

# Economic Reforms and State Sector Bankruptcy in China\*

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The deterioration in government finances, the bad loan problem in the state banking system and the losses of state-owned enterprises (SOEs) are well-known characteristics of China's reform period. The decrease in the share of government revenues in GDP is frequently cited as sign of a deterioration in government finances. A corollary is the gradual rise in the budget deficit. While the 1978 budget was still in surplus, new domestic government debt incurred in 1997 was equal to 28.63 per cent of total government revenues, or 3.31 per cent of GDP.<sup>1</sup> At the same time, bad loans in the banking system have come to account for perhaps as much as 25–50 per cent of all loans extended by the exclusively state-owned banking system.<sup>2</sup> SOE losses have grown continuously over the economic reform period; in the case of industrial SOEs, for which detailed data are available, losses in loss-making enterprises relative to profits in profitable enterprises rose from 7.64 per cent in 1978 to 45.92 per cent in 1997.<sup>3</sup>

The deterioration in government finances, the bad loan problem in the state banking system and the losses of SOEs are intricately linked. For

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1. On the decline in the share of government revenues in GDP see, for example, Christine P.W. Wong, Christopher Heady and Woo Wing-Thye, *Fiscal Management and Economic Reform in the People's Republic of China* (Hong Kong: Oxford University Press, 1995). For the debt data see *Zhongguo tongji nianjian 1998 (China Statistical Yearbook 1998)* (Beijing: Zhongguo tongji chubanshe, 1999), pp. 55, 269 and 291.

2. On the bad loan problem see, for example, John Bonin and Huang Yiping, "Dealing with the bad loans of the Chinese banks," manuscript, Wesleyan University and Australian National University (March 2000), or Carsten Holz, "China's bad loan problem," manuscript, Hong Kong University of Science & Technology (April 1999). All financial institutions in China are controlled by the state. All financial institutions except Minsheng Bank and the rural credit co-operatives are also state-owned. China Minsheng Bank is 85% owned by member enterprises of the All-China Federation of Industry and Commerce, a state-controlled federation of privately owned enterprises; the independence of China Minsheng Bank, not least due to the personnel appointments at its top tier, is highly doubtful. Its assets at end-1997 amounted to 0.20% of the total assets of all financial institutions (*Zhongguo jinrong nianjian 1998 (Almanac of China's Finance and Banking 1998)* (Beijing: Zhongguo jinrong chubanshe, 1999), pp. 508 and 563). The rural credit co-operatives are directly administered by the central bank. While they are formally owned by farmers, their aggregate net worth is negative; i.e. formal ownership comes neither with control rights nor with financial returns.

3. On the data see *Zhongguo tongji nianjian 1998*, p. 461. Due to data limitations, industrial SOEs cover only those "with independent accounting system." A comparison with all industrial state-owned units is possible based on Gross Output Value of Industry (GOVI). In 1978, industrial SOEs with independent accounting system produced 96.44% of GOVI of all industrial state-owned units, in 1997, 95.97%; this share was constant at 96% to 97% in the two decades in between. (Calculated from *Gaige kaifang shiqi nian de zhongguo diqu jingji (China's Regional Economy in 17 Years of Reform and Opening)* (Beijing: Zhongguo tongji chubanshe, 1996), p. 146; *Zhongguo tongji nianjian 1998*, pp. 435 and 454; *Zhongguo tongji nianjian 1997*, p. 413.)

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example, social security payments could be made either by SOEs or through the government budget. If they are made by the SOE, they reduce SOE profits; if they are financed through the government budget, they increase the budget deficit. SOE wage payments could either reduce SOE profits, or increase state bank (bad) loans. Infrastructure projects could either be financed through government budget appropriations, increasing the budget deficit, or through state-ordained low-interest loans from the state banks, reducing bank profits. Individual conclusions on the financial health of the government, the state banks or the SOEs thus appear meaningless. The state sector, that is government, state banks and SOEs, needs to be considered in total.

The interdependence between these three parts of the state sector has received some attention in its implications for monetary policy by Andrew Sheng, and SOE reform by Geng Xiao.<sup>4</sup> A number of authors have dealt with two of the three links. Thus Fan and Woo, and Naughton look at the impact of SOE reform on government finances,<sup>5</sup> while Lardy relates SOE problems to the state banks' financial health.<sup>6</sup>

This article goes beyond exploring the interdependence and aims to draw conclusions on the financial health of the state sector in total. The following section presents a consolidated balance sheet of the state sector. The assets of the state sector in total are balanced by state sector net worth and liabilities to the non-state sector, primarily private households. In 1978 household claims on the state sector were equal to 11 per cent of state sector assets, yet by 1997 this proportion had reached 75 per cent. In other words, state net worth, relative to assets, has fallen drastically over the reform period. Once bad loans are written off against the state's net worth, the Chinese state is virtually bankrupt.

What caused this astounding deterioration in state sector finances? The third section explores four avenues: the underpricing of newly issued shares at the initial public offering, the financing of government non-productive ("consumption") expenditures through the issuing of government debt, excessive labour remuneration in the first decade of reforms and highly inefficient investment. The deterioration in state sector finances has a number of implications further explored in the conclusions.

### *Relative Decline in State Assets*

The development of state sector net worth can immediately be read off the balance sheet of the state sector. Yet no such aggregate balance sheet

4. See Andrew Sheng, "China's economic reform: the troika," *Contemporary Economic Policy*, Vol. 13, No. 1 (January 1995), pp. 15–17, and Geng Xiao, "The role of firm ownership in transitional economies: recent evidences from China," manuscript, Hong Kong University, 3 September 1999.

5. See Fan Gang and Woo Wing-Thye, "State enterprise reform as a source of macroeconomic instability: the case of China," *Asian Economic Journal*, Vol. 10, No. 3 (1996), pp. 207–224, and Barry Naughton, "Implications of the state monopoly over industry and its relaxation," *Modern China*, Vol. 18, No. 1 (January 1992), pp. 14–41.

6. See Nicholas R. Lardy, *China's Unfinished Economic Revolution* (Washington, D.C.: Brookings Institution Press, 1998).

is available. It has to be constructed from the aggregate balance sheets of the government, the state banking system and the SOEs.

For the government, only the profit and loss account, the budget, is regularly published. Government balance sheet data are then assembled from cumulative budget data and additional sources from the financial and real sectors. For the state banking system a complete consolidated balance sheet is available. The SOE balance sheet is pieced together from detailed data on industry, which accounts for more than half of total SOE assets, and from approximations for the other economic sectors based on the available SOE net fixed asset data across all sectors.<sup>7</sup> An independent, official estimate of SOE assets in 1997 shows that the detailed SOE balance sheet total derived here is highly accurate.<sup>8</sup>

Consolidating the three balance sheets yields the state sector balance sheet (Table 1). Some asset items in an individual balance sheet have an exact counterpart (as liability or equity) in another individual balance sheet. For example, SOEs maintain deposits at state banks; the deposit is an asset in the SOE's balance sheet and a liability in the bank's balance sheet. These items cancel out in the consolidated state sector balance sheet. But because not all individual balance sheets itemize in similar fashion, some items that should cancel out cannot be sufficiently identified. Thus SOEs' bank deposits in the SOE balance sheet are part of "current assets" and not specified by themselves. Such items are listed in Part A of the state sector balance sheet.

The balance of Part A is not zero due to the high degree of aggregation. For example, SOE current assets besides bank deposits include such items as inventories, an item that by its very nature cannot (and should not) be consolidated out. The balance of Part A is taken into Part B, the state sector balance sheet after consolidation. Part B contains the items of key interest. State sector assets after consolidation are equal to foreign liabilities, liabilities to domestic households and the state's net worth.<sup>9</sup>

The relative weight of the latter three items has changed dramatically during the reform period. Beginning with the foreign balance, between 1978 and 1997 foreign liabilities of the central government grew from 0 to approximately 6 per cent of state sector liabilities and net worth. But

7. The construction of the government and SOE balance sheets, and the subsequent aggregation and consolidation of the government balance sheet, the state bank balance sheet and the SOE balance sheet are relegated to an extensive technical appendix that is available upon request.

