risk.

However, not all reform policies were well conceived. We have seen that on average performance contracts might have reduced productivity. The spectre of ratcheting and the possibility of reform reversal probably did reduce the potential benefits of greater autonomy; in general, performance contracts were too short and still subject to renegotiation. Moreover, industrial bureaus and party organs continued to intervene administratively in the affairs of many enterprises. As illustrated in the previous section, even at the beginning of the 1990s enterprise autonomy was much smaller in practice than in principle. The results of Lane, Broadman, and Singh (1998) show that SOEs have had less flexibility than other types of firms with respect to wage and employment decisions and that this impaired their ability to adjust to shocks, with negative consequences for productivity and profits.<sup>61</sup>

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<sup>60</sup> There are few studies that shed light on the importance of this factor. Parker (1997) find that inefficiencies with respect to input use by SOEs in the construction industry are particularly acute with respect to non-productive assets. This could reflect excessive provision of social services. On the other hand, Zhuang and Xu (1996), who explicitly investigate this issue with respect to industrial SOEs, uncover a significantly positive effect of bonuses on profits. While the samples are different, the period covered is almost identical.

<sup>61</sup> Jefferson et al. (1999) also find that flexibility with respect to employment and remuneration was lower in SOEs; their comparison is with collectives and joint ventures.

In what might be called the third phase of reform, though, autonomy has continued to increase to an extent that it has become synonymous with a lack of accountability. Workers and managers have appropriated large shares of the revenues streams of SOEs by awarding themselves with huge bonuses and wage increases. Employees have stripped their enterprises of assets, for example by transferring them to subsidiaries beyond the government's control.<sup>62</sup> Local government officials have milked SOEs for funds for their own development plans. At the same time, the control apparatus has been suspended between the past and the present; the rigid control exercised in the heydays of planning is gone, but so far reorganisation has not managed to replace it with an adequate system of monitoring and incentives. As noted by Jefferson (1998), SOEs have become a commons to which a large number of stakeholders have access.<sup>63</sup> The only reason why this commons have not become completely depleted is that it is being replenished by the nominal owners, the public at large.

It is, therefore, the combination of wide-ranging reform at the enterprise level with inadequate reform at the systemic level that provides the explanation for the precarious state of China's SOEs. In addition to poorly developed mechanisms for enterprise monitoring and sanctioning, the continuing use of the banking system to compensate for the lack of performance transfers the inescapable losses from the insiders to the outsiders in the form of bouts of high inflation. Of course, one reason why the Chinese government continues to implicitly condone this behaviour is that the social consequences of bankruptcy and job losses have been considered too severe. While an unemployment insurance scheme has been in operation since 1986, due to social services still being overwhelmingly tied to the workplace most workers in SOEs prefer to stay with their enterprises even at a nominal wage.<sup>64</sup> The lack of progress in welfare reform is thus another culprit in this story.

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<sup>62</sup> There are many reports of damage done to SOEs by powerful insiders. For example, Qianguai (1996) refers to a survey of one hundred and twenty-four thousand SOEs done in 1994 where it was found that asset losses and expenses not accounted for amounted to 11.6% of total assets.

<sup>63</sup> In detailing the many problems of corporate governance in China, Lin (2001) echoes this view. See Cauley, Cornes, and Sandler (1999) for a formal model of the consequences of SOEs being common property.

<sup>64</sup> They do in fact have that option. Fan, Lunati, and O'Connor (1998) assert that surplus workers that have been removed from the SOEs production lines but not from their list of wage and benefit recipients currently make up the largest proportion of the truly unemployed.

In sum, mounting social costs and increased opportunism in the context of weak control, soft budget constraints, and sharpened competition have prevented the productivity-enhancing reforms from being profit-increasing. Thus, while China has come a long way with respect to reforming its SOEs, it still has a long way to go. In the final section of this chapter, I will discuss where to begin.

### **3.4. The Growth and Performance of Township and Village Enterprises**

Chinese news reports of more than 20,000 court cases having been brought against officials for falsifying records to exaggerate TVE performance (recounted in Jefferson, Rawski, and Zhang 1996) and the fact that the National Bureau of Statistics slashed 40% off reported TVE output in 1995 (Xu 2002) indicate that numbers pertaining to these entities must be evaluated cautiously. Details aside, the conclusion is clear: TVEs have been the most dynamic force in the Chinese economy since 1978. Rapid growth in output and employment have raised rural incomes and reduced poverty rates. TVEs have also played a major part in the impressive export performance of China over the last twenty-five years. At the end of the century, rural industry (including private firms) accounted for almost one-fifth of national employment, about 30% of GDP, and over 40% of total exports, c.f. OECD (2002: 86). According to that publication, the share of TVEs proper in the total value added of rural industry fell from 64% in 1995 to 40% in 1999. The proportion of total employment in rural industry attributable to local government enterprises fell from 62% in 1985 to 50.6% in 1990. By 1996, it was down to 44%.<sup>65</sup> This reduction reflects the ongoing privatisation process discussed below.

TVEs are most fruitfully viewed as local government enterprises. According to the Regulation on Township and Village Collective Enterprises of the People's Republic of China,<sup>66</sup>

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<sup>65</sup> I have calculated these shares from the data in table 10.1 of World Bank (1998b), which are identical to those of Maddison (1998, table 3.18). In addition, the total number of employees in rural industries is the same as in OECD (2002, table 2.1). They differ from those in World Bank (2001b, table 2.6), which has TVE employment at the same level as total employment in rural industry as given by the other sources. Presumably the latter study has it wrong.

<sup>66</sup> As cited in Che and Qian (1998a).

- “Assets are owned collectively by the whole of rural residents of the township or village who run the enterprise”;
- “The owner of a TVE, according to the law, determines the direction and formats of its business operations, selects managers or determines the method of such selection, determines the specific distribution ratios of after-tax profits between the owner and the enterprise, and has the rights over the enterprise concerning its spin-off, merger, relocation, stop-operation, close-down, application for bankruptcy, etc.”;
- “The part of [after-tax profits] retained by the enterprise should be no less than 60% of the total and should be arranged under the enterprise autonomous decision. The retained after-tax profits for the enterprise should be mainly used for the increase of the funds for production development in technological transformation and expansion of reproduction, and also for the appropriate increase of welfare funds and bonus funds. The part remitted to the owner of the enterprise should be used mainly for the support of construction of agricultural infrastructures, agriculture technology services, rural public welfare, renewal and transformation of enterprises, or development of new enterprises. ”

Even though the Regulation speaks of a TVE as collectively owned by the members of the local community in which it is founded, this is the same type of formality that pertains to SOEs, which are nominally owned by the whole population of a country: “In practice, the most common case is that a community government is regarded as the representative of the residents, and thus it is the *de facto* owner of the TVEs in the community”.<sup>67</sup> Furthermore, given the free-rider problem in exercising control over enterprises operating under such an ownership structure, it is not surprising to find that property and control rights are separated. While the owners also formally holds the control rights, real control over the enterprises rests with local governments, just like the central government controls SOEs. As we shall see, in turn they delegate, to different degrees, some control rights to TVE managers. It is also clear from the Regulation that the disposal of the after-tax profits of a TVE, whether it is retained by the firm or remitted to the local government, is regulated by the central government. The major point remains, namely, that TVEs are best understood as being community government enterprises.

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<sup>67</sup> Weitzman and Xu 1994 (italics in original). Che and Qian (1998a) and Chang and Wang (1994) espouse similar views.

It is important to keep this fact in mind because there is some terminological confusion on this point in the literature. Some authors use the concept as a synonym for rural industry regardless of ownership type.<sup>68</sup> However, for analytical purposes, it is useful to distinguish between firms where public sector entities are involved in a major way and firms that are predominantly privately owned and run. The importance of ownership issues in China's transition to a mixed economy underscores this point. Admittedly, the separation of enterprises into various ownership types is difficult empirically. During the first decade of the reform period, considerable political uncertainty surrounded the position of private enterprise. Quite a few private firms therefore sought recognition as "collectives" in order to have political cover for their operations. Moreover, a multitude of institutional forms lying somewhere between the end points of purely private and purely public ownership has arisen in rural China. This has no doubt also contributed to confuse some observers as to the nature of these firms.

The origins of TVEs proper are the enterprises of the brigades and communes of the pre-reform era,<sup>69</sup> though their subsequent expansion has taken them well beyond the confines of these both in terms of scale and of scope. As mentioned in the introduction to this chapter, the growth of TVEs is due to agricultural and fiscal reforms coupled with limited factor mobility. The dissolution of the communes and the introduction of the household responsibility system in agriculture created a large reserve of surplus labour. A major increase in agricultural procurement prices in 1979 (averaging 22.1% according to Lin 1992) in combination with the output response to decollectivisation generated investment funds as well as demand for industrial goods. Du (1990) reports that the average per capita income of farmers rose by 132% from 1978 to 1983 and that the savings rate of rural residents jumped by seven percentage points during this period. With the shrinking of the coverage of the plan, rural enterprises found new opportunities in the markets that developed. Moreover, they exploited

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<sup>68</sup> It should also be emphasised that the designation of these firms as "rural" is purely administrative. They are located in areas that have once been designated as rural and where the inhabitants therefore hold rural household registrations. However, "[b]y the late 1980s ... many of these areas appeared to be nearly as "urban" as were neighboring municipal districts" (Putterman 1997: 1644, quotes in original).

<sup>69</sup> See e.g. Oi (1999) and Putterman (1997). According to Byrd and Lin (1990), the official change in terminology was adopted in an official circular of March 1984 in which partnerships and individual private firms were also recognised as legitimate successors of the commune and brigade enterprises.

market niches left open by SOEs. Du (1990) claims that a chain of cumulative causation got under way in which TVE growth generated incomes that lead to further growth of consumer demand as well as a demand for producer goods that other TVEs started to supply. These increases in output in turn caused further rises in incomes and demands for intermediate and investment goods, resulting in self-sustaining growth. Though, to depict the development of rural industry after 1978 as wholly self-contained is probably an exaggeration. Many TVEs, especially those located in areas close to major cities, have operated as sub-contractors for SOEs and urban collectives, while the latter types of firms have also been known to supply the former with technology and finance.

Moreover, even though the initial impetus to rural industrialisation was provided by agricultural reforms, a positive stance by the central government was probably close to a necessary condition for TVE development to take off. At the landmark Third Plenum of the Eleventh Central Committee of the Chinese Communist Party in December 1978, the green light for rural industrial expansion was switched on again: “As long as it is in conformity with the principle of rational economic development, commune and brigade enterprises should gradually engage in the processing of all farm and sideline products that are suitable for rural processing.”<sup>70</sup> From 1984 on, it became official policy to actively encourage the development of such firms, including even those that were privately owned: “[Rural non-State enterprises] should receive the same treatment as state enterprises and are entitled to all necessary state aid.”<sup>71</sup> In spite of this proclamation, however, most of the initial capital involved was raised locally. For example, Byrd (1990) investigated the sources of funds for two hundred large-scale rural industrial enterprises and discovered that at founding the state only contributed on average 4% of the capital invested. The largest type of source was “community capital”, which included loans from local branches of the Agricultural Bank of China (ABC) and rural credit cooperatives (RCCs) as well as contributions by local governments.<sup>72</sup> On average, as

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<sup>70</sup> Cited in Byrd and Lin (1990: 10). For previous developments in the policies of the central authorities towards rural industries, see e.g. Wong (1991).

<sup>71</sup> The citation is from the same circular that declared the change in terminology, c.f. Byrd and Lin (1990: 11).

<sup>72</sup> Lumping together bank loans and community government funding is defensible given the involvement of community authorities in the granting of credit from local financial institutions. The nature of this involvement is explicated below.

much as two-thirds of the initial funds fell into this category.<sup>73</sup> Moreover, given the decentralised nature of the Chinese administrative system (de facto if not de jure), the attitude adopted by local authorities towards enterprise development has been much more important than the policies of the centre. While there has been variation across localities, a lot of community governments have taken a supportive stance, something that has contributed to the TVE “miracle”. In only ten years agriculture lost its age-old status as the mainstay of the Chinese rural economy.<sup>74</sup>

Why have local officials been so enthusiastic about rural industrial development? A major reason is the impact of the fiscal system in an environment where factor mobility among localities was severely impeded by factors such as the household registration system and regulations linking the lending of local financial institutions to local deposits. At the onset of the reform era, local governments collected about four-fifths of total budgetary revenues.<sup>75</sup> As their share of spending was much lower, much of these revenues were simply to be transmitted to the central government. Thus, resources were mainly flowing upwards through the administrative hierarchy. In this sense, the budget constraints of sub-national governments were fairly hard. Moreover, until the tax reform implemented in the mid-1980s, the actual share of total government revenues accruing to these entities was declining. During the same period, total government revenues fell sharply due to the instigation of profit retention for SOEs and local government expenditures grew rapidly. Thus, many local governments were facing tight fiscal conditions, particularly in backward areas where compulsory expenditures (on e.g. health and education) were sizeable relative to the potential revenue base.<sup>76</sup> They were not allowed to borrow and could not introduce new taxes or adjust tax rates.<sup>77</sup> The

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<sup>73</sup> Another survey, discussed by Yuan (1994), paints a very similar picture of initial sources of funds for TVE investment.

<sup>74</sup> See e.g. table 3A.1 in Wu (1994a). Note that even though the focus here is on industrial TVEs, TVEs also contributed to rapid growth in the production of services.

<sup>75</sup> The numbers vary slightly among various sources (e.g. Bahl and Wallich 1992, Wong 1992, Ma 1995, and Arora and Norregaard 1997), but this does not change the broad picture sketched in the following. See chapter XX for more detail.

<sup>76</sup> Although the fiscal system engendered a certain amount of redistribution among regions, this was not enough to offset initial differences in revenue potential, c.f. World Bank (1990). Moreover, the distribution of extrabudgetary revenues was even more skewed than that of collected budgetary revenues.

<sup>77</sup> These rules have survived the numerous changes in the fiscal system that have been made since 1978.

situation was particularly precarious for villages, since these are not part of the formal system of government (Oi 1999). Even though taxes are levied in the village economy, these administrative units do not participate in revenue sharing with higher levels of government and do not receive any budgetary allocation from them. In fact, the whole administrative apparatus of villages must be financed locally.

In this situation, local industrialisation seemed the most promising avenue for raising revenues for governments in rural areas. Neither agriculture nor individuals and households could be expected to generate any substantial amount of funds.<sup>78</sup> However, as “owners” of industrial enterprises, local governments would be entitled to the after-tax profits. Moreover, in some periods, they have also benefited from the taxes paid by firms in their communities. For example, in the mid-1980s, government revenues were divided into “fixed central government revenues”, “fixed local government revenues”, and “shared revenues”. Among the taxes that accrued in full to local governments were income taxes on locally owned enterprises (i.e., small- and medium-sized SOEs), collectively owned enterprises (including TVEs), and private firms. Revenue-sharing with the central government on a tax-specific basis was replaced with fiscal contracting based on pooled tax revenues at the end of the decade.<sup>79</sup> While most contracts gave sub-national governments some incentives for tax collection by allowing them to share revenue increases with the central government, it is obvious, as Oi (1999) notes, that it was even better to keep resources in the locality. This has been done in a variety of ways, from tax relief for enterprises to various levies and fees that were designated as extrabudgetary revenues or self-raised funds and were kept in totality by the governmental unit collecting them. The World Bank (1990: 250-251) comments that “[o]ne could fairly say that subnational governments can substantially alter the level and pattern of effective tax rates paid by enterprises” and observes that “[m]any of the actions of the tax bureau in the provinces ... suggest that it is more likely to act as an agent of the local or provincial governments than of the central government”.

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<sup>78</sup> Agricultural taxes have low yields and are difficult to collect. Taxes on individuals and households have been highly contentious. Indeed, peasants have from time to time revolted against the exactions that local governments have made on them. See e.g. Byrd and Gelb (1990) and Oi (1999) for more on these issues.

<sup>79</sup> The tax reform of 1994 reintroduced tax assignment, with taxes on local firms of any kind of ownership once again accruing fully to sub-national governments (see Jin and Zou 2001).



Hence, local governments had considerable discretion in determining the direction of resource flows among enterprises, themselves, and the central government. They used this discretion to increase the amount of funds retained locally. This possibility thus made it more advantageous from the perspective of these governments to nurture local firms. Still, two questions need to be addressed: What were the incentives of individual cadres? And why was the preferred mode in many places to found and support community firms instead of assisting private enterprises?

With respect to the incentives of local officials, it might of course be argued, as Byrd and Gelb (1990) do, that bureaucrats always and everywhere are budget-maximisers. However, it is worth bearing in mind that the original proponent of this hypothesis thought that budget-maximisation is the natural way for bureaucrats to pursue what they really crave, e.g. power, prestige, and high salaries.<sup>80</sup> In the Chinese context, the incomes, authority, and social standing of cadres successfully overseeing the development of TVEs have indeed all risen. The remuneration of village leaders depends on average income in their villages in general and the level of profits of the village enterprises in particular. Village officials are not on the state's payroll and so there is considerable leeway for communities to adapt their incomes to local conditions. In some cases, incentive schemes were quite elaborate and surprisingly powerful. To cite one example presented by Byrd and Gelb (1990: 374):

“Village leaders get Y55 a month of base position pay. ... Up to Y500 a year can be earned for meeting village targets for state grain procurement, tax revenue, and treasury bond quotas (Y150), family planning (Y100), military recruitment and militia work (Y100), and financial and contract management activities (Y150). ... Finally, a gradually falling percentage of the profits of the community enterprises goes to the village leader and his coworkers. ... Conceivably, a village leadership group could earn as much as Y57,000 a year through this reward mechanism.”

