

Diehl, Markus

**Working Paper — Digitized Version**

## Enterprise adjustment in the economic transformation process: Microeconomic evidence from industrial state enterprises in Northern Vietnam

Kiel Working Paper, No. 695

**Provided in Cooperation with:**

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*Suggested Citation:* Diehl, Markus (1995) : Enterprise adjustment in the economic transformation process: Microeconomic evidence from industrial state enterprises in Northern Vietnam, Kiel Working Paper, No. 695, Kiel Institute of World Economics (IfW), Kiel

This Version is available at:

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# Kiel Working Papers

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**ENTERPRISE ADJUSTMENT IN  
THE ECONOMIC TRANSFORMATION PROCESS:  
Microeconomic evidence from industrial state enterprises  
in Northern Vietnam**

by

Markus Diehl

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Institut für Weltwirtschaft an der Universität Kiel  
The Kiel Institute of World Economics

ISSN 0342 - 0787

Kiel Institute of World Economics  
Department IV  
24100 Kiel (Germany)

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## 1. Introduction<sup>1</sup>

Vietnam has been carrying out an ambitious reform program since 1987, including decollectivisation of agriculture, complete price liberalisation, introduction of a flexible exchange rate system and significant liberalisation of foreign trade and foreign direct investment (FDI). Despite the lack of international financial support before 1994, the country achieved some notable successes (Dollar, 1994): from 1989 to 1993 Vietnam's GDP grew by 7 per cent on an annual average, and at the same time inflation was brought down from three-digit rates in 1986-1988 to about 10 per cent in 1992 and 1993. This was accompanied by significant structural changes of the Vietnamese economy in response to large shifts in relative prices (Diehl, 1994). The growth of agricultural production since the early eighties and above all the expansion of the previously suppressed service sector since 1989 cushioned the consequences of the temporary decline of industrial output. In the same vein, mass lay-offs from both state-owned and private manufacturing enterprises were largely absorbed by other sectors.

Significant structural changes occurred also within the manufacturing sector, both across industries and ownership forms (Diehl, 1994). For example, production of foodstuff, clothing, footwear and electrical products expanded, whereas machinery and other metal products declined significantly. This structural change by and large fits into the pattern that one would have expected for a labour abundant country like Vietnam that promoted capital-intensive industries in the pre-reform era. What is puzzling at first sight, however, is that after a relatively moderate recession the output of state-owned enterprises (SOE) in the manufacturing sector was growing at high rates, even faster than that of the private sector, contrasting to the development in Central and Eastern Europe (CEE). It has to be assessed whether this development can be attributed to the speed and design of economic reforms or only to different pre-reform conditions. This question has been discussed with respect to China (cf. Raiser 1995 for an overview), but the main arguments of this debate are expected to hold for the case of Vietnam, too.

Hence, the central question of this paper is how industrial SOE in Vietnam adjusted to the changes economic environment and, in particular, whether they still enjoy privileged treatment from the government. One hypothesis is that government intervention in

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<sup>1</sup> This paper was written as part of the project "Real adjustment in the economic transformation process of Vietnam". Financial support from the Volkswagen Foundation is gratefully acknowledged. Thanks are due to the staff of Viện Quản Lý Kinh Tế (Central Institute for Economic Management) in Hanoi for organizing the interviews and distributing the questionnaires, to Javier Revilla Diez for providing his 1992 interview notes, and to Rolf J. Langhammer and Martin Raiser for helpful comments.

Vietnam in favour of industrial SOE remained high, although less visible than under the old central planning regime. If this is true, transformation was not as complete as it seemed to be, and real adjustment of SOE has only been delayed. The counterhypothesis would be that industrial SOE indeed faced harder budget constraints, but that they simply enjoyed favourable initial conditions due to the previous government support and thus could adjust very fast to changing economic conditions in spite of privileges withdrawn. If this is true, private enterprises are already at level playing field with SOE, but temporarily SOE are doing better as long as these conditions have not yet been depreciated. Moreover, since there has been virtually no privatisation the question arises how the enterprise restructuring in the industrial sector actually was conducted. SOE may have reacted actively to market signals, or they may have waited for government directives, even after budget constraints were tightened. Since published statistical information does not help to test these conflicting hypotheses it is necessary to use survey data, either from standardised questionnaires or from case studies. Similar studies have been conducted in China (Byrd, 1992) and Poland (Estrin et al., 1993; Pinto et al., 1993).

The case study approach attempts to gain an understanding of the administrative environment for SOE and of unquantifiable aspects of enterprise management. Direct observation may allow more confident judgements about causes and patterns of firm level adjustment than could be inferred from industrial statistics. Moreover, case studies allow to track the actual implementation of state enterprise reforms which often differ greatly from government blueprints and from press reports. Although it is always difficult to draw general conclusions from case studies due to the limited representativeness, it can be useful to depict real-life situations as a means to generate additional hypotheses. However, knowledge of general characteristics of the industries concerned and overall trends must be used to complement interview data.

The following section gives an overview over economic policy measures in Vietnam and discusses the role of pre-reform characteristics for the different economic performance of Asian and Central and Eastern European countries. Moreover, the development of the manufacturing industry since 1988 is summarised on an disaggregate level. It is shown that the relative success of SOE has been caused by the general collapse of cooperatives on the one hand and the large success of some SOE dominated industries on the other hand. The third section reviews the findings from previous enterprise studies and presents stylised facts from own interviews with managers and government officials in October 1994. It is argued that the budget constraints have been hardened

significantly, especially since 1991. The role of market signals versus government directives for the adjustment of industrial SOE is analysed in more detail in case studies presented in the fourth section. The last section summarises the evidence.

## **2. Reforms and real adjustment of manufacturing SOE: the aggregate perspective**

Manufacturing SOE are affected by almost every reform measure in the ongoing economic transformation process, not only by specific ones, e.g. privatisation programs. Hence, a brief overview of pre-reform conditions and general reform measures in Vietnam provides the necessary background information for the evaluation of more specific measures for the reorganisation of SOE.

### **2.1 The role of initial conditions**

The previously centrally planned economies in Europe and Asia shared many similarities concerning the challenges to be faced in the transformation process. However, in the pre-reform era, they were quite distinct in three major economic characteristics (Rana and Paz, 1994). The first difference relates to the comprehensiveness of central planning. The state enterprise sector was much smaller in Vietnam than in CEE. In 1980, more than 40 per cent of the manufactured output<sup>2</sup> in Vietnam had already been produced by non-state enterprises (handicraft cooperatives<sup>3</sup> and private enterprises), mostly small-scale firms, which employed about 70 per cent of manufacturing labour (Table 1). During the eighties, non-state sector output grew faster than that of SOE leading to a rising share of the non-state sector. By contrast, the respective shares were only about 10 per cent in CEE (Raiser, 1995).

In some industries where small scale firms dominated (other metal products, wood products, glassware and pottery) non-state enterprises produced even more than SOE (Table A1). Moreover, regional administrations (people's committees on province level) were given greater autonomy in Vietnam than in CEE. In principle, economic management in Vietnam was also coordinated in a hierarchical way through interlocking plans, but in practice the material allocation system was much less extensive than in

<sup>2</sup> Except when stated otherwise, electricity generation and crude oil production, which are always included in Vietnamese industrial statistics, are excluded from the following analysis.

<sup>3</sup> In the eighties, cooperatives were not regulated as comprehensively as SOE although they enjoyed some state benefits. Moreover, since 1989 they are treated like private enterprises. Hence, cooperatives should not be lumped together with SOE.

CEE and left room for local governments' activities. Even in the eighties, when the five year economic plans and supplementary short-term directives were still binding, economic activities beyond the official plan had been admitted in Vietnam (Vo Nhan Tri, 1990).

