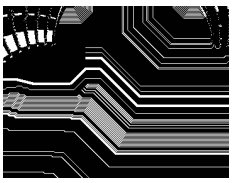

FIRM AND LABOUR DYNAMICS IN SLOVENIAN MANUFACTURING

Štefan BOJNEC
Faculty of Management, Koper

ANA Xavier
European Commission, Brussels

UDK: 334.712(497.4)
Izvorni znanstveni rad

Primljeno: 3. 12. 2004.

This paper[1] presents patterns in the Slovenian manufacturing firm and labour dynamics by branches considering the entry and exit rates for the number of firms, employment and the firm size. Among the general development patterns, the number of manufacturing firms increased, and with labour shedding the number of employees and the average firm size in the manufacturing sector declined. There are, however, considerable differences across branches as only a few job--creating manufacturing branches are found. Among the greater number of job destructive manufacturing branches, there are some traditional, low value-added, labour intensive branches. The increasing competitive pressures in the firm output markets are one of the most important driving forces for the more recent firm and labour dynamics.

✉ Štefan Bojnec, University of Primorska, Faculty of Management, Cankarjeva 5, 6000 Koper, Slovenia.
E-mail: stefan.bojnec@fm-kp.si

INTRODUCTION

Reallocation of production factors, restructuring of firms, and the increase in the number of firms are one of the important outcomes of transition to a market economy in Central and Eastern European (CEE) countries. Several institutional and policy constraints have been removed allowing new firms to enter the markets, some of which were successful and have been in activity for a long period of time and some of which were failures and exit the market (e.g. EBRD, 2001).

The bankruptcy procedure and the straightened financial discipline should play a more important role in the exit of

loss-making enterprises. The increase in competitive pressure in the CEE markets has been induced by the entry of new firms, by trade liberalisation and most recently by the membership of some CEE countries in the enlarged European Union (EU) markets.

The main objective of this paper is to analyse how different policy and institutional changes and the increase in the competitive market pressures are reflected on the firm and labour dynamics by branches in the Slovenian manufacturing during transition to a market economy, including the adjustments of the Slovenian economy for the EU membership. In general, first, we find that most of the Slovenian manufacturing branches have experienced greater rates of firm entry than firm exits leading to the increase in the number of the manufacturing firms. Second, most of the manufacturing branches have also experienced labour shedding as suggested by the reductions in the level of employment. Third, as a result, the average size of manufacturing enterprises in terms of employment per firm has declined. Fourth, there are, however, some considerable differences among manufacturing branches. There are rather rare manufacturing branches that are expanding their size in terms of employment, but most of the traditional labour intensive branches are still under the process of restructuring and labour shedding reducing their size when adjusting towards new market conditions.

The article is organized as follows: We first present methodology for calculating the rates of entry and exit and the data used in the analysis. Then we present the empirical results of the various rates of firm and employment entry and exit, and the empirical results of the average firm size in terms of average employment per firm by manufacturing branches and by firm ownership. In the section which follows these empirical results findings are examined drawing attention to different institutional changes and changes in government policies important for the Slovenian manufacturing firm and labour dynamics and their market selection process. The final section concludes.

METHODOLOGY AND DATA USED

We first define rates of entry and exit, which are used in this article. An entrant in branch *j* in period *t* is defined as a firm (employee) that is in activity in branch level *j* in period *t* but was not in activity in period *t-1*, whilst a firm (employee) that exits the market in period *t* is defined as a firm (employee) that is not in activity in period *t* in branch level *j* but was in activity in that branch in the previous period. The rates are computed as follows:

$$rate\ of\ entry_{jt} = \frac{total\ number\ of\ new\ firms\ (employees)\ in\ branch\ j\ in\ period\ t}{total\ number\ of\ new\ firms\ (employees)\ in\ branch\ j\ in\ period\ t\text{-}1} \bullet 100$$

$$rate\ of\ exit_{jt} = \frac{total\ number\ of\ firms\ (employees)\ that\ existed\ branch\ j\ in\ period\ t}{total\ number\ of\ firms\ (employees)\ in\ branch\ j\ in\ period\ t\text{-}1} \bullet 100$$

where the rate of entry is calculated by dividing the total number of those entering branch level *j* in period *t* by the total number of firms (employees) in branch level *j* in period *t-1*, and the rate of exit is calculated by dividing the total number of those exiting branch level *j* in period *t*, by the total number of firms (employees) in branch level *j* in period *t-1*.