8. Thus *China Daily* (nation-wide newspaper published in Beijing) on 7 August 1999 gives the total assets of SOEs in 1997 as 12.5 trillion *yuan*. This figure compares to 11.5 trillion *yuan* derived in the detailed balance sheet of SOEs constructed for this article. The difference could well be accounted for by the difference in book value and market valuation of listed SOEs, an issue further elaborated in the notes to Table 1. The newspaper article does not specify how the figure on total SOE assets was derived.

9. The consolidated balance sheet assumes that claims of the state sector against the non-state non-household sector of the domestic economy are roughly balanced by the liabilities to this non-state non-household sector. If this were not the case, then Part B of the consolidated balance sheet should also include an item net assets or net liabilities with respect to the non-state non-household sector. This *net* item is likely to be very small; complete data on state sector claims and debts with respect to the non-state non-household sector are not available.

Table 1: State Sector Balance Sheet (billion yuan)

	<i>Assets</i>				<i>Liabilities</i>				
	1978	1985	1990	1997	1978	1985	1990	1997	
<b>Part A</b>									
<i>Financial institutions</i>					<i>Financial institutions</i>				
Loans to SOEs	184.530	598.430	1666.340	7263.660	SOE deposits	57.200	196.100	492.050	3178.860
Securities	0	0	2.490	367.170	Financial bonds	0	0.820	10.830	2.990
Other assets	0	12.150	0	0	“Others”	10.810	34.130	81.880	- 327.460
<i>State-owned enterprises</i>					Non-househ. currency	3.816	17.436	48.921	188.286
Current, other assets	428.813	749.381	1746.347	6238.047	<i>State-owned enterprises</i>				
					Total liabilities	527.449	953.386	2099.652	7817.190
					– Ent. bonds to househ.	0	0	- 19.544	- 52.102
					Other liabilities	0	0	0	48.424
					Non-negotiable A-shares	0	0	0	1229.810
					<i>Government</i>				
					Debt to ent. and fin. in.	0	0	21.268	17.678
					<i>Balance</i>	14.068	158.089	680.120	1765.201
<b>Part B</b>									
<i>Balance</i>	14.068	158.089	680.120	1765.201	<i>Foreigners</i>				
<i>Financial institutions</i>					International gov. debt	0	5.601	69.093	298.441
Gold	1.220	1.200	1.200	1.200	B-shares	0	0	0	37.504
Net claims, intl. fin. in.	0	1.880	7.330	33.790	H- and N-shares	0	0	0	72.571
Foreign exchange	1.430	9.310	59.940	1346.720	<i>Domestic households</i>				
Loans to private ent.	0	1.070	4.020	38.660	Deposits	21.060	162.260	711.980	4627.980
<i>State-owned enterprises</i>					Currency	17.384	81.344	215.519	829.474
Fixed assets	336.427	626.496	1291.657	5233.724	Domestic gov.bonds	0	23.721	67.766	533.215

<i>Real estate</i>	?	?	?	?	State inv. comp. bonds	0	0	14.868	0
<i>Roads and waterways</i>	?	?	?	?	Negotiable A-shares	0	0	0	485.608
<i>Other government assets</i>	?	?	?	?	Enterprise bonds	0	0	19.544	52.102
					<i>State net worth</i>	314.701	525.119	945.497	1482.398
Total (after consolidation)	353.145	798.045	2044.270	8419.295	Total (after consolidation)	353.145	798.045	2044.270	8419.295

#### *Valuation of SOE equity:*

A- and B-shares are enterprise shares traded on the Shanghai and Shenzhen stock exchanges since 1992. A-shares are held and traded by domestic citizens (negotiable A-shares) and domestic legal persons (non-negotiable A-shares); B-shares are held and traded by foreigners. H- and N-shares denote the shares of Chinese enterprises listed in Hong Kong and New York. The question arises as to how to value the shares: they can be valued at the amount of capital raised at the initial public offering, or at current market values (the latter tend to be significantly higher).

The negotiable A-shares held by households represent claims on SOEs that should be valued at market capitalization (market prices); households can always sell these A-shares at market prices and realize the full market value. On the other hand, the SOEs when issuing A-shares raise an amount of capital that tends to be smaller than the value the secondary market attributes to these A-shares. SOE assets and equity only rise by the amount of capital raised; in other words, following the issuing of A-shares, SOEs do not (and cannot) artificially adjust the value of their assets and net worth. For example, if a SOE sells a newly issued share to a household for 100 *yuan* cash (capital raised), the assets of the SOE rise by 100 *yuan* (cash) and so does SOE equity. The household perhaps sells the share on the secondary market to another household for 250 *yuan*. In the purchasing household's balance sheet the share represents a 250 *yuan* claim on the SOE (market capitalization), yet the state sector balance sheet shows only 100 *yuan* of equity. If the consolidated balance sheet uses capital raised as the value of the negotiable A-shares (100 *yuan* in the example), household claims on the state sector are underestimated, or state net worth relative to household claims on the state sector is overestimated. If the consolidated balance sheet uses market valuation as the value of the negotiable A-shares (250 *yuan* in the example), the extra 150 *yuan*, in the absence of a revaluation of assets, automatically reduces the residual state net worth; yet what the market valuation implied is not a reduction in state net worth but the need to revalue the assets. State net worth then is underestimated.

This unavoidable discrepancy due to standard accounting practices is handled in the consolidated balance sheet by calculating state net worth twice, first based on the market value of A-shares (reported in Table 1 and also used in Table 2) and, second based on capital raised through A-shares (used in Table 2). Specifically, state net worth is the residual after subtracting from the balance sheet total all liabilities, the value of B-, H-, and N-shares, and the value of the negotiable A-shares (in terms of market valuation and, separately, in terms of capital raised). The ratios in Table 2 reflect both types of A-share valuation and could be interpreted as upper and lower bounds of the "true" ratios.

Non-negotiable A-shares consolidate out. B-shares are valued at market capitalization throughout; their volume is small. H- and N-shares are valued at the amount of capital raised due to a lack of market capitalization data; their volume is likewise small. If A-shares in 1997 are valued at the amount of capital raised at the initial public offering, then the item "non-negotiable A-shares" is 569.022, the "balance" is 2425.989, "negotiable A-shares" is 209.679, "state net worth" is 2419.115, and the balance sheet total is 9080.083.

#### *Sources:*

*China Financial Statistics (1952–1991)* (Beijing: China Financial Publishing House, 1992); *Gaige kaifang: Quanguo shichang huobi liutong liang fenbu diaocha 1979–1986* (Nationwide Survey of Currency in Circulation 1979–1986) (Beijing: Zhongguo jinrong chubanshe, 1988); *Zhongguo jinrong nianjian* (various years); *Zhongguo nongcun jinrong tongji 1979–1989* (China Rural Finance Statistical Yearbook 1979–1989) (Beijing: Zhongguo tongji chubanshe, 1991); *Zhongguo nongcun jinrong tongji nianjian* (China Rural Finance Statistical Yearbook) (Beijing: Zhongguo tongji chubanshe, various years); *Zhongguo tongji nianjian* (various years); *Zhongguo zhengquan qihuo tongji nianjian 1998* (China Securities and Futures Statistical Yearbook 1998) (Beijing: Zhongguo caizheng jingji chubanshe, 1998).