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<sup>80</sup> In Niskanen's (1994: 38) own words: "Among the several variables that may enter the bureaucrat's utility function are the following: salary, perquisites of the office, public reputation, power, patronage, output of the bureau, ease of making changes, and ease of managing the bureau. All of these variables except the last two, I contend, are a positive monotonic function of the total *budget* of the bureau during the bureaucrat's tenure in office" (italics in original).

In contrast, township cadres are on a national salary scale that does not allow for much variation across communities. Moreover, they are not allowed to engage in private business. With the rapid growth of rural income, the remuneration of these officials would have been lagging behind the pay of production workers in township enterprises if this had been the end of the story. In successful townships, incentives have been sharpened somewhat by giving them income supplements out of extrabudgetary revenues, which, as noted above, are mainly extracted from local firms. The examples given by Byrd and Gelb (1990) and Oi (1999) show that the magnitudes of the rewards that officials in such communities were given were sizeable compared to their regular pay. It is not entirely clear how sharp incentives were, though. Byrd and Gelb (1990) argue that there has not been much scope for adapting supplements according to the performance of enterprises in the locality. On the other hand, Oi (1999: 49) states that “[c]adre bonuses were dependent on the completion of specific tasks and targets. ... Each year the achievements of townships and their enterprises were measured against the target figures ...; officials of these units were rewarded accordingly with bonuses for fulfilled or overfulfilled targets.” Since the magnitudes involved depended on community government revenues from local enterprises, there was in any case an indirect link between industrial development and the personal incomes and on-the-job consumption of township officials.

Political and bureaucratic career incentives were apparently pulling in the same direction. All officials, in the government as well as in the party, were increasingly judged by their achievements in the economic sphere so that promotion within their respective hierarchical systems was to some extent determined by their prowess in furthering development (Shirk 1993, Oi 1999).<sup>81</sup> Furthermore, what might be termed social incentives were also important, particularly in the villages. Chinese villages usually have around one thousand to two thousand inhabitants. Many are tightly knit communities due to family and kinship ties among the villagers. Given the rigid system of residential registration, most individuals have been

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<sup>81</sup> Byrd and Gelb (1990) claim that whether promotion was deemed a negative or positive inducement depended on the locale. They assert that in more backward areas of the country, bureaucratic promotion was a powerful incentive. This was particularly the case with respect to village officials, since they would get their hokou registration changed into an urban one if they joined the ranks of the state cadres. On the other hand, where rural industry developed swiftly, local officials were keen to avoid promotion to higher levels because the income opportunities were more strongly circumscribed at each higher level in the hierarchy. It is not clear whether officials could resist being promoted, and, if not, what effect that had on their work effort.

living in their villages their whole life. Though that may slowly be changing, rural residents could rationally expect themselves and their fellow villagers to stay put. In such an environment, it would not be surprising to find that community leaders pursue economic development not only for their own benefit, but also to generate employment and income for other members of the community. In his account of the interaction between village officials and villagers in Jiangsu and Hubei, Rozelle (1994: 116) puts it this way: “The final goal of village leaders is the desire to improve the general welfare of the entire village. Hence, close kinship and friendship ties make local welfare an important goal. ... Off-farm employment opportunities are a direct indication of the leader’s ability to increase the welfare of the village.”<sup>82</sup> Weitzman and Xu (1994) actually argue that the success of TVEs in the face of fuzzy property rights is due to the cooperative culture of the Chinese. They cite studies showing that implicit contracts were widely used by TVEs, sometimes even to the extent of being preferred to explicit contracts.

However, cooperation among members of the same family, kinship, or clan is common in most stable, traditional societies. Instead of taking it as given, it is more fruitful to view it as reflecting an environment where formal, impersonal institutions regulating economic exchanges are incomplete or lacking altogether. In the Chinese context, it is well known that the judicial system has not been functioning well with respect to civil law (see e.g. OECD 2002). The courts have not been independent of the authorities. Property rights have been neither well defined nor sufficiently protected; as already noted, the status of private property has been unclear, official rhetoric notwithstanding, due to the political uncertainty surrounding the reform process. This situation has put TVEs in an attractive position relative to private enterprises, and provides part of the answer to our second question, namely, why many local Chinese governments have entrusted rural industrialisation to community firms instead of supporting local private enterprises.

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<sup>82</sup> A similar view is expressed by Oi (1999: 112): “Unlike county and township officials, village leaders are longtime village residents who have strong ties with those over whom they have administrative control. Because they are not rotated, their actions have long-term consequences for both their own positions and for the village’s well-being. This makes the incentives for village-level officials more direct than those for officials at other levels of local government.”

The models of Li (1996), Che and Qian (1998b), and Che (2002) provide solid theoretical underpinnings for this view, showing that indicators such as efficiency and profits may be higher for firms under local government ownership even though managerial incentives are compromised compared to a situation with private ownership. The reason is that community authorities provide valuable services to the firm. Examples of such services are protection from predation by other government units and bargaining with public suppliers of materials and credit. In the early part of the reform period, when many inputs were still covered by central planning, securing supplies of raw materials and intermediate goods usually required the intervention of public officials. Even when they were not in command of these resources, the intermediation of local cadres was necessary in order to strike bargains with SOEs and governmental units producing or controlling such inputs. Moreover, they had the power to determine the allocation of land.

The need for protection stems from the vagueness and poor enforcement of property rights, which could make private entrepreneurs unwilling to risk their capital. The backing of local governments was also essential in getting bank loans. After decades of government policies aimed at fostering state-owned industry, which kept peasants at close to subsistence levels of income, and eradicating private ownership, rural private assets were negligible when the reforms were initiated. The capital that existed in the Chinese countryside at the time was controlled by local authorities. Hence, cadres were less likely to be credit constrained than private entrepreneurs. They could also use their positions to mitigate and pool risk across the enterprises of the local government “corporation”. If one firm was doing badly, officials could transfer resources to it from other enterprises, the township government (by reducing tax payments), or local financial institutions (by arranging loans or bargaining for reductions in or postponements of debt service). Finally, even though the level of human capital was generally low, cadres were often among the more educated members in their communities.<sup>83</sup> Having supervised and run the commune and brigade enterprises, they had some experience in organising economic activity.<sup>84</sup>

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<sup>83</sup> Of course, some officials were probably ideologically inclined to prefer communal to private ownership. It could also be that in some cases cadres surmised that it would be easier for local governments to raise revenues from TVEs. There is at least a lot of circumstantial evidence pointing to widespread tax evasion by private firms.

<sup>84</sup> The investigations of Wu (1994b), who find that managers were not better educated than the labour force in general, suggest that experience and human capital in the form of personal connections mattered more in selecting managers of TVEs.

Local variations in financing patterns for rural industrial enterprises prove that these considerations were of importance. In Guangdong and Fujian, for example, private funds available for investment were large due to substantial remittances from relatives and friends abroad (Oi 1999, Svejnar and Woo 1990, Yuan 1994). The proximity of these provinces to Hong Kong and Taiwan, respectively, led to substantial inflows of FDI (c.f. chapter XX). In many counties, local governments were relatively poorly endowed. As a consequence, the private sector developed much faster in the rural areas of these provinces compared to most other places in China. The numerous examples of fake collectives also demonstrate the validity of the arguments, as do the fact that the number of private enterprises has varied with political conditions, declining in times of conservative backlashes against reforms such as the late 1980s and rising fast in the 1990s as the position of private ownership seemed increasingly safe.<sup>85</sup> Similarly, the rapid growth in private incomes and the profits of privately-owned firms, the development of the financial sector, and the surge in FDI-flows have weakened financing constraints. In turn, this has eased both the expansion of private enterprises as well as the privatisation of community firms. Central government efforts at improving the institutional framework, for instance with respect to contract law and bankruptcy proceedings, have had some success. This has facilitated the development of the private sector. Meanwhile, increasing competition has erased the easy profits enjoyed by TVEs in the early period and where TVE development has been successful, the local labour surplus has vanished, making them less attractive to local officials as generators of employment and revenue.

Econometric support for many of these propositions come from Jin and Qian (1998). Using a provincial data set covering 1986-1993, they find that the share of TVEs in rural industrial employment and output is likely to be greater when the community governments had larger assets at the beginning of the reform period and were stronger politically. A larger supply of credit from state banks and size of the state industrial sector pulled in the same direction, while more intensive development of product markets implied a greater role for private firms. Thus, where the ability of local governments to mobilize financial resources and the need for

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<sup>85</sup> See Young and Yang (1994), who note that in some cases private individuals might have been coerced into switching to collective status when political “cold fronts” appeared.

accessing input and factor markets controlled by central government entities were stronger, TVEs flourished compared to private business.

However, time dummies trace out a declining trend over the sample period with respect to both the output and employment shares of TVEs. In a similar vein, Chen and Rozelle (1999) find that in their sample of sixty-four TVEs from four provinces, the dominant contractual form for managers has evolved from fixed-wage to profit-sharing and fixed payment (“leasing”). For example, in the townships surveyed in Zhejiang, 83% of managers in the townships surveyed were on fixed-wage contracts in 1984. Only 17% had profit-sharing written into their contracts, and none were paying a management fee for the entitlement to residual profits. In 1993, however, fixed-wage contracts were hardly used anymore. Only 5% of contracts were of this type, whereas profit-sharing constituted 15% and leasing 80% of the arrangements between local leaders and managers of TVEs. In their regressions, Chen and Rozelle (1999) find that contracts shifted towards stronger managerial incentives as factor and product markets developed, just as one would expect from the discussion above.

Hence, TVEs might well be a transitional phenomenon that will vanish when China’s transition to a conventional mixed economy has been completed. If so, this organisational form has served rural China well. Jin and Qian (1998) show that in their sample, a larger TVE share in the rural non-farm sector has been associated with higher community government revenues and greater proportions of non-farm employment in the rural labour force. However, the capacity of TVEs to fulfil these objectives has declined over the last decade as their growth rates have stagnated and their profits declined. Many of them have become heavily indebted too. As a consequence, since the middle of the 1990s, a wave of privatisation of TVEs has occurred.

### **3.5. Private Industry in China**

The formal policies of the central government towards private business have evolved gradually during the reform period, starting with the recognition in 1981 of the “supplementary role” that “individual enterprises” could play. “Individual” actually meant that firms could have up to seven employees. In 1988, “privately owned” firms were allowed. That is, private enterprises were allowed to have more than eight employees, and could take

the form of sole ownership, partnership, or limited liability company. In 1993, the Fourteenth Party Congress endorsed the goal of establishing a socialist market economy, but it was not until the next Party Congress in 1997 that private business was recognised as an integral part of that vision. The evolution of the judicial status of China's private sector culminated in 1999, when private property rights were enshrined in the constitution.

Throughout the reform period, considerable political uncertainty has surrounded the position of private enterprises, and they have had to endure periodic crack downs on their operations when conservatives asserted themselves in Beijing, such as in the aftermath of the Tianmen massacre. The evolution of the private sector has therefore varied with the political climate. Moreover, both central and local authorities have in general favoured collective and state-owned firms in various ways, which has meant that private enterprises, particularly domestic ones, have been at a disadvantage in their competition with firms under other ownership types. In light of the difficult business environment they have faced, one cannot help being impressed by the growth rates they have achieved. Figure 7 in the first section of this chapter show that individual-owned industrial firms have grown faster than firms of most other ownership types for most of the reform period. The growth of the residual category "others" has tended to be even faster. In addition to domestic private firms with more than seven employees, this category includes joint-ventures with foreigners as well as wholly foreign-owned firms. Compared to domestic private firms, these have enjoyed considerable advantages in terms of regulations and tax incentives.

Of course, at the outset private enterprises were few and very small. Although private business never vanished completely after the establishment of the People's Republic, their role in the economy was negligible. For example, according to Naughton (1995a: 166) they accounted for less than 0.2% of the urban labour force in 1978, and Young (1992) has the number of licensed individual businesses in that year at 150,000. Therefore much of their initial growth could be seen as reflecting their low base. This particularly applies to the 1980s, though it should be noted as well that the boom in FDI started as late as 1992. This is reflected in the astonishing growth rate of the gross value of output of "other" firms in that year: 103%! Moreover, from the middle of the 1990s, privatisation of TVEs and small- and medium-sized SOEs has boosted the level of output produced by private industrial firms. Still, this does not change the fact that these firms now matter in Chinese industry. The share in gross industrial output of these two categories was about 18% each in 1997 (c.f. table 10),

meaning that in combination they were responsible for more than one-third of the production in these sectors. With continuing privatisation, their share has surely increased in recent years. Given the difficulties private enterprises, particularly domestic ones, face in financing expansion, this is no mean achievement.

Somewhat surprisingly, the private sector has developed faster in rural than in urban areas.<sup>86</sup> For instance, over 1985-97 the annual average growth rate of individual-owned rural industrial firms was 49% compared to 44% for businesses of this type located in urban areas. In the process, the rural-urban ratio of the gross output value of individual firms increased from about four to about seven. One reason for this is probably that decollectivisation first occurred in agriculture. The return to family farming reopened the door to that traditional mainstay of the Chinese non-agricultural economy, the family firm.<sup>87</sup> Moreover, collective farming had not obliterated the strong bonds of family and kinship emphasised above. According to Whyte (1996a: 46-47, footnotes omitted), quite the contrary:

“In rural China the socialist system quite directly and in multiple ways reinforced family solidarity and obligations. To begin with, [the communes] were constructed on the basis of existing residential arrangements, which to a considerable extent reflected kinship ties. The strong migration restrictions enforced from the end of the 1950s then ensured that even the most ambitious and educated rural young people remained on the farm, rather than escaping elsewhere. ... The work point system used to compensate for collective labour also reinforced the rural family. Work points were accumulated by individual team members, but then they were totalled and used for distribution of grain and cash on the basis of family units. ... Housing was financed and constructed almost everywhere by families, rather than by the collective and the state, a pattern which once again reinforced the need to rely on the larger family unit. ... [I]n most periods and localities a residual family production unit remained in the form of a private plot and household sidelines. ... [M]any peasant families depended on their private plot and sideline activities for 25 per cent or more of their total income (and most of their cash income)[.] ... Even though sideline activities were attacked when the political

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<sup>86</sup> The International Finance Corporation (2000) indicates that 75% of all private firms arose in the countryside, of which 40% were engaged in manufacturing. Also see Oi (1999).

<sup>87</sup> For an enlightening discussion of the contribution of family firms to China's economy, see Whyte (1996b).



atmosphere shifted to the left, they provided a mechanism through which some degree of family pursuit of joint economic success survived through the socialist period.

In the cities and towns, the situation was somewhat different. Even though private economic activity was tacitly allowed towards the end of the 1970s in order to provide employment for youth returning from the countryside where they had been banished during the Cultural Revolution, such activities were in general held in disdain (Young 1992). Most of the business of private individuals was initially in services, such as petty trading. Not only did the official ideology portray such activities as unproductive, commerce has traditionally been frowned upon in China. Bureaucrats were held in much higher esteem socially. Under communism, these attitudes were also reinforced by the fact that administrative positions and employment in SOEs, which were concentrated in urban areas, were better paid, with employment for life and a range of welfare benefits that were difficult to secure through other channels. Housing was a particular problem in this regard. In combination with the political uncertainty regarding the future of the private sector, this made most young people unwilling to take up positions in private enterprises. Initially, it was therefore difficult for private entrepreneurs to attract qualified personnel, or indeed employees of any qualification, beyond the circle of family and friends. This hampered their expansion.

With the introduction of contract-employment and labour retrenchment in SOEs and the bureaucracy, the relative attractiveness of private employment has improved. Capital continues to restrain the operations of private entrepreneurs, though. I have already noted that in general the level of household savings was relatively low in rural areas when reforms began, and that this in many cases necessitated a collective approach to industrial development. In this sense, matters were no different in the cities. In addition, even relative to TVEs private firms have received miniscule shares of bank lending. An official quota system that has favoured SOEs has limited the access of Chinese capitalists to the embryonic stock markets. According to the International Finance Corporation (2000), out of a total of nine hundred and seventy-six listed companies on the major exchanges in Shanghai and Shenzhen, only eleven are non-state firms. The same source claims less than 1% of bank loans for working capital go to private business. Therefore, at start-up they rely greatly on the funds of the founder. In the enterprises surveyed by the International Finance Corporation (2000), 90% of the initial capital was raised by the entrepreneurs. Between one half and two-thirds of later investments, depending on firm size, consisted of retained earnings and additional funding

from the principal owner. In the whole sample, outside equity only amounted to about 1% of the financial resources utilised. While most entrepreneurs have access to informal loans through their personal networks, credit constraints are holding back the development of the domestic private sector. Foreign-funded firms and joint-ventures are obviously in a better position.