As the source of data to analyse firm and labour dynamics as well as firm size we use firm-level information provided by the Business Register of Slovenia (BRS) obtained from the Statistical Office of the Republic of Slovenia (SORS) virtually representing all the firms in activity at any point between 1987 and 2000. This data set provides us information on firm identification (ID) number, NACE sector, employment and firm ownership.

Entry and exit rates are calculated on the basis of the firm ID number used as the criteria to identify whether a firm has stopped its economic activity (if ID is no longer in the sample), has started activity (ID is not previously in the sample) or is still in activity (if ID is still in the sample).

The changes in the firm's name are not considered but only changes in the firm ID number. The comparison between the name of the firms and the ID of the firms suggests that many Slovenian firms (about one third) changed the names, but continued operating within the same firm's ID number.

The rates of firm entry and exit are thus much more turbulent when name rather than ID is used to identify exit and entry. We consider only those firms whose employment is a certain positive number equal or greater than 1. We did not consider firms without any full-time employment, which were still to a large extent presented in the BRS.[2]

EMPIRICAL RESULTS

In this section we present empirical results of firm entry and firm exit rates, employment entry and exit rates, and the average firm size in terms of employment per firm over time and across firm's ownership.

Firm Entry and Firm Exit Rates

We first present firm entry and firm exit rates for the Slovenian manufacturing sector on the basis of the BRS for the period 1987-2000.[3] Similar as in most other CEE countries with institutional changes, which made firm entry easier, and the

economic transformation leading to firm restructuring, spin-offs and by-pass firms, the number of the manufacturing firms in Slovenia increased (Table 1).

TABLE 1
Firms' Entry and Exit Rates of Slovenian Manufacturing Sector

NACE2	Number of firms			Entry rates, 1988-2000 (%)		Exit rates, 1988-2000 (%)	
	1987	1995	2000	Weighted average	Simple mean	Weighted average	Simple mean
15-Manufacture of food products and beverages	135	120	166	0	0	0	0
16-Manufacture of tobacco products	2	1	1	0	0	13	8
17-Manufacture of textiles	119	93	105	12	13	13	13
18-Manufacture of wearing apparel, dressing and dyeing of fur	78	79	103	16	18	13	13
19-Tanning and dressing of leather, manufacture of luggage, handbags, etc.	44	29	30	15	17	19	18
20-Manufacture of products of wood and cork, excluding furniture; etc.	161	181	186	15	17	14	15
21-Manufacture of pulp, paper and paper products	38	34	43	11	12	10	10
22-Publishing, printing and reproduction of recorded media	36	68	171	23	23	8	8
23-Manufacture of coke, refined petroleum products and nuclear fuel	3	3	3	9	10	9	8
24-Manufacture of chemicals and chemical products	79	67	65	9	9	10	10
25-Manufacture of rubber and plastic products	60	79	117	17	18	10	12
26-Manufacture of other non-metallic mineral products	84	75	97	12	14	11	11
27-Manufacture of basic metals	72	52	56	14	18	16	16
28-Manufacture of certain fabricated metal products, except machinery	137	163	324	19	20	11	12
29-Manufacture of machinery and equipment n.e.c.	130	119	175	16	17	13	14
30-Manufacture of office machinery and computers	5	63	51	22	38	14	12
31-Manufacture of electrical machinery and apparatus n.e.c.	57	64	109	14	15	8	9
32-Manufacture of radio, television and communication equipment and apparatus	26	43	53	14	16	9	10
33-Manufacture of medical, precision and optical instruments, watches and clocks	29	63	93	16	20	7	9
34-Manufacture of motor vehicles, trailers and semi-trailers	40	48	55	16	20	13	15
35-Manufacture of other transport equipment	17	9	13	16	18	18	16
36-Manufacture of furniture; manufacturing n.e.c.	10	16	95	31	34	7	11
37-Recycling	11	21	21	15	29	9	10
D-Manufacturing sector	1,373	1,490	2,132	15	17	11	12

Note: The rates are rounded to the closest integer.
Source: Own calculations based on data from the Statistical Business Register of Slovenia.