The consolidated balance sheet was constructed from the three individual balance sheets for all financial institutions, all SOEs and all governments, the latter two of which were in turn constructed from individual data points. The household balance sheet was also constructed as a countercheck. The individual balance sheets and a detailed explanation on how they were established and then consolidated, including the sources for all individual data points, are available in form of a technical appendix upon request.

these liabilities, except in the year 1990, are always surpassed by the foreign exchange reserves, which accounted for approximately 16 per cent of state sector assets (after consolidation) in 1997.<sup>10</sup> The Chinese state thus, except in the year 1990, was a net creditor with respect to the foreign sector.

The most striking change occurred in the relative size of domestic household claims and state sector net worth. In 1978 households had a claim to only 10.89 per cent of state sector assets, with the state's net worth accounting for the residual 89.11 per cent. By 1997, these proportions were approximately reversed (also see Table 2). The state sector had become highly indebted to households. In the most recent years, between 1995 and 1997, state net worth may even have declined in absolute terms, not only relative to liabilities.<sup>11</sup>

Expressed in terms of GDP, household claims on the state sector in 1997 amounted to between 83.62 and 87.31 per cent of GDP, up from 10.61 per cent in 1978. State net worth in the meantime fell from 86.84 per cent to between 19.83 and 32.35 per cent of GDP. (The exact 1997 figure depends on how the domestically issued A-shares of listed SOEs are valued; see notes to Table 1 for more details.) The size of household claims contrasts sharply with the official domestic government debt of 7.37 per cent of GDP, and the foreign debt of the Chinese government which in 1997 stood at approximately 4 per cent of GDP. In other words, the Chinese state's indebtedness is not a puny 11 per cent of GDP, as cumulative government budget financing figures would suggest, but above 80 per cent.<sup>12</sup>

Furthermore, between 25 and 50 per cent of all loans to SOEs are unrecoverable. As early as 1995 a member of the central Party school suggested that "according to today's most conservative estimate," the share of non-performing loans and unpaid interest in all bank loans is about 25 per cent; "some scholars even think this figure to be around 47 per cent."<sup>13</sup> Chinese official estimates give an unhealthy loan ratio of

10. Foreign liabilities of SOEs are included in the item "total liabilities" in Part A of the balance sheet. No separate data are available.

11. State net worth in 1995 was 2295.289b. *yuan*, and in 1996 1984.812b. *yuan*. The detailed data are included in the technical appendix available upon request. If A-shares were valued at capital raised (rather than at market capitalization), state net worth in absolute terms decreased only between 1996 and 1997, and not by much (1995: 2410.017b. *yuan*, 1996: 2545.473b. *yuan*, 1997: 2419.115b. *yuan*). (Also see notes to Table 1.)

12. For the domestic government debt see *Zhongguo zhengquan qihuo tongji nianjian 1998* (*China Securities and Futures Statistical Yearbook 1998*) (Beijing: Zhongguo caizheng jingji chubanshe, 1998), p. 9, and *Zhongguo tongji nianjian 1998*, p. 55; this percentage still includes a small volume of bonds issued to domestic non-household entities. For the foreign debt of the Chinese government see *Zhongguo tongji nianjian 1998*, pp. 55 and 292, *Zhongguo jinrong nianjian 1998*, p. 527, and *China News Digest* (an internet news source) 6 April 1998. For detailed explanations on the calculations see the technical appendix available upon request.

13. See p. 1 of Zhou Tianyong, "Yinhang daizhang he huaizhang shi dao zhi shehui dongdang de yinhuan" ("Loan losses and bad accounts are hidden dangers bringing about social unrest"), *Jinrong cankao* (*Financial Reference*), No. 1 (January 1995), pp. 1-3.

Table 2: **Balance Sheet Ratios (%)**

	1978	1980	1985	1990	1995	1997	1995*	1997*
Household claims / balance sheet total	10.89	16.29	33.50	50.37	61.15	77.54	59.97	68.86
State net worth / balance sheet total	89.11	83.71	65.80	46.25	34.50	17.61	35.74	26.64
Household claims / GDP	10.61	15.15	29.82	55.51	69.57	87.31	69.16	83.62
State net worth / GDP	86.84	77.86	58.58	50.98	39.25	19.83	41.21	32.35
State net worth / SOE loans	170.54	145.74	87.75	56.74	48.63	20.41	51.06	33.30
Household claims / (balance sheet total – 0.5 SOE loans)	14.74	22.86	53.59	85.02	94.77	136.36	92.26	114.76
Household claims / SOE fixed assets	11.43	17.35	42.67	79.72	96.32	124.74	95.75	119.46
State net worth / SOE fixed assets	93.54	89.13	83.82	73.20	54.35	28.32	57.06	46.22

*Notes:*

\*A-shares are valued at the amount of capital raised at the initial public offering. Also see notes to Table 1. The 1995 and 1997 ratios without \* are based on A-shares valued at market capitalization. Valuation is not an issue for the years up to and including 1990 as no A-shares had been issued.

Household claims denote household claims on the state sector. Balance sheet total denotes the total (assets) of the consolidated balance sheet after consolidation, i.e., the total of Part B in Table 1.

*Sources:*

Table 1 and *Zhongguo tongji nianjian 1998*, p. 55 (for the GDP data).

about 20 per cent in early 1998, with 6 to 8 per cent unrecoverable.<sup>14</sup> Moody's offered an estimate for year-end 1996 of 35 to 70 per cent.<sup>15</sup> Standard & Poor in mid-1998 suggested an amount of US\$200 billion, equivalent to approximately 22.42 per cent of total lending by all financial institutions in China.<sup>16</sup>

State net worth in 1997 was equivalent to between 20.41 and 33.30 per cent of SOEs' bank loans. (See Table 2; the exact percentage again depends on how the SOEs' domestically issued A-shares are valued.) State net worth thus may barely be sufficient to cover the bad loans. This leaves households (and foreigners) as sole claimants on the remaining (healthy) state assets. Moreover, should the bad loans reach 50 per cent of all loans to SOEs, household claims amount to between 114.76 and 136.36 per cent of state assets. In other words, the Chinese state then has more than relinquished its claim to the assets of governments on all tiers, the state banking system and the SOEs. It is bankrupt. Even if only 25 per cent of SOE loans are non-performing, following the most conservative estimates, state net worth is zero.

### *How It Happened*

The increase in the Chinese state's liabilities to households relative to its net worth can be related back to changes in the individual balance sheets of the government, state banks and SOEs. These changes are characterized by one or both of the following effects: state sector liabilities grew faster than net worth because of increasing reliance on non-state financing of new state assets; and part of the existing state net worth was annihilated through outright asset transfers to households or inefficiencies in the state sector. The two effects could occur through any item in the individual balance sheets. The following four channels stand out.

*Underpricing of newly issued shares at initial public offering.* State assets were given away on a significant scale in the early 1990s when newly issued shares were sold at far below the price at which they traded after the initial public offering. In 1992 the risk-adjusted opening price on the first day of trading in the Shanghai stock market (secondary market) was on average 1,246 per cent higher than the initial public offering price; in Shenzhen the return was 1,033 per cent. Sixty days later, the price on the secondary market still implied a return of 1,072 and 631 per

14. See *Ming pao* (newspaper published in Hong Kong) 22 April 1998 quoting the central bank governor Dai Xianglong. A similar quote of Dai Xianglong in *Ming pao* 17 January 1998 mentioned 25%.

15. See *Xinbao* (newspaper published in Hong Kong) 30 July 1998.

16. See *Xinbao* 5 August 1998, and *People's Bank of China Quarterly Statistical Bulletin*, No. 3 (1998), p. 14.



cent respectively. The underpricing of newly issued shares rapidly diminished in 1993 and 1994, but was never fully eliminated.<sup>17</sup>

Underpricing together with the fact that approximately one-third of all newly issued shares are sold to households as negotiable A-shares implies that the difference between the market's and the government's valuation of SOE assets does not accrue to the state alone, but has to be shared with the households. If the government's valuation is based on book values of SOE assets, then underpricing implies that assets and state net worth are higher than reported in the official statistics to begin with, and the state is giving away part of this extra net worth to households. Proper valuation thus would have to some extent prevented the relative decrease in state net worth over the reform period.