Table 1 - Manufacturing<sup>a</sup> output and employment in Vietnam by ownership, 1980-89

Ownership type	Gross output (billion Dong, in constant prices of 1982)			Employment ("Productive workers") (1000)		
	1980	1986	1989	1980	1986	1989
State-owned enterprises (share in per cent)	36.1 (57.6)	54.7 (53.3)	64.8 (53.1)	590.2 (26.9)	701.0 (27.9)	704.9 (28.7)
Non-state sector <sup>b</sup> (share in per cent)	26.6 (42.4)	47.9 (46.7)	57.3 (46.9)	1,602.9 (73.1)	1,808.5 (72.1)	1,748.1 (71.3)
Total manufacturing <sup>a</sup>	62.7	102.6	122.1	2,193.1	2,509.5	2,453.0

<sup>a</sup>Total industry excl. electricity and mining. - <sup>b</sup>Cooperatives and private enterprises.

Source: General Statistical Office (1992c); own calculations.

A second difference is the much greater importance of agriculture-based and labour-intensive industries in Vietnam compared to CEE. Food processing,<sup>4</sup> and production of textiles, clothing and leather products have traditionally been the largest industries of Vietnam's manufacturing industry, accounting for 50 per cent of manufacturing value added<sup>5</sup> and 52 per cent of manufacturing employment in 1989 (Table 2). By contrast, SOE dominated heavy industries (metallurgy and manufacturing of chemical products and construction materials) which accounted for only 17 per cent of value added and employment. This contributed to the greater flexibility of the economy since the amount of sector-specific physical capital threatened by obsolescence in the reform process was relatively small.

<sup>4</sup> Note that food processing is capital intensive only in SOE, indicated by the high labour productivity.

<sup>5</sup> Disaggregated value added data are only available from the 1989 input-output table for Vietnam, compiled by a team from the UN Statistical Office and based on the System of National Accounts (GSO, 1992a).

Table 2 - Manufacturing<sup>a</sup> value added and employment in Vietnam by industry, 1989

Industry	Value added		Employment ("Productive workers")		Productivity (Value added per worker)
	(billion Dong)	(per cent of total)	(1000)	(per cent of total)	(mill. Dong)
Metallurgy	61.7	1.5	30.7	1.3	2.01
Engineering <sup>b</sup>	580.5	13.8	298.0	12.1	1.95
Chemical products	238.0	5.7	100.6	4.1	2.37
Construction materials	425.7	10.2	296.4	12.1	1.44
Wood, paper, glass, pottery	424.6	10.1	320.0	13.0	1.33
Foodstuff	1,554.3	37.1	722.3	29.4	2.15
Textiles, clothing, leather	565.1	13.5	565.6	23.0	1.00
Other manufacturing	340.1	8.1	119.4	4.9	2.85
Total manufacturing <sup>a</sup>	4,190.0	100.0	2,453.1	100.0	1.71

<sup>a</sup>Total industry excl. electricity and mining. <sup>b</sup>Electrical products; machinery, other metal products.

Source: General Statistical Office (1992a, 1994b); own calculations.

The third difference relates to the importance of CMEA trade. Although Vietnam was affected by the cessation of CMEA trade and finance agreements it was much less integrated in the CMEA wide specialisation than the industrialised countries of CEE. In addition, Vietnam is adjacent to the fastest growing region in the world economy and was able to follow the export orientation of its neighbours. Vietnamese exports more than trebled from 1987 to 1993, mainly due to the expansion of agricultural raw materials and crude oil.<sup>6</sup> Hence, import volumes could be sustained in spite of the cessation of CMEA aid in 1990, which had been in the order of 10 per cent of GDP in the eighties, and in spite of lacking access to western capital markets.

In summary, the initial conditions in Vietnam were widely different from those of the former centrally planned economies in Eastern Europe. Such conditions give rise to the hypothesis that the industrial sector in general and especially non-state enterprises were able to adapt relatively fast to the changing environment. However, they have been necessary but not sufficient to explain the economic performance of industrial

<sup>6</sup> The value of total exports in 1993 was 3.5 times of that in 1987; excluding crude oil this ratio was 2.5. Hence, the export growth was not only based on natural resources.



SOE in Vietnam. Without adequate timing and sequencing of reforms, favourable conditions are likely to have remained ineffective.

## **2.2 General reform measures**

Like China, Vietnam introduced its first liberalisation measures early enough in the late seventies. Reforms began with "experiments" on a regional basis which were only implemented nationwide where this was deemed successful. Hence, the reform process appeared highly ad hoc with considerable stop and go periods (Vo Nhan Tri, 1990). Since 1987, however, Vietnam carried out a comprehensive economic reform program (Diehl, 1993), the sequencing of which followed a relatively clear pattern:

First, direct government controls over most of the SOE were removed in 1988. In principle, decisions on inputs, investment and production now fall in the scope of the SOE management, and directors have greater autonomy over their work-force. In addition, the codification of business laws (property laws, contract laws, bankruptcy law etc.; see FLR, 1993) since 1988 was meant to provide equal opportunities for the hitherto discriminated private enterprise sector. Whereas the legal framework for private enterprises has been completed in 1991, SOE, however, are still subject to special directives and decrees. The "law on state enterprises" which is designed to minimise discretionary power of government authorities is expected to pass the national assembly in 1995. Moreover, it is not clear whether legal claims both against SOE and private enterprises, e.g. under the bankruptcy law, are actually enforceable.

Second, foreign investment in Vietnam was admitted in 1988. In the first years, the expansion of some industries has been directly influenced by state priority investment in joint ventures with foreign firms. Since 1993, however, private enterprises are allowed to form joint ventures with foreign firms (Law on Foreign Investment in Vietnam as of December 1992; in: FLR, 1993). Parallel to FDI liberalisation, the external trade regime has been gradually liberalised and the unified exchange rate became rather flexible in early 1989. Exports have increased and shifted from CMEA to neighbouring Asian countries. Few manufacturing branches (e.g. garment, footwear, motor vehicles) still enjoy significant import protection through tariffs (Vietnam Ministry of Trade, 1992, 1994) and even temporary import quotas (IMF, 1993). It is reported, however, that import competition in general has increased significantly, especially on consumer goods markets, since trade restrictions were widely by-passed by informal trading (ADB, 1993).

Third, almost all domestic prices were liberalised in 1989, and only a few "sensitive" prices (e.g. electricity, house rents, transport tariffs) remained administered. The government announced the abolishment of all subsidies, but this measure was postponed until 1991 (IMF, 1994). Since that time, state enterprises are also subject to the same tax rates (turnover tax, profit tax, import duties etc.) as the private sector, while before they were obliged to transfer total profits to the public budget in exchange of receiving investment funds. Most decisions of SOE managers are no longer based on financial support from the public budget. It remains unclear, however, to which extent investment decisions of SOE are still influenced by the government.

Fourth, high inflation that had prevailed at three-digit-levels since 1985 stopped in early 1989 and returned to only moderate levels in the following years. At first sight this was the result of a restrictive credit policy for both SOE and non-state enterprises, since bank credits to the enterprise sector declined relative to national income. However, credits to the public budget rose which was only possible in a non-inflationary way because private savings were increasingly channelled into banks signalling high credibility of the reforms. Hence, the state sector probably did not pass through a credit crunch<sup>7</sup> whereas the share of the private sector in total bank credits increased significantly only since 1992. Moreover, the structure of interest rates is still administered by the government and hence subject to discriminatory policy (IMF, 1994), since the financial markets in Vietnam are still dominated by four large state-owned banks. Further improvements in financial markets efficiency can be expected from the growing non-state banking sector.

Fifth, the labour market has been liberalised and is now subject only to the labour law. The same is not true for the real estate market, since land is still under public ownership according to the Vietnamese constitution. Since 1993, however, property rights can be rented from the state and mortgages on land and buildings are permitted (Land Law as of July 1993; in: FLR, 1993).

In summary, the Vietnamese reform program can be characterised as a shock-type stabilisation combined with a broad liberalisation of goods and factor markets although the reform of SOE and the import liberalisation have only been implemented gradually. Hence, competitive forces have begun to work within the Vietnamese manufacturing

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7 The additional financial flows to the public budget were probably reimbursed to SOE. The analysis of the public budget development in Vietnam, however, is seriously hampered by insufficient functional disaggregation and by a large unexplained residual in all published statistics, including World Bank reports.

industry, but there is still room left for the influence of central and provincial government policies.