The number of manufacturing firms with full-time employment increased from 1,373 in 1987 to 2,132 in 2000 or by 55.3%. In terms of two-digit NACE branches, the number of manufacturing firms increased in most sectors with the exception of the following two-digit NACE Rev. 1 manufacturing branches: 16-manufacture of tobacco products, 17-manufacture of textiles (with some most recent changes), 19-tanning and dressing of leather, manufacture of luggage, and handbags, 24-manufacture of chemicals and chemical products, 27-manufacture of basic metals (with some most recent changes) and 35-manufacture of other transport equipment (with some most recent changes). The majority of these manufacturing branches are traditional activities, considered to be declining ones in manufacturing industries in the developed world, often with a lower value-added per employee or faced with the declining demands. They were developed either on the basis of local labour force (e. g. leather, shoes, and textile in-

dustries), or were created during the post-second world war socialist development (e.g. metallic and similar heavy industry).

In absolute numbers, entry was especially high in the early 1990s (1990-93) and again in 1997 and 1999. Exit was high in the late 1980s (1988-90) and again for some manufacturing branches in the second half of the 1990s. The results also indicate that a high rate of firm exit was associated with high rates of firm entry occurring simultaneously. This suggests that the establishment of new firms and the death of existing firms are processes that go on at the same time.

TABLE 2
Firm Entry and Exit Rates of Slovenian Manufacturing at NACE-2

D - Manufacturing
15 - Manufacture of food products and beverages
16 - Manufacture of tobacco products
17 - Manufacture of textiles
18 - Manufacture of wearing apparel, dressing and dyeing of fur
19 - Tanning and dressing of leather, manufacture of luggage, handbags, etc.
20 - Manufacture of products of wood and cork, excluding furniture; etc.
21 - Manufacture of pulp, paper and paper products

	D		15		16		17		18		19		20		21	
	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)
1988	4	12	0	0	0	0	8	24	0	1	5	9	2	12	8	29
1989	8	20	0	0	0	0	6	15	7	25	7	26	8	21	3	20
1990	17	42	1	2	0	100	11	49	8	52	18	53	27	53	12	32
1991	35	12	0	0	0	0	32	13	20	9	41	23	61	15	20	10
1992	37	5	0	0	0	0	22	2	51	5	27	8	35	6	14	9
1993	16	9	0	0	0	0	16	5	21	9	39	10	15	8	35	0
1994	14	9	0	0	0	0	11	7	30	5	10	20	13	14	10	0
1995	8	11	0	0	0	0	5	6	10	11	3	22	9	12	3	3
1996	17	11	0	0	0	0	15	13	22	19	17	24	9	10	21	3
1997	24	8	0	0	0	0	11	16	20	9	22	7	12	14	10	3
1998	10	6	0	0	0	0	9	4	6	12	7	3	7	11	4	7
1999	19	8	0	0	0	0	20	11	30	7	25	19	13	10	17	12
2000	7	6	0	0	0	0	6	4	7	7	0	12	11	5	0	2

22 - Publishing, printing and reproduction of recorded media
23 - Manufacture of coke, refined petroleum products and nuclear fuel
24 - Manufacture of chemicals and chemical products
25 - Manufacture of rubber and plastic products
26 - Manufacture of other non-metallic mineral products
27 - Manufacture of basic metals
28 - Manufacture of certain fabricated metal products, except machinery
29 - Manufacture of machinery and equipment n.e.c.

	22		23		24		25		26		27		28		29	
	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)
1988	3	8	33	67	4	15	0	2	5	20	3	14	3	15	5	15
1989	3	12	0	0	4	13	3	29	9	17	6	23	7	18	9	17
1990	16	23	0	0	16	41	14	34	15	45	17	74	11	33	16	44
1991	14	0	50	0	27	10	37	11	39	4	91	13	30	6	52	14
1992	46	6	0	0	29	0	48	9	32	7	34	5	42	7	25	6
1993	20	2	0	0	8	14	26	8	12	5	17	19	14	9	19	18
1994	33	7	0	0	9	9	14	6	6	8	6	12	20	12	13	9
1995	10	10	0	0	2	3	12	10	6	14	16	10	12	10	8	17
1996	21	10	0	0	10	9	18	17	17	8	10	12	25	10	20	7
1997	88	12	0	0	2	6	25	5	9	5	6	4	50	10	28	10
1998	10	6	0	33	6	3	16	5	9	2	8	6	14	8	10	7
1999	26	6	50	0	3	2	20	9	17	9	11	8	23	8	20	7
2000	10	6	0	0	3	7	6	6	4	5	7	6	8	8	3	9

TABLE 2 (continued) Firm Entry and Exit Rates of Slovenian Manufacturing at NACE-2