While the transfers in the initial public offerings are large relative to the capital raised, in 1997 total household claims on the state sector still exceeded the market value of households' A-share holdings ten times. The largest part of these household claims consisted of households' bank deposits (Table 1). This raises the question of what caused bank deposits to rise so dramatically over the reform period.

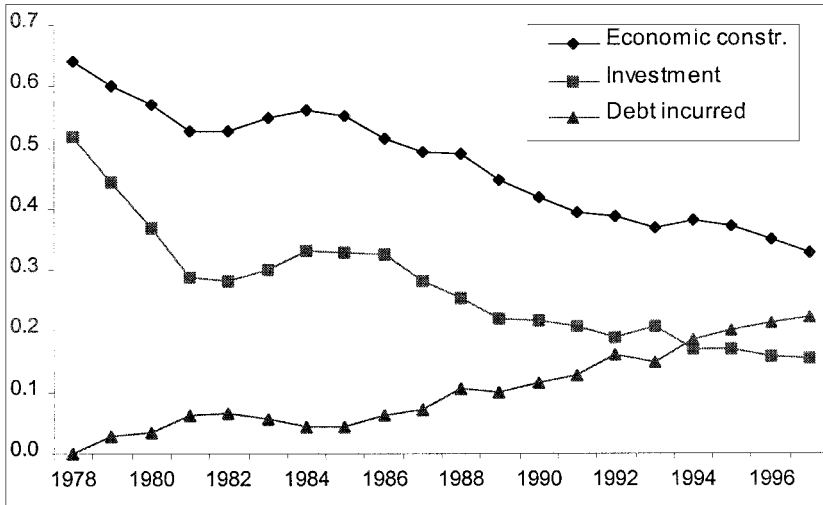
*Financing government budget expenditures by issuing government debt.* In the course of the reform period, government budget expenditures on (undefined) "economic construction" or on investment (budget appropriations for capital construction, working capital and technological improvements) fell as a share of total expenditures. In other words, government revenues were increasingly spent on current government consumption. But if funds are used for consumption purposes rather than investment, assets do not increase. At the same time, government debt issues have come to finance an ever increasing share of expenditures, reaching 22.21 per cent in 1997 (Figure 1). The size of government liabilities thus rose rapidly.

Depending on the choice of what constitutes an addition to government assets (all "economic construction," or only the unambiguous investment), the increase in government liabilities may already have come to finance not only all additions to government assets but even government current consumption. Since 1994, new government debt incurred exceeds investment, that is additions to assets (Figure 1). If the government incurs new debt – which increases liabilities – and uses the funds obtained for consumption, the value of government assets does not increase; as a consequence, government net worth is reduced by the amount by which liabilities rose.

The relative decrease in government budget appropriations for the acquisition of new government assets implies a corresponding relative increase in consumption. Some of the increase in consumption consisted

17. On the figures for the early 1990s see World Bank, "China: the emerging capital market, volume II: detailed technical analysis," Report No. 14501-CHA (Washington, D.C.: The World Bank, 3 November 1995), p. 119. As of 1999, *The China Finance Association Update 5* (an internet news source), No. 44 (9 August 1999), mentions an on average 100% to 200% surge in share prices on the first day of trading.

Figure 1: Shares in Total Government Expenditures

*Note:*

Government expenditures are official government expenditures plus government debt and interest payments.

*Sources:*

Calculated from *Zhongguo tongji nianjian 1998*, pp. 275 and 291, and *Zhongguo tongji nianjian 1999*, p. 271.

of rising expenditures on culture and education as well as on government administration, up from 13.10 and 4.71 per cent of total expenditures in 1978 to 26.74 and 14.72 per cent in 1997.<sup>18</sup> Much of the increase in expenditures on culture and education as well as on government administration may have gone into wage and salary payments. Wage and salary payments then turned into bank deposits, that is household claims on the state. The labour remuneration issue can be taken up in more detail for industrial SOEs, where the necessary data are available.

*Buying off employees of state-owned enterprises.* Table 3 shows the development of wage payments and labour productivity in state-owned industry during the reform period.<sup>19</sup> Industrial state-owned units (SOUs)

18. Government expenditures in the official statistics do not include debt and interest payments. The five categories that together constitute total expenditures had the following shares in 1978 (1997): economic construction 64.08% (39.50%), culture and education 13.10% (26.74%), national defence 14.96% (8.80%), government administration 4.71% (14.72%), and others 3.16% (10.24%). (*Zhongguo tongji nianjian 1999*, p. 271.)

19. Staff and worker remuneration is only available for "industrial state-owned units" (SOUs). Yet in terms of staff and workers and their remuneration, the distinction between industrial SOEs with independent accounting system and industrial SOUs is meaningless. Official employment (staff and workers) in industrial SOUs is equal to employment in industrial SOEs with independent accounting system (compare *Gaige kaifang*, p. 146, to

provide approximately half of all state employment in the reform period.<sup>20</sup> Average nominal wages and salaries per staff and worker in industrial SOEs nation-wide in 1997 were 9.51 times their 1978 value. However, nominal value-added per staff and worker (labour productivity) in the same enterprises rose much less. Labour productivity data are only available for a few provinces (as reported in Table 3), but in the provinces for which they are available, labour productivity grew at only half the speed of (nation-wide) wages between 1978 and 1997.<sup>21</sup> The difference in growth rates was particularly marked in the 1980s (1985 compared with 1980, 1990 compared with 1985) and disappeared by the mid-1990s. With industrial SOEs accounting for more than half of total SOE assets, and close to half of total state employment, the early pattern of wage increases above labour productivity increases is likely to hold for all SOEs.

If wages rise faster than labour productivity, this implies not only a potentially rapid increase in household deposits, but also that profits are being squeezed.<sup>22</sup> In industrial SOEs, for which detailed data are available, the ratio of profits (net of all taxes except income taxes) to total wages of staff and workers fell by 93 per cent between 1978 and 1997<sup>23</sup> (see Table 4). In absolute terms, profits declined by 16 per cent between 1978 and 1997. Yet profits – once income taxes have been paid – represent the potential annual increase in net worth, apart from new equity provided by the owners. Thus while household income and therefore households' bank deposits grew rapidly over the years, additions to net worth stagnated.

*Footnote continued*

*Zhongguo tongji nianjian 1998*, p. 138). Since the labour remuneration data reflect remuneration of "staff and workers" they, too, cover only industrial SOEs with independent accounting system.

20. In 1978 (1997), staff and workers in industrial SOEs with independent accounting system (i.e. in industrial SOUs) accounted for 42.13% (37.53%) of total staff and workers in all SOUs; if non-profit SOU employment is excluded from the total, the share was 52.50% (55.18%). (Non-profit employment is taken to comprise employment in the sectors social services; health care, sports and social welfare; education, culture and arts, radio, film and television; scientific research and polytechnical services; government agencies, Party agencies and social organizations; and a very small category "others." Calculated from *Zhongguo tongji nianjian 1998*, pp. 138f.)

21. Value-added provincial data are only available for the most recent years. Table 3 includes those provinces for which 1990 data are available; they represent a good cross-section of all provinces. Provincial-level wage and salary data are not available for the years 1978, 1980 and 1990. Across all provinces in China, the coefficient of variation for the 1995 multiple of 1985 average wages and salaries in industrial SOEs with independent accounting system is only 0.17; for the 1997 multiple of 1995 it is just 0.06. These low coefficients of variation suggest that the growth of wages and salaries nation-wide (as reported in Table 3) is highly likely to be a good approximation for all provinces across all years.

22. Profits are the residual of sales revenues after subtracting a number of items, including labour remuneration. Theoretically, the share of other items in sales revenue, such as the share of financial or administrative costs, could decline over time. Historical data show that while the share of labour remuneration has risen, the residual share of profits has fallen.

