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## The Marketization of the Chinese Economy and Township and Village Enterprises

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### 1. INTRODUCTION

In December of 1978 the Third Plenum of the 11th Central Committee of the CCP drafted two important documents: "Decision on Some Questions Concerning the Acceleration of Agricultural Development (Draft)"<sup>1</sup> and "Sixty Articles Relating to Commune Management (Draft)."<sup>2</sup> Agricultural reform then began. The household responsibility system was introduced into the people's communes in 1979 and ultimately led to the decollectivization of the people's communes in 1984.

The household responsibility system, known as *bao gan dao hu*, changed disguised unemployment into open unemployment under the family farm system. In order to absorb the labor surplus the State Council said that for the time being peasants could be engaged in jobs other than farming within their villages. Thus, while having created many non-farming jobs, the government also had a plan to absorb this labor surplus into rural industries. Rural small-scale industry was derived from the commune- and brigade-run enterprises (CBEs) under the people's commune system. In 1984 the government renamed the CBEs as town-

ship and village enterprises (TVEs), which included not only CBEs but also joint and individual-owned enterprises. One of the biggest successes is that during the 1978-92 period the TVE sector succeeded in absorbing a labor surplus of 105.81 million people.

This paper aims to analyze the economic role and the performance of TVEs in China. Section 2 analyzes the development process of TVEs, while Section 3 examines their economic performance. In Section 4 TVEs are analyzed in terms of industrial organization. Section 5 analyzes industrial policy on small and medium enterprises (SMEs) in Taiwan and Korea, while Section 6 looks at prospects for the development of TVEs.

## **2. THE DEVELOPMENT PROCESS OF TOWNSHIP AND VILLAGE ENTERPRISES**

In July 1979 the State Council delivered the "Regulations on Several Questions for Further Developing Commune- and Brigade-Run Enterprises."<sup>3</sup> Moreover the "Decision" approved by the Third Plenum of the CCP in December 1978 said:

It is necessary to develop CBEs and to gradually increase their share of revenues in the total economic revenues of their communes. Based on the principles of economic rationale, agricultural and sideline products suited to rural small-scale industry should be shifted over to CBEs. Urban industry must delegate the processing of agricultural products and the production of parts to rural small-scale industry.

It is also necessary to meticulously develop the industrial management of rural industry, to supply equipment, and to transfer technology to CBEs. It is essential to guarantee efficient supply and selling by instituting many forms of production, supply, and selling, and by coordinating them with the national economic plan at each level. The government should implement a policy of either tax reductions or exemptions for CBEs according to their financial situations.

In March 1984 the Party Center and State Council notified the "Report of the Ministry of Agriculture, Husbandry, and Fishery on Opening the New Aspects of Commune- and Brigade-Run Enterprises."<sup>4</sup> It made the following points:

- (1) CBEs have become an important component of the national economy.

- (2) Developing new aspects of CBEs leads to the modernization of the agricultural sector.
- (3) Strengthening and implementing the combination of indicative planning and market mechanisms permits the CBEs to develop well.
- (4) It is indispensable to continue the structural adjustment of CBEs and to emphasize the development of the food, feed, construction materials, construction, and energy industries.
- (5) It is critical that CBEs be restructured within two years.
- (6) CBEs must make positive technological progress.
- (7) CBEs must address the following policy issues: getting instruction and support from the planning, supply, public finance, banking, and transportation sectors at each level in order to become rich; improving the management of collecting products; defining the scope of CBE management; abiding by government price policy; gradually establishing CBE funds for mutual aid; government tax cuts and exemptions (the government applied an eight-level weighted-scale income tax system to CBEs).
- (8) After separating economic organizations from local governments, the government renamed CBEs as township and village enterprises (TVEs).

In April 1985 the State Council enacted the "Provisional Regulations Concerning Income Tax on Collective Enterprises,"<sup>5</sup> in which the government imposed an eight-level weighted-scale income tax on these firms. In February 1990 the Ministry of Agriculture enacted the "Provisional Regulations on Peasants' Shareholding Enterprises."<sup>6</sup>

In May 1990 after the Tienanmen Incident the Ministry of Agriculture issued the "Circular Concerning Some Opinions on Adjusting Industrial TVEs"<sup>7</sup> strengthening the management of TVEs based on the government's guidelines of adjustment, retrenchment, improvement, and upgrading.

In July 1990 the State Council created the "Regulations Concerning Rural Collective Enterprises."<sup>8</sup>

In January 1992 the Ministry of Agriculture enacted both the "Provisional Procedures for Establishing and Expanding Collective Corporations by Township and Village Enterprises"<sup>9</sup> and the "Provisional Rules of Cooperative Township and Village Enterprises."<sup>10</sup>

In March 1992 the State Council issued the "Circular of the Report by the Ministry of Agriculture Promoting the Sustained and Healthy Growth of Township and Village Enterprises."<sup>11</sup>

Concerning the quality control of products, in May 1992 the Ministry of Agriculture issued the "Directive on the Main Procedures for Implementing Technological Progress in Township and Village Enterprises,"<sup>12</sup> and in June of the same year it issued the "Directive on

Quality Control Education in Township and Village Enterprises,"<sup>13</sup> and the "Directive on Strengthening the Work of Monitoring Quality Control for Products of Township and Village Enterprises."<sup>14</sup> Concerning the auditing of TVEs, the TVE Bureau of the Ministry in September 1992 issued the "Directive on the Method of Keeping 'Auditing Certificates' of Township and Village Enterprises."<sup>15</sup>

In October 1992 the Ministry of Agriculture issued the "Directive on the Management of Collective Construction Enterprises."<sup>16</sup>

With respect to labor management the Ministry of Agriculture issued the "Directive on the Method of Endowment Insurance for Staff and Workers in Township and Village Enterprises"<sup>17</sup> in November 1992, and the "Directive on the Labor Management of Township and Village Enterprises"<sup>18</sup> in December of the same year.

With respect to firm management the Ministry of Agriculture issued the "Directive on Promoting and Making a Complete Cooperative System for Shares of Township and Village Enterprises"<sup>19</sup> and the "Main Considerations in Deepening the Reform of Township and Village Enterprises"<sup>20</sup> in December 1992. In the same month of 1992 the Ministry of Agriculture issued the "Directive on the Enactment of Model Rules for the Township and Village Enterprise Group."<sup>21</sup> In order to accelerate the development of the central and western regions, Tian Jiyun insisted on the development of rural enterprises in the central and western regions at the national meeting for sharing experiences on accelerating the development of TVES in the central and western regions in November 1992.<sup>22</sup> In February 1993 the State Council issued the "Decision on Accelerating the Development of Rural Enterprises in the Central and Western Regions."<sup>23</sup>

In February 1995 the General Office of the State Council issued the "Circular on the Ministry of Agriculture Plan on Pilot Projects for Cooperation between Township Enterprises in East and West China."<sup>24</sup>

### **3. THE ECONOMIC PERFORMANCE OF TOWNSHIP AND VILLAGE ENTERPRISES**

#### **3.1 The Economic Performance of Township and Village Enterprises**

According to Table 1 the total number of TVEs increased from 1.52 million in 1978 to 24.95 million in 1994. The number of township enterprises increased from 320.0 thousand in 1978 to 423.0 thousand in 1994. The number of village enterprises increased from 1.20 million to 1.23 million during the same period. As Figure 1 shows, TVEs entered the second phase in 1984 when price reform began, and then the third

**Table 1** Township and Village Enterprises (1978–1994)

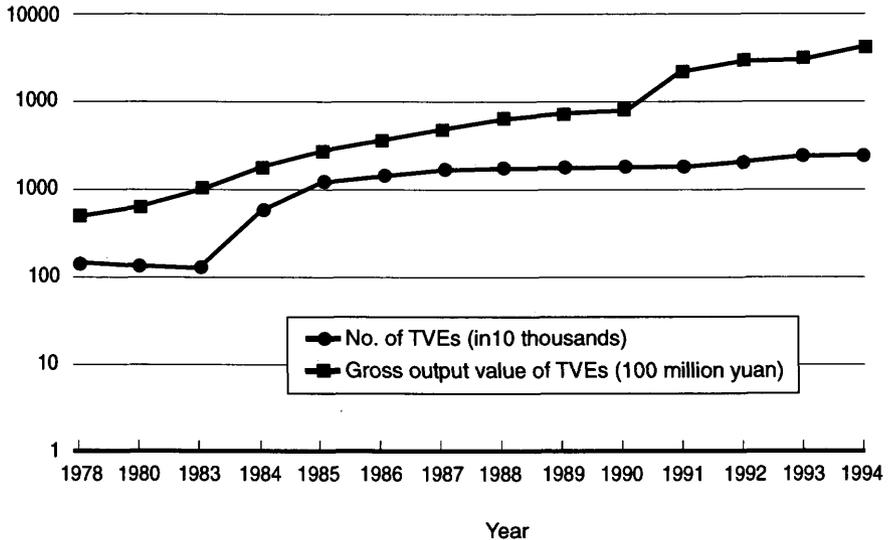
(10 thousands)