30 - Manufacture of office machinery and computers
31 - Manufacture of electrical machinery and apparatus n. e. c.
32 - Manufacture of radio, television and communication equipment and apparatus
33 - Manufacture of medical, precision and optical instruments, watches and clocks
34 - Manufacture of motor vehicles, trailers and semi-trailers
35 - Manufacture of other transport equipment
36 - Manufacture of furniture; manufacturing n. e. c.
37 - Recycling

	30		31		32		33		34		35		36		37	
	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)
1988	80	0	0	5	4	0	3	14	5	10	0	0	10	0	0	0
1989	144	11	9	20	30	15	8	8	8	50	12	18	0	0	0	0
1990	71	24	15	29	23	23	31	19	36	41	19	44	27	36	18	91
1991	16	13	22	17	36	13	31	24	62	19	33	8	40	30	233	0
1992	94	6	42	0	21	3	71	10	33	0	40	20	36	27	50	0
1993	20	15	13	3	20	9	14	2	25	10	6	6	17	8	0	0
1994	13	10	10	10	4	14	25	11	9	4	6	6	31	0	13	0
1995	12	15	3	8	9	13	8	9	19	19	6	56	6	12	24	0
1996	6	30	8	6	21	9	21	6	23	10	0	22	138	6	5	10
1997	6	4	35	0	10	10	24	6	0	15	14	0	68	3	10	5
1998	6	14	6	5	15	6	2	2	13	4	38	0	18	7	0	14
1999	16	4	19	5	4	4	12	4	18	8	36	0	35	7	17	11
2000	14	12	11	4	8	6	4	3	4	4	20	33	12	2	11	0

Source: Own calculations based on data from the Statistical Business Register of Slovenia.

The rates of firm entry and firm exit differ by two-digit NACE manufacturing branches (Table 2). In absolute terms, they are less than the average for the following two-digit NACE Rev. 1 manufacturing branches: 15-manufacture of food products and beverages, 16-manufacture of tobacco products, 17--manufacture of textiles, 21-manufacture of pulp, paper and paper products, 23-manufacture of coke, refined petroleum products and nuclear fuel, 24-manufacture of chemicals and chemical products, and 26-manufacture of other non-metallic mineral products. For the NACE23-manufacture of coke, refined petroleum products and nuclear fuel, the number of the firms remained the same, although during the analysed period there were some changes in the entry and exit rates. Some increases in the number of firms since the mid-1990s are observed for the NACE21-manufacture of pulp, paper and paper products and the NACE26-manufacture of other non--metallic mineral products. Much greater rates of entry than exit are particularly found for the following two-digit NACE Rev. 1 manufacturing branches: 22-publishing, printing and reproduction of recorded media, 25-manufacture of rubber and plastic products, 28-manufacture of certain fabricated metal products, except machinery, 30-manufacture of office machinery and computers, 33-manufacture of medical, precision and optical instruments, watches and clocks, 36-manufacture of furniture, and 37-recycling. It seems that these are the branches with greatest niche markets, and thus the greatest opportunities for several new emerging firms.

Surprisingly, the most turbulent sectors in terms of dynamic changes in new firm entries and firm exits are manufacturing industries belonging to some branches supplying or demanding technological and "new economy" products related to electronic, computer, printing, and similar industries, but also trailers and transport equipment industries. More specifically, the most turbulent two-digit NACE Rev. 1 branches with entry and exit rates that are greater than the average for manufacturing are the following: 18-manufacture of wearing apparel, dressing and dyeing of fur, 19-tanning and dressing of leather, manufacture of luggage, handbags, and similar, 22-publishing, printing and reproduction of recorded media, 30-manufacture of office machinery and computers, 34-manufacture of motor vehicles, trailers and semi-trailers, and 35-manufacture of other transport equipment. For office machinery and computers, there was initial fast growth, but a decline has occurred since 1995 suggesting saturation of the market with this kind of enterprises. These developments are not only related to policy and institutional changes, but are also related to similar developments in developed countries importantly determined by the changing demand and related new niche market conditions.

By ownership, the number of socially owned manufacturing firms declined (Bojnec and Xavier, 2004b). The drop in the number of socially owned enterprises is initially reflected in an increase in the number of enterprises with not classified ownership structure. The number of mixed firms and the relatively small number of cooperatives increased. The most considerable is, however, the increase in the number of private firms.