23. Profit data are only available as pre-tax profits, i.e. profits plus *all* taxes, or as profits including income tax (since 1994 the maximum income tax rate is 33%). Data on net profits, i.e. profits after all taxes have been paid, are not available.

Table 3: Wage Increases versus Changes in Value-added

<i>Rate of increase across the period (recent year = x times earlier year)</i>	1997/1978	1997/1980	1995/1985	1980/1978	1985/1980	1990/1985	1995/1990	1997/1995
<i>Industrial SOEs with independent accounting system</i>								
Wages and salaries per staff and worker								
nation-wide	9.51	7.64	4.54	1.24	1.46	1.94	2.34	1.15
Wages and salaries per staff and worker in individual provinces								
Heilongjiang	–	–	3.67	–	–	–	–	1.09
Qinghai	–	–	3.43	–	–	–	–	1.17
Jiangsu	–	–	5.65	–	–	–	–	1.12
Zhejiang	–	–	5.83	–	–	–	–	1.20
Fujian	–	–	5.09	–	–	–	–	1.24
Shaanxi	–	–	3.89	–	–	–	–	1.18
Liaoning	–	–	4.65	–	–	–	–	1.10
Value-added per staff and worker in individual provinces								
Heilongjiang	4.42	4.33	3.62	1.02	1.05	1.69	2.14	1.14
Qinghai	3.44	5.38	4.39	0.64	1.08	1.95	2.25	1.14
Jiangsu	–	5.84	3.93	–	1.30	1.63	2.41	1.14
Zhejiang	–	7.38	3.83	–	1.42	1.63	2.35	1.35
Fujian	–	–	4.70	–	–	1.95	2.41	1.08
Shaanxi	–	–	3.08	–	–	1.61	1.91	1.07
Liaoning	–	–	–	–	–	–	1.76	1.21

*Economy-wide*

Average annual income per labourer	13.02	9.29	4.15	1.40	1.77	1.59	2.61	1.27
GDP per labourer	16.06	13.21	5.72	1.22	1.85	1.92	2.98	1.25

*Notes:*

Wages and salaries according to the official definition besides pure wages include bonuses, subsidies and allowances. While they include in-kind payments, they do not take into account subsidized housing, or any type of insurance paid by the employer. Additional notes explaining the selection of provinces for labour productivity data as well as the derivation of economy-wide average annual income per labourer are available upon request.

*Sources:*

Value-added per staff and worker in industrial SOEs with independent accounting system: 1978–95: *Gaige kaifang*; 1995: calculated from *Zhongguo tongji nianjian 1996*, pp. 102 and 422; 1997: calculated from *Zhongguo tongji nianjian 1998*, pp. 138 and 454.

Staff and workers in industrial SOEs with independent accounting system, and their wages and salaries: calculated from *Zhongguo tongji nianjian 1998*, pp. 138 and 164. Provincial-level data are calculated from *Zhongguo tongji nianjian 1986*, p. 658; *Zhongguo tongji nianjian 1996*, pp. 102 and 122; *Zhongguo tongji nianjian 1998*, pp. 138 and 164.

Average income per labourer: calculated from *Zhongguo tongji nianjian 1998*, pp. 105 and 130f and 324.

GDP per labourer: calculated from *Zhongguo tongji nianjian 1998*, pp. 55 and 130f.

Table 4: Profit Growth in Industrial SOEs

<i>Recent year = x times earlier year</i>	1997/1978	1997/1980	1995/1980	1980/1978	1985/1980	1990/1985	1995/1990	1997/1995
Profits per wages of staff and workers	0.07	0.08	0.13	0.87	0.76	0.24	0.73	0.61
Profits	0.84	0.73	1.14	1.15	1.26	0.53	1.71	0.64

*Notes:*

Industrial SOEs comprise all industrial SOEs with independent accounting system. Profits by definition include income taxes, but no other taxes.

*Sources:*

Pre-tax profits and profits of industrial SOEs: 1978–1995: *Gaige kaifang*, p. 146; 1996: *Zhongguo tongji nianjian 1997*, p. 439; 1997: *Zhongguo tongji nianjian 1998*, p. 455.

Wages of staff and workers: calculated from *Zhongguo tongji nianjian 1998*, pp. 138 and 164.

Table 5: Composition of Staff and Worker Remuneration in SOUs

	1978	1980	1985	1990	1995	1997
Share of total remuneration (%)						
Bonuses	2.48	9.70	14.51	19.09	16.82	15.71
Subsidies and allowances	–	14.32	14.67	21.76	23.03	24.91
Pure wages	–	75.98	70.82	59.15	60.15	59.38
Labour insurance and welfare funds are equivalent to total remuneration (%)	14.74	19.00	25.69	33.45	32.57	–

*Note:*

Pure wages = total wages – bonus payments – subsidies and allowances.

*Sources:*

Share of total remuneration: *Zhongguo tongji nianjian 1998*, p. 158; *Zhongguo tongji nianjian 1997*, p. 122.

Labour insurance and welfare funds: *Gaige kaifang*, p. 139.

Who mandated the excessive wage increases throughout the 1980s?<sup>24</sup> Wages and salaries of staff and workers consist of three components, a pure wage component, bonus payments, and subsidies and allowances. In addition, staff and workers benefit from labour insurance and welfare funds. The central government determines the basic national (pure) wage scale for all staff and workers. The factory manager with approval of the labour union decides on the bonus payments and welfare funds.<sup>25</sup> Central and local governments both decide on subsidies and allowances. Table 5 presents data on the relative shares of these components in total wages for all staff and workers in SOUs (data for the industrial sector separately are not available). Table 6 has the growth rates.

For staff and workers in SOUs, bonus payments grew rapidly from close to zero in 1978 to approximately 16 per cent of total wages in 1997, while the share of subsidies and allowances almost doubled between 1980 and 1997 to 25 per cent. Labour insurance and welfare funds likewise doubled in size to reach an amount equivalent to 33 per cent of total wages and salaries. Managers thus made full use of their authority to distribute bonus payments in excess of labour productivity increases and to raise welfare funds.<sup>26</sup> Yet both central and local governments condoned

24. Wage increases are called “excessive” because they exceed labour productivity increases. Perhaps the wage increases could be justified as a movement towards equilibrating the wage rate with the marginal productivity of labour. But if one accepts that SOEs are heavily overstaffed, then the marginal productivity of labour is zero.

25. According to the law on state-owned industrial enterprises, the factory manager presents his proposal for bonus distribution and use of welfare funds to the employee representative congress for approval. (Art. 45(v) in National People’s Congress, “Zhonghua renmin gongheguo quanmin suoyouzhè gongyè qiyè fǎ” (“PRC State-owned Enterprise Law”), 13 April 1988, in *Zhonghua renmin gongheguo falü quanshu (PRC Law Collection)* (Changchun: Jilin renmin chubanshe), Vol. 1 (1989), pp. 1145–50.)

26. Woo Wing-Thye in “The art of reforming centrally planned economies: comparing China, Poland, and Russia,” *Journal of Comparative Economics*, Vol. 18, No. 3 (June 1994), pp. 276–308, suggests that managers have “little incentives . . . to resist wage demands because their future promotion to larger SOEs is determined by the increases in workers’ welfare during their tenure.”

Table 6: Growth of Labour Remuneration of Staff and Workers in SOUs

<i>Recent year = x times earlier year</i>	<i>1997/1978</i>	<i>1997/1980</i>	<i>1995/1980</i>	<i>1980/1978</i>	<i>1985/1980</i>	<i>1990/1985</i>	<i>1995/1990</i>	<i>1997/1995</i>
Total wages	10.48	8.40	7.01	1.25	1.51	1.88	2.46	1.20
Bonus payments	66.25	13.61	12.15	4.87	2.26	2.48	2.17	1.12
Subsidies and allowances	–	14.62	11.27	–	1.55	2.79	2.61	1.30
Pure wages	–	6.57	5.55	–	1.41	1.57	2.51	1.18
Labour insurance, welfare funds	–	–	12.01	1.61	2.04	2.45	2.40	–
Urban consumer price index	4.82	4.40	3.92	1.10	1.23	1.65	1.94	1.12

*Notes:*

Pure wages = total wages – bonus payments – subsidies and allowances.