Year /Region	Enterprises							
	Township	Village	Agri- culture	Industry	Construc- tion	Trans- portation	Commerce and food service	
1978	152.4	32.0	120.5	49.5	79.4	4.7	6.5	12.4
1980	142.5	33.7	108.2	37.8	75.8	5.1	8.9	14.8
1983	134.6	33.8	100.8	27.0	74.4	5.7	9.2	18.4
1984	606.5	40.2	146.2	24.8	481.2	8.0	13.0	79.5
1985	1222.5	42.0	143.0	22.4	493.0	8.3	10.6	688.1
1986	1515.3	42.6	130.2	24.0	635.5	89.3	262.0	504.6
1987	1750.2	42.0	116.3	23.1	708.3	90.3	325.2	603.4
1988	1888.2	42.4	116.7	23.3	773.5	95.6	372.6	623.2
1989	1868.6	40.6	113.0	22.7	736.5	92.6	379.9	637.1
1990	1850.4	38.8	106.6	22.4	722.0	90.4	381.4	634.2
1991	1908.9	38.2	106.0	23.1	742.6	88.8	400.3	654.1
1992	2079.2	39.3	112.7	24.7	793.8	98.4	436.2	726.1
1993	2452.9	43.4	125.1	27.9	918.4	121.7	486.4	898.5
1994	2494.5	42.3	122.8	24.7	698.6	83.0	369.3	1318.9
Beijing	10.3	0.5	1.5		2.3	0.3	2.3	5.4
Tianjin	4.9	0.3	0.9		2.8	0.1	0.8	1.2
Hebei	178.6	2.0	5.5	1.2	64.1	5.5	44.3	63.5
Shanxi	73.2	0.8	4.3		15.4	2.1	27.1	28.6
Inner Mongolia	47.1	0.8	1.0	0.2	6.5	0.8	9.4	30.0
Liaoning	87.5	1.6	4.7	0.8	20.6	2.5	15.6	48.0
Jilin	69.9	0.8	1.8	0.9	18.6	4.5	16.8	29.1
Heilongjiang	77.3	1.0	2.4	0.9	15.2	3.0	19.1	39.1
Shanghai	1.5	0.5	1.0		1.5			
Jiangsu	106.0	3.6	7.6	0.1	58.7	5.3	14.7	27.2
Zhejiang	88.0	2.6	5.7	0.1	57.8	0.6	11.7	17.8
Anhui	84.8	2.4	5.3	1.0	24.5	3.5	6.6	49.2
Fujian	52.0	1.2	3.0	0.9	9.2	1.0	5.2	35.7
Jiangxi	117.0	2.0	4.5	0.9	53.6	10.0	15.0	37.5
Shandong	199.6	2.5	15.0	2.1	80.1	8.4	40.9	68.1
Henan	206.0	1.6	5.2	0.8	32.0	5.8	20.2	147.2
Hubei	164.2	2.2	13.8	5.0	50.0	11.1	24.2	73.9
Hunan	197.4	2.7	9.8	4.7	60.1	9.0	34.4	89.2
Guangdong	138.9	2.8	10.2		43.7			95.2
Guangxi	112.8	0.9	1.3	0.5	8.5	1.2	5.1	97.5
Hainan	10.9	0.1	0.2	0.1	1.3	0.2	1.9	7.4
Sichuan	204.5	5.4	10.6	1.9	15.7	2.1	0.8	184.0
Guizhou	46.9	0.5	0.3		4.3	0.2	2.6	39.8
Yunnan	73.8	0.7	2.5	0.9	20.9	1.1	23.5	27.4
Tibet								
Shaanxi	77.8	1.2	3.2	0.9	19.9	3.3	18.3	35.4
Gansu	29.3	0.8	0.9	0.3	7.7	0.8	6.0	14.5
Qinghai	3.7	0.1	0.1		0.3		0.2	3.2
Ningxia	8.7	0.2	0.1	0.1	0.3	0.1	0.1	8.1
Xinjiang	21.9	0.5	0.4	0.2	3.0	0.5	2.5	15.7

Note: Figures for 1978–1983 include only township and village level enterprises, since 1984 figures cover all township and village enterprises.

Source: *Zhongguo Tongji Nianjian 1995 (Statistical Yearbook of China 1995)*, p. 363, Table 11–28.

**Figure 1** Number and Gross Output Value of Township and Village Enterprises (1978–1994)



Source: *Zhongguo Tongji Nianjian (Statistical Yearbook of China, various years)*

phase in 1993, which is evident from the number and output of TVEs. In the second phase, TVEs experienced a difficult period of retrenchment for the two years from 1989 to 1991.

Looking at the number of TVEs by industry type, the number of agricultural TVEs decreased from 495.0 thousand in 1978 to 247.0 thousand in 1994. The number of industrial TVEs increased more than 8.8 times from 794.0 thousand in 1978 to 6.99 million in 1994. Commerce and food service TVEs increased from 124.0 thousand to 13.19 million during the same period. Transportation TVEs increased from 65.0 thousand to 3.69 million, and construction TVEs increased from 47.0 thousand to 830.0 thousand during the same period.

In terms of TVE share by industry in 1993, the highest was commerce and food service TVEs (52.87%), second was industrial TVEs (28.01%), third was transportation TVEs (14.80%), fourth was construction TVEs (3.33%), and fifth was agricultural TVEs (0.99%). With regard to the total number of TVE staff members and workers, Table 2 shows that TVE staff and workers increased 4.3 times from 28.27 mil-

**Table 2** Persons Employed by Township and Village Enterprises (1978–1994)  
(10 thousand persons)

Year	Enterprises							
		Township	Village	Agri- culture	Industry	Construc- tion	Trans- portation	Commerce and food service
1978	2826.6	1257.6	1568.9	608.4	1734.4	235.6	103.8	144.3
1980	2999.7	1393.8	1605.9	456.1	1942.3	334.7	113.6	153.1
1983	3234.6	1567.0	1667.7	309.2	2168.1	482.7	109.7	164.9
1984	5208.1	1879.2	2103.0	283.9	3656.1	683.5	129.3	455.3
1985	6979.0	2111.4	2215.7	252.4	4136.7	790.0	114.2	1685.8
1986	7937.1	2274.9	2266.4	240.8	4762.0	1270.4	541.3	1122.8
1987	8805.2	2397.5	2320.8	244.2	5266.7	1374.0	623.1	1297.2
1988	9545.5	2490.4	2403.5	250.0	5703.4	1484.8	684.2	1423.1
1989	9366.8	2383.6	2336.6	239.3	5624.1	1403.7	699.4	1400.3
1990	9264.8	2333.2	2259.2	236.1	5571.7	1346.8	711.2	1398.9
1991	9609.1	2431.0	2336.0	243.1	5813.6	1384.3	732.3	1435.8
1992	10581.1	2608.3	2540.5	254.8	6336.4	1540.7	796.9	1652.3
1993	12345.3	2880.8	2886.9	285.4	7259.6	1826.9	931.4	2042.0
1994	12018.2	2960.7	2938.1	260.8	6961.6	1621.8	725.7	2448.3

Note: Figures for 1978–1983 include only township and village level enterprises, since 1984 figures cover all township and village enterprises.

Source: *Zhongguo Tongji Nianjian 1995 (Statistical Yearbook of China 1995)*, p. 364, Table 11–29.

lion in 1978 to 120.18 million in 1994. It is not too much to say that mass employment by the TVE sector of 120.18 million people is one of the biggest successes of economic reform. The number of staff and workers of township enterprises rose by 135.42% from 12.58 million to 29.61 million, and that of staff and workers of village enterprises increased by 87.27% from 15.69 million to 29.38 million during the same period.

In terms of the number of TVE staff and workers by industry, the number of industrial TVE staff and workers increased 4.0 times from 17.34 million in 1978 to 69.61 million in 1994. The number of commerce and service TVE staff and workers increased 17.0 times from 1.44 million to 24.48 million during the same period. The number of construction TVE staff and workers increased 6.8 times from 2.36 million to 16.22 million during the same period. The number of transportation TVE staff and workers increased 7.0 times from 1.04 million to 7.26 million during the same period. It should be noted that the number of agricultural TVE staff and workers decreased by 57.13% from 6.08 million to 2.61 million during the 1978–94 period.

**Table 3** Gross Output Value of Township and Village Enterprises  
(1978–1994)

(100 million yuan)

Year	Enterprises							
	Township	Village	Agriculture	Industry	Construction	Transportation	Commerce and food service	
1978	493.1	281.1	211.9	36.2	385.3	34.8	18.8	18.1
1980	656.9	369.4	287.5	39.4	509.4	60.1	24.5	23.4
1983	1016.8	591.1	425.8	43.7	757.1	136.2	32.7	47.1
1984	1709.9	817.5	648.4	52.9	1245.4	216.5	47.3	147.8
1985	2728.4	1139.0	910.5	58.7	1827.2	310.0	41.0	482.5
1986	3540.9	1413.9	1102.6	68.9	2413.4	522.7	255.9	279.9
1987	4764.3	1825.9	1411.6	88.7	3243.9	651.0	360.5	419.9
1988	6495.7	2438.5	1924.2	115.3	4529.4	827.7	473.5	549.9
1989	28.4	2672.9	2182.7	126.0	5244.1	886.5	578.8	593.0
1990	8461.6	2987.4	2441.8	141.8	6050.3	952.4	648.0	669.3
1991	11621.7	4274.5	3445.3	179.5	8708.6	1140.6	766.8	826.2
1992	17975.4	6649.3	5450.5	246.8	13635.4	1744.1	1095.0	1253.2
1993	31540.7	10787.8	9572.5	401.9	23446.6	3227.3	1978.1	2486.8
1994	42588.5	15040.9	13825.1	575.6	32336.1	4076.3	2177.4	3422.4

Note: Figures for 1978–1983 include only township and village level enterprises, since 1984 figures cover all township and village enterprises.