The inability of domestic capitalists to access formal sources of funds is not entirely due to political and bureaucratic discrimination in favour of collectives and SOEs. Objectively assessed, lending to private Chinese firms is risky. Banks have had limited possibilities for varying interest rates according to risk as well as weak incentives to fund potentially profitable but risky private projects. Furthermore, part of the risk stems from the opaqueness of the financial state of private firms. The International Finance Corporation (2000: 25) notes that “Enterprises are commonly said to keep three sets of books: one for the government, one for the banks, and one for themselves. This means that it is difficult for outsiders to ascertain who owns the assets, who controls the firm, and how management decisions are made.” This situation naturally also makes outside investment in private businesses a not so attractive proposition.

Informality has certain advantages for entrepreneurs. It helps them avoid tax obligations and onerous government regulations, for example. However, it naturally restricts the scale and scope of their operations. An important reason why private businesses in many cases have chosen to stay in the informal sector is that the institutional framework has not been conducive to switching to the formal sector. Inadequate accounting rules, legal restrictions on changing juridical status (for instance, a firm with only one owner cannot be turned into a limited liability company), and corporate governance structures and bankruptcy procedures that favours insiders at the expense of outsiders all contribute to this state of affairs. The costs of complying with formalities are high too. For example, the requirements for registered capital for private limited companies are among the highest in the world (International Finance Corporation 2000). Still, the most important attraction of informality is arguably the vagaries of life in the formal sector, where one is more exposed to discretionary political and administrative actions. One aspect of this has been the lingering uncertainties surrounding the position of private enterprises in Communist China. In many places, though, the latitude that local officials have had in interpreting central government policies and applying local government regulations has been equally damaging. Sometimes this left entrepreneurs with no

choice but to operate illegally. For instance, in her rendering of social and political attitudes towards private business in the 1980s Young (1992: 79-80) notes that “[o]fficials who disagreed with the policy of encouraging private business, or who feared that such a policy would not last, often used local discretionary powers to delay or refuse to grant licenses. In one extreme case, the local interpretation of ‘appropriate development’ of private business was that an appropriate number of private businesses, for a county with over 400,000 residents, was seven.”

Despite such problems, many private firms have found that the benefits of formality outweigh the costs. They have often used innovative strategies to make sure they are right. As discussed in the previous section, donning the “red hat” – registering their companies as collectives in return for a fee – is one way in which Chinese capitalists have sought to protect their assets from being confiscated. This has also helped them gain access to scarce resources controlled by public authorities. Land and capital are prominent examples of such resources, but in the early days when many raw materials and intermediate products were still allocated by planning, these inputs were also made more easily available by changing ownership status. Sometimes new market possibilities opened up too, not only because private firms have been barred from entering certain lines of business,<sup>88</sup> but also because collectives and SOEs were more willing to buy from a collective than from a private enterprise. Other, less extreme strategies entrepreneurs have used to protect themselves from officialdom or endear themselves to it have been to pay off officials, employ them or their relatives, or invite them to join as business partners (c.f. Wank 1995). In addition to any direct monetary cost, the downside to this adaptive response to the environment they have operated in has been that private firms have opened themselves to outside interference in their affairs.

Weak protection of property rights and inadequate enforcement of contracts have also limited the development of the private sector. For example, many firms use payment deferral as a source of finance. Infringements of intellectual property rights, a much publicized problem with respect to foreign enterprises, is a major concern for Chinese high-tech firms too. Chinese courts have traditionally concentrated on criminal offences, with commercial

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<sup>88</sup> According to the International Finance Corporation (2000: 37), entry into fifteen lines of business is restricted for private firms. Industrial activities as diverse as rubber and polyethylene products, copper, steel, iron, and platinum, and anesthetic, psychiatric, and radiation medicines are on the list.

disputes being handled by arbitration (OECD 2002). Even if a case is heard in court, the decision is not always implemented and sanctions are generally weak compared to the seriousness of the infraction in question. This situation places a premium on trust in business dealings. In combination with the political, bureaucratic, and economic obstacles just discussed, it explains why the family firm retains its attraction as an organisational form,<sup>89</sup> and why in many cases personal networks remain more important than anonymous markets. While these are efficient responses to the conditions faced, the consequences are negative: the extent of the market is limited, which makes it more difficult to realise scale economies; regulatory hazards and political uncertainty make short-term investments more attractive than long-term investments; and the difficulties involved in raising adequate finance preclude the realisation of large-scale projects even when they would be worthwhile, expected returns and risk considered. In other words, private industrial activities making use of modern capital- and knowledge-intensive technologies are disadvantaged. In turn, this contributes to making services the most important part of the private sector in China. The International Finance Corporation (2000) reports that in 1999, about 56% of the total number of private firms were in service sectors.

There are exceptions and regional variations to this general pattern with respect to private access to resources and local government attitudes, the cases of Guangdong and Fujian having been noted already. There have been temporal shifts too, but the trend has clearly been in the direction of improvements both in the institutional framework. Indeed, the pace of the law-making process in China in the 1990s was amazing.<sup>90</sup> Of course, not all of these laws and regulations concerned the framework for private economic activity. Still, major new laws were adopted in this area. In addition to the 1999 constitutional change, the Unfair Competition Law, the Law on Companies, and the Unified Contract Law represents significant steps forward. The adoption of the Administrative Review Law in October 1999 gave citizens the right to appeal administrative decisions and specifies clear procedures and strict time limits for subsequent reviews, potentially limiting the scope for arbitrary

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<sup>89</sup> A survey conducted by the All China Federation of Industry and Commerce found that 98% of all private firms were family-managed (cited in International Finance Corporation 2000: 23).

<sup>90</sup> According to the OECD (2002), three thousand national laws were passed. In addition came eight hundred regulations adopted by the State Council and seven thousand by the provincial People's Congresses. Administrative regulations approved by national and local political authorities numbered more than thirty thousand.

bureaucratic actions. Further improvements are needed, though, before the rules of the game are up to Western standards. Some are already in the pipeline due to China joining the WTO. Perhaps as important is the fact that one can reasonably expect WTO accession to intensify the pressure to implement the laws and regulations that are already in place in a consistent and non-discriminatory manner. With the courts not being independent of the government and the policy-making process still shrouded in secrecy, vigilance on the part of foreign actors might be the most effective way to make the Chinese authorities adhere to their formal commitment to a rule-based framework for market activities.

On the other hand, WTO membership implies increased competition in a range of industries, some of which are already suffering from excess capacity due to the investment boom in the middle of the 1990s. With Chinese industrial firms in private ownership in general being small and using outdated technologies, many will be unable to compete with foreign companies.<sup>91</sup> While privatisation will continue to boost the size of private industry in China, it is not given that the performance of the industrial sector as a whole will improve markedly in the short term.

### **3.6. An Assessment of the Results of Enterprise Reform in Chinese Industry**

The reforms have succeeded in changing the make-up of Chinese industry. Prior to 1978, private ownership was almost non-existent. At the turn of the century, the public sector still dominated. Yet the share of SOEs in total employment in 2000 was only 51%, with the collective sector employing about 14% of the total (Heytens and Karacadag 2001). At 63.5%, their combined share in industrial value-added is almost identical to the public sector share of employment. So is the distribution of this sum between the two categories of enterprises. By implication, majority-owned private firms, domestic as well as private, were responsible for more than a third of employment and value-added.

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<sup>91</sup> By the middle of the 1990s, the overwhelming majority of rural industrial enterprises were private. However, TVEs still accounted for almost one half of employment and slightly less than two-thirds of the value added of rural industry (OECD 2002).

Initially both TVEs and private firms sought out market niches that were neglected by SOEs. Due to the emphasis on heavy industry in the pre-reform period, this often meant entering into branches of light industry such as household appliances and apparel. Rapidly rising incomes and pent-up demand resulted in easy profits for early entrants. Profits were also high in industries dominated by SOEs. This was an intentional policy; prices were rigged so that surpluses could accumulate, allowing the government to continue their strategy of investment-driven, industry-lead growth. As the scope of planning declined and other regulatory barriers were removed, though, many SOEs were exposed to competition for the first time. We have seen that in the aggregate this has turned their bottom lines from black to red even as their productivity increased. To get a complete picture, I now outline what has happened to productivity and profits in firms under other types of ownership.

Jefferson et al. (2000) estimate that over 1980-96 the productivity of capital fell by 5% per year in industrial SOEs. In contrast, it increased by 1.9% in collective enterprises (COEs). Annual growth in labour productivity was also found to be faster in COEs: 11.6% versus 8% in SOEs. At 1.7% and 3.9% respectively, TFP growth in collective industrial firms was more than twice as fast as in SOEs. Due to data limitations, corresponding figures for firms under other types of ownership could only be worked out for shorter periods of time. Over 1988-96, average capital productivity fell by 5% per annum in both other domestic enterprises and foreign invested enterprises (FIEs). Labour productivity grew strongly, with private firms (7.4% on an annual basis) outpacing FIEs (4.9%). Comparable figures for TFP growth are only given for 1992-1996. It was much faster in COEs (4.3% per year) and other domestic firms (3.1%) than in FIEs (0.67). TFP in SOEs actually declined by 1.1 per cent annually. In sum, industrial firms of all types have invested heavily, raising labour productivity but, except for COEs, driving down the average product of capital. TFP growth has been much faster in COEs than in SOEs.<sup>92</sup> In fact, even though the first two decades of reform saw some improvement in TFP in SOEs, TFP growth turned to decline in the first half of the 1990s.

Wu and Wu (1994) calculate that average labour productivity (value added per worker) grew by 8.6% annually in rural industry and 5% in urban industry from 1978-91. That is, the productivity of labour increased at a much faster rate in collective and private firms located in

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<sup>92</sup> Other studies reaching similar conclusions include Jefferson, Rawski, and Zheng (1992, 1996) and Perkins (1996).

rural areas compared to urban collectives and SOEs. With respect to state versus rural industry, annual growth rates were 4.2% and 9.8% respectively in the same period.<sup>93</sup> Thus, the ratio of average labour products dropped from 4.1 to 2.1. In other words, rural enterprises had cut the initial advantage of SOEs, caused by their larger scale and capital stock, in half by the early 1990s. Mirroring the findings of Jefferson et al. (2000), the rate of change in the average productivity of capital was negative in state industry (-1.4%). On the other hand, rural industrial enterprises registered a slightly positive growth rate (0.5% per year). Overall, the yearly rate of growth in value-added for SOEs of 7% can be attributed to an annual increase of 2.8% in labour input, 8.6% growth in capital, as well as 1.8% TFP growth. For rural industry, the astonishing annual growth rate in value added of 20.8% was also to a large extent caused by massive investment. Capital input grew by 19.9% per year, which was twice the rate of labour input (9.8%). TFP growth was a healthy 5.5%.

Hence, it seems safe to conclude that TFP growth was much lower in SOEs than in TVEs and private rural firms. Though, the extremely rapid rate of investment in rural industry for the first decade or so of reforms was perhaps a danger sign. It has clearly slowed the rate of employment growth. It could also indicate that not only SOEs, but also TVEs have overinvested. Many Chinese observers have complained that TVEs have become too similar to SOEs, both in terms of the range of industries they compete in and in capital-intensity. However, the former could be a rational response to reductions in barriers to entry, allowing TVEs to share in the excess profits generated in sectors formerly reserved for SOEs. TVEs have become more capital-intensive due to a combination of two factors: firstly, labour shortages have appeared in areas where growth has been extremely rapid and migration has been limited; secondly, local governments have preferred to keep the income generated by TVEs in the community, thus substituting capital for labour when all local residents that wanted a job had been employed. As there is still a labour surplus in rural areas and urban industry has begun shedding their excess workers, this is an unfortunate side-effect of the strong incentives for industrial development that community governments have had.

In the 1980s, however, TVEs were probably more efficient than private rural firms. Applying stochastic production frontier analysis to a data set covering two hundred rural enterprises

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<sup>93</sup> In this calculation, the construction industry is excluded, which is why the growth rate for rural industry differs from that given in the comparison with urban industry.

located in ten provinces over 1984-89, Dong and Putterman (1997) find that village and township enterprises are equally efficient, but on average 8-14% more efficient than private firms. This result confirms that the arguments as to why local governments in rural areas initially chose to foster their own enterprises instead of relying on private initiative are not unfounded. However, we also saw that the advantages of TVEs relative to private firms for community governments have become smaller over time and that, as a consequence, privatisation has become a widespread phenomenon. The findings of Li and Rozelle (2000) corroborate the importance of competitive pressures in product markets for decisions on privatisation. They conclude that after a transitional period where the effect of ownership change is negative, privatisation increases the efficiency of the rural industrial enterprises in their sample.

An even more important issue is what has happened to profits. According to the data presented in Jefferson and Rawski (1999b), the both pre-tax and post-tax rates of return declined for collectives and TVEs. For COEs, the pre-tax return declined from 26.6% in 1980 to 8.1% in 1995. Over the same time span, the after-tax return fell from 18.5% to just 3.2%. TVEs also experienced steep declines in returns to assets. The ratio before tax fell from 32.5% in 1980 to 14.2% in 1992, while post-tax returns decreased from 26.7% to 7.2% during 1980-92. Hence, even though SOEs have always had the lowest rates of return, all publicly-owned enterprises have seen an erosion of profits during reforms. The fact that profits fell across the board is a strong indication that the strengthening of competition is the main explanation for falling profit levels.

The figures given by Heytens and Karacadag (2001) for 1994-2000 allow for a more detailed examination across ownership types. With profitability defined as operating margin divided by assets, SOEs are continue to occupy the bottom rung. Moreover, for the period seen as a whole their profitability fell by more than two percentage points. There is some consolation in the fact that it has increased by almost as much from 1998 to 2000, but it probably mostly reflects the government's efforts at staving off deflation. COEs, which were the most profitable category in 1994, also experience a decline. Although it was not as sharp as that of SOEs, private shareholding companies and foreign-funded enterprises overtook them in the profitability ranking. Firms in these two categories saw healthy increases in their ratios from 1994 to 2000. Somewhat surprisingly perhaps, enterprises funded by Chinese from Hong Kong, Macau, and Taiwan were below average profitability of industry in 1994, and did not



manage to improve profitability much in the latter half of the 1990s. This could be due to these firms mainly operating in assembly line activities where the only value-added is that of low-cost Chinese labour.

It should be noted, however, that these comparisons are distorted by several factors. First of all, SOEs in particular have benefited from cheap capital provided by the government. Secondly, foreign-funded firms have received generous tax breaks in return for moving to China. This applies to both firms owned by overseas Chinese as well as to those that are “truly” foreign. Thirdly, SOEs, and to some extent urban COEs as well, are disadvantaged by the fact that they have to deliver an extensive range of welfare services to their workers. In general, other kinds of firms only provide these services if they find it advantageous to do so. Unfortunately, there are no national-level studies that I am aware of that corrects for these biases. Using a sample including all industrial enterprises in Shanghai over 1996-98, Zhang, Zhang, and Zhao (2002) demonstrate that these factors matter for the ranking of enterprise profitability by ownership type. In terms of the ratio of net income divided by total assets, the list is in descending order of profitability: privately-owned domestic firms (2%), firms owned by Chinese from Hong Kong, Macau, and Taiwan (0%), other foreign-owned enterprises (-1%), SOEs (-2%), and COEs (-3%). Adjusting for interest expenses and taxes means that COEs jump from the bottom to the top. At 17.6% on average, their adjusted returns on assets are almost four percentage points above that of domestic private firms. Moreover, SOEs pass firms created through FDI on the list. Though, the differences in pre-tax returns are not statistically significant. However, these three types of firms are significantly less profitable than the domestic non-state sector. Clearly then, tax breaks and soft budget-constraints play an important role in determining both the absolute profitability of firms as well as their ranking by ownership. Further adjustments for welfare burdens propel SOEs to the top. Moreover, both SOEs and COEs then have significantly higher “returns on assets”.