*Sources:*

See Table 5 and *Zhongguo tongji nianjian 1998*, p. 302 (for the urban consumer price index).



the excessive wage increases. While the central government prevented the pure wage component from rising excessively, it together with local governments made every effort to protect staff and workers against price liberalization by raising subsidies and allowances throughout the price liberalization period of the late 1980s to early 1990s. The growth rate of subsidies and allowances far exceeded the growth rate of the urban consumer price index (Table 6).

Furthermore, the central government is in a position to place limits on bonus payments or welfare funds. Bonus payments had an initial leap between 1978 and 1980, then kept growing rapidly throughout the 1980s, but their growth slowed dramatically in the early 1990s and even lagged behind average wage growth. This actual development of bonus payments closely matches government policies. The central government in 1986 relaxed the steep tax rates it had levied on bonus payments only two years earlier (and revised in 1985), thus in effect encouraging high bonus payments.<sup>27</sup> In 1992, however, it changed attitude to stipulate that in the future the total wage bill may not rise by more than labour productivity.<sup>28</sup>

The willingness of the central government in the 1980s to allow wages and salaries to rise in excess of labour productivity increases could be a result of general wage pressures across the economy. Average annual income per labourer across all sectors and ownership forms rose 13.02-fold between 1978 and 1997, whereas productivity per labourer rose 16.06-fold (Table 3). While labour income across the economy thus rose less than labour productivity, it grew faster than wages and salaries in industrial SOEs.<sup>29</sup> The central government in the 1980s may have agreed to rising wages and salaries in industrial SOEs in order to prevent worker dissatisfaction with the initial SOE reform measures, and to create incentives for remuneration according to labour. Only when central government concern in the early 1990s turned to enterprise efficiency and financial reform did it clamp down on remuneration that was in excess of labour productivity increases.

27. See State Council, "Guoying qiye jiangjin shui zanxing guiding" ("Temporary regulation on bonus taxes in state-owned enterprises"), 3 July 1985, and "Guanyu shenhua qiye gaige zengqiang qiye huoli de ruogan guiding" ("Various regulations on how to strengthen enterprises through reform"), 5 December 1986, in *PRC Law Collection*, Vol. 1, pp. 665f and 1169–71. According to the earlier regulation, bonus payments equalling up to four months of wage and salary payments were free of tax, marginal bonus payments equivalent to a fifth month of wage and salary payments carried a 30% tax, those equivalent to a sixth month of wage and salary payments a 100% tax, and those exceeding the equivalent of six months' wage and salary payments a 300% tax.

28. See Art. 24 of State Council, "Quanmin suoyou zhi gongye qiye zhuanhuan jingying jizhi tiaoli" ("Stipulations on changing the management mechanism of state-owned industrial enterprises"), in *PRC Law Collection*, Vol. 2 (1993), pp. 756–764.

29. In urban areas, disposable income per labourer began to exceed industrial SOE wages and salaries as early as 1980. The average wage in industrial SOEs vs. the average urban disposable income per labourer was in 1978 678 vs. 622 *yuan*, in 1980 843 vs. 869 *yuan*, in 1985 1,229 vs. 1,448 *yuan*, in 1990 2,389 vs. 2,744 *yuan*, in 1995 5,593 vs. 7,890 *yuan*, and in 1997 6,440 vs. 9,446 *yuan*. (Calculated from *Zhongguo tongji nianjian 1988*, pp. 105, 130f, 138, 164, 324.)

*Changing pattern of investment financing and investment inefficiency.* SOEs' annual profits unless paid out to the owners increase their net worth. Double-entry book-keeping implies that assets increase (or liabilities decrease) correspondingly. The most prevalent use of profits is investment, in particular investment in fixed assets. But total investment by industrial SOUs increased much faster than profits in each of the periods since 1985, the first year for which these investment data are available.<sup>30</sup> A similar picture emerges if industrial SOE profits are compared to capital construction and technological updating and transformation, which up to 1990 reflected solely industrial investment by SOUs (see Tables 4 and 7). Investment data for *all* SOUs (across all sectors) are available to cover the whole time period 1978 to 1997; total investment of *all* SOUs grew more than 20 times faster than profits of industrial SOEs.<sup>31</sup> (Profit data are not available for all SOUs.)

The ratio of profits to investment thus dropped continuously throughout the reform period. While profits in industrial SOEs were equal to 80 per cent of investment by industrial SOUs in 1985, this ratio dropped to only 8.63 per cent of investment in 1997 (see Table 8). Continued state appropriations, that is "free" allocations of budgetary funds, financed just 2.84 per cent of industrial SOU investment in 1997. This share, to judge by *all* SOU investment, may have been much higher in earlier years, but by 1997 the contribution to enterprise net worth was negligible. Profits and state appropriations, as two sources of increases in net worth, by 1997 thus equalled only 11.47 per cent of the addition to fixed assets. Increases in industrial SOU fixed assets then were financed primarily through increases in liabilities, most of which were explicit or implicit bank loans and thus indirectly constitute liabilities to households.<sup>32</sup>

Once investment efficiency is taken into account, industrial SOU net worth furthermore is unlikely to have increased at all in recent years. Indicators of investment efficiency show that the value of an investment by a SOU (or an industrial SOU), once completed, is approximately 20

30. Profit data are only available for industrial SOEs, investment data only for all industrial SOUs. The distinction is of negligible consequence. Profits of SOEs with dependent accounting system (e.g. administrative facilities (*shive danwei*)) enter the profit and loss account of their superordinate department, perhaps itself an industrial SOE with independent accounting system. State-owned industrial non-enterprise units are by definition unlikely to have any profits at all. The number of such enterprises may well be zero; the industrial statistics cover only "enterprises." Employment and investment statistics may be phrased in terms of "units" only to have a consistent title to describe different sectors such as government units and industrial enterprises in one table.

31. For the share of SOU investment accounted for by industrial SOUs see Table 8.

32. In 1997, "self-collected" investment funds provided almost half of all investment financing. Of these, 79.39% were collected within the enterprise. Profits of industrial SOEs in 1997 could not account for more than 22.57% of industrial SOUs' internally self-collected investment funds. Where did the industrial SOUs find the additional "internal" funds for investment? Anecdotal evidence suggests that long-term bank loans for investment in fixed assets, which in 1997 accounted for 32.02% of industrial SOU investment financing, underestimate the true extent of bank financing as current liabilities, primarily short-term bank loans, are declared "self-collected" funds and channelled into investment. This frequently happens indirectly: working capital is ravaged to finance investment and then later, when funds to maintain production run low, replenished through bank loans.

Table 7: SOU Investment Growth

<i>Rate of increase across the time span ("times")</i>	<i>1997/1978</i>	<i>1997/1980</i>	<i>1995/1980</i>	<i>1980/1978</i>	<i>1985/1980</i>	<i>1990/1985</i>	<i>1995/1990</i>	<i>1997/1995</i>
Investment by industrial SOUs	–	–	–	–	–	1.91	2.59	1.10
Capital construction	15.08	14.95	11.74	1.01	1.62	2.13	3.40	1.27
Technological upd. and transf.	–	20.95	19.32	–	3.08	1.84	3.40	1.08
Investment by <i>all</i> SOUs	19.58	17.55	14.61	1.12	2.25	1.78	3.65	1.20

*Notes:*

“Capital construction” and “technological updating and transformation” are the traditional terms to describe the two major investment categories of SOUs, adding up, together with two small residual items “real estate” and “others,” to the SOU investment total. Up to and including 1990 the sum of industrial capital construction and technological updating and transformation remained slightly below total investment by state-owned industry. However, in 1995 and 1997 industrial capital construction and technological updating and transformation exceeded total investment in state-owned industry by 20.11% and 31.21%, suggesting that since then units in other ownership forms – or perhaps SOUs categorized in the non-industrial sectors – may also conduct capital construction and technological updating and transformation.