Source: *Zhongguo Tongji Nianjian 1995 (Statistical Yearbook of China 1995)*, p. 365, Table 11–30.

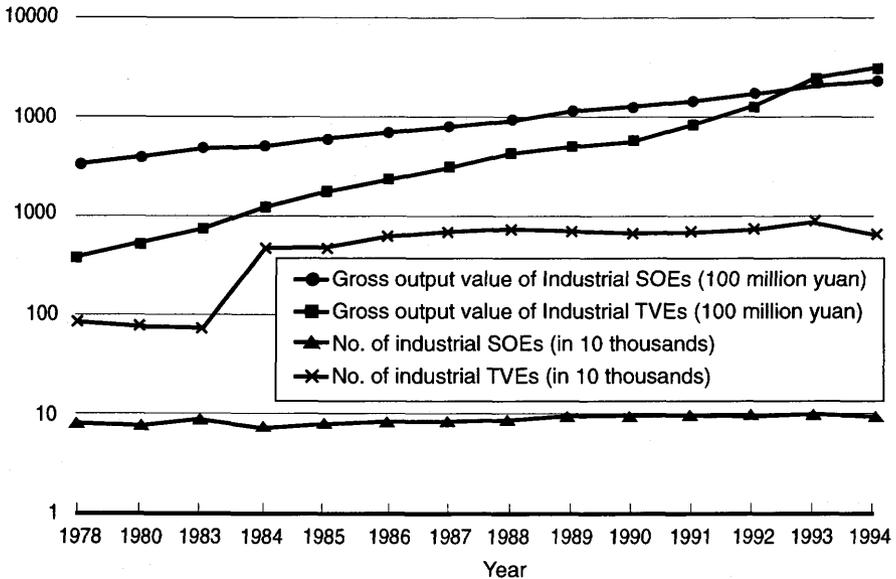
In terms of production, Table 3 shows that gross TVE output increased 86.4 times from 49.31 billion yuan in 1978 to 4,258.85 billion yuan in 1994. Gross output of township enterprises increased 53.5 times from 28.11 billion yuan to 1,504.09 billion yuan, and that of village enterprises 65.2 times from 21.19 billion yuan to 1,382.51 billion yuan during the same period. In terms of TVE production share by industry, industrial TVEs were highest with 75.93% of total output. Construction TVEs took second place with 9.57%, while commerce and food service TVEs were in third place with 8.04%. Transportation TVEs were fourth with 5.11%, and agricultural TVEs were fifth with 1.35%.

### 3.2 The Economic Performance of the Industrial TVE Sector

#### *Quantitative aspects of the industrial TVE sector*

According to Table 3, gross output of the industrial TVE sector amounted

**Figure 2** Industrial Gross Output Value of State-Owned and of Township and Village Enterprises (1978–1994)



Source: *Zhongguo Tongji Nianjian (Statistical Yearbook of China)*, various years.

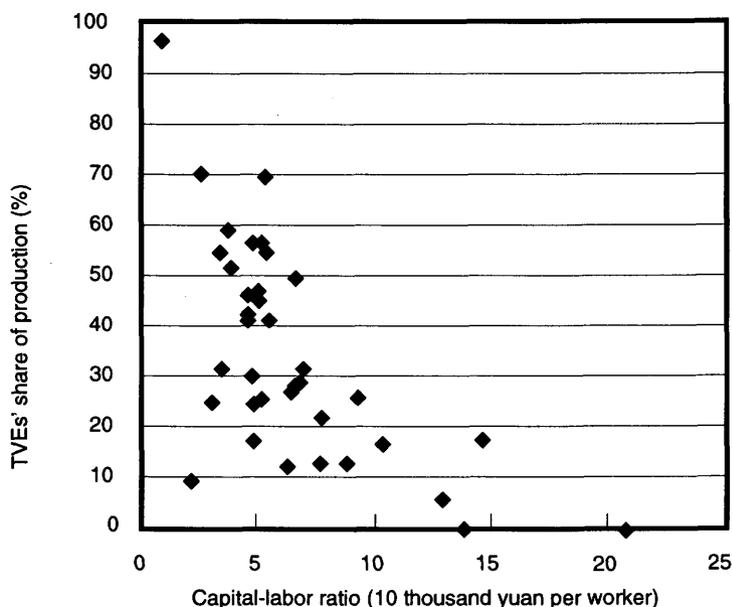
to 3,233.61 billion yuan in 1994. This output accounted for 42.04% of total industrial production. During the 1978–94 period the nominal growth rate of the industrial TVE sector was 31.90%, while that of state-owned industrial enterprises was 13.85%. As Figure 2 shows, in 1978 the gross output value of industrial TVEs was only 11.71% of that of SOEs while it was in 1993 that the gross output value of industrial TVEs finally surpassed that of SOEs. This astonishing fact shows that industrial TVEs are more competitive than SOEs. Figure 3 shows the competitiveness of industrial TVEs, which are competitive in the labor-intensive industries, but not in the capital-intensive industries. In terms of industrial TVE output by industry in 1993, textiles, construction materials and nonmetal minerals, machinery, metal, and food manufacturing are major industries (Table 4).

A look at the number of industrial TVEs by industry in 1993 shows that food manufacturing is first, construction materials and nonmetal minerals are second, and machinery is third (Table 5). In terms of employment in industrial TVEs by industry in 1993, construction materials and nonmetal minerals ranked first, transportation equipment man-

ufacturing was second, textile industry third, machinery fourth, and garment and other products fifth (Table 5).

In terms of the number of TVEs by region in 1993, Sichuan ranked first, Henan second, Shandong third, Anhui fourth, Hebei fifth, and Hunan sixth (Table 6). The number of industrial TVEs by region in 1993 shows that Sichuan ranked first, Shandong second, Jiangsu third, Guangdong fourth, Zhejiang fifth, and Hubei sixth (Table 7). In terms of employment of industrial TVEs by region in 1993, Jiangsu ranked first, Shandong second, Guangdong third, Sichuan fourth, and Hebei fifth (Table 8). A look at the production of industrial TVEs by region in 1993 shows that Jiangsu ranked first, Shandong second, Zhejiang third, and Guangdong fourth (Table 9).

**Figure 3** TVEs' Share of Industrial Production in 1993



Notes: 1. Capital-labor ratio by industry is calculated from total assets (average balance of circulating funds plus net value of fixed assets) and the number of workers of industrial enterprises with independent accounting systems.

2. TVEs' share of industrial production by industry is calculated as follows. The denominator is gross output value of industrial enterprises with independent accounting systems and of TVEs. The numerator is gross output value of industrial TVEs.

Source: *Zhongguo Tongji Nianjian 1994 (Statistical Yearbook of China 1994)*.

**Table 4** Gross Output Value of Industrial Township and Village Enterprises in 1993

(10 thousand yuan)

Category	1990 prices	Current prices
Total	169,623,449	169,622,471
Grouped by light & heavy industry		
Light industry	88,701,715	86,399,693
Heavy industry	80,921,734	83,222,778
Grouped by sector		
Coal mining and processing	2,782,513	2,641,050
Petroleum and natural gas extraction	1,244	1,343
Ferrous metal mining and processing	738,482	781,470
Nonferrous metal mining and processing	823,854	810,251
Construction materials and nonmetal minerals	4,392,119	4,268,859
Salt mining and processing	143,840	137,580
Other mineral mining and processing	82,424	80,810
Logging and transport of timber and bamboo	192,711	196,975
Tap water production and supply	98,765	115,299
Food manufacturing	10,398,368	10,620,577
Beverage manufacturing	2,247,020	2,192,286
Tobacco processing	13,058	12,599
Feed processing	968,537	963,516
Textile industry	20,304,996	18,490,111
Garments and other products	8,385,390	8,409,145
Leather, furs, down, and related products	3,139,973	3,179,889
Timber processing, bamboo, cane, palm fiber, and straw products	2,201,926	2,214,364
Furniture manufacturing	1,545,878	1,545,044
Papermaking and paper products	3,766,997	3,680,176
Printing	1,478,316	1,468,337
Cultural, educational, and sports products	1,331,516	1,334,801
Industrial products	3,390,931	3,352,366
Electric power, steam, and hot water production and supply	327,975	466,227
Petroleum processing	456,884	495,532
Coking and gas products	665,694	619,140
Chemical industry	8,754,496	8,468,774
Medical and pharmaceutical products	1,196,720	1,130,628
Chemical fibers	963,358	790,749
Rubber products	1,575,943	1,501,791
Plastic products	5,699,444	5,381,575
Construction materials and nonmetal minerals	19,473,932	20,532,419
Smelting and pressing of ferrous metals	6,688,006	8,221,515
Smelting and pressing of nonferrous metals	3,433,287	3,425,519
Metal products	11,128,474	11,377,514
Machinery industry	17,089,367	17,258,024
Transportation equipment manufacturing	3,233,756	3,266,750
Electric equipment and machinery	6,627,598	6,575,157
Telecommunications	2,625,320	2,356,932
Instruments, meters, cultural, and official machinery	599,468	576,694
Other industry	1,065,869	10,680,683

Source: *Zhongguo Xiangzhen Qiye Nianjian 1994 (Almanac of China's Township and Village Enterprises 1994)*, pp. 228-331, Table 1-3.

