

**The 1997-1998 Break in Industrial Statistics:
Facts and Appraisal**

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Abstract

In 1998 the National Bureau of Statistics in the published industrial statistics modified the scope of enterprises covered and the enterprise classification system. This paper highlights the modifications and identifies two implications. First, the use of a proportional allocation rule in data aggregation boosts the size of “public ownership,” an important cornerstone of socialism. Second, the switch from compiling detailed statistics on enterprises identified by an administrative criterion to enterprises that exceed a fixed volume of sales revenue poses new difficulties for comparative data analysis, but also represents a change in statistical practice that may yet lead to data of better quality.

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1. Introduction

Statistics compiled and released by the National Bureau of Statistics (NBS) are an important source of socio-economic information on China. While the amount of data published has increased over time, the NBS has also made numerous revisions to the definitions of statistical indicators and the categorization of economic activity. Such changes, however, have often been made without necessarily or clearly informing data users, causing confusion and misinterpretations.

This paper focuses on the 1998 revisions to the industrial enterprise categorization. The next two sections examine the changes in the scope of enterprises covered and in industrial enterprise classification. We then discuss two implications. First, the use of a proportional allocation rule in data aggregation boosts the size of “public ownership.” Second, the switch from compiling detailed statistics on enterprises identified by an administrative criterion to enterprises that exceed a fixed volume of sales revenue poses new difficulties for comparative data analysis, but also represents a change in statistical practice that may yet lead to data of better quality.

2. Modifications to the Scope of Enterprises Covered

The NBS collects and reports statistics on two major groups of industrial enterprises. The first group covers all industry; in the published statistics data are offered on value-added, gross output value, the number of enterprises, and the size of the workforce. Prior to 1998, these data covered all industrial enterprises regardless of the type of accounting system. Beginning in 1998, data on industrial units with dependent accounting system under non-industrial organizations are no longer collected; and these industrial units then are excluded from the data on total industry.¹

The second group covers a subset of all industrial enterprises; on this subset, detailed output, balance sheet, and profit and loss account data are offered. Prior to 1998, these data were collected and reported on “all industrial enterprises with independent accounting system at or above the township level.” Industrial enterprises thus had to meet two criteria to be included in this group, one based on the accounting system, and the other based on the administrative level

(the level of government which owns or, lacking ownership, regulates the enterprise). As of 1998, detailed industrial statistics are provided on “all industrial SOEs with independent accounting system and all industrial non-SOEs with independent accounting system and annual sales revenue in excess of 5m yuan” (“above-size industrial enterprises”). All SOEs with independent accounting system are still included. But for non-SOEs the administrative criterion (located at or above the township level) has been replaced by a size criterion.² All self-employed individuals (*getihu*), which were previously excluded from the detailed statistics through the administrative criterion, are now explicitly excluded, regardless of their size.

3. Changes in Enterprise Classification

A second issue is the classification of industrial enterprises into different enterprise categories. This is relevant for both groups of industrial enterprises on which statistics are collected and published. Three classification systems are currently in use: a registration-based classification, an ownership-based classification, and the classification system applied in the published statistics.

Changes in registration-based industrial enterprise classification

Table 1 illustrates five changes in the registration-based industrial enterprise classification in 1998.³ First, prior to 1998, domestic joint ventures between two or more state-owned enterprises (SOEs), i.e., SOE-SOE joint operation enterprises, were classified as a sub-category of the state-owned economy; since 1998, they have been included in the category joint operation enterprises. The same pattern holds for domestic joint ventures between two or more collective-owned enterprises (COEs).⁴

Second, prior to 1998 solely (100%) state-owned limited liability companies (then labeled “solely state-invested enterprises”) were regarded as SOEs and thus included in the state-owned economy. Since 1998, they have been listed as solely state-invested limited liability companies in a separate sub-category of the limited liability companies. However, this pattern is not

duplicated for private limited liability companies; they were part of the private economy prior to 1998, and have remained a sub-category of private enterprises since 1998.

Third, employee shareholding companies (*gufen hezuozhi qiye*) prior to 1998 were regarded as COEs. Beginning in 1998, they are no longer included in the COE category, neither are they part of one of the two categories of shareholding companies (*gufenzhi jingji*), i.e., limited liability companies (*youxian zeren gongsi*) or stock companies (*gufen youxian gongsi*). Instead, they now form a separate category of their own.