*Sources:*

Calculated from *Zhongguo guding zichan touzi tongji nianjian 1950–1995* (China Statistical Yearbook of Investment in Fixed Assets 1950–1995) (Beijing: Zhongguo tongji chubanshe, 1997), pp. 23, 39–41, 107 and 252; *Zhongguo guding zichan touzi 1997*, p. 50; *Zhongguo guding zichan touzi 1998*, p. 54; *Zhongguo tongji nianjian 1998*, pp. 190, 196 and 212.

Table 8: **Investment Financing**

	1978	1980	1985	1990	1995	1997
<i>Industrial SOEs, industrial SOUs</i>						
Profits/ total investment (in %)	–	–	80.80	22.21	14.71	8.63
Profits/ internally self-collected investment funds <sup>a</sup> (in %)	–	–	–	–	–	22.57
<i>Investment financing sources (% of investment)</i>						
Industrial SOUs						
State appropriations	–	–	–	–	–	2.84
Domestic loans	–	–	–	–	–	32.02
Foreign funds	–	–	–	–	–	7.76
Self-collected funds <sup>a</sup>	–	–	–	–	–	49.30
Others	–	–	–	–	–	8.08
All SOUs						
State appropriations	62.16	44.66	23.98	13.20	5.00	4.68
Domestic loans	1.69	11.67	23.04	23.60	23.66	22.98
Foreign funds	4.21	7.19	5.27	9.10	7.89	5.07
Self-collected funds	31.94	36.48	47.71	43.18	48.70	52.73
Others	0.00	0.00	0.00	10.91	15.89	14.25
Note on total investment: Industrial SOUs/all SOUs (in %)	–	–	54.37	58.52	41.53	37.87

*Investment efficiency (value of completed investment in % of actual investment expenditures)*

SOU	–	–	69.30	80.65	67.81	79.60
Industrial capital construction <sup>b</sup>	–	–	64.35	77.41	61.22	75.13
Industrial technological updating and transformation <sup>b</sup>	–	65.88	68.52	86.68	76.89	81.89
Note: ratio of industrial capital construction to industrial technological updating and transformation	–	2.42	1.27	1.47	1.47	1.73

*Notes:*

Profit data are only available for industrial SOEs with independent accounting system, and investment data only for (industrial and all) SOUs. On the (negligible) difference between industrial SOEs with independent accounting system and industrial SOUs also see footnote 30. Profits include income taxes.

a Self-collected investment funds consist of funds provided by central, provincial, municipal, and county government departments, as well as funds collected internally by enterprises and administrative facilities themselves. In the case of industrial SOUs, in 1997 central departments contributed 5.57% of self-collected funds, provincial departments 8.15%, municipal departments 4.27%, county departments 2.62%, and enterprises and administrative facilities themselves 79.39% (of which 12.39 percentage points through some form of stock issuing).

b The 1995 and 1997 data are likely to also include non-SOU or non-industrial SOU investment. See note to Table 7.

*Sources:*

Profits: 1978–1995: *Gaige kaifang*, p. 146; 1996: *Zhongguo tongji nianjian 1997*, p. 439; 1997: *Zhongguo tongji nianjian 1998*, p. 455.

Investment and its financing: *Zhongguo guding zichan touzi 1950–1995*, pp. 23 and 39–41; *Zhongguo guding zichan touzi 1998*, pp. 54, 88f and 91f; *Zhongguo tongji nianjian 1998*, pp. 188 and 190.

Investment efficiency: calculated from *Zhongguo guding zichan touzi 1950–1995*, pp. 23, 107, 252 and 303; *Zhongguo tongji nianjian 1998*, pp. 190, 196, 200, 212 and 216.

per cent below the actual investment expenditures.<sup>33</sup> This 20 per cent loss in the 1990s more than cancels out the 11.47 per cent addition (in terms of investment) to industrial SOU net worth from profits and state budget appropriations. Whether these non-existent assets are written off against net worth or kept on the books and later called “bad loans” does, from the point of view of the consolidated balance sheet, not make any difference.

### *Conclusions*

The relative decline in state net worth in the course of the economic reform period has been severe, suggesting that the Chinese state today is bankrupt. State indebtedness to households is running as high as 80 per cent of GDP, and state assets appear increasingly insufficient to meet these obligations. The relative decline in state net worth came about not only through a relative increase in liabilities (primarily household deposits at state banks), but also because state net worth – rather than the liabilities to households – is the balance sheet item to be shortened when state institutions turned unprofitable or the value of their assets was adjusted downwards.

Some state assets were openly transferred to households through the underpricing of initial public offers. State net worth was likewise reduced when government consumption came to be financed through the issuing of public debt to households. Wages and salaries in industrial SOEs – and, by extension, in probably all other SOUs, for which such detailed data are not available – grew much more rapidly than labour productivity throughout the 1980s. A significant share of the household income was saved at the state banks and thus turned into claims on the state sector. An increasing wage bill also squeezed profits, which implies that state net worth formed through accumulated profits could grow only slowly. Because of poor investment efficiency the value of completed fixed assets fell so far short of funds invested that the addition to net worth through profits was more than obliterated.

One may argue that the calculation of state net worth ignores such state sector assets as real estate or roads and waterways. Including land valued at market prices in the government and thus state sector balance sheet would yield a corresponding, possibly drastic increase in state net worth. Yet if land were valued at market prices, then SOUs should pay market-based rents on their land use. This in turn would year for year have a negative impact on SOU profits and therefore their net worth.<sup>34</sup> Including land as a state asset would only make a difference if much of the land were sold to non-state units. No sale of land has so far taken place. The

33. Even though the data referred to here cover all SOUs rather than only industrial SOUs, for which the data are not available, the efficiency indicators for industrial capital construction and industrial technological updating and transformation (up to 1990 solely undertaken by industrial SOUs) suggest that there is no substantial difference between the investment by all SOUs rather than by industrial SOUs only.

34. Currently SOEs pay only a small fee for their land use. The value of this land, calculated as discounted future stream of such fees, thus may well be negligible. Given the lack of a liquid land market, an estimate of the “market” value of state land is not available.

amount of urban land currently leased for 40 or 70 years depending on use, in exchange for a negotiated or market-determined one-time payment, is negligible.<sup>35</sup> Much of agricultural land has for the next 30 years already been contracted to peasants in exchange for tax payments or agricultural procurement.

State ownership of land thus has been primarily translated into a continuous, small income stream entering the annual government budget which, unless invested, does not increase state sector assets.<sup>36</sup> Furthermore, should land ever be sold or leased to non-state units on a large scale, for example for housing purposes, the receipts may well have to be used for future liabilities not currently reflected in the balance sheets. With the ageing of the population, the closure of inefficient SOEs and the widespread reductions in the SOU labour force, an urban pension system crisis may well require major capital injections that could be financed through the sale of urban land. Similarly, funds raised from selling agricultural land may be needed to (re-)establish a viable rural health care and education system.<sup>37</sup>

A second potential caveat is the possibility that SOEs falsify their accounts. This can go both ways. SOEs may falsify their accounts to, for example, cover up asset stripping; reported SOE assets and net worth then are exaggerated.<sup>38</sup> But they may also wish to hide profits in order to escape various government levies and taxes, or to claim subsidies for losses; assets values and net worth then are underreported. The underpricing of shares at the initial public offering shows that the market value of some state sector assets is well above the book value, and net worth of these SOEs therefore underestimated.<sup>39</sup>

35. Furthermore, leased land consists almost exclusively of rural land newly acquired by municipalities for development; no land has been taken away from SOEs and then leased at market prices. According to Anthony Gar-on Yeh and Wu Fulong in "The new land development process and urban development in Chinese cities," *International Journal of Urban and Regional Research*, Vol. 20, No. 2 (June 1996), pp. 330–353, in 1992 the existing urban land of the 455 municipalities was 12,907.8 square kilometres; up to end-1992 only 35 square kilometres were leased (p. 338).