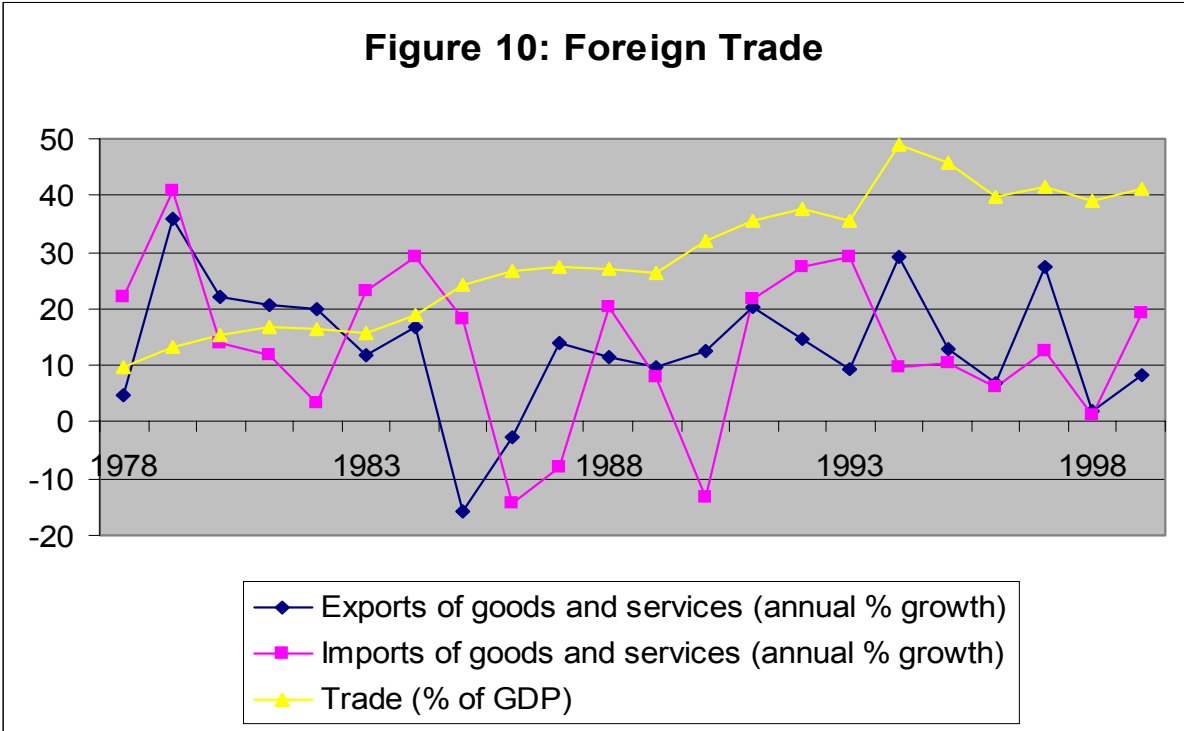
In sum, then, Lin, Cai and Li (1998) are clearly right in emphasising the need for relieving SOEs of their policy burdens. Without welfare reform, SOEs will be disadvantaged in competition with other firms. As the Chinese government intends to keep the largest and most important SOEs, it will have to proceed quickly on this front. WTO membership will inevitably mean more competition. However, WTO accession will probably also give the government an incentive to speed up the process of levelling the playing field by removing tax breaks for foreign investors. This would benefit private industrial firms as well. Hardening

the budget constraints of SOEs is also absolutely essential to increase financial flows to domestic non-state firms, which, due to credit constraints, are presently hampered by a lack of scale and outdated technologies. The ongoing privatisation process means that private firms are multiplying in numbers. Domestic and foreign investors, as well as foreign firms exporting to China, need to see improvements in the institutional framework for doing business and its implementation if they are to contribute significantly to the economic development of China. Joining the WTO might contribute towards progress in this respect by increasing external pressure on the Chinese authorities. Still, given the scale of the tasks ahead, a question mark hangs over their ability to come through on all fronts simultaneously, at least in the near term.

## 4. External Trade and Capital flows

### 4.1. External Trade in the Reform Era: an Overview

One of the most remarkable features of the post-reform economic performance of China is the rapid growth in exports. Measured in constant yuan, exports of goods and services grew at an average annual rate of 13.1% from 1978 to 1999. At 12.0% per year on average, imports grew nearly as fast. The result has been a sharp increase in the share of trade in China’s GDP. As shown in figure 10, in 1978 imports plus exports constituted less than 10% of GDP. Today, the ratio hovers around 40%, having come down from nearly 50% in 1994. According to Nordås (2002), in 2000 China was the world 7<sup>th</sup> largest exporter, with shares of world merchandise and services exports of 4% and 2%, respectively. In terms of imports, China ranked 8<sup>th</sup>, its share in world merchandise imports being 3.5%. It had a share of 2.5% in the world’s service imports.



Source: World Bank (2001) and author’s calculations based on data from this source.

Equally remarkable is the Chinese experience with international capital flows. Starting from zero, foreign loans and direct investment have come to play a major part in financing investment projects in the country. The latter, in particular, has been instrumental in funding

production for exports. Foreign enterprises accounted for as much as 52% of imports and 48% of exports in 2000 (Nordås 2002). Inflows of foreign direct investment (FDI) really took off after 1992, propelled by Deng Xiaoping’s strong endorsement of the need for reform in his famous tour of the south and the liberalisation measures that followed in its wake. The country has progressed from being the 16<sup>th</sup> largest net recipient in 1982 to 6<sup>th</sup> place in 1999. In cumulative terms, China’s performance is even more impressive, as can be seen from table 12. Based on the data in World Bank (2001), I have calculated that by 1999 China’s cumulative net FDI flows since 1982 (the first year in which there is a non-zero entry for China) stood at a staggering 298 billion dollars. Over 1982-99, it ranks third overall, only being surpassed by the US and the UK.<sup>94</sup> Among developing countries, China is the star performer, having received more than twice the amount of the runner-up, Brazil, and three times the net flows going to third-placed Mexico. In fact, net FDI to China in this period amounted to more than the combined flows to Argentina, Malaysia, Thailand, Chile, South Korea, and Indonesia!

Table 12: Top Ten Recipients of Net Cumulative FDI 1982-99

<b>Overall</b>	<b>Billion US\$</b>	<b>Developing countries</b>	<b>Billion US\$</b>
United States	1188.8	China	297.8
United Kingdom	413.4	Brazil	122.0
China	297.8	Mexico	95.2
France	259.3	Singapore	78.8
Netherlands	172.8	Argentina	70.4
Belgium	165.3	Malaysia	46.4
Canada	137.0	Thailand	36.2
Sweden	134.3	Chile	35.1
Germany	130.1	South Korea	29.5
Spain	130.0	Indonesia	23.5

Source: Author’s calculations based on data in World Bank (2001).

All these numbers show that China is to an increasing extent becoming integrated in the world economy. The country’s recent entry into the WTO is bound to strengthen this process. It is

<sup>94</sup> Of course, gross flows would put China in a less favourable light. The levels of outward FDI of many OECD countries are high, whereas these are relatively small in China.

not that China was an autarchy before the reforms. However, prior to 1979 the Chinese economy was insulated from the world economy to a large extent, trade being a mere appendage to the plan. It was carried out by a few foreign trade corporations (FTCs) of the state. Foreign direct investment, whether inwards or outwards, was prohibited. China was not a member of such multilateral organisations as the World Bank, the IMF, and the GATT. Therefore, the opening up of the economy represented a radical break with the first decades of Communist rule. This chapter outlines the main changes in China's policies towards external trade and investment, and discusses the results of these changes for the economy.

#### **4.2. Opening up the Chinese Economy I: Trade**

When the process of opening the Chinese economy to the outside world started, the trade-to-GDP ratio was about 9.5%, having been on a gently upward sloping path since 1970. This trade consisted mainly of imports deemed necessary to fulfil the material plan for the economy - to large extent producer goods - the exports required to finance these purchases simply being written into the plan. The task of trading goods with the outside world was allocated to the FTCs. They bought the exports from the producers at domestically determined prices and sold them in the world market at the prices prevailing there.<sup>95</sup> Due to the currency being overvalued, this usually resulted in losses. These were either cross-subsidised within the FTCs by the profits made from importing, or refunded by the Ministry of Foreign Economic Relations and Trade. About 80% of imports were sold at prices "comparable" to those prevailing domestically for similar goods. The rest were sold on a cost-plus basis, with the aim being generating profits large enough to cover the losses on exports. In this way, domestic and international prices were separated, and the domestic economy effectively sealed off from world markets.

Thus, the pre-reform trade regime had three important characteristics: it was centralised, competition was limited, and prices were regulated at levels having little connection with border prices. In all of these areas, change has occurred, albeit to different degrees. Indeed, Naughton (1999) argues that in the reform era, China has had a dualistic trade regime. Some firms, notably foreign ones, have had much greater access to world markets than most

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<sup>95</sup> See e.g. Fukasaku, Wall, and Wu (1994).

domestic firms, which have had to operate through the FTCs. Although these have multiplied in number from a handful to 35,000 in 2000, many elements of the old planning system have remained. This duality has had important consequences for the development of international trade in China since 1978.

Decentralisation of trade seems to have started informally in 1979 when some FTCs started to trade on their own. As has so often been the case, this development was ratified ex post by the authorities, and many new FTCs were established by both central government agencies and sub-national governments. Later, large SOEs and foreign invested enterprises (FIEs) were granted trading rights too. However, the change did not imply that international trade became market-determined. Most trade was still subject to either compulsory or guidance planning.<sup>96</sup> Although the share of trade that was subject to prices controlled by the government declined, even a decade later only slightly more than half of total exports (55%) occurred outside the plan (Lardy 1992). Imports were by that time marginally more liberalised, with 60% of imports in 1988 being not subject to planning. Moreover, in 1984 the State Council allowed for an agency system to be used in external trade, whereby the FTCs could operate solely as agents of producers of export goods and buyers of import goods. In this system, international prices were the basis for transactions. Therefore, for firms adopting it the separation between domestic and world market prices was broken. By 1992, almost 75% of total imports came in through the agency system (Fukasaku, Wall, and Wu 1994). For exports, the corresponding figure was only 10%.

On the other hand, imports were tightly controlled for most of the first decade of liberalisation or so. As the scope of the plan diminished, import licensing was increasingly used as a control measure. The instrument was used both as a macroeconomic tool for balance-of-payments management and to protect import-substituting industries. Furthermore, enterprises had to submit elaborate import plans for approval by the government. Although exports were also subject to licensing, this tended to be restricted to commodities where China had some international market power or to ensure that international obligations such as the Chinese quotas under the Multifibre Agreement were kept.

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<sup>96</sup> With respect to trade, the mandatory part of the plan was specified in terms of quantities whereas for those commodities that were subject to guidance planning, only value targets were specified (Lardy 1992).

Regarding tariffs, China held its average rates at a fairly constant level during the 1980s. As a result of reductions elsewhere, this mean that China entered the 1990s with a very high average level of tariffs in a comparative perspective (World Bank 1997b). Since then, the average tariff level has been almost halved, reflecting major reductions in 1992, 1996, and 1997. According to Chen and Feng (2000), the mean tariff rate fell from 47.2% in 1991 to 17.8% in 1997, implying an average reduction of 5% per year. With the accession to the WTO, rates have gone down even further and the simple average of the final bound rates is only 11.2% (Annex 1, Nordås 2002).

Indeed, throughout the 1990s, trade liberalisation has in general proceeded a pace in China. Mandatory planning of trade ended in 1994.<sup>97</sup> The first export licenses to private firms were granted in 1999. While the number of licenses issued was only one hundred and fifty by the end of that year, within three years of acceding to the WTO, all private firms will have the right to export on own account. In 1996, non-tariff barriers covered a third of imports, down from 50% in only four years. Import licensing was still the major item, covering 18.5% of China's imports (c.f. table 2.3, World Bank 1997b). The second largest was quotas (16.3%). However, WTO membership entails the phasing out of these barriers. State trading will remain in a few sectors, mainly raw materials deemed essential or of strategic importance, e.g. grain, crude oil, and fertilizer (Nordås 2002). Even here the Chinese have committed to increase the import share outside the state trading system by 15% per year.<sup>98</sup> In sum, at the aggregate level the degree of liberalisation is impressive.<sup>99</sup>

This bird's eye view of Chinese trade policy over the last twenty years or so misses some crucial variation between types of enterprises and regions within the country. These important distinctions are best discussed in the context of the privileges granted to firms in specific

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<sup>97</sup> In that year, the remaining import goods covered by the plan were removed from it. The mandatory planning of exports had ceased in 1991.

<sup>98</sup> No such liberalisation has been agreed to with respect to exports, though. Other forms of exclusive trading rights will be phased out within three years of accession.

<sup>99</sup> In an indirect manner, Robinson and Vaez-Zadeh (1999) test the significance of the reforms by estimating reduced form aggregate import- and export-equations. They find that both imports and exports have become increasingly sensitive to the real effective exchange rate. This indicates an increasing degree of price sensitivity, which you would expect when trade is being determined by market forces to a larger extent. For exports, a similar result is obtained by Yue and Hua (2001).

areas of China such as the Special Economic Zones (SEZs), the Open Coastal Zones, the Open Coastal Cities, and Economic and Technological Development Zones (ETDZs).

The plethora of special arrangements for trade and FDI started as a compromise between reformers and conservatives suspicious of economic contacts with foreigners. In 1979, three areas in Guangdong were granted status as SEZs. The following year, Xiamen in Fujian was added to the list. The next permission was not given until nearly a decade later when the island of Hainan became both a separate province and a SEZ. However, similar arrangements were established in the meantime. Fourteen coastal cities, including Guangzhou, Shanghai, and Tianjin, were declared “open” in 1984, and other coastal areas followed in 1985. A major extension northwards occurred in 1988, when parts of the provinces of Hebei, Liaoning, and Shandong (as well as Guangxi in the south) were opened up. The 1990s have seen further developments, the most significant of which were the designation of the Pudong district of Shanghai as a special economic development area in 1990 and the authorisation to adopt the open door policy granted to all provincial capitals as well as thirteen border cities in 1992. In this respect too, WTO membership means further liberalisation. Within three years after accession, all enterprises will have the right to trade in almost all goods, except for the few commodities still reserved for the FTCs.

As noted by Fukasaku, Wall, and Wu (1994), the SEZs were not merely export processing zones in the traditional pattern of developing countries. They were supposed to serve as “windows and bridges” through which foreigners could peek into China and the Chinese into the world beyond before they ventured into what were for each party, in a literal sense, foreign lands. Hence, they fit neatly into the Chinese pattern of gradualism. Furthermore, they were meant to serve as laboratories of reform, facilitating the experimental approach to change taken by the Chinese leadership. The extent of liberalisation of markets within the SEZs has varied, and not all Chinese experiments with reforms originated in SEZs. Nevertheless, the SEZs have undoubtedly played an important role in the move towards a market economy within a communist political regime.

In general, the most important provisions of the Chinese export promotion regime have been the freedom to engage directly in imports and exports and exemption from duties on investment goods and raw materials and components intended for export production (Naughton 1999 and Zhang and Song 2000). This has led to a rapid increase in exports based



on processing imported inputs. In 1995, these operations accounted for 50% of total exports from China. Concomitantly, concessionary imports were making up an increasing share of total Chinese imports, reaching 60% in 1994 and 1995.

FIEs have mostly been processing imports for exporting in their own capacity. Chinese firms, particularly TVEs, have mainly been operating as sub-contractors for foreign firms, usually from Hong Kong.<sup>100</sup> TVEs and other collectives have also been sub-contracting for export-oriented SOEs. The exact shares of exports attributable to firms under different types of ownership are difficult to establish. For example, according to the World Bank (1997b) collectives and private enterprises other than wholly owned foreign firms and joint ventures (JVs) were only responsible for 1% of Chinese exports in 1994. Yet, this only pertains to the trading of goods; the FTCs, which had a share of 53%, do not produce the goods. Hence, the export production of TVEs and SOEs is understated by these numbers. The 28% attributed to foreign-owned firms (9%) and JVs (19%) is probably close to the truth, though. By 1999, this had increased to 45%. With respect to imports, foreign-owned firms (12%) and JVs (34%) had already reached that level by 1994. It seems safe to assume that their share has not gone down since then. Thus, the role played by foreign capital in China's external trade keeps getting more important.

FIEs engaged in trade have had another strong incentive provided by the government: in the SEZs, they have been allowed to retain 100% of the foreign exchange they have generated. Foreign exchange retention has also been an important incentive for domestic firms. In the pre-reform planning system, all foreign exchange earned had to be handed over to the Bank of China, which then allocated it according with the import requirements specified by the plan. In 1979, the authorities changed the system so that exporters were allowed to keep part of the foreign exchange they generated. That is, activities generating foreign exchange also created an entitlement to buy back some of the foreign exchange surrendered to the authorities. The proportion varied with the type of activity involved and the location of the enterprise. The

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<sup>100</sup> During 1988-95, the share of exports that consists of goods assembled on contract for foreign firms varied between 14% and 18% (table 2.2, Naughton 1999). On the other hand, processing of imports on own account increased rapidly from 13.5% of total exports in 1988 to almost 36% in 1995.

share retained has also varied over time.<sup>101</sup> Even though the incentive was sometimes nullified by administrative interventions, particularly in the early years of reform, with time they became increasingly valuable. The development of markets in which these rights could be traded played a major part in this respect.