Fourth, prior to 1998 private stock companies were included among the stock companies in the category shareholding enterprises; since 1998 private stock companies constitute a new sub-category within the category private enterprises.

Finally, since 1998 stock companies in which Hong Kong, Macao or Taiwanese (HKMT) investors hold a more than 25% share have been categorized as a sub-category of HKMT-invested enterprises; prior to 1998, these stock companies were included in the category stock companies. The same pattern holds for (other) foreign-invested (non-HKMT) stock companies.

Prior to 1998 the published industrial enterprise statistics largely followed the registration-based classification system. They did not contain as many different enterprise categories; the reduction in categories was achieved by, for example, dividing up the joint operation economy into other categories. Since 1998 the NBS has placed special emphasis on ownership issues and therefore has introduced an explicit ownership-based classification system.

Table 1 about here

New ownership-based industrial enterprise classification

Since 1998 the NBS has made further, purely ownership-based distinctions among enterprises categorized according to the registration-based classification. Under this new system, the NBS uses a proportional allocation rule to compile major economic indicators (*zhuyao jingji zongliang zhibiao*) such as output value, sales revenue, and GDP contribution, for industrial units whose ownership encompasses two or more of the five basic categories: state, collective,

individual (including private),⁵ HKMT, and foreign. With the proportional allocation, enterprise outcomes—such as output value, sales revenue, and value-added—are assigned to the five ownership categories in proportion to the share of the pertinent ownership type in the paid-in capital (*shishou ziben*) of the enterprise concerned.⁶ Data on employee shareholding cooperatives are allocated to the collective category in full. Table 2 (first two columns after the code) repeats the registration-based classification in effect since 1998 and shows how the proportional allocation rule translates the registration-based classification into the ownership-based economic classification. Table 3 presents a numerical example.

Tables 2-3 about here

Industrial enterprise classification in the published statistics

The aggregation rule used since 1998 to obtain the ownership-based classification has been clearly spelled out in a number of regulations issued by the NBS. Yet the classification actually used in the published statistics does not strictly follow the ownership-based classification (nor the registration-based classification). Table 2 not only gives the post-1997 registration-based classification and shows how the (post-1997) ownership-based classification is derived from the registration-based classification, it also further shows how the classification used in the published industrial statistics, provided in the *China Statistical Yearbook* (for the years before and since 1998), corresponds to the former two.⁷ There exists no written evidence on how the published data have actually been aggregated. Our discussion relies on deduction from the published data and communication with the NBS.

In the published statistics the use of the proportional allocation rule since 1998 has been limited to enterprises with some, but less than 100% state ownership, with corresponding implications for some non-state categories. Even this partial application differs from the written version of the rule in two crucial respects, however. First, all state-controlled shareholding companies (i.e., state-controlled limited liability as well as stock companies) are regarded as state-owned industry in full, rather than being subject to the proportional allocation rule. (For the

definition of “state-controlled” see note (d) to Table 2.) Second, all other non-SOEs in which the state has a stake are fully counted in the category in which they are listed, and then the proportional allocation rule in addition is used to calculate the state-owned stake only, and to add it to the data on state-owned industry. In these instances, an amount equal to the state’s stake is double counted. All categories in which double-counting of the state’s stake occurs are marked bold in Table 2.

The extent of double counting can be quantified for the gross output value of all industry (the first group of enterprises identified in the second section of this paper) in the years since 1996. Gross output value data on all industry for 1996 and 1997 were retrospectively revised in 1998 following the new classification in the published statistics (ZGTJNJ 1999: 423); the gross output value of the state category now labeled “SOEs including state-controlled shareholding enterprises” is larger than the earlier published gross output value of the “SOEs.” Total gross output value of all industry (GOVI) and the gross output value of all other individual enterprise categories is unchanged in the retrospectively revised data. This implies that the unchanged aggregate GOVI data of 1996 and 1997, given in the *China Statistical Yearbook* of 1999 (or 2000), now is smaller than the sum of the gross output value of all enterprise categories listed. This difference reflects the amount of double counting.⁸

4. Implications for the Size of State-Owned Industry and the Public Sector

Much of the re-classification of industrial enterprises in 1998 appears to be related to a political desire to “fully recognize” public ownership. In his report to the 15th Chinese Communist Party Congress in 1997, General Secretary Jiang Zemin declared that “the meaning of public ownership needs to be fully recognized. Public ownership comprises not only state ownership and collective ownership, but also the state and collective share in mixed ownership forms.” (*Jinrong shibao*, 22 September 1997) The new classification in the published statistics has extended the definition of public ownership beyond sole public proprietorship to include all state-controlled shareholding companies in full, as well as the state’s stake in all other non-SOEs.