**Table 5** Numbers of Industrial Township and Village Enterprises and of Staff and Workers in 1993

Category	No. of enterprises	No. of persons
Total	1,069,133	42,235,774
Grouped by light & heavy industry		
Light industry	592,336	20,400,146
Heavy industry	476,797	21,835,628
Grouped by sector		
Coal mining and processing	26,972	1,928,390
Petroleum and natural gas extraction	12	328
Ferrous metals mining and processing	6,034	311,500
Nonferrous metal mining and processing	5,169	285,744
Construction materials and nonmetal minerals	53,616	1,858,704
Salt mining and processing	1,158	67,479
Other mineral mining and processing	1,175	38,281
Logging and transport of timber and bamboo	5,913	112,812
Tap water production and supply	4,210	36,810
Food manufacturing	216,191	2,194,195
Beverage manufacturing	27,359	588,921
Tobacco processing	241	6,098
Feed processing	7,945	7,945
Textile industry	31,530	3,373,010
Garments and other products	32,037	2,203,964
Leather, furs, down, and related products	10,291	723,157
Timber processing, bamboo, cane, palm fiber, and straw products	31,519	695,024
Furniture manufacturing	16,991	406,073
Papermaking and paper products	20,631	1,095,895
Printing	11,912	400,946
Cultural, educational and sports products	4,811	480,890
Industrial products	26,665	1,690,474
Electric power, steam, and hot water production and supply	15,585	182,901
Petroleum processing	1,563	51,963
Coking and gas products	5,161	151,701
Chemical industry	29,146	1,323,033
Medical and pharmaceutical products	1,994	154,842
Chemical fibers	1,248	104,387
Rubber products	5,041	338,790
Plastic products	29,221	1,232,776
Construction materials and nonmetal minerals	184,418	8,672,258
Smelting and pressing of ferrous metals	15,223	860,116
Smelting and pressing of nonferrous metals	6,286	334,476
Metal products	51,971	2,197,916
Machinery industry	64,478	3,323,135
Transportation equipment manufacturing	9,582	5,641,641
Electric equipment and machinery	13,136	901,056
Telecommunications	5,285	482,750
Instruments, meters, cultural, and official machinery	2,352	132,109
Other industry	85,061	2,640,091

Source: *Zhongguo Xiangzhen Qiye Nianjian 1994 (Almanac of China's Township and Village Enterprises 1994)*, pp. 228-331, Table 1-3.

**Table 6** Economic Performance of Township and Village Enterprises by Region in 1993

Region	No. of enterprises	No. of persons employed	Nominal gross output value (10 thousand yuan)	Product sales revenues (10 thousand yuan)
Total	24,529,272	123,453,082	315,406,812	288,353,130
Beijing	115,598	1,253,649	5,969,317	5,423,504
Tianjin	38,507	971,163	5,450,844	4,196,205
Hebei	1,596,946	7,432,504	17,143,600	16,183,454
Shanxi	629,468	3,476,581	7,082,035	5,949,019
Inner Mongolia	427,969	1,454,467	2,024,087	2,301,873
Liaoning	783,110	4,339,775	15,786,204	14,818,024
Jilin	557,991	1,916,576	3,254,019	3,201,817
Heilongjiang	662,327	2,051,204	3,605,768	3,647,262
Shanghai	17,267	1,471,635	7,346,288	5,857,948
Jiangsu	984,882	9,474,242	47,020,440	36,317,023
Zhejiang	705,604	6,670,850	27,589,736	24,194,794
Anhui	1,667,354	6,373,091	11,477,872	10,845,580
Fujian	671,962	4,063,322	10,561,438	10,308,280
Jiangxi	1,052,934	3,395,178	5,864,013	5,251,962
Shandong	1,967,023	13,508,107	47,250,000	40,287,199
Henan	2,043,427	11,553,188	21,909,142	19,907,855
Hubei	1,377,638	5,198,448	10,075,474	9,296,532
Hunan	1,549,373	5,934,589	8,260,866	9,422,452
Guangdong	1,389,897	9,155,144	22,020,138	24,380,947
Guangxi	1,212,334	3,663,529	6,546,692	7,357,741
Hainan	117,647	352,064	494,826	526,469
Sichuan	2,424,252	10,335,931	19,232,742	19,032,356
Guizhou	531,240	1,535,289	1,229,095	1,306,035
Yunnan	613,507	1,956,476	1,747,830	2,110,307
Tibet				
Shaanxi	769,298	3,170,837	3,722,017	3,678,483
Gansu	274,658	1,665,230	1,722,238	1,554,172
Qinghai	46,215	156,730	111,957	107,688
Ningxia	98,670	322,596	304,518	304,060
Xinjiang	202,274	600,687	553,616	584,089

Source: *Zhongguo Xiangzhen Qiye Nianjian 1994 (Almanac of China's Township and Village Enterprises 1994)*, pp. 151-191, Table 1-4.

**Table 7** Industrial Township and Village Enterprises by Region in 1993  
(No. of enterprises)

Region	Enterprises			
	Total	Joint	Joint ventures	Joint ventures with Hong Kong
Total	1,069,133	33,449	5,702	8,492
Beijing	13,824	744	132	140
Tianjin	10,322	568	75	113
Hebei	53,767	1,525	116	80
Shanxi	36,266	290	12	22
Inner Mongolia	8,647	257	1	
Liaoning	40,949	970	128	46
Jilin	12,288	246	16	7
Heilongjiang	17,339	182	44	
Shanghai	15,022	2,960	310	356
Jiangsu	99,098	4,458	1,598	1,236
Zhejiang	74,212	3,338	460	577
Anhui	46,658	383	29	45
Fujian	40,505	2,139	474	838
Jiangxi	40,699	559	50	82
Shandong	101,335	2,449	691	656
Henan	55,514	2,025	745	53
Hubei	67,087	332	21	76
Hunan	55,387	355	16	14
Guangdong	87,067	7,518	702	4,005
Guangxi	15,301	165	25	30
Hainan	1,042	47	3	3
Sichuan	111,713	1,068	30	82
Guizhou	6,886	158	2	2
Yunnan	17,474	67		4
Tibet				
Shaanxi	25,983	401	10	20
Gansu	8,092	110	7	2
Qinghai	981	19		1
Ningxia	1,788	35	3	1
Xinjiang	3,887	81	2	1

Source: *Zhongguo Xiangzhen Qiye Nianjian 1994 (Almanac of China's Township and Village Enterprises 1994)*, pp. 228-231, Table 1.

**Table 8** Employment by Industrial Township and Village Enterprises in 1993  
(Persons)

Region	Persons employed			
	Total	Joint	Joint ventures	Joint ventures with Hong Kong
Total	42,235,774	4,011,322	762,271	1,237,488
Beijing	748,705	91,180	21,254	23,542
Tianjin	754,301	82,763	9,143	15,176
Hebei	2,107,249	95,449	19,290	11,399
Shanxi	1,280,809	30,565	7,610	3,126
Inner Mongolia	287,524	13,710	48	
Liaoning	1,746,691	72,661	18,714	5,680
Jilin	468,908	16,515	1,518	1,441
Heilongjiang	501,361	11,512	5,004	
Shanghai	1,406,653	480,504	49,818	56,255
Jiangsu	6,221,231	672,874	208,652	221,174
Zhejiang	3,627,698	435,266	82,851	94,154
Anhui	1,565,163	34,790	4,924	6,185
Fujian	1,331,079	180,559	67,821	82,035
Jiangxi	862,444	25,572	4,101	4,091
Shandong	4,795,219	379,004	130,718	108,762
Henan	2,369,771	98,029	41,447	9,349
Hubei	1,530,620	32,525	4,128	13,008
Hunan	1,486,776	19,319	2,187	1,145
Guangdong	4,199,889	1,062,059	70,163	565,596
Guangxi	439,461	10,692	3,595	2,291
Hainan	23,535	1,902	78	100
Sichuan	2,577,953	111,559	5,785	9,579
Guizhou	242,257	12,222	230	104
Yunnan	440,770	5,031		199
Tibet				
Shaanxi	679,365	17,083	1,024	2,384
Gansu	314,746	9,659	1,411	445
Qinghai	37,978	1,522		80
Ningxia	63,406	1,960	229	130
Xinjiang	124,212	4,836	528	58

Source: *Zhongguo Xiangzhen Qiye Nianjian 1994 (Almanac of China's Township and Village Enterprises 1994)*, pp. 228-231, Table 1.