The first formal swap centre, where firms having surplus foreign exchange requirements could trade these to enterprises having too little foreign exchange allocated to them, was opened in Shenzhen in 1985. Until the devaluation of the yuan that unified the exchange rate in 1994, entitlements were always selling at a premium in these foreign exchange markets. The entitlement was for foreign exchange at the official rate, and as the yuan was overvalued, buyers were willing to pay more than the official rate in order to have them. This meant that the rates established in the swap centres constituted parallel exchange rates. At first the rents generated by these entitlements, as measured by the differences between the parallel and the official rates, were sizeable. As the average level of retention grew and thus a greater share of foreign exchange earnings (which were in turn rising rapidly with the export boom) were channelled through the swap centres, the premium fell over time except during periods of overheating in the economy. By 1993, 80% of all foreign exchange was traded at parallel rates (Xu 2000).<sup>102</sup>

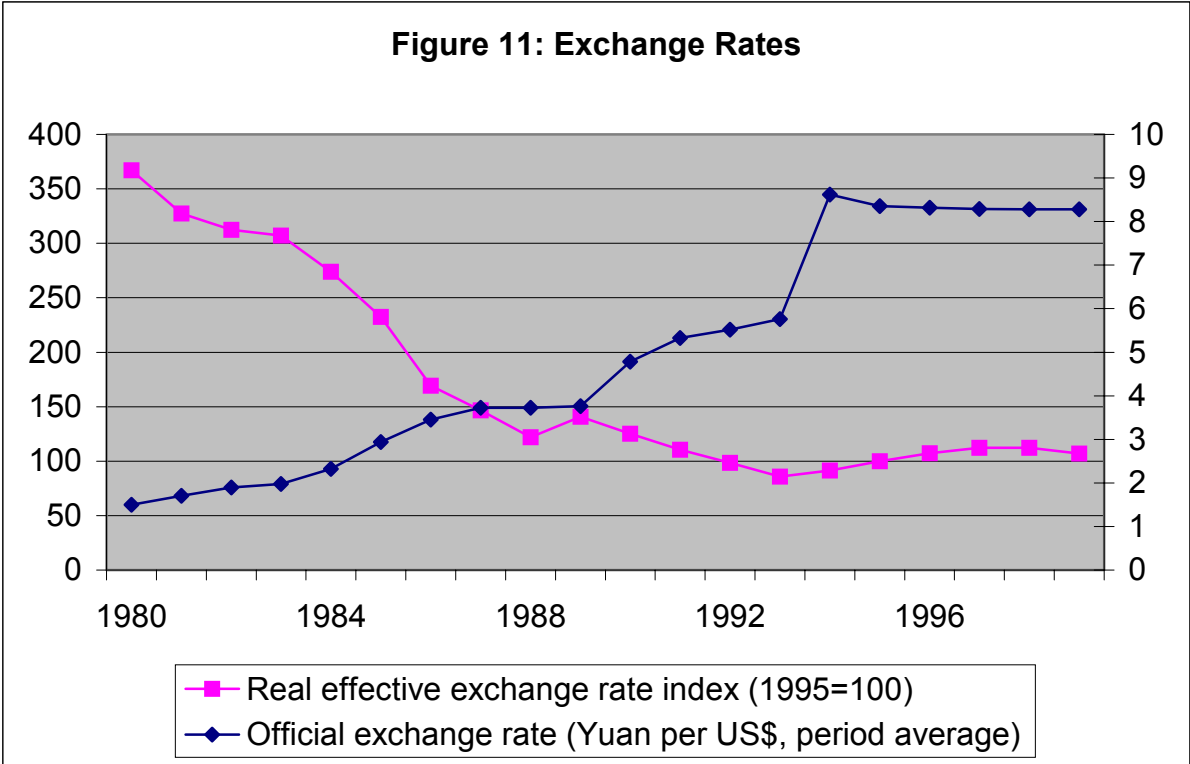
These foreign exchange markets were not completely free. At first, only firms in the four SEZs in existence at the time were allowed to participate (Mehran et.al. 1996). In 1988, all domestic entities that possessed retention quotas were given permission to trade them at the swap centres. However, in 1989 regulations were issued governing the uses for which foreign exchange might be purchased in these markets. Imports of inputs for sectors such as agriculture and textiles were to be given priority, and foreign exchange could not be bought to finance purchases of a wide range of consumer goods.

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<sup>101</sup> For descriptions of the retention system during this period, see Fukasaku, Wall, and Wu (1994) and Lardy (1992). A major simplification occurred in 1991, resulting in only two rates; 70% for electrical and capital goods and 50% for everything else.

<sup>102</sup> By then, the government had also started using the parallel rate to some extent. When they changed the retention system in 1991, the authorities agreed to pay the swap rate for 60% of the foreign exchange remitted to them.

In January 1994, the system was changed again, in effect uniting the exchange rate at the prevailing swap rate.<sup>103</sup> Restrictions on market access and prioritisation of the uses of foreign exchange were abolished, as was the requirement of prior approval of purchases for domestic enterprises. Now foreign exchange has to be sold to approved banks, while purchases require proof of commercial contracts requiring foreign exchange payments (OECD 2002). FIEs are in a somewhat privileged position. Subject to the approval of an annual foreign exchange plan outlining how they aim to achieve a balance between their expenditures and receipts of foreign exchange, they are allowed to enter the foreign exchange market directly, and may retain 100% of their foreign exchange earnings in foreign currency accounts.



Source: World Bank (2001).

China has had a managed float since the beginning of 1986. As noted, the yuan has been overvalued for years. Until unification, this was reflected in the premium entailed in the parallel rate. Still, except for 1987-89, the authorities kept the premium in check by depreciating the official rate (figure XX). This means that the real effective exchange rate depreciated most of the time until 1994. Since unification, the authorities have intervened to keep the yuan fairly stable. In the face of the rapid rate of inflation in the mid-1990s, this led

<sup>103</sup> At the end of 1996, the yuan became convertible for current account purposes.

to a real appreciation of the currency from 1993 to 1998. As inflation has come down, the currency started to depreciate in real terms again, and the real exchange rate was only about 7% above its 1995 level in 1999. Overall, the continued real depreciation of the currency during the reform period is likely to have contributed to the rapid growth of exports.<sup>104</sup>

### 4.3. Opening up the Chinese Economy II: International Capital Flows

When the reform process began, China was considerably more closed with respect to capital flows than it was with respect to trade. The country was not a member of major international financial institutions such as the IMF and the World Bank. There was no government debt outstanding, and the first foreign loans were taken on in 1979 and 1980 (Woo 1998). Although the law on Chinese-Foreign Joint Ventures was enacted in 1979, for many years mutual suspicions kept the level of investment low. Indeed, even though FDI later would become the dominant source of financing for the Chinese economy, in the early days of reform it was borrowed funds that constituted the largest part of external capital flows (c.f. table XX). Bank lending and trade credits were the most important of these. After China had joined the IMF and the World Bank in 1980, the government started receiving funds from these institutions.

Table 13: External Capital Flows, Selected Years (Millions of USD)

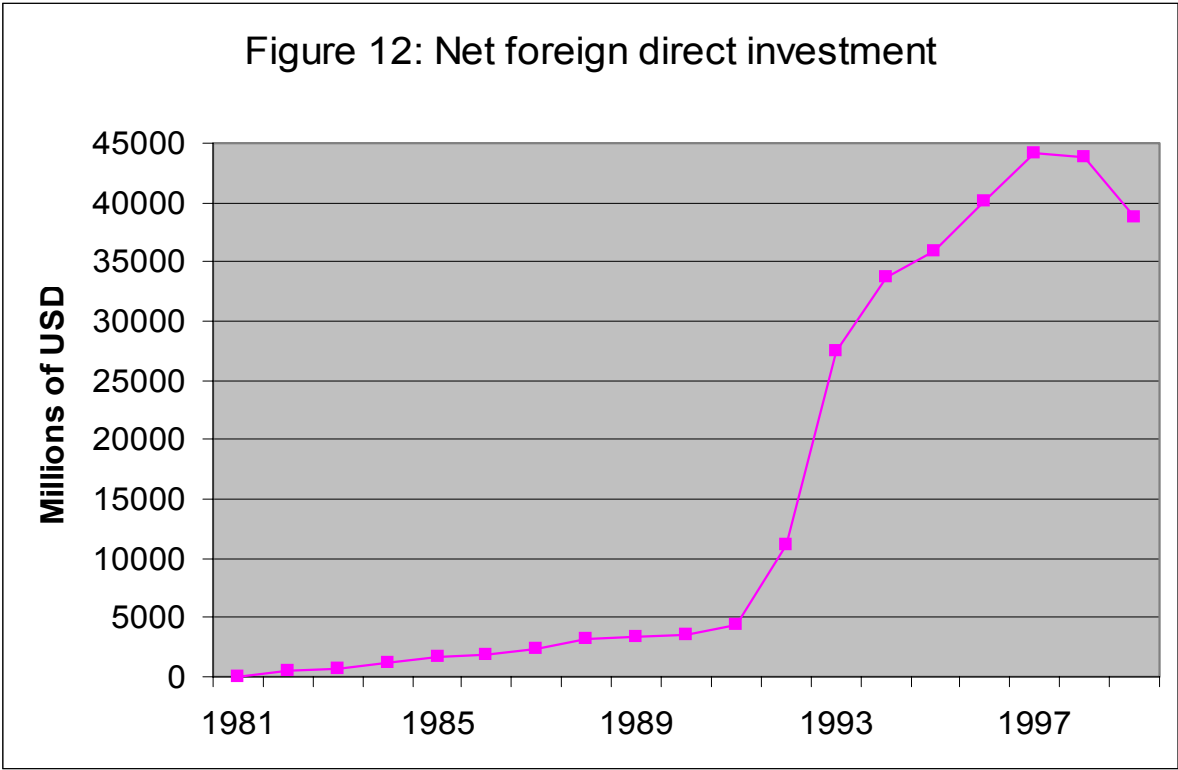
	1981	1985	1990	1995	1999
Bank and trade-related lending	106.1	1895.3	4667.6	4696.1	-2513.6
Net foreign direct investment	0.0	1659.0	3487.0	35849.0	38753.0
Net portfolio flows	-16.7	971.4	-47.8	3123.7	4392.4
Total official flows	0.0	565.4	882.5	2418.1	1702.9
Total net flows	89.4	5091.1	8989.3	46086.9	42334.7

Source: World Bank (2001) and author’s calculations.

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<sup>104</sup> However, it is unlikely to have been a major factor. In the early days, when most exports were still included in the plan, considerations of the profitability of exporting were not that important. Moreover, since the domestic value added content of export processing is very low, the production of these goods, which make up an increasing share of Chinese exports, is not very sensitive to changes in the exchange rate.

In the 1990s, private portfolio flows have started to assume importance. In 1997, net portfolio equity flows reached almost 8.5 billion USD and net portfolio bond flows were about 3.3 billion USD. However, these flows dropped dramatically after the Asian financial crisis. For example, portfolio equity flows in 1998 attained only one-seventh of the 1997-level. Although portfolio equity flows picked up again in 1999, net portfolio flows were still lower than in 1993-94. In any case, it is the meteoric rise of net FDI, especially since 1992, that is our main interest here. Figure 12 visualises the dramatic jump following Deng Xiaoping’s exhortations to proceed boldly with the reforms on his southern tour in 1992, which led to a rush of declarations of open zones (most unauthorised by the central government) as sub-national governments scrambled for the largest possible share of the incoming flows.



Source: World Bank (2001).

As mentioned above, the Chinese authorities started to develop a legal framework for FDI in 1979. More laws followed in the early 1980s that specified tax rules and procedures for settling disputes between foreigners and Chinese contractual counterparts or government agencies.<sup>105</sup> Given the considerable political uncertainties surrounding the security of foreign economic interests in China as well as the vacuum that existed with respect to the institutional

<sup>105</sup> For an overview of these laws, see e.g. Fukasaku, Wall, and Wu (1994).

framework governing the operations of foreigners in the country, this process undoubtedly contributed to enticing inward FDI. However, it was not until 1986-87 that the Chinese government really took an active interest in attracting FDI. The adoption of the “Provisions for Encouragement of Foreign Investment” and their subsequent implementation in the form of concrete rules are generally held to mark a turning point in Chinese FDI policy.

As I have already outlined the special incentives given to FIEs with respect to trade and foreign exchange retention, I will confine the discussion at this point to fiscal incentives. Giving a complete account of the developments with regards to these provisions is beyond the scope of this paper; they have varied among the various open areas, changed a lot over time, and comparison with the tax regime facing domestic firms is complicated by the fact that most of these have to some extent been able to bargain with the authorities over their tax rates.<sup>106</sup> It suffices to note that the incentives were relatively generous from the start. For instance, in the SEZs, FIEs were subject to a 15% income tax, whereas, at least on paper, domestic enterprises were supposed to pay a rate of 55% after the tax reform that was implemented in 1985. Moreover, tax holidays delayed the date at which they would have to start paying these taxes. After December 1984, FIEs were granted a tax holiday of two years after the first profit-making year, and firms that were scheduled to operate for at least ten years received a 50% reduction in the following three years. As previous losses could be credited against profits to postpone the arrival of the first profit-making year, long-term investors could thus look forward to a long period of effective exemption from income taxation. Moreover, local governments have apparently frequently granted exemptions from taxes under their control, or even colluded with enterprises in withholding tax payments due to the central government, as well as provided various explicit or implicit subsidies (Naughton 1999).

In 1991, there was a certain degree of harmonisation with respect to the fiscal measures applying to FIEs. The new tax system effective from January 1, 1994 brought further changes that to some extent implied a more standardised treatment of enterprises. However, FIEs were still granted more favourable conditions. While in principle the income tax rate was a common 33% for both domestic and foreign firms, the latter were allowed more generous

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<sup>106</sup> Bell, Khor, and Kochhar (1993) provide a historical account of incentives in the various open economic zones of China.

deductions in calculating their taxable income (OECD 2002). Moreover, FIEs were still granted lower tax rates if they were located in specific areas.<sup>107</sup> In most of these areas, these enterprises paid rates of 15% or 24% to the central government instead of the 30% (out of the 33%) that in general was due to this level of government. The tax holiday applying in the SEZs described above now applies generally for FIEs engaged in production (i.e., not in services). There are also various extensions of this rule for enterprises of specific types or located in specific areas. For example, FIEs classified as technologically advanced may enjoy a three year extension to the 50% reduction in taxation, and those exporting more than 70% of their production in any given year are entitled to the same benefit even after the expiration of the standard tax holiday.<sup>108</sup> FIEs that invest in physical infrastructure and are scheduled to operate for at least fifteen years are entitled to a tax holiday of five years plus another five years of 50% reduction in income taxes.

Given such enticements, it is no wonder FDI has boomed. The incentives have in fact been so attractive as to give rise to a phenomenon known as “round-tripping”. Round-tripping involves Chinese firms establishing affiliates abroad, usually in Hong Kong. In turn, these subsidiaries invest in mainland China, thereby indirectly allowing their parent companies to enjoy the tax breaks accorded to foreign investors. The term FDI is in any case somewhat of a misnomer in the case of China because such a large share of the investment has been made by overseas Chinese, particularly from Hong Kong and, to a lesser extent, Taiwan. Actually, Hong Kong investors alone contributed 50% of the FDI in China during 1983-99 (OECD 2002). Taiwanese investment on the mainland was prohibited prior to 1991. However, it is likely that considerable funds from Taiwan entered China indirectly through Hong Kong

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<sup>107</sup> By now, there was a truly bewildering array of such special zones: In addition to the five SEZs, and fourteen coastal cities, there were two-hundred and seventy-seven open coastal economic zones, thirty-two ETDZs, fifty-two high and new technology zones, two-hundred and sixty coastal open areas, six open cities along the Yangtse river, thirteen bonded areas, and eleven national tourism areas (OECD 2002). In addition, such special provisions apply in the Shanghai Pudong New Area, the Suzhou Industrial Park, the capital cities of interior provinces (eighteen in total), as well as old urban districts where SEZs and ETDZs are located! The recent emphasis on developing the central and western regions, emphatically expressed in the tenth five-year plan, seems to have fostered even further developments in this respect.

<sup>108</sup> China has proclaimed that it will abide by the Agreement on Subsidies and Countervailing Measures upon accession to the WTO. This implies that investment incentives can no longer be contingent on export performance.

before the lifting of the ban.<sup>109</sup> In any event, according to the official statistics, by 1992 Taiwan had already surpassed Japan as the second largest source of inward FDI to China. The detailed breakdown provided by Henley, Kirkpatrick, and Wilde (1999) for 1985-96 show that after Hong Kong and Macau (58%), Taiwan was second (8.4%), with Japan (8%) and USA (7.9%) being the other two source countries that had shares of more than 5%.

It is of course not coincidental that investors from Hong Kong and Taiwan have been dominant with respect to FDI in China. The first three SEZs were located in Guangdong province, practically on the doorstep of Hong Kong, for the purpose of attracting capital from this British-Chinese bastion of capitalism. The fourth was placed in Fujian province, right across the Taiwan Strait. Moreover, the Chinese language and culture, especially the importance of Guanxi (personal ties, connections), constitute important barriers for doing business in China for non-Chinese.<sup>110</sup> The weak protection of property rights is another factor that has limited investment from the OECD countries in China. Protecting the value of their assets in general and their technology in particular is a much greater concern for companies from these countries than it is to Asian firms, which in general invest on a smaller scale and use less advanced technologies. The lack of a comprehensive legal framework protecting intellectual property rights and lax enforcement of the rules and regulations that have been adopted is thus at odds with the generous fiscal incentives that the Chinese government has established in order to attract FDI in high-technology industries. Even though the Chinese authorities have been making efforts to improve the situation in this respect, concerns about the enforcement of patent rights and the protection of trademarks and copyrights were still raised during the negotiations in preparation for China's accession to the WTO. Therefore, the government will have to make a considerable effort in order to live up to the obligations it has undertaken by signing the agreement on Trade Related Intellectual Property Rights (TRIPS).