### **2.3 Reorganisation of state-owned enterprises**

The adopted reform measures discussed so far have created a competitive environment, but the industrial SOE are not yet fully exposed to market forces, partly due to conflicting objectives of government authorities. SOE still operate under the control of a wide range of central government ministries as well as local and district authorities. Line ministries and provincial authorities play an active role as owner of SOE while at the same time regulating the industry in which the enterprises compete. This has led to a discrimination of the private sector, e.g. with respect to import quotas, trade licenses or bank credits. However, a proposal for the establishment of a special department of the Ministry of Finance to exercise the rights of the state as owner of SOE (financial monitoring, election of managers etc.) is still under consideration. The Vietnamese government prefers a gradual restructuring of SOE. The reform agenda includes a complete economic evaluation of the remaining SOE, a debt consolidation, pilot privatisation projects and the formation of larger enterprise units.

First, according to a government decree from November 1991 all state-owned enterprises had to apply for re-registration until September 1994 to continue operating legally. The State Planning Committee is responsible for evaluating proposals and deciding which enterprises are able to survive without further assistance. At the end of 1993 approximately 7,000 enterprises have been re-registered compared with more than 12,000 existing in 1990, 2,000 have been liquidated and 3,000 have been merged with other enterprises (Mallon, 1994). Moreover, it is reported that the number of loss-making SOE declined significantly (EIU, 1/1995), suggesting that bankruptcy rules have been enforced. In the manufacturing sector, more than 2,200 SOE remained in 1992 from about 3,000 in 1988. The majority of the existing industrial SOE is still of small or medium scale, while the 260 SOE with more than 500 employees each accounted for 66 per cent of total output and 56 per cent of total employment in state manufacturing industry (Table 3). Hence, SOE reform in Vietnam can be expected to proceed relatively fast since the privatisation of smaller SOE is not as difficult as the reorganisation of large enterprises.

Table 3 - Output, capital and employment of manufacturing<sup>a</sup> SOE by size class, 1992

Size class (number of "productive workers")	Number of enterprises	Gross output in 1989 prices		Productive capital in current prices		Productive workers	
		(billion Dong)	(per cent of total)	(billion Dong)	(per cent of total)	(1000)	(per cent of total)
less than 100	954	367.9	4.5	539.7	5.1	40.5	7.1
100 - 500	1,018.0	2,546.9	29.4	2721.1	25.6	211.3	37.0
500 - 1,000	154	2,109.7	24.4	2075.8	19.5	98.1	17.1
above 1,000	105	3,616.4	41.7	5291.3	49.8	222.0	38.8
Total	2,231.0	8,660.9	100.0	10,627.9	100.0	571.9	100.0

<sup>a</sup>Total industry excl. electricity and mining.

Source: General Statistical Office (1994b).

Second, a special Debt Resolution Committee was set up in 1991 to clear interfirm arrears and to settle all debts with the banking system. SOE that have already been liquidated left approximately 1.7 trillion Dong (or 5 per cent of Vietnam's GDP) of non-recoverable debts, the interfirm part of which has been passed to the Ministry of Finance (World Bank, 1994b). However, the bad debts of existing SOE are probably much higher and the problem of improving the financial status of state-owned banks is still to be solved. From this it follows that privatisation and divestiture activities should be accelerated since a delay bears the risk of a banking crisis à la Chile in the seventies.

Third, according to a government decision from June 1992 on "experiments to convert state enterprises to shareholding companies" 19 profitable SOE of small or medium size, mostly in the manufacturing sector, were designated to issue transferable equity shares to both employees and other persons. It is reported that the state should retain at least 20 per cent of shares (Mallon, 1994). By the end of 1993, only two enterprises had completed the process of equitisation and six others had finished the evaluation (cf. Nguyen Van Tuong, in: Institute for Economic Research, 1994). The main reason for this delay is the strong resistance of the respective workers.

Fourth, the prime minister promulgated a decision in March 1994 "on pilot work to establish enterprise groups". The stated objective of forming such conglomerates is to rationalise SOE supervision and to facilitate the termination of line ministry and local

authority control over SOE.<sup>8</sup> Each enterprise group must have at least seven members with a total legal capital of at least 1 trillion Dong (90 million US-\$). Although the decision emphasized the need to ensure that this does not lead to the development of monopolies, the development in several "strategic industries" (e.g. steel, cement) already points to a weakening of competition.

Summing up, the privatisation of large SOE has been delayed whereas thousands of small SOE were dissolved. The financial evaluation of the remaining SOE and the settlement of their debt, resembling the German "Treuhandanstalt"-approach, signal the beginning of a market oriented SOE reform which remains incomplete, however, as long as property rights still belong to the government. In addition, the attempts to form larger enterprise units are probably meant to reduce competition on domestic markets which would require new import restrictions to become effective.

#### **2.4 Real adjustment of manufacturing SOE**

Following the 1988 reforms the manufacturing industry passed through a relatively moderate adjustment recession, but recovered in 1991-93. A detailed analysis of how industries adjusted to the changed economic environment reveals large differences across industries and types of ownership, which leads to presumptions about the remaining government-induced distortions.

On average, the 1989-90 output fall in the manufacturing sector was slightly larger for SOE than for non-state enterprises, but in 1991-93 SOE recovered much faster than non-state enterprises (Table 4). Hence, the aggregate share of SOE in manufactured output increased in the nineties in contrast to what happened in the pre-reform period. The layoffs until 1992 in the non-state sector were of the same size as in the state sector (about one fourth of the 1988 level; Table 5). Both facts seem to be in contrast to the expected result of stronger competition from the private sector since the beginning of the economic transformation. A detailed analysis, however, provides an explanation.

First, a disaggregation of sectors by ownership reveals that the performance of SOE, both in terms of output and employment, was in general better the higher their initial market share in that industry was (Tables 4, 5). The output growth of SOE in 1988-93 was below that of the non-state sector in some large sectors (especially food processing and manufacturing of wood, paper, glass and ceramic) accounting for 57 per cent of manufacturing output in 1989 (Table 2). However, these relative losses of SOE were

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<sup>8</sup> See Jemeck, 1995, on the role of enterprise unions in the pre-reform era.

compensated by large market share gains in the chemical industry, construction materials industry and the manufacturing of textiles, clothing and leather. This possibly implies the existence of significant barriers to entry in these industries both for foreign and domestic private enterprises, either due to import protection or due to sunk costs.

Table 4 - Manufactured<sup>a</sup> output growth in Vietnam by industry and ownership 1989-93

Industry	SOE gross output share (per cent)	Gross output <sup>b</sup> change (per cent)					
		State sector			Non-state sector		
		1989	1989-90	1991-93	1989-93	1989-90	1991-93
Metallurgy	90.0	11.8	115.6	141.2	11.5	165.9	196.5
Engineering <sup>c</sup>	50.1	-16.8	24.5	3.6	-9.5	11.4	0.9
Chemical products	70.9	5.4	85.2	95.3	-2.3	41.9	38.6
Construction materials	61.4	1.3	59.9	62.1	13.2	36.1	54.0
Wood, paper, glass, ceramic	47.3	-29.5	10.3	-22.2	-5.1	31.1	24.4
Foodstuff	62.6	-9.1	41.4	28.5	2.5	33.9	37.3
Textiles, clothing, leather	66.2	-5.6	24.7	-17.7	-19.3	8.9	-12.6
Other manufacturing	48.4	-14.1	50.8	29.5	-21.2	17.0	-7.8
Total manufacturing <sup>a</sup>	60.9	-8.8	43.6	31.0	-4.1	28.2	23.0

<sup>a</sup>Total industry excl. electricity and mining. - <sup>b</sup>In constant prices of 1989. - <sup>c</sup>Electrical products, machinery, other metal products.

Source: Table A1.