Figure 1 shows the sizeable increase in the share of the public sector in GOVI that results from the use of the new data aggregation method.

Figure 1 about here

Yet this share of the public sector is exaggerated in that all state-controlled shareholding companies are fully included in the state-owned category rather than only in proportion to the state's share in paid-in capital. Similarly, all employee shareholding cooperatives are included in the collective category, even though ever more of these are de facto privately owned.⁹

5. Implications for Time Series Comparisons and the Quality of Industrial Statistics

The statistical break in 1998 makes it impossible to construct comparable time series data on the industrial sector using officially published industrial statistics. This is true for the indicators reported on all industrial enterprises (GOVI, value-added, number of enterprises, and workforce), because of the (now) omission of industrial units with dependent accounting system under non-industrial organizations and because of the re-classification of enterprises. It is also true for the subset of industrial enterprises on which more detailed data are reported, because of the change in the criteria for inclusion and because of the re-classification of enterprises.

The relative significance of the group of industrial enterprises for which detailed statistics are reported has declined throughout the reform period, especially since 1993. The new choice of industrial enterprises on which to report detailed statistics appears to have little impact on this trend. (See Figure 2.) Detailed data thus are available for an ever smaller share of industry only. Furthermore, detailed data on the shareholding enterprise category are now incomplete, as only the statistics on stock companies continue to be reported but no separate data are provided on limited liability companies or the entire shareholding enterprise category.

Figure 2 about here

On the other hand, the change in the scope of coverage for the subset of detailed statistics may well be an improvement over previous practice. The NBS through the new criteria for inclusion restricts its detailed industrial data to those enterprises that are likely to have trained

accountants and more reliable bookkeeping. Numerous reports in the NBS journal *Zhongguo tongji* suggest that data previously collected on small township enterprises were often of dubious quality; these enterprises are now excluded through the size criterion.

6. Concluding Remarks

The 1997-1998 statistical break may have in large part originated in the desire to portray the dominance of the public sector. But from a statistician's point of view, the modifications in enterprise coverage and classification are not necessarily unwarranted. Industrial units on which reliable data cannot be obtained have been dropped from the statistics. If ownership is an important indicator for policy makers, the new classification in the published statistics may provide a more accurate picture than the pre-1998 classification, even though it is still far from perfectly accurate. Yet in order for users to fully comprehend the 1998 modifications, in particular the changes in enterprise classification in the published statistics, much more clarification is needed from the NSB. Moreover, without more detailed information on all major enterprise categories in the subset of detailed statistics, the usefulness of such data, compared to the pre-1998 period, is greatly reduced.

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Table 1. Registration-based Industrial Enterprise Classification