**Table 9** Nominal Gross Output Value of Industrial Township and Village Enterprises in 1993

(10 thousand yuan)

Region	Current prices			
	Total	Joint	Joint ventures	Joint ventures with Hong Kong
Total	169,622,471	22,622,308	5,993,201	7,478,709
Beijing	4,372,431	695,058	190,846	182,656
Tianjin	4,612,362	721,321	117,128	159,600
Hebei	7,045,685	439,006	82,904	73,588
Shanxi	2,874,732	106,503	39,513	13,145
Inner Mongolia	505,423	22,450	200	
Liaoning	7,376,992	556,032	162,186	65,850
Jilin	1,046,283	65,459	12,290	3,722
Heilongjiang	1,222,063	67,019	5,856	
Shanghai	7,430,941	3,165,323	439,990	542,832
Jiangsu	39,464,605	5,677,002	1,886,543	1,871,889
Zhejiang	16,794,125	2,882,997	649,700	659,697
Anhui	4,177,621	149,541	19,155	25,551
Fujian	4,658,246	1,136,918	424,306	623,797
Jiangxi	1,963,293	111,702	20,119	37,601
Shandong	26,025,139	2,396,354	1,082,084	821,598
Henan	7,169,454	298,591	55,296	48,031
Hubei	4,277,591	145,234	22,759	75,199
Hunan	3,110,355	80,026	9,960	5,103
Guangdong	13,837,341	2,991,042	365,151	2,164,271
Guangxi	1,200,050	60,250	9,194	37,063
Hainan	64,353	5,340	768	135
Sichuan	7,149,215	689,882	382,700	41,006
Guizhou	348,726	27,536	1,108	140
Yunnan	729,707	10,188		468
Tibet				
Shaanxi	1,263,627	60,586	4,163	23,028
Gansu	520,573	43,180	6,148	2,268
Qinghai	47,269	2,811		240
Ningxia	104,416	6,963	1,339	76
Xinjiang	229,853	7,994	1,795	155

Source: *Zhongguo Xiangzhen Qiye Nianjian 1994 (Almanac of China's Township and Village Enterprises 1994)*, pp. 228-231, Table 1.

*Types of TVEs by region*(1) The Sunan model<sup>25</sup> (the southern Jiangsu model)

Typical areas of this model are Suzhou, Wuxi, and Changzhou in the southern part of Jiangsu province, including 12 counties, which have areas of 16 thousand square kilometers. TVEs here had developed so fast that the number of TVEs increased to 161,843 and the number of workers amounted to 3.04 million. Total assets of liquid and fixed capital amounted to 10 billion yuan, and total value of TVE output to 30.2 billion yuan, accounting for 8.9% of the national output of TVEs in 1986. Total taxes of 1.33 billion yuan paid by TVEs here in 1985 accounted for 12.7% of national taxes in 1985.

The total population of this area amounted to 10 million in 1985. Average assets per industrial TVE amounted to 340 thousand yuan, while the average value of output per person was 2,000 yuan. In Sunan 603 TVEs produced an annual output of more than 5 million yuan each, and 225 of these TVEs produced an annual output of more than 10 million yuan each.

In 1986 the industrial output values of TVEs in Suzhou and Wuxi amounted to 12.26 billion yuan and 11.8 billion yuan respectively, while of 300 cities Suzhou and Wuxi ranked first and second, respectively, thereby exceeding Shanghai, Beijing, and Tianjin. Of 2000 counties nationwide, Wuxi county ranked first in terms of TVE industrial production.

Why was the development of TVEs in Sunan so fast? There were several reasons. First, in terms of ownership, the collectives at both village and township levels owned the greater part of TVEs by percentage. Second, in terms of industrial structure, the major industry is manufacturing and major manufactured products are non-agricultural and non-agricultural sideline products. Third, TVEs in Sunan are linked to urban enterprises and R&D units. About one-third of the industrial output of TVEs here is due to industrial production under many forms of cooperation with urban enterprises. Fourth, in terms of income distribution, TVEs in Sunan run distribution systems according to work. Fifth, the TVE sector in Sunan works to support the agricultural sector, which is called the *yi kong bu nong* policy. Sixth, with respect to marketing systems, most production of the TVE sector in Sunan is dependent on the market mechanism. For instance, of the total industrial output of Wuxi county TVEs in 1985, 5.1% was subject to the plans of the state and the province, 2.2% to the plans of the city and county, 4.3% to the township, 1.9% to city and county commerce, and 20.8% to cities, while 65.8% went to the free markets.

### (2) The Wenzhou model<sup>26</sup>

Wenzhou is a city of Zhejiang province. The Wenzhou model is a kind of market-oriented TVE. Its major organizations include family management and joint-household enterprises producing daily necessities. In 1985 there were 133 thousand family management and joint-household enterprises, which employed 330 thousand workers and produced an output of 1.13 billion yuan. The gross value of industrial output by these two types of enterprises accounted for 68% of total industrial output in the city. In terms of industrial production, the share of SOEs decreased from 27.54% in 1980 to 18.43% in 1985, and that of collective enterprises from 59.86% to 54.1%, while that of family management and joint-household enterprises increased from 12.60% to 27.47% during the same period.

This model has the following characteristics: First, family management and joint-household enterprises are central to the Wenzhou model. Second, the TVEs make the best use of factor markets such as consumer goods, materials, capital, labor, and technology. Third, the leading industry is the one producing daily necessities. Fourth, the introduction of market mechanisms has adopted many forms of income distribution systems, thus increasing income differentials. Fifth, intra-industrial and intra-regional movements of production factors have occurred and resulted in the concentration of factors into small towns.

### (3) The Zhujiang model<sup>27</sup>

The development model of TVEs in the Zhujiang delta is called the Zhujiang model. Zhujiang delta is an open economic zone permitted by the State Council, and covering four cities and 13 counties. In 1986 the total land area of the Zhujiang delta was 22.7 thousand square kilometers, accounting for 10.8% of Guangdong province's total land area. Total population of the Zhujiang delta was 10.27 million in 1986, which was 16.20% of total provincial population. The gross value of industrial and agricultural output in the Zhujiang delta amounted to 24.53 billion yuan in 1986, which was 31.20% of the provincial total. Total imports of the Zhujiang delta amounted to 4.40 billion yuan in 1986, accounting for 32.60% of the province's total. Finally, total revenue of the Zhujiang delta's TVE sector amounted to 13.23 billion yuan, which was 50% of the total for the province.

The number of TVEs in Zhujiang delta increased 7.5 fold from 19.7 thousand in 1978 to 169.3 thousand in 1986, while the number of people they employed doubled from 547.2 thousand to 1.56 million during the same period. Total revenue of TVEs increased 12 times from 1.17 billion yuan in 1978 to 13.23 billion yuan in 1986.

The Zhujiang model has the following characteristics. First, industrial

structure has changed from a two-dimensional agricultural and industrial to a multi-dimensional structure. Second, in terms of technology and equipment, TVEs have developed well thanks to the *sanlai yibu* (processing trade, assembling, compensation trade), joint ventures, joint operations, leasing, bank loans, foreign trade, and so on. Third, in the domestic market, the proportion of goods sold to other provinces has increased, while in the international market the proportion of goods sold to Western Europe and the United States has increased. Fourth, ownership structure has changed from single to jointly operated enterprises. Horizontal cooperation has broken down barriers of ownership, region, and industry, and that has led to form many types of joint operation resulting in corporations, as well as joint ventures and jointly operated enterprises. Fifth, inward-looking enterprises have been looking outward in order to acquire foreign exchange earnings. Sixth, enterprise management has introduced the factory manager system and the contract responsibility system. Seventh, TVEs have established export-based enterprises for foreign trade. Eighth, to expand their sources of labor, TVEs have begun to increase employment from other provinces.

#### **4. TOWNSHIP AND VILLAGE ENTERPRISES IN TERMS OF INDUSTRIAL ORGANIZATION**

##### **4.1 Economic Analysis of Subcontracting Firms**

Ronald Coase<sup>28</sup> insisted on economizing transaction costs saying that saving transaction costs leads to the formation of firms. Following Coase's theory, Oliver Williamson<sup>29</sup> worked out a new economics of internal organization, and based on Williamson's theory, Kenichi Imai and others<sup>30</sup> define subcontracting firms as an intermediate organization between the market and the firm.

##### **4.2 TVEs in Terms of Industrial Organization**

Industrial TVE ownership in 1992 was such that township enterprises numbered 263,130, village enterprises numbered 709,639, joint enterprises numbered 508,975, and individual-owned enterprises numbered 6,456,470. By type, joint TVEs totaled 43,668 in 1992, while the number of joint TVEs with SOEs was 14,080, that of joint enterprises with urban collective enterprises was 4,005, that of joint TVEs with TVEs was 4,653, that of joint TVEs with foreign capital, including Hong Kong and Macao capital, was 11,463, and that of joint TVEs was 9,465. However, it is not clear how many industrial TVEs are affiliated with each type of joint TVE

It is conceivable that for the most part joint TVEs with state-owned industrial enterprises might be industrial TVEs. In this context state-owned industrial enterprises have a tendency to organize joint TVEs as subcontracting enterprises.

For example, TVEs in Sunan have made many horizontal associations with Shanghai.<sup>31</sup> Of 2,055 associations in Wuxi, more than 60% are related to Shanghai. In the case of the 11,302 inter-regional associations in Suzhou, 63.2% are related to Shanghai. In particular, the proportion of associations with Shanghai to total associations is 67.6% in Changshu county, 72.8% in Kunshan county, and 76.8% in Taicang county.

There are six types of horizontal associations by industry: industry-industry, industry-commerce, industry-trade, industry-finance, industry-technology, and industry-agriculture.