Alternatively, historically determined productivity advantages of SOE, especially from their previously unrestricted access to capital markets, are another possible explanation for this pattern. A comparison of output growth rates and productivity gaps between state and non-state sector, however, reveals no clear pattern (Table 6). For example, the large productivity lead of SOE<sup>9</sup> in the food processing industry (8:1) in 1989 did not lead to a better output performance, neither did a small productivity lead in metallurgy (1.4:1) and engineering branches (1.2:1). This shows that products and related

<sup>9</sup> Calculated as ratio of gross output per worker in SOE and in the non-state sector. In 1989, this ratio was 4:1 as average for the manufacturing industries; cf. Table 6, columns 3 and 4. However, the use of gross output data may lead to a substantial bias in favour of SOE if their material input intensity is higher, but value added data are not available by ownership. In addition, productivity within the non-state sector differed widely by ownership; cf. Table A3.

Table 5 - Manufacturing<sup>a</sup> employment in Vietnam by industry and ownership, 1989-92

Industry	Employment change (in per cent)					
	State sector			Non-state sector		
	1989-90	1991-92	1989-92	1989-90	1991-92 <sup>b</sup>	1989-92 <sup>b</sup>
Metallurgy	1.4	0.3	4.3	91.0	21.1	131.3
Engineering <sup>c</sup>	-22.4	-27.4	-43.7	-26.4	-1.2	-27.3
Chemical products	-16.0	-15.5	-29.0	-16.6	-16.9	-47.3
Construction materials	-23.8	-21.5	-40.2	-39.9	16.0	-30.2
Wood, paper, glass, ceramic	-25.1	-18.2	-38.8	-23.4	-10.7	-31.6
Foodstuff	-7.2	-14.9	-21.6	-12.3	15.5	1.3
Textiles, clothing, leather	1.6	-1.4	0.2	-43.2	-20.0	-54.5
Other manufacturing	-14.2	-16.5	-28.3	-40.3	-26.7	-56.2
Total manufacturing <sup>a</sup>	-13.2	-14.0	-25.4	-28.3	0.2	-28.2

<sup>a</sup>Total industry excl. electricity and mining. - <sup>b</sup>Corrected for classification changes in 1992; cf. note b in Table A2. - <sup>c</sup>Electrical products, machinery, other metal products.

Source: Table A2

Table 6 - Productivity and output in manufacturing<sup>a</sup> by ownership, 1989-93

Industry	SOE share in gross output, (per cent)	Productivity (gross output per worker; mill. Dong)		Gross output <sup>b</sup> change (per cent)			
		State	Non-state	State sector		Non-state sector	
		1989	1989	1989-90	1991-93	1989-90	1991-93
Metallurgy	90.0	6.62	4.62	11.8	115.6	11.5	165.9
Engineering <sup>c</sup>	50.1	4.41	3.69	-16.8	24.5	-9.5	11.4
Chemical products	70.9	9.63	6.29	5.4	85.2	-2.3	41.9
Construction materials	61.4	5.67	1.74	1.3	59.9	13.2	36.1
Wood, paper, glass, ceramic	47.3	7.16	2.07	-29.5	10.3	-5.1	31.1
Foodstuff	62.6	27.93	3.40	-9.1	41.4	2.5	33.9
Textiles, clothing, leather	66.2	6.58	1.37	-5.6	24.7	-19.3	8.9
Other manufacturing	48.4	7.33	2.81	-14.1	50.8	-21.2	17.0
Total manufacturing <sup>a</sup>	60.9	10.08	2.61	-8.8	43.6	-4.1	28.2

<sup>a</sup>Total industry excl. electricity and mining. - <sup>b</sup>In constant prices of 1989. - <sup>c</sup>Electrical products, machinery, other metal products.

Source: Tables A1, A2.

technologies within one industry (e.g. construction materials) are differing so widely that capital intensive SOE (e.g. cement) and labour intensive non-state enterprises (e.g. handmade bricks) are actually not competing in the same market. That is, the disaggregation of manufacturing is probably not fine enough to give a sensible interpretation of the productivity gaps. However, neither the hypothesis that entry barriers do exist for private enterprises in some industries, nor the counterhypothesis that historically determined productivity differences cause the difference between SOE and non-state enterprises could be rejected.

Second, structural change took place within the state sector and the non-state sector. Locally managed SOE have been hit hardest by the adjustment recession, whereas centrally managed SOE recorded positive output growth in all four years since 1989 (Table 7). This leads to the presumption that the weak fiscal situation of the local authorities did not allow the payment of subsidies to locally managed SOE to continue.

Table 7 - Output and employment in manufacturing<sup>a</sup> by type of ownership 1989-92

Ownership type	Gross output share 1989 (per cent)	Gross output <sup>b</sup> (change in per cent)			Employment (change in per cent)		
		1989-90	1991-92	1989-92	1989-90	1991-92	1989-92
State Sector	53.0	-8.8	25.9	14.8	-13.2	-14.0	-25.4
– Central SOE	29.5	2.8	30.3	33.9	-9.2	-13.3	-21.3
– Local SOE	23.6	-20.4	20.2	-4.3	-16.8	-14.7	-29.0
Non-state Sector	47.0	-4.1	17.6	12.8	-28.3	0.1	-28.2
– Cooperatives	19.9	-41.4	-59.9	-76.5	-61.1	-54.8	-82.4
– Private firms	0.8	35.1	275.9	407.8	50.0	143.2	264.8
– Households	26.2	39.4	38.1	92.5	13.0	9.5	23.7
Total manufacturing	100.0	-7.0	22.6	14.0	-24.2	-14.0	-34.8

<sup>a</sup>Total industry excl. electricity and mining. - <sup>b</sup>In constant prices of 1982 (1988-89) and 1989 (1989-92).

Source: General Statistical Office (1992b; 1994b); own calculations.

Moreover, the weak performance of the non-state sector was mainly the result of the collapse of cooperatives, which either went bankrupt or were converted into a private firm. Production in handicraft cooperatives, that still accounted for 20 per cent of gross manufactured output in 1989, decreased by about three forth between 1989 and 1992. The formation of new private enterprises and new self-employment ("household enterprises") apparently could only replace the cooperatives' output but not compensate for all the jobs lost. However, the extraordinary high output growth rates of private firms



are to be interpreted carefully since many of those are only re-labelled cooperatives but not newly established firms.

Summing up, it has been shown that some industries have expanded while others declined which under full employment conditions would indicate high factor mobility. Since many industries in Vietnam have been working well below capacity, this conclusion does not hold in general; however, some industries hired additional labour since 1988. The share of SOE in the manufacturing sector has increased since 1988 due to the extraordinary demand pull for some capital intensive industries. Many cooperatives and locally managed SOE were dissolved, whereas the privatisation of large centrally managed SOE makes only little progress. The remaining discrimination of private enterprises apparently has been reduced since 1991, so that the private sector can be expected to accelerate growth in the next years.

### **3. Real adjustment of manufacturing SOE: Microeconomic evidence**

The analysis in the previous section has shown that many industrial SOE have come under pressure in the transformation process. It has also led to the presumption that the government is still using discretionary policy measures to cushion the impact of increased competition. This leads to the question how industrial SOE in Vietnam adjusted to the changes in economic environment and whether they still enjoy privileged treatment from the government. In general, the adjustment could have been the result of flexible managers reacting to market signals or of the execution of governmental decrees. Microeconomic evidence, gained from interviews or standard questionnaires, can be used to provide preliminary insight into actual behaviour of managers. This approach has two advantages over the analysis of centrally collected data: First, many economic data are not yet published on a regular and comprehensive basis (and sometimes not even collected by the statistical office). This applies to data on prices, wages, output or value added at current prices<sup>10</sup> and the present value of productive assets. In addition, valuable qualitative information can be gained by directly interviewing the managers on their perceptions, objective functions and actions. Second, problems of inadequate disaggregation of industries in published industrial statistics can be avoided. For example, the construction materials industry comprises large cement plants and small brick factories, and the chemical industry supplies pharmaceutical products, basic industrial chemicals, consumer chemicals (soap, plastic

<sup>10</sup> Output values at constant prices are calculated by the General Statistical Office from the collected data on output quantities.

etc.) and rubber products. Third, information can be corroborated (or rejected) by contrasting answers from government representatives on different levels with answers from managers. The microeconomic approach has two major disadvantages, however: first, there is a sample selection bias, since managers of already dissolved enterprises have not been interviewed, and second, counterfactual evidence cannot be gauged as managers do not address hypothetical scenarios. Moreover, in a developing country like Vietnam that introduced economic transformation processes only recently, technical terms from western economics are to be avoided since they are sometimes adopted in a bewildering way (see Fforde, 1991, for examples).