Code	Since 1998	Code	Prior to 1998	Notes
100	<i>Domestic enterprises</i>			
110	SOEs	1	<i>State-owned economy</i>	
		11	SOEs, including solely state-invested enterprises	new 151
		12	State-owned joint operation ent.	new 141
120	COEs	2	<i>Collective-owned economy</i>	
		21	COEs, including employee shareholding companies	new 140
		22	Collective-owned joint operations	new 142
130	Employee shareholding companies			formerly in 21
140	Joint operation enterprises	5	<i>Joint operation economy</i>	12, 22 in 140
141	State-owned			formerly in 12
142	Collective-owned			formerly in 22
143	State- and collective-owned	51	State- and collective-owned j.o. ent.	
149	Other joint operation ent.	52	State-owned and private j.o. ent.	into new 149
		53	Collective-owned and private j.o. ent.	into new 149
		54	State-, collective-owned and private joint operation enterprises	into new 149
150	Limited liability companies	6	<i>Shareholding economy</i>	
151	Solely state-invested	62	Limited liability companies	formerly in 11
159	Others			
160	Stock companies	61	Stock companies	
170	Private enterprises	3	<i>Private economy</i>	
171	Solely privately invested ent.	31	Solely privately invested ent.	
172	Private joint enterprises	32	Private person joint enterprises	
173	Private limited liability comp.	33	Private limited liability companies	
174	Private stock companies			new
190	Other enterprises	9	<i>Other economy</i>	
		4	<i>Individual-owned economy</i>	abolished
200	<i>HKMT-invested enterprises</i>	8	<i>HKMT-invested enterprises</i>	
210	Equity joint ventures	81	Equity joint ventures	
220	Contractual joint ventures	82	Contractual joint ventures	
230	Wholly HKMT-invested ent.	83	Wholly HKMT-invested ent.	
240	HKMT stock companies			new
300	<i>Foreign-invested enterprises</i>	7	<i>Foreign-invested enterprises</i>	
310	Chinese-foreign equity j.-v.	71	Chinese-foreign equity j.-v.	
320	Chinese-foreign contract. j.-v.	72	Chinese-foreign contract. j.-v.	
330	Wholly foreign-invested ent.	73	Wholly foreign-invested ent.	
340	Foreign-invested stock comp.			new

This table is a direct translation of the original Chinese table. “Solely state-invested enterprises” (item 11) in 1998 were re-labeled “solely state-invested limited liability companies” (item 151); the pre-1998 classification is based on NBS (1992) and thus was created at a time when the *Company Law* was just being passed. State-owned joint operation enterprises (items 12, 141) are joint ventures between two or more SOEs; collective-owned joint operation enterprises (items 22, 142) are joint ventures between two or more COEs; state- and collective-owned joint operation enterprises (items 51, 143) are joint ventures between at least one SOE and at least one COE. “Individual-owned economy” (item 4) comprises the

self-employed in industry (*chengxiang geti gongshang hu*) and partnerships between individuals (*geren hehuo*). The self-employed in industry and partnerships between individuals (“individual-owned economy” before 1998) are not regarded as registered enterprises and thus not included in the classification since 1998. HKMT denotes Hong Kong, Macao and Taiwan. Foreign-invested enterprises in the narrow definition used in the table exclude HKMT-invested enterprises.

Source: NBS Division for Industry and Transportation (1999: 11).

Table 2. Three Classifications of Aggregate Industrial Enterprise Data

Code	Registration-based classification (since 1998)	Ownership-based classification (since 1998) ^a	Classification actually used in <i>China Statistical Yearbook</i>			
			All industrial enterprises		Detailed industrial statistics ^e	
			Since 1998 ^b	Pre-1998 ^b	Since 1998 ^f	Pre-1998 ^g
100	<i>Domestic enterprises</i>					
110	SOEs	State	State	State	State	State
120	COEs	Collective	Collective	Collective	Collective	Collective
130	Employee shareholding comp.	Collective	Collective	Collective	Collective	Collective
140	<i>Joint operation enterprises</i>					
141	State-owned	State	State + others^c	State	State + others^c	State
142	Collective-owned	Collective	Others	Collective	Residual	Collective
143	State- and collective-owned	Proportional alloc.	State + others^c	Others	State + residual^c	Residual
149	Other joint operation ent.	Proportional alloc.	State + others^c	Others	State + residual^c	Residual ^c
150	<i>Limited liability companies</i>					
151	Solely state-invested	State	State	State	State	State
159	Others	Proportional alloc.	If state-controlled: ^d state; otherwise: state+others^c	Others	If state-controlled: ^d state; otherwise: state+residual^c	Shareholding
160	Stock companies	Proportional alloc.	Same as above	Others	Same as above	Shareholding
170	<i>Private enterprises</i>					
171	Solely privately in vested ent.	Individual-owned	Individual-owned	Indiv.-owned	Residual	Residual
172	Private joint enterprises	Individual-owned	Individual-owned	Indiv.-owned	Residual	Residual
173	Private limited liability comp.	Individual-owned	Individual-owned	Others	Residual	Residual
174	Private stock companies	Individual-owned	Individual-owned	N/A	Residual	N/A
---	<i>Individual-owned economy</i>	Individual-owned	Individual-owned	Indiv.-owned	Excluded by definition	Excluded by def.
190	Other enterprises	Proportional alloc.	Others	Others	Residual	Residual
200	<i>HKMT-invested enterprises</i>					
210	Equity joint ventures	Proportional alloc.	Others + state^c	Others	HKMT + state^c	HKMT
220	Contractual joint ventures	Proportional alloc.	Others + state^c	Others	HKMT + state^c	HKMT
230	Wholly HKMT-invested ent.	HKMT	Others	Others	HKMT	HKMT
240	HKMT stock companies	Proportional alloc.	Others + state^c	N/A	HKMT + state^c	N/A
300	<i>Foreign-invested enterprises</i>					
310	Chinese-foreign equity j.-v.	Proportional alloc.	Others + state^c	Others	Foreign-invested+state^c	Foreign-invested
320	Chinese-foreign contract. j.-v.	Proportional alloc.	Others + state^c	Others	Foreign-invested+state^c	Foreign-invested
330	Wholly foreign-invested ent.	Foreign-invested	Others	Others	Foreign-invested	Foreign-invested
340	Foreign-invested stock comp.	Proportional alloc.	Others + state^c	N/A	Foreign-invested+state^c	N/A