A look at the 187 associations of Kunshan county with Shanghai shows that the industry-industry type was 76% of the total, the industry-commerce type was 12.8%, the industry-technology type was 3.2%, and the other types accounted for the remainder.

The industry-industry type comprises the following four types:

- (1) Large enterprises producing brand goods create associations or groups in order to have TVEs process parts.
- (2) Enterprises producing the same goods with the same materials form associations to develop markets.
- (3) Urban enterprises charge certain fees to TVEs for protecting the transfer of trademarks and technology to TVEs, while some advanced TVEs do the same for undeveloped ones.
- (4) Large enterprises conduct financial and technological cooperation with TVEs.

There are three types of horizontal associations by ownership.

- (1) Tight associations. This type has four unchanged characteristics: mutual ownership; unified management for the supply of materials, production, marketing, labor, and goods; unified accounting; and legal status of incorporation. Joint ventures and joint stock companies belong to this type.
- (2) Semi-tight associations. This type exists under a long-term fixed cooperative relationship between enterprises, and involves management of the combination of unification and specialization, where a unified plan, the division of labor, and specialized production are carried out.
- (3) Loose associations. This type is the major one among TVEs in Sunan. This type is formed under contract. In terms of management, it

involves specialization and an independent profit system. It has no property relationship, and includes assembling, processing trade, technological cooperation, compensation trade, and the like.

With regard to competition, it follows that associations promote competition, while competition further promotes the formation of associations. Taking the example of electric fans, so many TVEs produced them in the 1980s that there were as many as 3,000 brands nationwide. However, in 1984 the number of brands decreased to 200 because of severe competition. As a result, many TVEs failed although TVEs which could have survived had no ability to make new products of high quality. On the other hand urban enterprises had no money to expand production. This situation led to the formation of associations between TVEs and urban enterprises.

In this way large-scale associations were formed in Suzhou, Wuxi, and Changzhou. The Suzhou Changcheng Electric Fan Enterprise increased production of electric fans from 140 thousand in 1983 to 800 thousand in 1986 by forming its large association with TVEs.

The company had 13 TVEs as its group members and 243 TVEs as its cooperative enterprises. In addition, it had commerce and R&D units as its group members so that the type of association evolved from a loose to a tight one.

## **5. A COMPARISON WITH SMALL AND MEDIUM ENTERPRISES IN TAIWAN AND KOREA**

### **5.1 Industrial Policy Concerning Small and Medium Enterprises in Taiwan<sup>32</sup>**

#### *The policy of strategic industry*

In March 1982 the Taiwanese government organized an executive committee for the development of strategic industries in order to upgrade the industrial structure. The committee specified machinery, information, and electronics as the strategic industries, choosing 87 items in the machinery industry (49 machinery items, nine automotive items, and 29 electric machinery items) and 64 items from the information and electronics industries in the first stage.

The Ministry of Economic Affairs improved the general conditions for investment and management, and enacted appropriate protective tariffs and loans for the strategic industries selected in cooperation with the Ministry of Finance and the banks, while it made the Center for the Development of the Metal Industry, the Association of Promoting

Information Industry, and the Institutes of Machinery, Energy, and Electronics under the Industrial Science & Technology Agency, while the China Productivity Center provides technology and management guidance for firms.

First, the development strategy of the strategic industries is to upgrade the industrial sector as a whole by improving the general conditions for investment and management, and helping vigorous firms produce certain commodities in terms of technology, management, marketing, and finance. These commodities have been selected preferentially as those having a strong relational effect and a large potential market. Second, the strategy says that a company must let a selected commodity compete with other commodities of the same kind in the domestic market, and then make its debut in the world market. However, for the sake of users, the duration of commodity protection – except for special instances of tariffs and other measures – was limited to five years. Subsequently the number of preferential items became 191, rising to 216 at the end of 1987.

For financing there were medium- and long-term loans by the Bank of Communications and the Bank of Export-Import, short-term loans for working capital by the Bank of Communications and the Medium Business Bank of Taiwan, and loans in foreign exchange of 600 million dollars by all the banks mentioned above.

By way of guarantee, the Bank of Communications gave certification of divided payment for imported equipment and services, and of bidding deposit and security for overseas construction.

For investment the Bank of Communications could join development investment with the low initial rate of return by taking shares of 25% and withdrawing as a shareholder after a company has become financially healthy.

### *The Center-Satellite System*

In 1983 the Ministry of Economic Affairs adopted the “Policy on Constructing the Center-Satellite System” to mimic Japan’s subcontracting system, i.e., the *keiretsu* system. This policy included three forms of the Center-Satellite Factory System:

- (1) A central factory, such as one for machinery, electrical appliances, and electronics, makes finished goods using parts that come from satellite factories.
- (2) For the central factory to produce materials, downstream factories process many products. For example, a petrochemical factory will supply materials to plastics and textile industries. The satellite fac-

tories take materials from upstream and midstream factories and make finished goods such as clothes, plastics, and leather products.

- (3) The central factory is a large-scale trading house which is supported by a specific factory or a company that has a contracting factory responsible for total production processes. Satellite factories enter into long-term processing contracts with the central factory or contracts for obtaining instruction about production from the central factory, and for supplying it with products.

The objectives of this policy were to realize the concentration and specialization of production through specialization and division of labor, to increase capital efficiency, to realize a close combination between production and selling, to jointly promote the improvement of technology and management, to improve product quality, to reduce production cost, to enhance competitiveness, and to realize the principle of live-and-let-live.

The Ministry of Economic Affairs investigates firms after registration of the Center-Satellite System, naming firms as models of the system. The capital of a central factory has to be more than 500 million N.T. dollars or its recent three-year average gross profit has to be more than one billion N.T. dollars.

On the other hand the capital of a satellite factory has to be more than 10 million N.T. dollars and a type one satellite factory has to have a one-year gross profit of more than 20 million N.T. dollars, or contribute more than 25% of production to the center factory. A type two or three satellite factory has to have a one-year gross profit of 50 million dollars or contribute more than 25% of production to the central factory.

Rights and duties of both parties under the Center-Satellite System are fixed. The terms by which the central factory must abide are as follows: (1) establish a stable supply and demand relationship; (2) cooperate with the quality control system; (3) cooperate in opening overseas markets; and (4) cooperate in buying materials and equipment. Rights and duties of satellite factories are: (1) get tutoring from the government and the central factory to improve management; (2) do not sell technology and designs provided by the central factory; (3) do not divulge secrets of the center factory.

Matters of joint responsibility are as follows: (1) permit mutual investment and personnel management, and strengthen their relationship with one another; (2) hold training and study meetings on management, quality, and technology, and strengthen cooperation between firms; (3) cooperate with sales and investment plans; (4) have the central factory educate the management staff of satellite factories and improve management institutions; and (5) have the central factory cooperate with R&D by satellite factories.

**Table 10** Status of Participating Center-Satellite System or Contracting Collaboration Plant of Manufacturing Enterprises, by Industry in Taiwan (1991)

	Center plants					Satellite plants				
	Total enterprises	Number of center plants	Number of contracted satellite plants	Annual operating revenues (Million NT\$)	Net value of assets in operation (Million NT\$)	Number of contracted center plants	Annual operating revenues (Million NT\$)	Net value of assets in operation (Million NT\$)	Persons engaged per enterprise	
Grand total	140,572	1,275	8,527	898,281.0	1,031,477.2	935	323,988.0	376,293.2	128	
Food manufacturing	7,226	9	34	905.6	1,101.5	7	391	273.5	16	
Tobacco manufacturing	1	-	-	-	-	-	-	-	-	
Textile mill products	7,860	51	851	21,690.9	25,815.1	35	23,732.7	28,734.6	270	
Wearing apparel & accessories	3,690	27	93	2,395.1	2,363.8	19	2,231.5	2,450.9	116	
Leather & fur products	1,344	9	21	6,686.4	6,391.8	10	6,754.4	7,403.8	577	
Wood & bamboo products	5,215	12	34	188.7	307.6	8	311.6	250.4	38	
Furniture & fixtures	3,994	45	533	7,043.4	7,085.6	14	2,645.4	2,629.2	93	
Pulp, paper & paper products	3,867	22	82	11,577.7	16,039.4	21	18,675.6	27,290.8	246	
Printing processing	7,718	21	90	1,566.2	1,744.0	15	565.1	622.4	24	
Chemical matter manufacturing	1,152	9	68	28,745.0	63,314.7	4	7,907.7	10,756.4	258	
Chemical products	2,240	22	145	6,817.7	9,825.4	13	5,695.9	12,433.6	130	
Petroleum & coal products	142	1	9	261,065.4	279,820.2	-	-	-	-	
Rubber products manufacturing	2,020	27	127	10,000.5	11,120.2	29	14,053.3	16,454.3	248	
Plastic products manufacturing	13,180	117	317	11,797.2	12,420.8	79	4,776.7	6,091.1	40	
Non-metallic mineral products	4,467	23	57	3,887.1	5,154.5	16	1,908.8	2,982.9	56	
Basic metal industries	4,837	65	475	96,237.6	195,424.9	56	35,413.5	40,821.9	129	
Fabricated metal products	30,679	170	880	20,796.1	27,354.5	130	9,509.7	11,995.8	43	
Machinery & equipment	15,109	169	1,031	33,528.2	35,718.7	106	9,669.9	8,017.5	42	
Electrical & electronic machinery	11,744	251	1,424	117,004.6	117,681.3	203	99,321.1	116,918.0	195	
Transport equipment	5,471	153	1,866	245,796.2	199,915.0	130	75,230.8	71,419.3	162	
Precision instruments	1,828	21	119	1,883.1	2,029.7	10	847.7	612.6	43	
Misc. industrial products	6,788	51	271	8,668.3	10,848.7	30	4,345.6	8,134.4	101	

Source: *The Report on 1991 Industrial and Commercial Census, Taiwan-Fukien Area, the Republic of China, Vol. 3, Manufacturing*, pp. 316-317, Table 42.