### **3.1 Results of previous studies**

According to Vietnamese policy advisors many surveys of the industrial sector of Vietnam have been conducted with different objectives since 1990, both by Vietnamese and foreign teams, but only few of them have already been published (I-31).<sup>11</sup>

McCarty (1993) and Beresford (1993) conducted interviews with managers, government officials and academic researchers in summer 1991 and the first quarter of 1992, respectively. McCarty tried to find out how autonomous SOE directors actually were and which biases and discriminations remained. He found that the emerging private sector and the initiative of SOE managers were encouraged although budget constraints for SOE continued to be soft. Moreover, he feared that production monopolies and rent-seeking activity by bureaucratic intermediaries could become more prevalent.

Beresford found that "passivity" of managers, e.g. the unwillingness to change output prices or to collect of information about alternative sources of supply, together with remaining administrative control over managers' decisions has been responsible for the slow adjustment of SOE. Moreover, she argued that the attitudes in SOE towards competition are still formed by the socialist attitude which is closer to concerted alliances or even cartels rather than to competition.

A large survey of ILO in cooperation with the Vietnam Ministry of Labour and Social Affairs (Ronnas, 1992) covered about 1,000 enterprises in selected provinces, both rural and urban, in Northern and Southern Vietnam. The written questionnaire was collected in June 1991. The objective was to analyse the economic characteristics of and remaining obstacles for small and medium enterprises (less than 50 employees) of all ownership types. The survey concluded that local authorities play a benevolent but

<sup>11</sup> "I-XX" is the abbreviation for "Interview No. XX"; cf. appendix for a complete list of interview partners.

rather passive role in the establishment of new enterprises, and that shortage of capital and "too much competition" are the most frequently cited constraints on the enterprise.

The first survey of Department for Economic Geography, University of Hannover, and Central Institute for Economic Management, Hanoi (Revilla Diez, 1995) covered about 400 enterprises of all ownership types in three provinces. The written questionnaire was collected in late 1992, and some 70 interviews with managers and officials were carried out. This survey focusses on locational factors, regional and international linkages and the judgement of managers on the economic reform. Another major finding of this survey has been that the Vietnamese economy is highly fragmented in regional markets.

### **3.2 Method of own field research**

Our information has been obtained through interviews<sup>12</sup> with enterprise managers and representatives of federal ministries, local administrations (people's committees) and banks during a field trip to Northern Vietnam in October 1994. Three German scholars, including the author, have carried out the interviews, assisted by two Vietnamese experts and one interpreter. The main objectives were 1) to identify obstacles to the real adjustment of enterprises, 2) to identify remaining government interventions, and 3) to assess the capability of the management to act under market economy conditions. The third aspect deals especially with the question, whether and how the management of a SOE that has come under pressure initiated product or process innovations.

As an introduction, every enterprise was asked to give a brief overview of its history. Thereafter, the interviews covered the following topics: production, employment, investment, corporate finance, competition on domestic markets, locational factors and foreign economic relations. Typical questions were:

What happened to this enterprise in the 1989/90 recession (output, employment)?

Who is now finally responsible for decisions related to production and investment?

What are the capital sources of this enterprise (bank credits, budget contribution etc.)?

How fierce is the competition on domestic markets and who are the main competitors?

<sup>12</sup> For some enterprises supplementary information was provided by detailed questionnaires from a larger survey, undertaken by the Central Institute of Economic Management (Hanoi) in August/September 1994. The evaluation of the complete survey, covering about 400 enterprises in three provinces in Northern Vietnam, is going to be published separately (Kurths et al., 1995).

What are the rates for public utilities (incl. land use rights) for this enterprise?

Has this firm any economic relations (imports, exports, FDI) with foreign partners?

Although interviews followed general guidelines, interviewers were free to pursue topics of special interest or importance for the firm. Thus, inevitably the information from the interviews is uneven in depth and coverage depending on the enterprise, the managers who were interviewed and the interviewers.

### **3.3 Stylised facts from interviews**

Preliminary answers to the questions above were gained directly from the interviews. Due to several ambiguities, these answers have been supplemented and contrasted with background information from newspaper reports etc. Without claiming for representativeness, the range of answers, additional information and some unresolved ambiguities will be presented in the following.

#### **3.3.1 Production and management**

In the interviews, first the recent development of the firm and the perceived competition was inquired. The main interest was to get information about the firm's performance but also about managerial attitudes during the transformation process. In the critical year 1989, some interviewed SOE produced virtually nothing and workers were sent home. Provincial authorities confirmed that they couldn't support the locally managed SOE in these years (in contrast to centrally managed SOE). For a short time period, laid off workers received a compensation from so called "social funds", i.e. enterprise reserves earmarked for periods of underemployment. Hence, budget constraints seemed to have been hardened significantly.

Most enterprises were well informed about important price relations and about domestic and foreign competitors. However, due to transport problems national markets remained regionally segmented. Competition from China is often ignored or downgraded because of the perceived low quality. In two "strategic" sectors (cement, steel) national conglomerates have already been formed with the target to achieve national autarky by the year 2000. At the same time they are authorised to control the respective imports. Moreover, cross-subsidisation of weak SOE seems to be a motive for forming enterprise groups. Various interview partners regarded South Korean conglomerates ("chaebols") as a shining example for these groups. This is a development to be monitored carefully.

Managers are in most cases qualified technicians rather than accountants. In many cases, however, managers already were able to optimise the production capacity and adopt marketing strategies. Even a former public servant was among the interviewed managers of private firms; one of his most valuable assets is a large workshop which he was able to rent due to his contacts to ministries. Both in SOE and private enterprises there do exist capable entrepreneurs, but we also met SOE directors who complained about the missing guidance from the state planning authorities.

### ***3.3.2 Licensing requirements***

In the second section it was asked for problems in the licensing process, since "red tape" in this stage is reportedly one of the major stumbling blocks for new firms. The obligatory re-registration was apparently no problem for the interviewed SOE. Some private entrepreneurs still remained in the legal form of a cooperative, since they feared problems with the licensing requirements for a shareholding company. Probably, this behaviour has also advantages due to different tax rates. In the past, many private firms were pressed to register as cooperatives for ideological reasons. Most of these cooperatives were re-privatized immediately after the legal basis for private enterprises was established in 1988 (decree) and 1990 (law), respectively. Apparently, there is room for ad-hoc decisions of local administrations but problems with too strict licensing requirements are probably overstated.

### ***3.3.3 Taxation***

In the third section it was asked for the types and rates of taxes to be paid. One reason was simply to get information about the managers' knowledge about the tax system, but in addition answers to these questions can shed some light on the perceived injustices. All enterprises were aware of their tax duties, but the crucial point of course is correct accounting. This question could not be dealt with directly in the interviews. However, some interview partners from SOE regarded the current tax system more like a disadvantage for SOE since tax authorities do not check private enterprises as careful as SOE. De jure there are no differences in the taxation of private enterprises and of SOE. For SOE, a "capital tax" is levied on 70 per cent of the 1990 capital stock as a substitute for charging interest on previous budgetary contributions. The justification for this tax is obvious (interest surrogate), but was rarely understood by SOE managers.