Furthermore, even as FDI was encouraged in certain sectors and projects, Chinese authorities prohibited or restricted it in others.<sup>111</sup> For example, there are thirty-one industries where

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<sup>109</sup> According to Fukasaku, Wall, and Wu (1994), a reasonable estimate is that Taiwanese investment in China grew from USD 100 million in 1987 to USD 1 billion in 1992.

<sup>110</sup> For a study of the importance to private entrepreneurs of having guanxi to bureaucrats in post-reform China, see Wank (1995).

<sup>111</sup> OECD (2000) contains the general provisions on types of FDI that are encouraged, permitted, restricted, and prohibited.



wholly-owned foreign enterprises are not allowed, and a further thirty-two where Chinese partners must have a majority share (OECD 2002). Examples of the latter are the manufacture of motor vehicles, their engines, and radial tires, the design, construction, and management of transportation facilities such as subways and airports, and the design and manufacture of civil aeroplanes and satellites. These provisions have also restricted FDI from the OECD countries, particularly in high-tech industries, as sole ownership is the most straightforward way of protecting unique technologies.<sup>112</sup>

Restrictions on FDI have been especially severe in the service sector. Even though the government opened for investment in service sectors such as finance and insurance in July 1992, this has mainly been on an experimental basis in the eastern provinces. Moreover, in some of these sectors, e.g. domestic commerce and foreign trade, only joint-ventures with domestic majority ownership were allowed. WTO accession will mean a significant liberalisation of the service industries in this respect. For example, China has committed to removing most restrictions that discriminate against foreign investors in the banking sector within five years. In certain sectors, provisions limiting the scope of business operations or the type of ownership will remain, but it is still expected that WTO membership will lead to a surge in FDI in China's service sectors.

### **4.3. Effects of Opening Up**

The export promoting policies adopted by the Chinese leadership has transformed the composition of Chinese trade. At the onset of the reforms, the main exports were primary products (see table XX). As late as 1985, petroleum exports alone amounted to more than 25% of Chinese commodity exports. Although the nominal export value of primary products in dollars increased by a factor of more than 2.5 from 1980 to 1997, the share of these goods in total exports have dropped precipitously with the success of the export processing industry.

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<sup>112</sup> One way of illustrating the differential effects of Chinese policies and regulations on FDI from developing relative to developed countries is by calculating the ratio of a country's share of FDI in China to its share of total gross FDI in the world. OECD (2002) has calculated such ratios for the twenty-six largest source countries in China over 1990-98. All the developing countries making the list have ratios exceeding 100%. On the other hand, all the developed countries have ratios below 100%.

In 1997, around 87% of China’s merchandise exports was manufactured goods. According to Nordås (2002), this share was the same in 1999.

Table 14: Composition of Merchandise Exports (% of Total)

Category	1980	Category	1990	Category	1997
Primary goods	50.3	Primary goods	25.6	Primary goods	13.1
Food	16.5	Food	10.6	Food	6.1
Non-food	9.4	Non-food	5.7	Non-food	2.3
Minerals and fuels	23.6	Minerals and fuels	8.4	Minerals and fuels	3.8
Other primary goods	0.8	Other primary goods	0.8	Other primary goods	0.9
Manufactured goods	49.7	Manufactured goods	74.4	Manufactured goods	86.9
Chemicals	6.2	Chemicals	6.0	Chemicals	5.6
Light industry	22.1	Light industry	20.3	Light industry	18.8
Machinery and transport eq.	4.7	Machinery and transport eq.	9.0	Machinery and transport eq.	23.9
Other manufactured goods	16.8	Other manufactured goods	39.2	Other manufactured goods	38.6

Source: Author’s calculations based on tables 9 and 10 in World Bank (1996a, 1999a).  
 Notes: I have combined the entries for “other” (manufactured goods) and “products not classified elsewhere” in the sources into the category “other manufactured goods”. The sources note that in 1980-91, the classification was based on the Standard Industrial Trade Classification, whereas from 1992 on, it is based on the Harmonised System. The first two columns and the last one are therefore not strictly comparable with respect to the details.

Due to a change in classification between 1991 and 1992, it is difficult to analyse export growth at a more detailed level over the whole period. Nevertheless, it is clear that after the boom in FDI started in 1992, exports of various manufactured goods grew rapidly. Overall, exports of manufactured goods grew at 18.5% per year from 1992 to 1997. The growth of exports of machinery and transport equipment was especially strong, on average 27% per year over the same period. Exports of chemicals grew at a pace barely faster than the average for manufactured goods (18.7% annually), while light industry (comprising such products as textiles and metal products) and clothing and garments at 16.4% and 13.5%, respectively, grew somewhat slower than the average. It is highly likely that these growth rates are connected with the rapid rise in FDI, much of which has gone into export processing industries. This supposition is confirmed by econometric studies such as Liu, Wang, and Wei (2001), Zhang and Song (2000), and Zhang and Felmingham (2001), which find that in China FDI has caused export growth.<sup>113</sup>

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<sup>113</sup> The authors of the latter study also tests for bidirectional causality in sub-national entities grouped by the level of FDI received. They find that causality between exports and FDI runs both ways in both the group of

According to the figures in Nordås (2002), which provide more details for 1998, other manufactures, which in her data consists mostly of toys and sound recording equipment, was the largest category of export goods. Apparel (presumably corresponding to the Chinese statistical category of clothing and garments) was the second largest export sector in 1998, while electronics was in third place. In combination, these three categories constituted 45.6% of total Chinese exports.

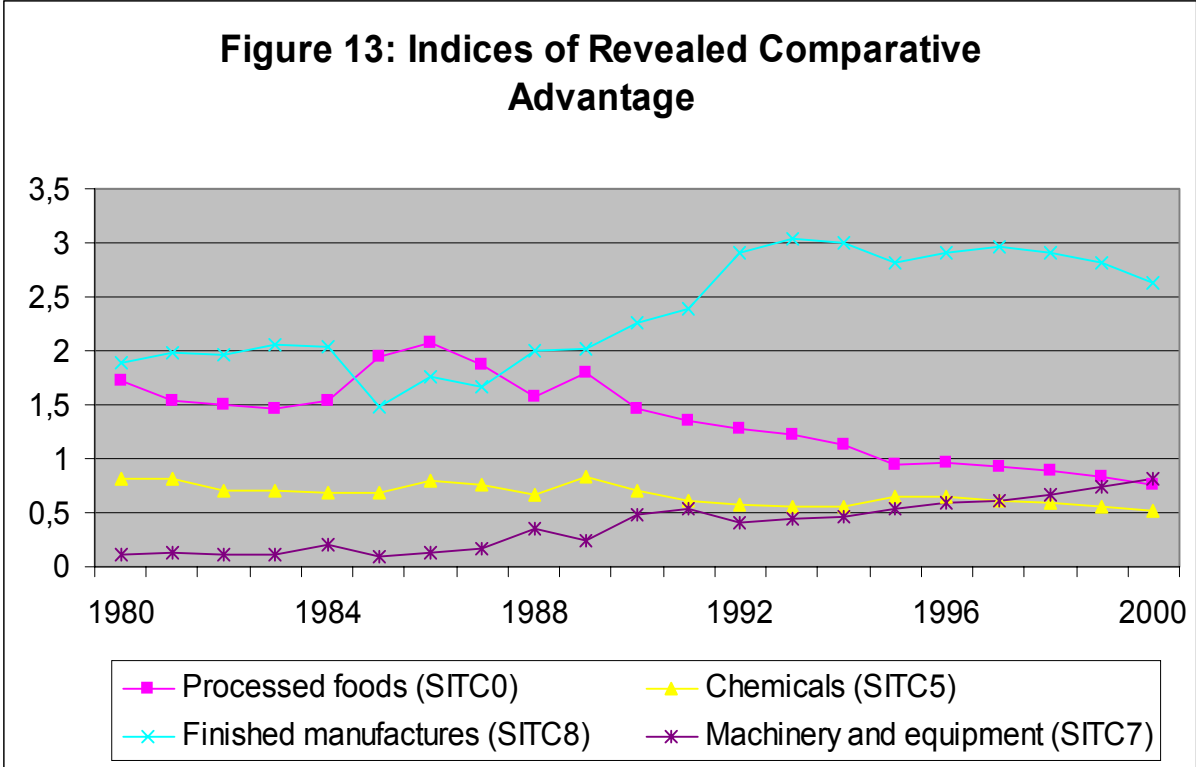
Electronics also figured prominently on the import side, being the third largest category here too. Machinery, which was the largest category of imports, is also the fourth largest export sector. Hence, there is a substantial amount of intra-industry trade in Chinese total trade. Moreover, intra-industry trade has increased over time, which you would expect given the rapid growth of manufacturing industries. It also seems to be the case that the reforms have brought a greater congruence between China's exports and its comparative advantage (Yue and Hua 2001). As already noted, China relied on exports of primary goods when the reforms began. While some of these exports might have reflected Chinese comparative advantage at the time, the country's natural resource base has come under severe pressure due to rapid growth and a long history of industrialisation based on heavy industries. Heavy industries are generally capital intensive, and therefore not sectors in which poor countries have a comparative advantage. The move towards exporting light manufactures, fuelled by the growth of the TVEs as well as FDI, is therefore indicative of a realignment of export patterns to better reflect the fact that China has a comparative advantage in labour-intensive manufacturing. Indeed, as industries in countries such as Taiwan felt the pinch of rising labour costs in the 1980s, they moved their production to China to take advantage of the low relative labour costs there.

Of course, it is hard to measure the theoretical concept of comparative advantage empirically. A commonly used measure is revealed comparative advantage (RCA). Indices of RCA are

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administrative units having received the highest average level of FDI and in the group containing those that have received the lowest average level of FDI. Causality is also bi-directional at the national level, suggesting the possibility of a mutually reinforcing process whereby FDI generates exports and exports attract FDI. Only in the intermediate group, consisting mostly of central provinces, is causality running in only one direction, namely, from exports to FDI.

calculated as the ratio of the share of exports of a sector in the total exports of a country to the share of exports of that sector in the total exports of some reference group, for example, the world. A number above (below) unity for a specific good is taken as an indication that the country has a comparative (dis)advantage in the production of that good.<sup>114</sup> Yue and Hua (2001) find that among the ten categories of export goods for which China had the strongest RCA in 1980, seven cover the products of resource-intensive industries and only three comprised labour-intensive products. By 1997, this pattern was reversed. Figure 13 illustrates their results at the coarser level of one-digit SITC.



Source: Yue and Hua (2001).

Chemicals (SITC5) mainly consist of technology- and capital-intensive products. While China has been exporting a fair amount of chemicals in absolute terms (at USD 10.4 billion, it was the eight largest export category in 1998), the RCA of this product category has been below unity for the whole of the period 1980-2000. Moreover, its RCA has been on a

<sup>114</sup> RCA-indices are ad-hoc measures. Being based on actual trade flows they reflect all kinds of policies that affect trade, as well as the differences in endowments, technologies, and tastes that form the basis of comparative advantage. Their popularity is due to the fact that they do not require the hard to get information on the factors shaping comparative advantage.

downward trend from 1980 to 2000. The RCA of processed foods (SITC0), although it has been fluctuating somewhat more than that of chemicals, has also displayed a negative trend. In fact, the RCA for this group has been below one since 1995. For the most part, this category includes resource-intensive products. On the other hand, the category finished manufactures (SITC8) mostly consists of labour-intensive products. Over the twenty-year period covered, the RCA of this category has gone up. So these figures are in line with what we have already seen, namely, that the main export goods of China are now labour-intensive items such as clothing, footwear, and toys. Indeed, Nordås (2002) even finds that China now has a revealed comparative disadvantage in resource-intensive sectors such as agriculture and fuel relative to NAFTA and the EU. She also finds that the RCA of China relative to Asia in resource-intensive industries has diminished after 1978.

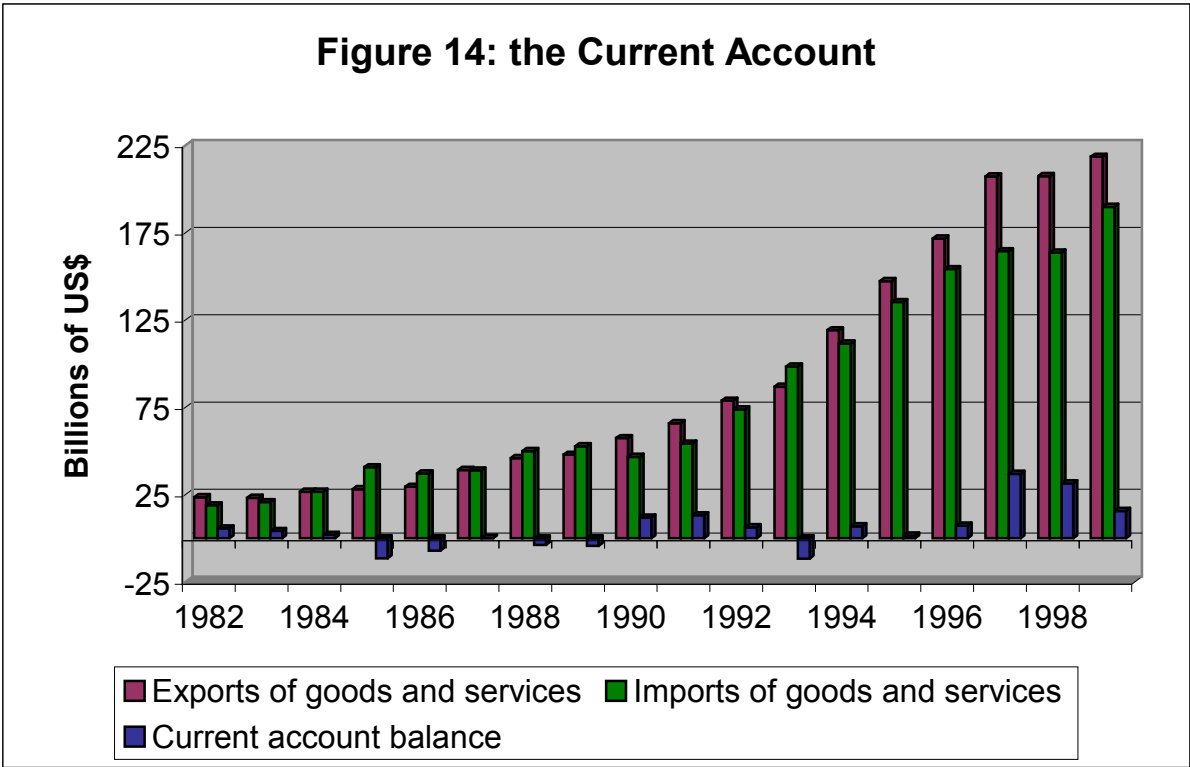
The developments in the RCA of machinery and equipment (SITC7) may seem like a partial contradiction of this thesis. Though always below unity, it has shown a healthy increase from 1980 to 2000. This could be explained by the heterogeneous composition of this category. In addition to capital-intensive products, it includes some labour-intensive ones. Moreover, the figures presented by Nordås contradict the numbers calculated by Yue and Hua (2001). She finds that from 1978 to 1998, the RCA of machinery fell strongly, while that of transport equipment was essentially stagnant. These differences are probably due to using different data sources. In any case, they remind us of the caution one needs to use in interpreting Chinese data.<sup>115</sup>

Overall, Chinese trade has grown in a very balanced fashion in the post-reform period. Figure XX illustrates that it is not until very recently that China has had a large surplus on its current account. While exports have been growing steadily, imports have fluctuated somewhat more, reflecting the fluctuations in the macroeconomy as well as changing regulations with respect to trade. These cycles are particularly pronounced in the early part of the period. The level of imports surged in 1984-85 due to a significant liberalisation of trade. The authorities responded by tightening import controls and credit allocations and raising interest rates. As a

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<sup>115</sup> According to Fukasaku, Wall, and Wu (1994), there are important discrepancies between the official Chinese bilateral trade statistics and those of major trade partners such as the US. Some of these discrepancies are probably related to shipping of goods to OECD countries through intermediate destinations such as Hong Kong and Singapore.

result, imports fell. The economy temporarily cooled off (c.f. chapter 2), but once the pace of growth picked up again, so did imports. Then in 1989 the government put the brakes on once more, and imports decreased in 1990. However, the cycle starting in the early 1990s seems to have differed somewhat from the previous ones. Imports continued to rise despite the efforts of the government to dampen the overall growth rate. This is most likely due to the surge in FDI, since the increase in export processing raised import levels as well. The fact that imports stagnated with the reduction in export growth in the wake of the financial crisis in Asia in 1997 supports this assessment. While the Chinese authorities kept the nominal exchange rate stable, many other Asian countries devalued their currencies. As demonstrated in figure 14, the yuan appreciated in real terms, causing export growth to fall.



Source: World Bank (2001).