Cells with text in boldface reflect double-counting of the state's stake.

a The ownership classification following NBS (1998) comprises only five ownership categories: state-owned economy, collective-owned economy, individual-owned economy (including the private economy), HKMT enterprises (enterprises run by Hong Kong, Macao and Taiwanese entrepreneurs), and foreign-invested enterprises. Proportional allocation means that the economic data in this category are redistributed to the five ownership categories in proportion to the shares in paid-in capital, where the share of institutional owners (legal persons) is excluded from the total paid-in capital for the purpose of this calculation.

b The categories available in the *China Statistical Yearbook* (ZGTJNJ) are: SOEs including state-controlled shareholding enterprises ("state"), collective-owned industry, individual-owned industry (*geti qiye*) which includes private enterprises, and "others."

c The state share, if any, and only the state share is double-counted in the two categories.

d State-controlled limited liability companies and state-controlled stock companies are fully counted as state-owned. State-controlled companies come in two categories. Absolute state control (*guoyou juedui konggu*) implies that the state accounts for more than 50% of total capital (*ziben*). Relative state control (*guoyou xiangdui konggu*) implies that although the state holds less than 50% of total capital, (i) its share is relatively large compared to the shares of other ownership categories that hold shares in the enterprise, i.e., "relative state control" in its narrow meaning (*xiangdui konggu*), or (ii) even though one or more other ownership categories have a larger capital share than the state, the state in effect holds the control rights by agreement (*xieyi kongzhi*). (NBS 1998: 14)

e The detailed industrial statistics since 1998 cover "all industrial SOEs with independent accounting system and all industrial non-SOEs with independent accounting system and annual sales revenue in excess of 5m yuan," and prior to 1998 "all industrial enterprises with independent accounting system at township level or above."

f The categories available in the *China Statistical Yearbook* (ZGTJNJ) are: SOEs including state-controlled shareholding enterprises ("state"), COEs, stock companies (*gufen youxian gongsi*), foreign-invested enterprises, and HKMT enterprises.

g The categories available in the *China Statistical Yearbook* (ZGTJNJ) are: SOEs, COEs, shareholding enterprises (*gufenzhi jingji*), (other) foreign-invested enterprises, and HKMT enterprises. There is a small residual of 2.27%. A double-check on 1995 data using the industrial census (1995 GYPCZLHB: 47, and ZGTJNJ 1996: 414) reveals that the residual, then 1.60%, comprises private enterprises (0.27%), joint operation enterprises (1.19%), and a category others (0.14%).

Sources: NBS Division for Industry and Transportation (1999: 11), NBS (1992), NBS (1998), ZGTJNJ, correspondence with NBS.