### **3.3.4 Locational factors**

The fourth section dealt with the state of infrastructure and public utilities, since according to press reports insufficient electricity supply and poor road conditions are among the greatest obstacles. All enterprises mentioned temporary blackouts, but none of the interview partners complained about his own situation. The only exception was the national steel corporation which is still located at a traditional location off the main transport net. Most firms had to order special transport enterprises for their final products, and the delivery time was in general regarded as sufficient. Moreover, the rates for electricity, water and transport services charged from private enterprises showed in general no differences as compared to SOE. In summary, locational constraints were often not regarded as really troublesome, probably since everyone is affected. However, locations along the coast are obviously more attractive due to better export links.

### **3.3.5 Land use rights**

In the fifth section it was asked for the property rights (conditions and price) of the firm's real estate and for public land zoning plans. Land is still in public ownership and has to be rented from the state. In practice, build-up area or farmland can be used only after paying the former owner of the building or the peasant. Many interviewed private firms often depended on SOE which rented their idle real estate at excessive rates compared to what the state charges from the SOE. Hence, some firms preferred building a new workshop to renting from other firms. Office rents in the larger cities have already reached the level of Hong Kong, but the construction boom will in the medium run lead to an easing. Some interview partners feared that Vietnamese firms could be pushed out of the cities.

Since all towns in the densely populated river deltas are surrounded by arable land zoning is a difficult task, especially if the local authority wants to declare new industrial zones in the outskirts but also to satisfy the growing demand for new flats. All industrial zones are subject to permission from the (federal) Ministry of Construction; this procedure has delayed the declaration of new areas. The provincial planning agencies regarded this procedure as extreme obstacle for autonomous regional development.

Hence, one of the greatest assets of SOE is their real estate, which is often in attractive city locations. Secondary markets for land use rights are already existing so that

excessive rents will soon erode. The central problem, however, is adequate land zoning.

### **3.3.6 Employment**

In this section it was asked for the amount and structure of labour remuneration and for the situation of qualified workers. Average wages were about 30 US-\$ p.m. (which is also the minimum wage for foreign enterprises) and more, but many firms, especially SOE, paid more than the official minimum wage. Moreover, only SOE are obliged to pay a single compensation for laid off workers (about 70 per cent of the last salary) from the SOE's own "social fund", a substitute for a social security system.

Qualified labour comes from technical schools or is trained by the enterprise staff, and is in ample supply. In some cases, up to 80 US-\$ p.m. was paid for qualified labour which is still below the minimum wages in neighbouring countries (Riedel, 1993). However, this gap is expected to be closed fast with new investment, although average labour productivity is presently relatively low.

Obviously, labour markets are relatively flexible and wages are paid according to the respective financial situation of the firm. However, the consequences of the recently passed Labour Law are unknown yet.

### **3.3.7 Corporate finance**

In this section it was asked for the amount and conditions of external finance. There is virtually no published statistical information on this subject, neither from the banking sector nor from enterprise surveys. Reportedly, external finance is the major constraint for new firms, together with land use rights.

All SOE are charged a "capital tax" on the funds they received from the budget before 1989 (about 0.4 per cent p.m.). Some SOE still receive investment funds directly from the budget, for which they have to pay interest below the normal bank lending rate. Many SOE get investment credits from the state-owned Industrial Development Bank at a reduced rate (0.6-0.7 per cent p.m. as compared to normal rates of 1.8-2.2 per cent p.m.); none of the private enterprises could apply for such a credit. While the standard interest rate is relatively high in real terms, the various preferential rates are close to the actual inflation rate. Those SOE which are producing as subcontractors for foreign firms borrowed funds from their foreign partner with a credit guarantee from VIETCOM bank. Moreover, bank credits in foreign currency were diverted from the respective foreign

bank to the VIETCOM bank, which then disbursed the money to the enterprise at a higher interest rate (cf. also World Bank 1994a).

In general, mortgages on buildings are possible, but small private enterprises usually rent the building so they cannot apply for a credit. In that case, funds are reportedly borrowed from friends or from private money lenders. Although the amount of such informal credits rarely exceeded US\$ 100 at a very high interest rate, these credits are important for most of the newly established private firms.

Privileged access to bank credits is now a common way in Vietnam to further support SOE, but this will change if state banks have to compete with an expanding private banking sector. Moreover, informal financial markets will play a role as long as the requirements for a bank credit are deterrent for a small enterprise.

### **3.3.8 Foreign trade and FDI**

In this section it was asked for the way how newly established enterprises can carry on international trade. According to a representative of the Ministry of Foreign Trade, any "suitable" enterprise can get an import-export license. However, dubious licensing procedures and the lack of export credits prevented free access of private trading companies. De jure, the conditions are such that licenses are only given to large firms which are mainly trading own products. However, we found some industrial SOE that were engaged in wholesale trading. Moreover, it is reported that some SOE under the control of the Ministry of Defence are involved in smuggling import goods. Conversely, many private enterprises complained that they have to order special foreign trade agencies which charge them high commissions.

Some state enterprises compete quite successfully in foreign markets (e.g. machinery in Thailand). Others asked for higher protection against foreign suppliers; one director even protested against "unfair" pricing of Korean tool exporters. Although the Vietnamese steel industry is reportedly still inefficient (and hence prices of domestic steel products exceed world market prices by far) this seemed to be quite unreasonable to us. By contrast, in some industries the competition from domestic firms was regarded as tighter than that from foreign suppliers, e.g. for pharmaceutical products, which are allegedly copied with low quality standards in Vietnam.

Until recently, FDI was only attracted by SOE; after the recent change in legislation this is expected to change rapidly. In addition to formal joint ventures there are widespread examples of licensing and subcontracting. In any case, Vietnamese entrepreneurs often



reported to feel discriminated by the current practice of foreign partners not to accept a "Made in Vietnam" label on their products.

#### **4. The role of market signals versus government directives: Evidence from six case studies**

The selection of six case study firms from the sample of 24 firms interviewed was based on several criteria. First, extensive and reliable information was a prerequisite. Second, the selected enterprises should present variety with respect to industry, size, level of government administration and economic performance since the beginning of reforms. There was a preference not to consider firms from "dinosaur industries" (e.g. steel mills, cement) and from too heterogeneous industries (e.g. chemical industry, manufacturing of other metal products). Information was obtained through in-depth interviews with enterprise management and supervising ministries as well as with other concerned institutions as banks and planning departments in October 1994. Although it was not planned to undertake a longitudinal study, information from interviews undertaken in 1992 (Revilla Diez, 1993) could be used for some enterprises. In addition, follow-up interviews are envisaged for subsequent visits within the next years.

##### **4.1 Seafood processing**

The general characteristics of this industry are large capital needs for freezing plants.

The first company (I-18) is an old SOE under local administration. About 450 workers (plus seasonal workers) are presently employed. The company began exporting to Japan already in 1982. In the beginning, exports were launched via a state trading agency, but since 1989 the company is exporting directly. Interestingly enough, the company is allowed to import motorbikes and fertilizers which are meant to support the subcontractors. Given strict import regulations for motorbikes, this is an enormous privilege of the company. In addition, the import licensing procedure seems to be arbitrary. The equipment (ice production, generators, freezing plants) has been bought step by step since 1986 from Japan, while the Vietnamese government guaranteed for the foreign credits. According to the director, this company could sell seafood well above the actual capacity.

The second company (I-27) is a private limited company which has been established in 1993. Until presently, the company is only exporting seafood that has been bought from subcontractors, but a new shop area has just been finished and freezing plants have

already been bought. The equity capital stems from a large bequest and from relatives in Canada. In addition, a large bank credit at commercial rates has been raised with the assistance of the People's Committee. This statement caused considerable obscurity since the local administrations are not allowed to officially guarantee bank credits. Probably, the People's Committee representative effectively supported the company with moral suasion towards the bank, which contradicts all prejudices since the company is a private enterprise.

The comparison shows that newcomers face two problems: the extraordinary high capital costs for normal bank credits and the disadvantage of being restricted to narrow external trade options. Given the booming export demand in East Asia for foodstuff and seafood in particular, however, the risks of newcomers are relatively low.