The Asian crisis also impacted on FDI flows to China. Figure 12 showed that relative to 1997, the level of net FDI was lower in both 1998 and 1999. A second factor contributing to that decrease was the elimination of tariff exemptions on imports for FIEs in 1996. This policy change, which was partially rescinded in 1998, was intended to level the playing field for domestic and foreign enterprises. Ultimately, the government intends to make all firms subject to the same income and valued added tax rates. Presently, domestic firms enjoy some

tax advantages that foreign firms do not, and vice versa.<sup>116</sup> Some of these discriminatory rules, notably those intended to stimulate exports and import-substitution will have to go now that China has become a member of the WTO. Other measures that do not apply equally to foreign and domestic companies are not necessarily in conflict with the obligations China has undertaken in this connection. There are still good reasons, e.g. the erosion of tax revenues, for removing such rules and regulations. As just noted, at least with respect to taxation the stated objective of the government is to eventually subject firms to the same tax rates regardless of the nationality of the investors. However, the re-imposition of tariff exemptions for imports and the extremely inconsistent approach to VAT exemptions for exports by foreign businesses show that the government has not yet been able to formulate policies to further its long-term goal of unified treatment.<sup>117</sup> Foreign investors have of course noticed this fact and, in combination with the real burdens imposed by the removal of VAT exemption, concerns about the consistency of the government's policies towards FDI have undoubtedly had a dampening effect on their willingness to invest in China.

Regarding the sectoral composition of FDI, figure 10.8 in OECD (2002) has the share of secondary industries in accumulated FDI stocks over 1983-99 at 59.8%. Primary industries recorded a meagre share of 2.2%, while the real estate sector received the greater part of the 38% going into the tertiary sectors. According to the same source, most of the temporal variation in shares of FDI flows is due to macroeconomic cycles. When the economy has been booming, there has been a shift in FDI from manufacturing industry to real estate. During downturns, the reverse shift has occurred. In the second half of the 1990s there has been a slight trend increase in the share going into the primary and service sectors. This trend is

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<sup>116</sup> For example, domestic firms engaged in agriculture, fishery, animal husbandry, and forestry are entitled to a permanent exemption from income tax. Foreign enterprises only enjoy the standard five-year tax holiday.

<sup>117</sup> When the tax reform of 1994 was introduced, the intention was that – in line with international practice – all producers of exports would be eligible for VAT refunds of 100% on their inputs. Due to an unexpectedly strong surge in rebate claims, in August the government issued an order to cease the refunding of VAT on the inputs of foreign businesses. In November, they changed their stance to allowing rebates for foreign firms established after January 1, 1994. However, the refund rate was capped at 14% instead of the full VAT rate of 17%. In 1995, the government lowered the rate to 9%. The latest twists to this story came in 1999, when the authorities decreed full rebates for exports of major goods such as machinery and transport equipment, and in 2001, when foreign businesses established before the current tax law took effect once again became entitled to refunds.

likely to strengthen somewhat now that China has entered the WTO, especially since FDI in the service sectors have been heavily restricted.

In sum, there is little reason to doubt that opening up its economy has played a major part in the rapid growth of China. Competition from exports and firms funded by FDI has compelled domestic firms to shape up. FDI has also brought new technologies that have helped make Chinese producers more productive. Those that have entered the world market have learned what it takes to be internationally competitive.<sup>118</sup> Chinese consumers have benefited from greater access to goods as well as lower prices; they have also seen their incomes rise rapidly as exporting firms as well as foreign-funded firms serving the domestic market have provided new employment opportunities and growing wages. As WTO membership entails further opening to imports and FDI, the range of goods available can only increase and prices fall. However, it seems a sure bet that not everyone will benefit equally. Worse, some might lose from further liberalisation. Many producers are still not competitive internationally, so jobs could be lost with sharpened competition. Still, the main threat is a credit crunch caused by a financial crisis. The financial sector in China is in a bad shape, with non-performing loans constituting at a minimum 30% of the outstanding loans of the state-owned commercial banks. Many non-state banks and other financial intermediaries are also saddled with portfolios that offer little in terms of returns. They have low levels of capital with which to absorb losses. They will have a hard time competing with the foreign financial institutions that will enter the market soon. Although the state will likely prevent the large state-banks from going under, the smaller banks and those outside the state sector could be at risk. A financial crisis will, at the very least, constitute a major hiccup in the economic progress of China. Whether it will materialise remains to be seen, of course.

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<sup>118</sup> See e.g. Perkins (1999), who demonstrates that exporting firms had higher TFP growth than non-exporters.



## 5. Concluding Remarks

As mentioned in the introduction, despite huge progress since 1978 China still faces formidable challenges in many areas. Specifically, there is a need for

- improving labour productivity in agriculture through the reallocation of workers to other sectors while increasing investment. Land remains public property and thus subject to administrative allocation. Grain production and distribution still face elaborate regulations. The focus on self-sufficiency in grains distorts production patterns away from China's comparative advantages. The policy of providing urban residents with cheap food at the expense of agricultural producers continues. With estimates of surplus labour running into hundreds of millions, the government needs to foster greater investment in land and machinery while at the same time channelling labour towards more productive employment in the secondary and tertiary sectors.
- continuing the restructuring and privatisation of SOEs and TVEs in industry. Despite lay-offs becoming more common, the surplus labour problem in SOEs persists. Many SOEs are highly leveraged too. Though many of these debts will probably never be repaid, they constitute barriers to a smooth and speedy restructuring of SOEs. The soft budget constraints that allow the accumulation of non-performing loans constitute indirect subsidies to inefficient firms. While there will always be a role for policy loans, the appropriate scale of such loans is much lower than the current flow of funds. As noted above, improving the legal framework and its application is also essential if the privatisation process is to be successful.
- strengthening the financial sector. Non-performing loans and inadequate regulations threaten the viability of financial institutions. Profitability is extremely low by international standards, and the capital base is inadequate relative to potential losses on outstanding debts. Excessive numbers of staff and local branches drive up costs. A strong financial sector is a precondition for a well-functioning market economy, but as mentioned earlier, the fierce competition from foreign banks and financial intermediaries that can be expected following the completion of the transition period agreed to at WTO accession does not bode well for domestic firms in this sector.
- socialising the welfare system. Efforts are under-way to switch welfare burdens from SOEs and urban collectives to sub-national governments, as well as to extend

coverage to rural residents and employees in non-state firms. However, progress has been slow and uneven, not least because the costs involved are huge. Fastening the pace is necessary to allow SOEs to compete on an equal footing with firms of other ownership types and to avoid social unrest as the transformation of the economy continues. If an adequate social safety net is not in place to protect those who are disadvantaged by the rapid changes occurring, social instability is a real danger.

- reforming the fiscal system. The period since 1978 has seen a running battle between local and central authorities over the sharing of public revenues and expenditure burdens. The central fiscal position still seem inadequate given the need for redistribution among regions and investment in inter-regional and national public goods. As is well known, the coastal provinces have benefited the most from the reforms, especially the open door policies. Elsewhere, the funds to pay for essential social services such as health and education are often lacking. Inter-provincial competition has at times prevented cooperation on supplying public goods that have effects beyond provincial borders, such as investment in infrastructure. Since the need to provide incentives for local authorities to generate industrial development seems less pressing nowadays, a further improvement in the revenue share of the central authorities is in order. Whether they have the strength to force concessions from the provinces on this point is in doubt, though.

Of course, the remaining challenges are strongly interrelated. This makes success harder to achieve. One scenario is therefore that China will experience financial, economic, and social turmoil as a consequence of not being able to move reforms along in tandem. One could argue that entering the WTO at the present time represents a huge gamble on the part of the Chinese government. On the other hand, given the substantial gains from reallocating resources that still exist and the potential benefits that arise from WTO membership, continued rapid growth is possible. Most likely, though, economic growth will slow down. The speed so far has been unprecedented in a comparative perspective. Moreover, while efficiency certainly has improved, investment has been the main force behind the growth miracle. One should expect investment to run into diminishing returns eventually. Given that one cannot realistically expect that the difficult reforms that remain will be implemented without delays and inconsistencies, the most probable scenario is probably continued progress at a more mundane pace and with occasional disruptions. Still, this would only imply that China becomes more like other countries in this respect too.

## Appendix: Chronology of Reforms

Year	Reform measures
1978	First experiments with enterprise reform in industry and decentralisation of foreign trade. The People's Bank of China separated from the Ministry of Finance.
1979	Introduction of household responsibility system. Industrial reform expanded to nationwide scale. Foreign exchange retention system introduced. Law on joint ventures between Chinese and foreigners Special economic zones introduced. Single child policy adopted.
1980	China joins the IMF and the World Bank. Budgetary autonomy granted to the provinces. Legalisation of family farms. Income Tax Law on Joint Ventures introduced.
1981	Profit contracting with SOEs introduced. Private ownership of business legally recognised (“individual enterprises”). Household responsibility system officially endorsed. Income Tax Law on Wholly-Owned Foreign Enterprises.
1982	Limited-term employment contracts authorised by law.
1983	Hainan designated a special zone open to foreign investment.
1984	The People's Bank of China becomes the Central Bank. Four specialised state banks established. Director's responsibility system introduced in industry (regulations formalised in 1986).
1985	Official dual exchange rate system replaced with a single one. First official swap centre created. Fiscal reform implemented. Foreign Economic Contract Law introduced. Provisions for the Encouragement of Foreign Investment adopted.
1986	Legalisation of interbank lending market. Law on wholly owned foreign enterprises.

1986	<p>Civil Procedure Law enacted.</p> <p>Law authorising redundancies.</p> <p>Compulsory Education Act.</p> <p>Unemployment insurance introduced.</p>
1987	<p>First sale of user's rights to land.</p>
1988	<p>Legalisation of the rental of land use rights.</p> <p>Law defining SOEs as legal persons.</p> <p>Bankruptcy Law for SOEs goes into effect.</p> <p>Price reform.</p> <p>Contract Responsibility System made applicable for foreign trade companies.</p> <p>Private companies (with more than eight employees) legalised.</p> <p>Law on Cooperative Ventures enacted.</p> <p>Regulations on Chinese-Foreign Cooperative Enterprises introduced.</p>
1990	<p>Stock exchanges established in Shanghai and Shenzhen.</p>
1991	<p>Extension of Contract Responsibility System to provincial governments.</p> <p>Elimination of guaranteed employment for lifetime.</p> <p>Law on collectively owned enterprises.</p>
1992	<p>Autonomous Management Rights Regulations issued.</p> <p>Foreign investment in finance and insurance allowed.</p>
1993	<p>Central committee adopts resolution on establishment of a "socialist market economy".</p> <p>Major tariff reform.</p> <p>Swap centres abolished.</p> <p>Unfair competition law introduced.</p> <p>New accounting system for enterprises established.</p>
1994	<p>End of mandatory planning of foreign trade.</p> <p>Unification of exchange rate.</p> <p>New tax system.</p> <p>Law on companies went into effect.</p> <p>Labour law introduced (effective from 1995).</p> <p>Policy banks established.</p>
1995	<p>Five day work-week introduced.</p> <p>Employment contracts made mandatory for all firms.</p>

1995	Central Bank made more independent of government in new Central Bank Law. Commercial Bank Law enacted. Governors' Grain-Bag Responsibility System established.
1996	Elimination of tariff exemptions for imports by foreign-owned firms. First private bank opens.
1997	Fifteenth Party Congress declares private enterprise an integral part of a socialist market economy.
1998	End of development zones, except SEZs New Price Law.
1999	Housing reform aimed at creating a property market. Amendment to the constitution grants private ownership equality of status with state ownership. Securities law. Unified contract law.
2000	Law on legislation.

Sources: Bouin (1998), Fukasaku, Wall, and Wu (1994), Démurger (2000), International Finance Corporation (2000), and OECD (2002).



## References

Arora, V.B. and J. Norregaard (1997): "Intergovernmental Fiscal Relations: The Chinese System in Perspective." IMF Working Paper 97/129.

Aziz, J. and C. Duenwald (2001): "China's Provincial Growth Dynamics." IMF Working Paper 3/01.

Bahl, R. and C. Wallich (1992): "Intergovernmental Fiscal Relations in China." World Bank Policy Research Working Paper 863.

Bai, C., D.D. Li, Z. Tao, and Y. Wang (2000): "A Multitask Theory of State Enterprise Reform." *Journal of Comparative Economics* 28: 716-738.

Bai, C., D.D. Li, and Y. Wang (1997): "Enterprise Productivity and Efficiency: When Is Up Really Down?" *Journal of Comparative Economics* 24: 265-280.

Bell, M.W., H.E. Khor, and K. Kochhar (1993): "China at the Threshold of a Market Economy." IMF Occasional Paper 107.

Blejer, M.I. (1993): "China: Prolonged Reforms and the Weakening of Fiscal Control." In V. Tanzi (ed.): *Transition to Market. Studies in Fiscal Reform*. IMF.

Bouin, O. (1998): "Financial Discipline and State Enterprise Reform in China in the 1990s." In O. Bouin, F. Coricelli, and F. Lemoine (eds.): "Different paths to a Market Economy. China and European Economies in Transition." Development Centre Seminars, OECD.

Brandt, L. and X. Zhu (2000): "Redistribution in a Decentralized Economy: Growth and Inflation in China under Reform." *Journal of Political Economy* 108: 422-439.

Byrd, W.A. (1990): "Entrepreneurship, Capital, and Ownership." In W.A. Byrd and Q. Lin (eds.): *China's Rural Industry. Structure, Development, and Reform*. Oxford University Press.

Byrd, W.A. and A. Gelb (1990): "Why Industrialize? The Incentives for Rural Community Governments." In W.A. Byrd and Q. Lin (eds.): *China's Rural Industry. Structure, Development, and Reform*. Oxford University Press.

Byrd, W.A. and Q. Lin (1990): "China's Rural Industry: an Introduction." In W.A. Byrd and Q. Lin (eds.): *China's Rural Industry. Structure, Development, and Reform*. Oxford University Press.

Campos, J.E. and H.L. Root (1996): *The Key to the Asian Miracle. Making Shared Growth Credible*. The Brookings Institution.

Cauley, J., R. Cornes, and T. Sandler (1999): "Stakeholder Incentives and Reforms in China's State-Owned Enterprises: a Common-Property Theory." *China Economic Review* 10: 191-206.

Chang, C. and Y. Wang (1994): "The Nature of the Township-Village Enterprise." *Journal of Comparative Economics* 19: 434-452.

Che, J. (2002): "From the Grabbing Hand to the Helping Hand. A Rent Seeking Model of China's Township-Village Enterprises." WIDER Discussion Paper 2002/13.

Che, J. and Y. Qian (1998a): "Institutional Environment, Community Government, and Corporate Governance: Understanding China's Township-Village Enterprises." *Journal of Law, Economics, and Organization* 14: 1-23.

Che, J. and Y. Qian (1998b): "Insecure Property Rights and Government Ownership of Firms." *Quarterly Journal of Economics* 113: 467-496.

Chen, K., H. Wang, Y. Zheng, G.H. Jefferson, and T. Rawski (1988): "Productivity Change in Chinese Industry: 1953-1985." *Journal of Comparative Economics* 12: 570-591.

Chen, B. and Y. Feng (2000a): "Determinants of Economic Growth in China: Private Enterprise, Education, and Openness." *China Economic Review* 11: 1-15.

Chen, B. and Y. Feng (2000b): "Openness and Trade Policy in China. An Industrial Analysis." *China Economic Review* 11: 323-341.

Chen, H. and S. Rozelle (1999): "Leaders, Managers, and the Organization of Township and Village Enterprises in China." *Journal of Development Economics* 60: 529-557.

Chen, Y. and I. Diwan (2000): "When the Bureaucrats Move Out of Business: a Cost-Benefit Assessment of Labour Retrenchment in China." World Bank Policy Research Working Paper 2354.

Choe, C. and X. Yin (2000): "Contract Management Responsibility System and Profit Incentives in China's State-Owned Enterprises." *China Economic Review* 11: 98-112.

Démurger, S. (2000): "Economic Opening and Growth in China." Development Centre Studies, OECD.

Dong, X. and L. Putterman (1997): "Productivity and Organization in China's Rural Industries: a Stochastic Frontier Analysis." *Journal of Comparative Economics* 24: 181-201.



Du, H. (1990): "Causes of Rapid Rural Industrial Development." In W. Byrd and Q. Lin (eds.): *China's Rural Industry. Structure, Development, and Reform*. Oxford University Press.

Fan, G., M.R. Lunati, and D. O'Connor (1998): "Labour Market Aspects of State Enterprise Reform in China." OECD Development Centre Technical Papers No. 141.

Fukasaku, K. and D. Wall, with M. Wu (1994): "China's Long March to an Open Economy." Development Centre Studies, OECD.

Gordon, R.H. and W. Li (1995): "The Change in Productivity of Chinese State Enterprises, 1983-1987." *Journal of Productivity Analysis* 6: 5-26.

Groves, T., Y. Hong, J. McMillan, and B. Naughton (1994): "Autonomy and Incentives in Chinese State Enterprises." *Quarterly Journal of Economics* 109: 183-209.