The government provides loans, staff training services, and technical cooperation to the Center-Satellite System approved by the Ministry of Economic Affairs. There are three types of loans: (1) medium- and long-term loans, i.e., medium- and long-term loans for strategic and important industries by the Bank of Communications and the Medium Business Bank; (2) working capital loans (more than 90% are loans without collateral security; and (3) investment (the Bank of Communications contributes to improving the financial structure of the system by investing in it).

Concerning personnel training and technical cooperation, the Industrial Development Bureau (IDB) asks related organizations about intensive training and technical cooperation, and subsidizes the costs, thereby cooperating with each firm in its application to the National Bureau of Standards for the Center-Satellite System, and helping the bureau establish national standards. IDB asks for the help of the international organization of standards in improving commodity inspections.

The number of Center-Satellite Systems increased from 32, including 665 companies, in 1986, to 148, including 2,244 companies, in 1991 (Table 10).

## 5.2 Industrial Policy on Small and Medium Enterprises in Korea

### *The development of industrial policy*<sup>33</sup>

In the 1950s the Korean government did not have an industrial policy on small and medium enterprises (SMEs), and it was not until the 1960s that the government adopted such a policy. In 1960 the government established the Small and Medium Enterprises Section in the Ministry of Trade and Industry in order to prepare the "Law on Small and Medium Business Banks" and the "Law on Small Business Cooperatives."

In 1961 the Park administration enacted these two laws and the "Small and Medium Business Adjustment Law." This administration's thinking on SME industrial policy appeared in the First Five-Year Plan, which stated that in the initial stage the government would let SMEs develop through cooperatives, after which they would gradually develop the subcontracting industry system in conjunction with the growth of big businesses.

In 1966 the government enacted the "Fundamental Law of Small and Medium Businesses," wherein at first it expected that SMEs would play a part in stabilizing the base of the national economy to create employment and acquire foreign exchange earnings, then develop subcontracting factories in conjunction with the development of the heavy and chemical industries.

To provide for export-oriented industrialization policy, the govern-

ment in 1963 made public the "Main Points on Export-Oriented Industrialization of Small and Medium Enterprises," which set forth its policy of determining preferential industries and firms. In 1964 the government enacted the "Law on Industrial Estates of the Export Industry," thereby constructing many industrial estates to intensively promote and manage export-oriented SMEs throughout the whole country.

The Seventh Five-Year Plan<sup>34</sup> sets forth the following industrial policy on SMEs: (1) implement the structural adjustment of SMEs over the medium and long term in order to enhance international competitiveness and to implement policies for promoting SMEs, (2) revise unnecessary regulations on SMEs in order to promote fair trade, and (3) foster SMEs that will play an important role considering that the Korean economy will become an advanced one in the next century.

#### *Industrial policy on keiretsuka*<sup>35</sup>

The government referred to its policy for *keiretsuka* (forming companies into *keiretsu*) only in its Second Five-Year Plan. In 1973 the Park administration released a plan for the heavy and chemical industries. And beginning in the mid-1970s the government increased investment in these industries rapidly while starting to focus on this *keiretsuka* policy. In 1975 the government enacted the "Law for Promoting Subcontracting Small and Medium Enterprises." Industrial policy on SMEs was the central issue in the Fourth Five-Year Plan.

In order to secure markets for small and medium industries, the government designated specific types of industries and subcontracting items based on the revision of the Small and Medium Business Adjustment Law and the enactment of the Law for Promoting Subcontracting Small and Medium Enterprises in 1975. Specific types of industries were designated in order to keep big businesses from entering industries where SMEs could produce more efficiently. Designations were made by order of the President.

Subcontracting items were designated for the purpose of creating SMEs to make and process parts as a backward linkage industry in response to the development of assembly industry. In this context the automobile industry has been successful in subcontracting. As of 1993 Automobile maker A had 481 subcontractors, of which 294 were directly affiliated with it, while 1,120 were secondary subcontractors. Automobile maker B had 280 subcontractors, of which 155 were directly affiliated with it, while 800 were secondary subcontractors. Automobile maker C had 293 subcontractors, of which 84 were directly affiliated, while 1,200 were secondary subcontractors. These three companies formed associations with subcontractors. Company A's association had 229 companies,

of which 10 were *keiretsu* companies; company B's association had 172 companies, of which one was a *keiretsu* member; and company C's association had 174 companies, of which 13 were *keiretsu* members.

## 6. PROSPECTS FOR THE DEVELOPMENT OF TOWNSHIP AND VILLAGE ENTERPRISES

### 6.1 Township and Village Enterprises as Seen in China's Industrial Policy

In June 1994 the State Council made public the "Main Points on Industrial Policy in the 1990s."<sup>36</sup> This document made the following points:

- (1) It is necessary to develop agriculture and to increase the revenues of peasants.
- (2) It is requisite to strengthen infrastructure and infrastructure industries (communications and transportation).
- (3) It is essential to actively promote leading industries such as mechatronics, petrochemicals, automobiles, and construction.
- (4) It is necessary to actively develop foreign trade.
- (5) The objectives of industrial policy are to promote competition among firms, to realize economies of scale and the division of labor, and to create the optimal industrial structure suited to technology and the present stage of economic development.

Industrial technological policy emphasizes promoting technological development, encouraging the combination of research and production, accelerating the wide application of R&D results, introducing advanced technology from abroad, improving the quality of domestic products and technology, raising the efficiency of energy consumption and inputs, lowering production costs, and improving the level of technology.

A rule of industrial location policy is to maintain and strengthen the development of developed regions and stimulate the development of underdeveloped regions, to reduce economic differentials between developed and underdeveloped regions, and to promote the division of labor among regions by taking advantage of natural resources and the national economy.

This document says that agricultural policy should follow the "Main Points on China's Agricultural Development in the 1990s,"<sup>37</sup> which was issued in August 1993 by the State Council. It says the following:

- (1) Developing TVEs leads to the prosperity of rural areas, increases

incomes of peasants, induces rural surplus labor to migrate, promotes agricultural modernization, and develops the national economy. In the 1990s TVEs should be regarded as a strategic industry built on the firm basis of the agricultural sector. Based on the policy of positive support, rational planning, correct instruction, and strong management, it is necessary to create new agriculture-related industries and to continue developing the TVEs.

- (2) It is essential to develop TVEs according to the national economic plan and industrial policy. TVEs should be located in accordance with the availability of production materials and economic rationale. Rational decisions determine how to locate the TVEs in rural or urban areas. Newly established TVEs that process agricultural produce should to the greatest extent possible be located in rural areas. Some qualified cities should relocate to rural areas the enterprises that process agricultural and sideline products.

TVEs should improve product quality and economic efficiency while maintaining a certain level of growth. It is very important to consider how to develop any one TVE according to location. By taking advantage of resources and labor conditions peculiar to each region, the western and minority ethnic group regions should introduce human capital and technology, develop horizontal associations among enterprises, establish enterprises for processing resources, and bring about the development of the whole economy. Similarly, by taking advantage of abundant agricultural products such as foodgrains, the central region should work for the development of the whole economy, improve the level of processing, and guarantee production of agricultural products such as foodgrains. Given present conditions, the coastal region should accelerate technological improvement, and develop new high-tech products and exportables.

- (3) It is very important to develop TVEs in the central and western regions. The People's Bank of China should increase loans to TVEs in both the central and western regions and the minority ethnic group areas at a moderate annual rate, putting emphasis on the development of the central and western regions that produce foodgrains. Loans by international finance institutions should be provided mainly to the central and western regions. It is essential to encourage horizontal economic associations and the division of labor among enterprises in the east region and the central and western regions. The developed areas should help poor areas develop their own economies by means of a complementary relationship between both parties.
- (4) It is indispensable to continue developing TVEs as in the *yi gong jian nong* system, under which they give part of their own profits to the agricultural sector as subsidies. The development of TVEs leads not

only to an increase in peasant income, but also to the construction of basic agricultural infrastructure. Assuming that the production target for agriculture is fulfilled, the TVEs will have to absorb a rural labor surplus of 50 million by the year 2,000.

- (5) It is necessary to enhance instruction on building small towns in the rural areas. The construction of small towns brings about development of the tertiary sector and the migration of surplus labor. At the same time it is necessary to combine the concentration of the TVEs with the construction of small towns. Adopting preferential policy enables the peasants to move into small towns and to engage in industry, commerce, construction, transportation, services, and other activities.