36. These future income streams could be discounted down and entered into the balance sheet with their present value as an asset. (No data are available on these current and future income streams.) But at the same time, future obligations should then likewise all be discounted down and entered into the balance sheet as a liability.

37. Roads and waterways, the other two assets omitted in the consolidated balance sheet, are unlikely to be of large value. Roads are frequently built by large investors under some form of BOT scheme; waterways are unlikely ever to be sold and their market value is thus difficult, if not impossible, to determine.

38. A frequently reported figure on asset stripping is 50b. *yuan* per year in the early and mid-1990s. See X.L. Ding, "The illicit asset stripping of Chinese state firms," *The China Journal*, No. 43 (January 2000), pp. 1–28, or Russell Smyth, "Asset stripping in Chinese state-owned enterprises," *Journal of Contemporary Asia*, Vol. 30, No. 1 (2000), pp. 3–16. While this figure by itself may appear large, it is equivalent to only 0.75% of total state sector assets in 1995.

39. The difficulties in properly pricing assets should not be underestimated. Another example are insurance company liabilities. Insurance companies are highly restricted in the use of their funds with perhaps half of their assets in form of relatively short-term bank deposits; long-term insurance contracts such as life insurance contracts entered in the past promise future payments based largely on interest rates prevalent at the

Thirdly, household claims on the state sector reflect purely nominal claims that could simply be inflated away by printing money, thus allowing a recovery of state net worth. Yet the Chinese government has so far been careful to avoid inflation. In the few years with double-digit inflation, state banks inflation-indexed household savings deposits of three years maturity or longer. Enterprise deposits were never inflation-indexed, thus further decreasing SOE net worth. Perhaps printing money is not a politically acceptable solution.

But if printing money is not a solution, then the household claims on the state sector constitute de facto claims on real, physical assets. And although these household claims represent state debt, this debt comes with characteristics that for households may well make it preferable to equity. The implicitly government-guaranteed debt is risk-free. It is perfectly liquid as households can freely withdraw even time deposits. Household deposits at the state banks furthermore yield a return that is likely to be in excess of that on equity, given the increasing losses of SOEs. Households holding bank deposits may thus enjoy not only the right to sell their claims at will, but also the right to more than only the residual return on production. Given that the state retains a majority stake in all listed SOEs, and household equity holdings therefore de facto carry no control rights over the use of the physical assets, households' claims on the state sector through bank deposits enjoy all the advantages of explicit equity, but bear none of the disadvantages (risk, combined with possibly low average return).

The state is paying a hefty price for its right to control the use of physical assets. The state bears all inefficiencies, and does so on an increasingly narrow base of net worth relative to state assets. Assuming that the Chinese leadership is reluctant to abandon its control over state banks and SOEs, a number of options come to mind. For example, the real return on household claims could be drastically reduced to reflect the low average return on SOE production. Lowering the real interest rates on household deposits allows bank profits and therefore state net worth to rise. With the closed external capital account and limited other domestic investment channels, this is perfectly feasible; the tax on interest income levied since early 2000, although officially instituted for other reasons, represents a step in this direction.

Another option would be to endow the private quasi-ownership of "state" assets progressively with risk by increasing the number of SOEs listed on the country's two stock exchanges, even if the current limit on the proportion of an enterprises' shares that can be privately held is retained. But bankrupt SOEs might not be saleable, and at some point the government would have to use budgetary funds to finance their

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*Footnote continued*

time the contract was signed. As short-term interest rates on bank deposits vary, insurance companies' assets can fall short of or exceed the future obligations specified in the life insurance contracts.



non-performing loans in order for banks to be able to repay household depositors. The government could also combine these options by paying a low real interest rate on household deposits while gradually increasing the number of listed SOEs and closing poorly performing or bankrupt ones, financing the bad loans as much as possible through the spread between loan and deposit interest rates. The asset management companies established in 1999 to resolve the bad loan problem turn the SOEs and state banks involved into economically more viable institutions, yet the final bill for this rescue operation is still to be presented to the government budget. Payment has been postponed by issuing government debt, which reduces the current burden at the expense of annual interest payments financed through the government budget.<sup>40</sup>

The reluctance of the Chinese leadership to abandon its control over banks and SOEs implies that China's economy continues to forfeit the improvement in efficiency commonly associated with a privatization that also includes the transfer of control rights over the use of the physical assets. The issue of how to distribute state assets has been elegantly solved by gradually increasing household claims to virtually equal all state sector assets through channels such as income policies.<sup>41</sup> The first of two firewalls thus has already been abandoned. The Maoist concept of state enterprises being owned by the people (*quanmin suoyou zhi*) has assumed a concrete form.

Only the question of whether, and if so how, to endow these households' claims on the state sector with control rights remains. The public listing of SOEs without restrictions on the proportion of shares to be held privately immediately removes the second and last firewall. But it also carries the danger of control rights being too widely dispersed to be effective, or of political groups using public funds and their administrative authority to take over SOEs and extract resources for their own private benefit. Less radical and in the short term perhaps more palatable options are also available. For example, a slight re-organization of the state banking system could lead to the creation of numerous quasi-investment banks, holding enterprise equity rather than debt, with households shifting deposits between banks offering different interest-risk

40. Geng Xiao stresses the fact that while the value of liabilities is fixed, the value of assets (and equity) is indeterminate. He recommends that the government retain a stake in those SOEs which are likely to be successful in the future. As the value of the stake appreciates and thus leads to capital gains, the state may recoup the expenses incurred now in closing or reforming loss-making SOEs. Yet correctly predicting the future success of enterprises is a difficult task.

41. These income policies benefited not only the predominantly urban SOE employees. Some of the rise in wages and salaries of SOE staff and workers compensated for increases in agricultural procurement prices. The main agricultural procurement prices are state-determined and in as far as they exceed market levels constitute an income transfer (and indirect state asset transfer) to rural households. The redistribution of state net worth to households obviously has not affected all urban (or rural) households equally. Bonus payments are dependent on enterprise performance. Yet subsidies and allowances increased rather uniformly, and while not everybody profited from A-share underpricing, by 1997, 200 million people are said to have some "connection" to the stock market (Li Wenxing *et al.*, *Zai zao jinrong (Reform Finance)* (Chengdu: Chengdu keji daxue chubanshe, 1998), p. 131).

combinations (which in turn depend on a bank's choice of portfolio). Some deposits in banks could even acquire the characteristics of equity, with the rate of return no longer guaranteed.

The relative, and in recent years also absolute decrease in state net worth poses no immediate threat to China's economic development as long as Chinese citizens trust the state's promise that deposits are freely redeemable, and the state does not choose to inflate these deposits away. Even negative state net worth is feasible as it can theoretically be financed through future tax receipts in excess of future government expenditures.

However, a continuous relative if not absolute decline in state net worth represents a second-best and risky development strategy. The country continues to incur the costs of continuing inefficiency due to inappropriate control and incentive mechanisms. A continuous decline in state net worth is a risky strategy as trust in the state banking system could wane and lead to widespread bank runs. The economic and political implications of a collapsing financial system, wiping out a large part of accumulated household savings, would undoubtedly be severe. Even though this risk might be small, a risk-averse leadership would do well to abandon ideological positions on state ownership. Demolishing the second firewall, state control over assets already quasi-owned by households, would allow the leadership to reap the benefits of both political risk-reduction and gains in economic efficiency.

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