Groves, T., Y. Hong, J. McMillan, and B. Naughton (1995): "China's Evolving Managerial Labour Market." *Journal of Political Economy* 103: 873-892.

Hay, D., D. Morris, G. Liu, and S. Yao (1994): *Economic Reform and State-Owned Enterprises in China, 1979-1987*. Clarendon Press.

Heytens, P. and C. Karacadag (2001): "An Attempt to Profile the Finances of China's Enterprise Sectors." IMF Working Paper 01/182.

Hu, Z.F. and M.S. Khan (1997): "Why Is China Growing so Fast?" IMF Staff Papers 44: 103-131.

Huang, Y. and R. Duncan (1997): "How Successful Were China's State Sector Reforms?" *Journal of Comparative Economics* 24: 65-78.

Huang, Y. and K.P. Kalirajan (1998): "Enterprise Reform and Technical Efficiency of China's State-Owned Enterprises." *Applied Economics* 30: 585-592.

International Finance Corporation (2000): "China's Emerging Private Enterprises. Prospects for the New Century."

Jefferson, G.H. (1998): "China's State Enterprises: Public Goods, Externalities, and Coase." *American Economic Review* 88: 428-432.

Jefferson, G.H. and T.G. Rawski (1999a): "Ownership Change in Chinese Industry". In G.H. Jefferson and I. Singh (eds.): *Enterprise Reform in China. Ownership, Transition, and Performance*. Oxford University Press.

Jefferson, G.H. and T.G. Rawski (1999b): "China's Industrial Innovation Ladder: a Model of Endogenous Reform". In G.H. Jefferson and I. Singh (eds.): *Enterprise Reform in China. Ownership, Transition, and Performance*. Oxford University Press.

Jefferson, G.H., T.G. Rawski, L. Wang and Y. Zheng (2000): "Ownership, Productivity Change, and Financial Performance in Chinese Industry." *Journal of Comparative Economics* 28: 786-813.

Jefferson, G.H., T.G. Rawski, and Y. Zheng (1992): "Growth, Efficiency, and Convergence in China's State and Collective Industry". *Economic Development and Cultural Change* 40: 239-266.

Jefferson, G.H., T.G. Rawski, and Y. Zheng (1996): "Chinese Industrial Productivity: Trends, Measurement Issues, and Recent Developments." *Journal of Comparative Economics* 23: 146-180.

Jefferson, G.H., I. Singh, J. Xing, and S. Zhang (1999): "China's Industrial Performance: a Review of Recent Findings." In G.H. Jefferson and I. Singh (eds.): *Enterprise Reform in China. Ownership, Transition, and Performance*. Oxford University Press.

Jefferson, G.H., I. Singh, A.G.Z. Hu, and B. Wang (1999): "Wage and Employment Behaviour in Chinese Industry." In G.H. Jefferson and I. Singh (eds.): *Enterprise Reform in China. Ownership, Transition, and Performance*. Oxford University Press.

Jefferson, G.H., P. Zhang, and J.Z.Q. Zhao (1999): "Structure, authority, and Incentives in Chinese Industry." In G.H. Jefferson and I. Singh (eds.): *Enterprise Reform in China. Ownership, Transition, and Performance*. Oxford University Press.

Jin, H. and Y. Qian (1998): "Public versus Private Ownership of Firms: Evidence from Rural China." *Quarterly Journal of Economics* 113: 773-808.

Jin, J. and H. Zou (2001): "Soft Budget Constraints on Local Governments in China." In J. Rodden, G. Eskeland, and J. Litvack (eds.): *Fiscal Decentralization and the Challenge of Hard Budget Constraints*. Unpublished book manuscript, the World Bank.

Koo, A.Y.C. (1990): "The Contract Responsibility System: Transition from a Planned to a Market Economy." *Economic Development and Cultural Change* 38: 797-820.

Kraay, A. (2000): "Household Saving in China." *World Bank Economic Review* 14: 545-570.

Lane, J., H.G. Broadman, and I. Singh (1998): "Labor Flexibility, Ownership and Firm Performance in China." *Review of Industrial Organisation* 13: 621-635.

Lardy, N. (1992): "Chinese Foreign Trade." *China Quarterly* (131): 691-720.

Li, D.D. (1996): "A Theory of Ambiguous Property Rights in Transition Economies: the Case of the Chinese Non-State Sector." *Journal of Comparative Economics* 23: 1-19.

Li, H. and S. Rozelle (2000): "Saving or Stripping Rural Industry: an Analysis of Privatization and Efficiency in China." *Agricultural Economics* 23: 241-252.

Li, W. (1997): "The Impact of Economic Reform on the Performance of Chinese State Enterprises, 1980-1989." *Journal of Political Economy* 105: 1080-1106.

Lin, C. (2001): "Corporatisation and Corporate Governance in China's Economic Transition." *Economics of Planning* 34: 5-35.

Lin, J.Y. (1992): "Rural Reforms and Agricultural Growth in China." *American Economic Review* 82: 34-51.

Lin, J.Y., F. Cai, and Z. Li (1998): "Competition, Policy Burdens, and State-Owned Enterprise Reform." *American Economic Review* 88: 422-427.

Lin, S. (2000): "Resource Allocation and Economic Growth in China." *Economic Inquiry* 38: 515-526.

Liu, G.S. and W.T. Woo (2001): "How Will Ownership in China's Industrial Sector Evolve with Wto Accession?" *China Economic Review* 12: 137-161.

Liu, X., C. Wang, and Y. Wei (2001): "Causal Links between Foreign Direct Investment and Trade in China." *China Economic Review* 12: 190-202.

Lou, J. (ed.) (1997): "Macroeconomic Reform in China. Laying the Foundations for a Socialist Market Economy." World Bank Discussion Paper No. 374.

Ma, J. (1995): "Macroeconomic Management and Intergovernmental Relations in China." World Bank Policy Research Working Paper 1408.

Maddison, A. (1998): "Chinese Economic Performance in the Long Run." Development Centre Studies, OECD.

McKinnon, R.I. (1994): "Gradualist versus Rapid Liberalization in Socialist Economies. The Problem of Macroeconomic Control." Proceedings of the World Bank Annual Conference on Development Economics 1993, World Bank.

Mehran, H., M. Quintyn, T. Nordman, and B. Laurens (1996): "Monetary and Exchange System Reforms in China. An Experiment in Gradualism." IMF Occasional Paper 141.

Naughton, B. (1985): "False Starts and Second Wind: Financial Reforms in China's Industrial System." In E.J. Perry and C. Wong (eds.): *The Political Economy of Reform in Post-Mao China*. Harvard University Press.

Naughton, B. (1995a): *Growing Out of the Plan. Chinese Economic Reform, 1978-1993*. Cambridge University Press.

Naughton, B. (1995b): "China's Macroeconomy in Transition." *China Quarterly* (144): 1083-1104.

- Naughton, B. (1999): "China's Dual Trading Regimes: Implications for Growth and Reform." In J.P. Piggott and A. Woodland (eds.): *International Trade Policy and the Pacific Rim*. Macmillan Press.
- Niskanen, W.A. (1994): *Bureaucracy and Public Economics*. Edward Elgar.
- Nordås, H.K. (2002): "Direction of Trade following China's Accession to the WTO." Working Paper 04/02, Institute for Research in Economics and Business Administration.
- OECD (2000): "Reforming China's Enterprises."
- OECD (2002): "China in the World Economy. The Domestic Policy Challenges."
- Oi, J. (1999): *Rural China Takes Off. Institutional Foundations of Economic Reform*. University of California Press.
- Oppers, S.E. (1997): "Macroeconomic Cycles in China." IMF Working Paper 135/97.
- Parker, E. (1997): "The Effect of Scale on the Response to Reform by Chinese State-Owned Construction Units." *Journal of Development Economics* 52: 331-353.
- Perkins, F.C. (1996): "Productivity Performance and Priorities for the Reform of China's State-Owned Enterprises." *Journal of Development Studies* 32: 414-444.
- Perkins, F.C. (1999): "Export Performance and Enterprise Reform in China's Coastal Provinces." In G.H. Jefferson and I. Singh (eds.): *Enterprise Reform in China. Ownership, Transition, and Performance*. Oxford University Press.
- Putterman, L. (1997): "On the Past and Future of China's Township and Village-Owned Enterprises." *World Development* 25: 1639-1655.
- Qiangui, J. (1996): "State Asset Management Reform: Clarified Property Rights and Responsibilities." In H.G. Broadman (ed.): *Policy Options for Reform of Chinese State-Owned Enterprises*. Proceedings of a Symposium in Beijing, June 1995, World Bank.
- Raiser, M. (1998): "Subsidising Inequality: Economic Reforms, Fiscal Transfers and Convergence across Chinese Provinces." *Journal of Development Studies* 34: 1-26.
- Rawski, T. (2001): "What Is Happening to China's GDP Statistics?" *China Economic Review* 12: 347-354.
- Rozelle, S. (1994): "Decision-Making in China's Rural Economy: the Linkages between Village Leaders and Farm Households." *China Quarterly* (137): "99-124.
- Schmidt-Hebbel, K. And L. Serven (1999): "Saving in the World: the Stylized Facts." In K. Schmidt-Hebbel and L. Serven (eds.): *The Economics of Saving and Growth. Theory, Evidence, and Implications for Policy*. Cambridge University Press.
- Shirk, S.L. (1993): "The Political Logic of Economic Reform in China." University of California Press.

Shirley, M.M. and L.C. Xu (2001): "Empirical Effects of Performance Contracts: Evidence from China." *Journal of Law, Economics, and Organization* 17: 168-200.

Song, L. (1990): "Convergence: a Comparison of Township Firms and Local State Enterprises." In W.A. Byrd and Q. Lin (eds.): *China's Rural Industry. Structure, Development and Reform*. Oxford University Press.

Svejnar, J. and J. Woo (1990): "Development Patterns in Four Counties." In W.A. Byrd and Q. Lin (eds.): *China's Rural Industry. Structure, Development and Reform*. Oxford University Press.

Wang, X. and L. Meng (2001): "A Reevaluation of China's Economic Growth." *China Economic Review* 12: 338-346.

Wang, Y. and Y. Yao (2001): "Sources of China's Economic Growth, 1952-99: Incorporating Human Capital Accumulation." World Bank Policy Research Working Paper 2650.

Wank, D.L. (1995): "Bureaucratic Patronage and Private Business: Changing Networks of Power in Urban China." In A.G. Walder (ed.): *The Waning of the Communist State. Economic Origins of Political Decline in China and Hungary*. University of California Press.

Wei, Z., O. Varela, and M.K. Hassan (2002): "Ownership and Performance in Chinese Manufacturing Industry." *Journal of Multinational Financial Management* 12: 61-78.

Weitzman, M.L. and C. Xu (1994): "Chinese Township-Village Enterprises as Vaguely Defined Cooperatives." *Journal of Comparative Economics* 18: 121-145.

Whyte, M.K. (1996a): The Social Roots of China's Economic Development. In A.G. Walder (ed.): *China's Transitional Economy*. Oxford University Press.

Whyte, M.K. (1996b): "The Chinese Family and Economic Development: Obstacle or Engine?" *Economic Development and Cultural Change* 45: 1-30.

Wong, C.P.W. (1991): "The Maoist "Model" Reconsidered: Local Self-Reliance and the Financing of Rural Industrialization." In W.A. Joseph, C.P.W. Wong, and D. Zweig (eds.): *New Perspectives on the Cultural Revolution*. Harvard University Press.

Wong, C.P.W. (1991): "Fiscal Reform and Local Industrialization. The Problematic Sequencing of Reform in Post-Mao China." *Modern China* 18: 197-227.

Woo, W.T. (1998a): "Financial Intermediation in China." In O. Bouin, F. Coricelli, and F. Lemoine (eds.): "Different paths to a Market Economy. China and European Economies in Transition." Development Centre Seminars, OECD.

Woo, W.T. (1998b): "Why China Grew." In P. Boone, S. Gomulka, and R. Layard (eds.): *Emerging from Communism. Lessons from Russia, China, and Eastern Europe*. MIT Press.

Woo, W.T., W. Hai, Y. Jin, and G. Fan (1994): "How Successful Has Chinese Enterprise Reform Been? Pitfalls in Opposite Biases and Focus." *Journal of Comparative Economics* 18: 410-437.

World Bank (1990): "China. Revenue Mobilization and Tax Policy." World Bank Country Study. World Bank.

World Bank (1993): "The East Asian Miracle. Economic Growth and Public Policy." World Bank Policy Research Report, Oxford University Press.

World Bank (1994): "Macroeconomic Stability in a Decentralized Economy." Report No. 13399-CHA, China and Mongolia Department, World Bank.

World Bank (1996a): "The Chinese Economy: Fighting Inflation, Deepening Reforms. Volume I: The Main Report, Volume II: Annexes." Report No. 15288-CHA, China and Mongolia Department, World Bank.

World Bank (1996b): "China. Reform of State-Owned Enterprises." Report No. 14924-CHA, China and Mongolia Department, World Bank.

World Bank (1997a): "China 2020. Development Challenges in the New Century." World Bank 2020 Series.

World Bank (1997b): "China Engaged. Integration with the Global Economy." World Bank 2020 Series.

World Bank (1997c): "China's Management of Enterprise Assets: the State as a Shareholder." Report No. 16265-CHA, China and Mongolia Department, World Bank.

World Bank (1999a): "China. Weathering the Storm and Learning the Lessons." World Bank Country Study.

World Bank (1999b): "Accelerating China's Rural Transformation."

World Bank (2000): "Bankruptcy of State Enterprises in China – a Case and Agenda for Reforming the Insolvency System." Manuscript, Private Sector Development Unit, East Asia and Pacific Region, World Bank.

World Bank (2001a): "World Development Indicators on CD-rom."

World Bank (2001b): "China. Overcoming Rural Poverty." World Bank Country Study.

Wu, H.X. (1994a): "Rural Enterprise Contributions to Growth and Structural Change." In C. Findlay, A. Watson, and H.X. Wu: *Rural Enterprises in China*. St. Martin's Press.

Wu, H.X. (1994b): "The Rural Industrial Enterprise Workforce." In C. Findlay, A. Watson, and H.X. Wu: *Rural Enterprises in China*. St. Martin's Press.

Wu, H.X. (2002): "How Fast Has Chinese Industry Grown? Measuring the Real Output of Chinese Industry, 1949-97." *Review of Income and Wealth* 48: 179-204.

Wu, H.X. and Y. Wu (1994): "Rural Enterprise Growth and Efficiency." In C. Findlay, A. Watson, and H.X. Wu: *Rural Enterprises in China*. St. Martin's Press.

Xu, C. and J. Zhuang (1998): "Why China Grew: the Role of Decentralization." In P. Boone, S. Gomulka, and R. Layard (eds.): *Emerging from Communism. Lessons from Russia, China, and Eastern Europe*. MIT Press.

Xu, Y. (2000): "China's Exchange Rate Policy." *China Economic Review* 11: 262-277.

Xu, L.C. (2000): "Control, Incentives, and Competition. The Impact of Reform on Chinese State-Owned Enterprises." *Economics of Transition* 8: 151-173.

Xu, X. (2002): "Study on some Problems in Estimating China's Gross Domestic Product." *Review of Income and Wealth* 48: 205-215.

Xu, X. and Y. Wang (1999): "Ownership Structure and Corporate Governance in Chinese Stock Companies." *China Economic Review* 10: 75-98.

Young, A. (2000): "Gold into Base Metals: Productivity Growth in the People's Republic of China during the Reform Period." National Bureau of Economic Research Working Paper 7856.

Young, S. (1992): "Wealth but not Security. Attitudes towards Private Business in the 1980s." In A. Watson (ed.): *Economic Reform and Social Change in China*. Routledge.

Young, S. and T. Gang (1994): "Private Enterprises and Local Government in China." In C. Findlay, A. Watson, and H.X. Wu: *Rural Enterprises in China*. St. Martin's Press.

Yua, C. and P. Hua (2001): "Does Comparative Advantage Explain Export Patterns in China?" Working Paper 2001.08, Centre d'Etudes et de Recherches sur le Development International.

Yuan, P. (1994): "Capital Formation in Rural Enterprises." In C. Findlay, A. Watson, and H.X. Wu: *Rural Enterprises in China*. St. Martin's Press.

Yusuf, S. (1994): "China's Macroeconomic Performance and Management During Transition." *Journal of Economic Perspectives* 8: 71-92.

Zhang, A., Y. Zhang, and R. Zhao (2002): "Profitability and Productivity of Chinese Industrial Firms. Measurement and Ownership Implications." *China Economic Review* 13: 65-88.

Zhang, K.H. and B. Felmingham (2001): "The Relationship between Inward Foreign Direct Investment and China's Provincial Export Trade." *China Economic Review* 12: 82-99.

Zhang, K.H. and S. Song (2000): "Promoting Exports. The Role of Inward FDI in China." *China Economic Review* 11: 385-396.

Zhuang, J. and C. Xu (1996): "Profit-Sharing and Financial Performance in the Chinese State Enterprises. Evidence from a Panel of Data." *Economics of Planning* 29: 205-222.