## 4.2 Shoes

The general characteristics of the industry are its labour intensity and export orientation.

The first company (I-8) has been established in 1980. At that time it produced only parts of leather shoes for exports to the Soviet Union and employed more than 300 workers. In 1989, this production line ended due to the CMEA dissolution. Most of the workers were laid off virtually over night. Since then, the management has tried to establish new products, but the production of slippers and handbags for the domestic market could not compensate for the losses incurred. For climatic reasons, leather shoes are regarded as inadequate for the domestic market. In 1993, the manager was replaced and the company was incorporated into a large leather manufacture from South Vietnam. Since then, the company gets financial and technical assistance from the parent company for its reorganisation. By the time of interviews, the shops were almost empty, but new machines from France were reported to be installed to manufacture shoes for exports.

The second company (I-17) has been established in 1929 as carpet manufacture. Since 1977 the company was a large conglomerate of 5 SOE plus 20 cooperatives which are acting as subcontractors. In the 1990s, more than 50 per cent of the 10,000 workers (1989) were laid off, mainly from the cooperatives. The reason was the termination of trade protocols with CMEA countries which were the sole customers until 1989. Since then, the management has successfully tried to establish new export markets (Europe) and to improve the quality of the carpets which are still hand-woven. The company has got its own import-export-license so that marketing falls under its own responsibility which is again an enormous privilege. In addition, new lines of production (garment,

sport shoes) have been established in the company which are already accounting for half of the total revenues. One crucial advantage of the company was the abundant shop area in an own multi-storey concrete construction, which allowed the installation of a modern assembly line for sport shoes. These shoes are produced under license from a South Korean company which also offered an investment credit with preferential conditions. By contrast, the quality improvement for carpets has been made possible by loans under official development aid from Sweden. In both cases, the state-owned VIETCOM Bank has guaranteed the foreign credits.

The example of the two companies shows how light industry was seriously affected by the termination of CMEA trade. However, there are obviously large differences even for quite similar production lines. Since qualified labour is not a serious bottleneck, differences in the workforce cannot be the reason; differences in real estate and access to capital, apart from other locational advantages matter instead.

### 4.3 Electrical machinery

The general characteristics of the industry are its relative human capital intensity.

The first company (I-6) has been established in 1980 as a Vietnamese-Hungarian joint venture for electromotors. Most of the blueprints are developed within the company, and these have been quite successful in other Asian markets. The manager claimed not having received any support from the government since 1989 whereas other companies have been subsidised persistently. However, the company has received a R&D grant from the Ministry for Science and Environment. The company has streamlined its production lines in 1990-92 so that unit costs have been reduced significantly and output has already recovered. Clients are now largely non-SOE including foreign companies in Vietnam, whereas they have been almost exclusively SOE until 1989. According to the manager, "equitisation"<sup>13</sup> would be a good solution for the company, but the Ministry of Finance has reportedly fixed too high a price for the shares. By contrast, he doesn't like cooperating in a joint venture with an European multinational. Our impression was that this rejection was only due to a general aversion against power sharing rather than to economic reasons.

The second company (I-9) has been converted in 1955 from a private enterprise to a locally managed SOE. The equipment has come mostly from Russia, with a 1960's

<sup>13</sup> In Vietnam this is a vague concept of selling shares, in which only a limited amount can be bought by the general public, whereas the larger part rests with the responsible line ministry and the workforce.

vintage. In 1988, still about 1,000 workers were employed. Although the output in 1989 was literally zero, the management was reluctant to lay off all workers in order not to lose qualified technicians. At that time, the company has invested in modern equipment without using any bank credit and is now exporting machinery to Thailand. Goods are not exported directly by the company, but via an enterprise union that charges relatively high rates.

The third company (I-30) has been established in 1977 as three partite enterprise union which has later been merged into one centrally managed SOE. Most of the products have been designed for the special needs of the coal mining area nearby. Hence, the recession in the mining sector seriously affected the company's output. The manager, however, complained about the lack of administrative orders and long term guidelines for the company. Moreover, he assessed import competition to be strong. His complaint, however, does not seem to be well-based, given the current tariff structure through which his products are effectively protected.

It is wellknown that the human capital endowment in Vietnam is sizeable, especially due to numerous engineering students in the former CMEA. The case studies show that qualified labour is flexible enough to adjust to the new economic environment and that the large initial recession of the engineering industry did not ultimately impede the upswing as can be seen e.g. from the booming electrical industry. What would be useful to strengthen this industry is to broaden the base for domestic research and development in Vietnam. FDI may play a role in this respect but it is also the reorganisation and stabilisation of (presently state owned) colleges, laboratories and consultant services, which may help to create a growth momentum for some relatively human capital intensive industries.

## **5. Conclusions**

The analysis of published industrial statistics has led to the presumption that market signals have played a large role for the structural change within the manufacturing sector. It has been shown that the relative success of SOE has been caused by the general collapse of cooperatives on the one hand and the large success of some SOE dominated industries on the other hand. Since the remaining discrimination of private enterprises has been reduced only since 1992, the expansion of the private sector was curbed for some years. The evaluation of the ongoing SOE reform has shown that thousands of small SOE were dissolved but at the same time the privatisation of large

SOE has been delayed. The financial evaluation of the remaining SOE and the ongoing debt settlement, however, are promising signs for a consistent market oriented SOE reform.

Initial conditions that are most advantageous for SOE are the historical allocation of land and buildings that can be used for own expansions and for renting to other firms, and the cheap financial funds received in the past. The interviews and survey data provided anecdotal evidence that the government still protects SOE, especially through preferential credits and selective licensing for international trade which provides access to capital goods imports. However, many SOE have come under heavy pressure on domestic goods market, since budget constraints have been hardened persistently since 1991. By contrast, the lack of external finance and limited direct access to world markets are probably the most serious obstacles for non-state enterprises, whereas locational factors are in general not very impeding.

Many directors of SOE have adjusted quickly to market conditions and are actively supporting the privatisation of SOE. The evaluation of interviews and case studies suggests that process innovations are mainly introduced by joint ventures with foreign investors, whereas product innovations, even into completely different industries, are typical for Vietnamese nationals. Both findings are in contrast to earlier findings that emphasized sluggish management behaviour, especially in Northern Vietnam, and continued soft budget constraints. In the same vein, foreign investors have favoured SOE as partners not due to government directives, but because of their favourable initial conditions, especially ownership of real estate and trade licenses. Hence, the counter hypothesis is supported that industrial SOE behaved almost like private enterprises and still profit from favourable initial conditions.

**Appendix: Record of interviews, October 1994**

No.	Date	Name of firm/organisation
1	04/10/94	Raymond Mallon (UNDP State Enterprise Reform Program)
2	05/10/94	Vietnam Steel Corporation, Hanoi
3	05/10/94	Thanh Son Mechanics Plastic Cooperative, Hanoi
4	06/10/94	Central Pharmaceutical Factory No. 1, Hanoi
5	06/10/94	private enterprise for metal furniture, Hanoi
6	07/10/94	Vietnam-Hungary Electrical Motors (VIHEM), Dong Anh
7	07/10/94	Zenner-COMA Water Meter JV, Hanoi
8	08/10/94	Hanoi Leather Shoes Factory
9	10/10/94	Haiphong Machinery Manufacturing
10	10/10/94	PC of Haiphong, Economic Department
11	11/10/94	Toan Thang aluminium cooperative, Haiphong
12	11/10/94	PC of Haiphong, Industrial Department
13	12/10/94	Haiphong EPZ administration board
14	12/10/94	Haiphong Cement Company
15	12/10/94	carton manufacturing, Haiphong
16	13/10/94	Haiphong Electronics Company (HAPELEC)
17	13/10/94	Hang Kenh Carpet Corporation, Haiphong
18	14/10/94	Haiphong Seaproducts Processing Company
19	14/10/94	State Bank of Vietnam, Haiphong branch
20	14/10/94	Vietnam Maritime Commercial Stock Bank, Haiphong
21	15/10/94	Bach Dang Shipyard, Haiphong
22	17/10/94	Hong Gai Garment Company
23	17/10/94	Hong Gai Brewery
24	17/10/94	PC of Quang Ninh, Industrial Department
25	18/10/94	private car repair, Hong Gai
26	18/10/94	private shipyard, Hong Gai
27	18/10/94	Hoa Huong Sea Product Company, Hong Gai
28	18/10/94	leather shoes cooperative, Hong Gai
29	19/10/94	Bank for Investment and Development, Quang Ninh branch
30	19/10/94	Central Engineering Factory, Cam Pha