Taiwan followed Japan's industrial policy on SMEs, i.e., the *keiretsuka* policy, by establishing its Center-Satellite System. It seems to me that this system has worked quite well. This success is due to the industrial structure, in which SMEs account for more than 90%, and SMEs have high R&D capabilities. Taiwan might therefore be in a good position to create such a system.

On the other hand Korea began to establish industrial policy on SMEs in the 1970s, following Japan's *keiretsuka* policy. So far it is not too much to say that Korea did not succeed in carrying out this policy because the government helped large enterprises develop, and these enterprises had no subcontracting firms. It is very important to ask which country, Taiwan or Korea, was the first to achieve the industrial structure of a developed country like Japan.

In China the growth rate of TVEs has been very high. So far so good, but what about the future of TVEs? In order to develop further, TVEs will have to obtain higher technology, skilled workers, and more capital. In fact, some TVEs have tried to form joint enterprises with state-owned and foreign enterprises, as well as with other TVEs. The formation of joint enterprises indicates a movement toward *keiretsuka*. Judging from the fact that the industrial TVEs accounted for 30% of total industrial production, it is natural to think that the TVE sector should play the important role of a leading industry in the transition to a market-oriented economy.

## Notes

1. See Zhongguo Gongchandang (the Chinese Communist Party), "Zhonggong zhongyang guanyu jiakuai nongye fazhan rugan wenti de jue ding (cao'an)" (The Decision on Several Questions Concerning the Acceleration of Agricultural Development (Draft)) (in the Third Plenary

- Session), *Zhonggong Yanjiu*, No. 5 (1979), pp. 149-162. See also *Rengmin Ribao* (October 6, 1979) about the revised Decision in the Fourth Plenary Session.
2. Zhongguo Gongchandang, "Nongcun renmin gongshe gongzuo tiaoli (xixing cao'an)" (the "Sixty Articles of Commune Management (Draft)", *Zhonggong Yanjiu*, No. 6(1979), pp.139-152.
  3. See "Guanyu fazhan shedui qiye ruogan wenti de guiding (xixing cao'an)" (the "Regulations on Some Questions Developing Commune- and Brigade-Run Enterprises") in "Zhongguo Xiangchen Qiye Guanli Baike Quanshu" Bianji Weiyuanhui (the Editorial Committee of the Encyclopaedia on the Management of Township and Village Enterprises) ed., *The Encyclopaedia of the Management of Township and Village Enterprises*, Beijing: Nongye Chuban She, 1987, pp. 551-555.
  4. See Zhonggong Zhongyang Guowuyuan Zhuanfa Nongmuyuyebu he Budangzi "Guanyu kaiquang shedui qiye xinjunian de baogao" de tongzhi (the Circular of the Party Center and State Council Transmitting the Report of the Ministry of Agriculture, Husbandry, and Fishery on opening the New Aspects of CEs and BEs) in the Editorial Committee of the Encyclopaedia of TVEs, *The Encyclopaedia of the Management of TVEs*, pp. 597-601.
  5. See "Zhonghua Renmin Gongheguo jiti qiye suodeshui zhanxing tiali" (the "Provisional Regulations of PRC concerning Income Tax on Collective Enterprises"), in the Editorial Committee of the Encyclopaedia of TVEs, *The Encyclopaedia of the Management of TVEs*, Beijing: Nongye Chuban She, 1987, pp. 621-622.
  6. Concernig "Nongmin gufen hezuo qiye zhangxing guiding" (the "Provisional Regulations on Peasants' Shareholding Enterprises") see Zhongguo Xiangzhen Qiye Nianjian Bianji Weiyuanhui (the Editorial Committee of the Almanac of China's TVEs), *Almanac of China's TVEs 1991*, Beijing: Nongye Chuban She 1992, pp. 85-86.
  7. Concernig "Guanyu yinfa xiangzhen qiye tiaozheng de rugan yijian de tongzhi" (the "Circular Concerning Some Opinions adjusting Industrial TVEs") see Zhongguo Xiangzhen Qiye Nianjian Bianji Weiyuanhui (the Editorial Committee of Almanac of China's TVEs), *Zhongguo Xianzhen Qiye Nianjian 1991*(Almanac of China's TVEs 1991), pp.107-109.
  8. Concernig "Xiangcun jituan suoyouji qiye tiaoli" (the Regulations Concerning Rural Collective Enterprises") see *Almanac of China's TVEs 1991*, pp. 109-112.
  9. Concernig "Xiangzhen qiye zujian he fazhan qiye jituan fazhan zhanding banfa" (Provisional Procedures for Establishing and Expanding Collective Corporations by TVEs) see *Almanac of China's TVEs 1993*, pp.101-103.
  10. Concernig "Xianchen lianying qiye zhanxing guiding" (the "Provisional Rules of Cooperative TVEs") see *Almanac of China's TVEs 1993*, pp. 103-104.

11. Concerning "Guanyu cujin xiangzhen qiye jishu jiankang fazhan baogao de tongzhi" (the Circular of the Ministry of Agriculture Promoting the Sustained and Healthy Development of TVEs) see *Almanac of China's TVEs 1993*, pp. 109-112.
12. Concerning "Guanyu fabu xiangzhen qiye kexue jishu jinbu zhanlüe shishi dagang de tongzhi" (the "Directive on the Main Procedures for Implementing Technological Progress in TVEs") see *Almanac of China's TVEs 1993*, pp. 113-121.
13. Concerning "Guanyu 'bawu' qijian xiangzhen qiye xitong kaizhan zhiliang jiaoyu de tongzhi" (the "Directive on Quality Control Education in TVEs during the Eighth Five-Year Plan") see *Almanac of China's TVEs 1993*, pp. 121-122.
14. Concerning "Guanyu jiaqiang xiangzhen qiye chanpin zhiliang jiandu gongzuo" (the "Directive on Strengthening the Work of Monitoring Quality Control for Products of TVEs") see *Almanac of China's TVEs 1993*, pp. 122-123.
15. Concerning "Guanyu yinfa 'shenji zhen' guanli banfa de tongzhi" (the "Directive on the Method of Keeping 'Auditing Certificates' of TVEs") see *Almanac of China's TVEs 1993*, pp. 126-127.
16. Concerning "Guanyu yinfa 'xiangcun jituan jianshe qiye guanli banfa' de tongzhi" (the "Directive on the Management of Collective Construction Enterprises") see *Almanac of China's TVEs 1993*, pp. 128-129.
17. Concerning "Guanyu yinfa 'xiangzhen qiye zhigong yanglao baoxian bangfa' de tongzhi" (the "Directive on the Method of Endowment Insurance for Staff and Workers in TVEs") see *Almanac of China's TVEs 1993*, pp. 130-131.
18. Concerning "Guanyu yinfa 'xiangzhen qiye laodong guanli guiding' de tongzhi" (the "Directive on the Labor Management of TVEs") see *Almanac of China's TVEs 1993*, pp. 131-134.
19. Concerning "Guanyu tuijin he wanshan xianzhen qiye gufen hezuo zhi de tongzhi" (the "Directive on Promoting and Making a Complete Cooperative System for Shares of TVEs") see *Almanac of China's TVEs 1993*, pp. 134-136.
20. Concerning "Guanyu yinfa 'xiangzhen qiye gaige shenhua yaodian' de tongzhi" (the "Directive on the main Considerations in Deepening the Reform of TVEs") see *Almanac of China's TVEs 1993*, pp. 136-138.
21. Concerning "Guanyu yinfa 'xiangzhen qiye jituan mofan zhangcheng' de tongzhi" (the "Directive on the Enactment of Model Rules for TVEs") see *Almanac of China's TVEs 1993*, pp. 138-140.
22. See Tian Jiyun, "Jiefang sisiang zhuazhu jiyu jiakuai zhongxibu diqu xiangzhenqiye de fazhan" ("Make the Ideology Free, Seize the Chance, and Accelerate the Development of the TVEs in the Central and Western Regions"), a speech delivered at the National Meeting of Sharing

- Experiences on Accelerating the Development of the TVEs in the Central and Western Regions, *Renmin Ribao*, November 30, 1992.
23. Concerning "Guanyu jiakuai fazhan zhongxibu diqu xiangzhen qiye de jueding" (the "Decision on Accelerating the Development of TVEs in the Central and Western Regions") see *Almanac of China's TVEs 1994*, pp. 127-130.
  24. Concerning "Xiangzhen qiye dongxi hezuo shifan gongcheng fang'an" (the "Plan on Pilot Projects for Cooperation between Township Enterprises in East and West China") see *Gazette of the State Council of the PRC*, March 25, 1995.
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  31. The data of this part is based on Tao Youzhi, "Sunan xianzhen qiye de huangxiang jingji lianhe," (Horizontal Associations of Southern Jiangsu TVEs), in Tao and Xia eds., *The Southern Jiangsu Model and the Road to Prosperity*, p. 109.
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  33. Based on Takao Taniura, "Kogyoka no tenkai" (History of Industrialization in Korea), in Tamio Hattori, ed., *Kankoku no Kogyouka: Hatten no kozu* (Industrialization in Korea: the Picture of Development), Tokyo: Institute of Developing Economies, 1987, pp. 28-77.
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36. See "Jiushi niandai guojia chanye zhengce gangyao" (the "Main Points on Industrial Policy in the 1990s"), *Renmin Ribao*, June 23, 1994.
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