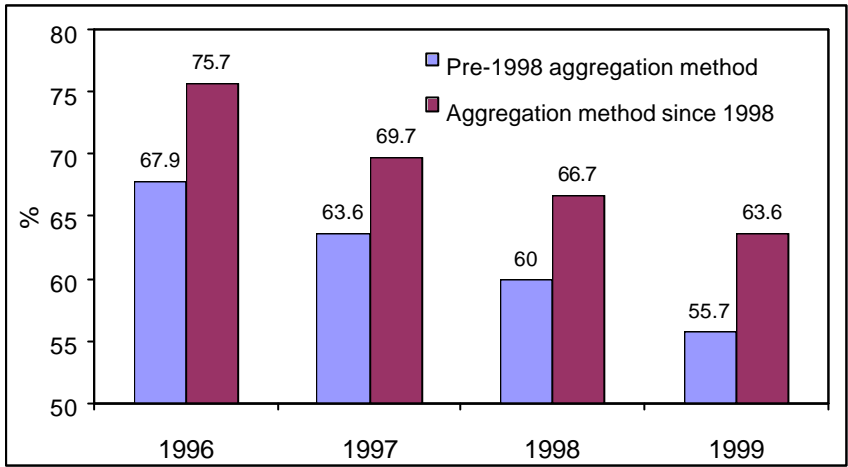
Table 3. Numerical Example of Application of Proportional Allocation Rule in Deriving Ownership-based Classification Data^a (in yuan RMB)

	Total	of which in employee shareholding companies	After deducting employee shareholding companies	%-share in paid- in capital	%-share in paid-in capital * total gross output value (excl. empl. shareh. comp.)	Gross output value, including employee shareholding companies
Gross output value	150	30	120		120 (119.9)	150 (149.9)
State					56.9	56.9
Collective					36.2	66.2
HKMT					10.3	10.3
Foreign					6.2	6.2
Individual					10.3	10.3
Paid-in capital ^b	63	5	58	100		
State	28	0.5	27.5	47.4		
Collective	19	1.5	17.5	30.2		
HKMT	5	0	5	8.6		
Foreign	3	0	3	5.2		
Individual	8	3	5	8.6		

Although the example focuses on gross output value, the same allocation rules apply to all other “major economic aggregate indicators” (*zhuyao jingji zongliang zhibiao*). HKMT refers to enterprises run by Hong Kong, Macao and Taiwanese entrepreneurs.

a The example was adapted from *Zhongguo tongji* no. 3/1999, p. 17. This source suggests that the statistical departments simply look at the structure of the paid-in capital of all industrial enterprises in a particular geographical area in the aggregate, and then divide up the major economic aggregate indicators (such as gross output value of industry of this geographical area) correspondingly. The original regulation (NBS, 1998) does not unambiguously specify whether the rule is applied to economic aggregates based on the aggregate paid-in capital of industrial enterprises in a particular geographic area, or only to those industrial enterprises which have owners belonging to more than one ownership category; it always refers to *qiye* (enterprise(s)). However, in its coverage of administrative units and agricultural production, NBS (1998) uses unambiguous terms in that the proportional allocation rule applies to each unit individually (*yi danwei jinxing huafen*). Our interpretation in Table 2 and in the text is based on the assumption that the proportional allocation rule applies to individual enterprises, or to a particular registration-based classification category in its aggregate.

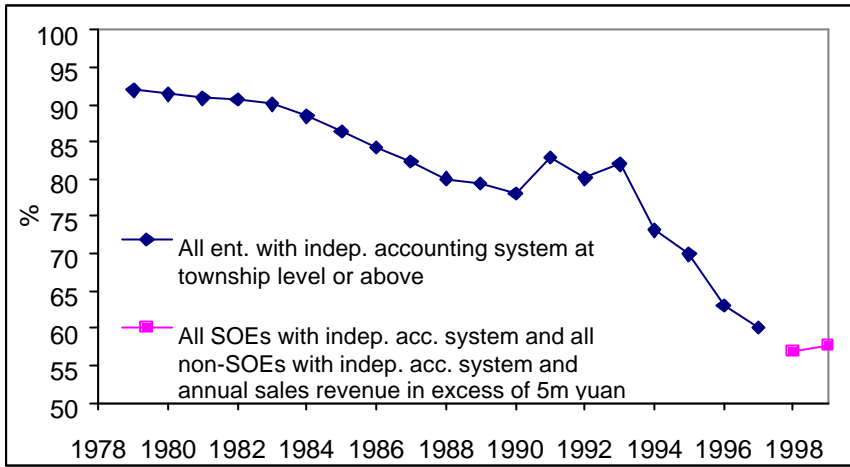
b In the application of the proportional allocation rule the paid-in capital of institutional investors (legal shares) is ignored. The value of total paid-in capital of 63 yuan thus excludes legal shares.