31	21/10/94	Le Dang Doanh (CIEM)
32	22/10/94	National Institute for Urban and Rural Planning, Hanoi
33	22/10/94	Ministry of Light Industry, International Cooperation Department
34	24/10/94	State Committee for Co-operation and Investment
35	25/10/94	Ministry of Foreign Trade
36	25/10/94	State Bank of Vietnam, Credit Department
37	26/10/94	Ministry of Finance, Budget Department
38	26/10/94	Ministry of Heavy Industry
39	27/10/94	Ministry of Energy
40	27/10/94	Bac Do company, Hanoi
41	28/10/94	PC of Hanoi, Foreign Economic Relations Department
42	28/10/94	Carlos Jahnsen (GTZ Bank Reform Project)

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Table A1 - Gross production in manufacturing by industries and type of ownership 1988-93 (bill. Dong; constant prices of 1989)

Industry	State enterprises						Cooperatives and private sector					
	1988 <sup>a</sup>	1989	1990	1991	1992	1993 <sup>b</sup>	1988 <sup>a</sup>	1989	1990	1991	1992	1993 <sup>b</sup>
Metallurgy	175.6	175.5	196.4	270.8	350.0	423.5	20.0	19.4	22.3	48.5	56.4	59.3
Electrical products	161.0	159.0	208.1	194.7	220.0	304.0	55.8	48.7	64.2	82.9	80.3	67.5
Machines and vehicles	458.9	354.0	321.8	310.5	352.3	380.0	316.5	280.6	275.9	277.5	315.8	302.2
Other metal products	112.5	87.0	79.5	68.7	66.6	75.0	274.2	268.2	245.3	247.7	260.2	282.7
Chemical products	624.6	595.3	658.6	828.2	1009.4	1220.0	268.2	244.2	261.9	285.8	345.8	371.7
Construction materials	601.0	551.3	609.0	740.5	902.4	974.0	345.6	346.5	391.2	424.6	481.1	532.3
Wood products	260.4	177.4	145.4	147.4	140.8	139.0	442.8	394.1	427.3	448.3	470.1	522.6
Pulp and paper	306.4	227.4	258.2	213.9	247.3	259.5	61.3	51.4	53.3	78.1	90.3	107.0
Pottery and glass	93.0	67.8	61.8	82.1	95.7	115.0	91.1	81.0	84.3	96.2	109.3	111.0
Foodstuff	3398.	3407.	3088.	3285.	3845.	4367.	1905.	2039.	1952.	2094.	2295.	2615.
Textiles	894.1	874.0	850.0	847.1	939.8	960.0	518.0	428.0	408.6	429.3	483.3	407.0
Clothing	144.0	137.7	124.1	125.5	171.8	231.0	81.6	78.9	78.4	93.6	90.3	102.5
Leather products	54.5	65.5	57.1	18.4	35.5	95.0	52.5	42.1	36.6	37.9	42.9	60.5
Other manufactures	259.5	230.9	222.8	231.7	284.2	336.0	293.6	246.6	231.3	220.9	210.7	270.7
Total manufacturing	7544	7110	6881	7365	8661	9879	4726	4569	4533	4864	5332	5812

<sup>a</sup>Own estimation based on 1988-89 growth rates of gross output values in constant prices of 1982. - <sup>b</sup>Preliminary.

Source: General Statistical Office (1992b; 1994b; 1994a); own calculations.

Table A2 - Employment in manufacturing by industries and type of ownership 1988-92 (in 1000)

Industry	State enterprises					Cooperatives and private sector				
	1988	1989	1990	1991	1992 <sup>a</sup>	1988	1989	1990	1991	1992 <sup>a</sup>
Metallurgy	27.6	26.5	28.0	24.4	28.8	6.7	4.2	12.8	19.4	15.5
Electrical products	21.0	18.9	18.0	15.7	15.6	10.9	10.6	12.5	14.7	9.0 <sup>b</sup>
Machines and vehicles	102.5	92.7	79.7	62.1	57.2	68.1	58.5	58.4	59.3	37.6 <sup>b</sup>
Other metal products	27.2	24.6	19.2	16.7	12.1	122.1	92.7	77.1	82.3	55.5 <sup>b</sup>
Chemical products	70.7	61.8	59.4	54.0	50.2	50.5	38.8	32.0	31.0	26.6
Construction materials	108.8	97.3	82.9	71.6	65.1	277.1	199.1	166.6	176.9	193.3
Wood products	34.3	30.5	26.8	23.5	19.5	285.5	222.1	216.0	206.3	188.8
Pulp and paper	16.8	15.5	14.0	13.0	13.5	12.1	9.1	9.1	9.4	10.0
Pottery and glass	22.1	20.0	14.0	13.0	11.8	28.3	22.8	24.6	24.7	24.2
Foodstuff	131.4	122.0	121.0	115.8	103.0	614.1	600.3	538.4	593.1	587.7
Textiles	115.5	103.8	104.2	98.4	96.2	365.5	266.3	202.3	150.2	141.2
Clothing	47.9	49.2	54.9	63.9	65.9	136.1	124.8	81.5	88.2	38.5 <sup>b</sup>
Leather products	7.4	10.6	14.5	10.3	9.1	13.4	10.9	8.9	9.2	5.0
Other manufactures	33.2	31.5	28.5	26.4	23.8	109.7	87.9	65.5	62.3	48.0
Total manufacturing	766.4	704.9	665.1	608.7	571.9	2100.1	1748.1	1505.7	1527.0	1380.9

<sup>a</sup>Preliminary. - <sup>b</sup>Due to classification changes 1992 figures for private sector are not fully comparable with previous years (until 1991, about 130,000 workers in private sector repair activities were included in industry; since 1992 they belong to services).

Source: General Statistical Office (1992b; 1994b); own calculations.

Table A3 - Labour productivity in manufacturing by industries and type of ownership 1989

Industry	Value added <sup>a</sup> per worker  1989 (mill. Dong <sup>b</sup> )	Gross output per worker 1989 (mill. Dong <sup>b</sup> )				
		All enterprises	State enterprises	Cooperatives	Private enterprises	Private households
Metallurgy	2.01	6.34	6.61	6.95	20.19	3.38
Electrical products	3.45	7.04	8.41	9.26	1.59	3.17
Machines and vehicles	1.92	4.20	3.82	6.56	1.37	4.01
Other metal products	1.61	3.03	3.53	4.13	1.31	2.23
Chemical products	2.36	8.34	9.63	5.34	8.53	7.71
Construction materials	1.44	3.03	5.66	1.38	4.03	2.20
Wood products	1.34	2.26	5.81	1.45	1.59	2.04
Pulp and paper	2.19	11.34	14.70	6.00	16.00	4.49
Pottery and glass	0.78	3.47	3.40	2.76	5.53	3.94
Foodstuff	2.15	7.53	27.93	2.47	25.52	3.75
Textiles	n.a.	3.52	8.42	1.13	3.33	2.72
Clothing	1.00 <sup>c</sup>	1.24	2.80	0.64	0.52	0.63
Leather products	n.a.	5.02	6.16	3.53	2.25	4.44
Other manufactures	1.04	4.00	7.33	2.07	35.59	2.27
Total manufacturing	1.66	4.76	10.08	2.05	6.67	2.99

<sup>a</sup>Value added from input-output table. - <sup>b</sup>In current prices. - <sup>c</sup>Textiles, clothing and leather.

Source: General Statistical Office (1992a; 1994b).