The 1998 and 1999 public sector data based on the pre-1998 aggregation method are obtained as follows. First, the difference between (total) gross output value of industry and the sum of the gross output value of all industrial enterprise categories except “SOEs and state-controlled shareholding companies” is calculated. (The category “SOEs and state-controlled shareholding companies” includes a share in some enterprises which are also fully included in other categories; see the text for details.) This difference is then subtracted from the category “SOEs and state-controlled shareholding companies” to yield the pre-1998 category “SOEs.” To this latter the gross output value of the COE category is added in order to obtain the “public sector” gross output value. (This procedure is inferred from the published, retrospectively revised data on 1996 and 1997 gross output value of “SOEs and state-controlled shareholding companies.”) All 1998 and 1999 data exclude those industrial units with dependent accounting system which are part of a non-industrial enterprise; pre-1998 data do not, but no corrections are possible.

Sources: ZGTJNJ 1998: 433, 1999: 423, 2000: 409.

Figure 1. Share of the Public Sector (SOEs and COEs) in Gross Output Value of Industry



1991-94 data are the revised data following the 1995 industrial census; post-1995 gross output value data exclude value-added taxes. For details see Holz and Lin (2001).
 Sources: GGKF 1996: 146, ZGTJNJ 1990: 414, 1992: 411, 1993: 417, 1994: 378, 1995: 385, 1996: 411, 1997: 421, 1998: 433 and 441, 1999: 432, 2000: 409 and 414.

Figure 2. Share of Industrial Enterprise With Independent Accounting System in Gross Output Value of Industry, in %

Notes

¹ In terms of accounting system, three types of industrial enterprises need to be distinguished: (i) industrial enterprises with independent accounting system (the bulk of all industrial enterprises both in terms of enterprise numbers and output); (ii) industrial units with dependent accounting system that are affiliated with industrial enterprises which practice independent accounting (these have always been, and continue to be, included in the data on their parent organizations, the industrial enterprises with independent accounting system); (iii) industrial units with dependent accounting system that are affiliated with non-industrial organizations (data on these were included in the published industrial statistics prior to 1998, but are excluded since 1998). For more discussion on the accounting system of industrial enterprises, see Holz and Lin (2001).

² The change in the category of enterprises on which detailed industrial statistics are available thus has two effects. Non-SOEs with independent accounting system at or above township level but with sales revenue of no more than 5 million yuan are now excluded from the detailed industrial statistics. On the other hand, village level enterprises that meet the two requirements are now included.

³ The registration-based classification was jointly determined by the State Administration of Industry and Commerce (China's licensing authority) and the NBS.

⁴ Since 1998, no new joint enterprises between the three ownership types, i.e., SOEs, COEs, and private/ individual-owned enterprises are permitted. Existing ones (formed before 1998) are now included in a sub-category "others" within the category of joint operation enterprises.

⁵ Private enterprises have more than seven employees, individual-owned enterprises up to seven employees.

⁶ The share of institutional owners (legal persons) is excluded from the total paid-in capital for the purpose of this calculation.

⁷ Local statistical departments continue to collect and report (to the NBS) data using the registration-based classification. They also separately provide additional provincial statistics applying some aggregation rule. The NBS then combines the two types of data in the aggregate industrial statistics it publishes.

⁸ The sum of all enterprise categories continues to exceed the total GOVI in the years 1998 and 1999. Such double counting appears to also occur in the detailed statistics on the above-size industrial enterprises, but the magnitude cannot be ascertained because not all enterprise categories included in the total are listed. For the group of all industrial enterprises, one further complication since 1998 is that the total GOVI (and the gross output value of the sub-categories of enterprises in the statistics on all industrial enterprises) no longer covers the industrial units with dependent accounting system under non-industrial enterprises.

⁹ Detailed data on all employee shareholding cooperatives are unavailable. But their growing magnitude in the rural collective sector and the rising significance of private ownership in them are both apparent in the statistics on rural employee shareholding cooperatives reported in the 1994 through 2000 issues of the *China Township Enterprise Yearbook* published by the Ministry of Agriculture.