Employment: Rates of Entry and Exit

One of the striking features of the early transition process in CEE transition economies was output decline, enterprise restructuring and labour reallocation (Carlin et al., 1995; Earle, 1997). Manufacturing sectors in most CEE countries with trade liberalization faced considerable international competitiveness problems (Hughes and Hare, 1992; Newbery and Kattuman, 1992). Therefore, labour shedding during economic transition and firm transformation was significant, which holds also for the Slovenian manufacturing sector. The number of employees in the Slovenian manufacturing branches declined (Table 3).

Employment entry and exit rates in the Slovenian manufacturing sector are greater in the first three or four years (1988-1991). In the late 1980s and early 1990s the firms that exit implied a large loss of employment with the largest loss

registered in 1990. During the same time span entry creates important employment opportunities but jobs created are less than those destroyed. From 1993 onwards, employment creation and destruction are rather alike. The initial decline in employment seems to be a reflection of the general economic slow-down, common throughout the former socialist world, and the initial rather generous social and retirement system.

NACE2	Number of employees 1987	1996	2000	Rate of growth 1987-2000 (%)
15-Manufacture of food products and beverages	18,851	11,502	11,691	-38
16-Manufacture of tobacco products	753	564	458	-39
17-Manufacture of textiles	30,919	12,753	12,016	-61
18-Manufacture of wearing apparel, dressing and dyeing of fur	22,746	13,712	11,372	-50
19-Tanning and dressing of leather, manufacture of luggage, handbags, etc.	13,523	3,650	4,620	-66
20-Manufacture of products of wood and cork, excluding furniture; etc.	27,237	9,581	7,978	-71
21-Manufacture of pulp, paper and paper products	9,469	5,370	5,751	-39
22-Publishing, printing and reproduction of recorded media	6,495	4,189	6,388	-2
23-Manufacture of coke, refined petroleum products and nuclear fuel	556	357	696	25
24-Manufacture of chemicals and chemical products	14,869	1,997	9,221	-38
25-Manufacture of rubber and plastic products	10,013	5,186	8,254	-18
26-Manufacture of other non-metallic mineral products	15,625	9,761	8,494	-46
27-Manufacture of basic metals	19,867	9,047	7,864	-60
28-Manufacture of certain fabricated metal products, except machinery	30,561	14,115	18,294	-40
29-Manufacture of machinery and equipment n.e.c.	35,415	19,857	20,832	-41
30-Manufacture of office machinery and computers	415	643	839	102
31-Manufacture of electrical machinery and apparatus n.e.c.	18,884	10,379	11,381	-40
32-Manufacture of radio, television and communication equipment and apparatus	9,710	5,290	5,789	-40
33-Manufacture of medical, precision and optical instruments, watches and clocks	9,612	6,200	6,740	-30
34-Manufacture of motor vehicles, trailers and semi-trailers	16,478	7,528	6,295	-62
35-Manufacture of other transport equipment	7,271	1,272	1,579	-78
36-Manufacture of furniture; manufacturing n.e.c.	2,097	9,853	10,246	389
37-Recycling	579	335	323	-44
D-Manufacturing sector	321,945	170,219	177,121	-45

Source: Own calculations based on data from the Statistical Business Register of Slovenia.

TABLE 3
Employment in Slovenian Manufacturing

Additionally, there were changes in trade flows within the former Yugoslavia, which were accelerated with political and economic disorganisation and disintegration of the former Yugoslav markets and the resulting Slovenian trade reorientation towards other markets, particularly the western markets.

Some large enterprises went bankrupted and most of the employment growth was expected from the entry of smaller enterprises, which did not compensate labour shedding. Since 1997, the rate of employment growth is positive indicating a slight increase in the number of employees in Slovenian manufacturing.

According to two-digit NACE Rev. 1 manufacturing branches, an overall increase in the number of employees is recorded only for 23-manufacture of coke, refined petroleum products and nuclear fuel, 30-manufacture of office machinery and computers, and 36-manufacture of furniture (Table 4).

In all others two-digit NACE Rev. 1 manufacturing branches, a decline is recorded in the number of employees. The most substantial decline in employment, by the recorded increasing rates of job destruction, was in the following traditional manufacturing branches: 26-manufacture of other non-metallic mineral products, 18-manufacture of wearing apparel, dressing and dyeing of fur, 27-manufacture of basic metals, 17-manufacture of textiles, 34-manufacture of motor vehicles, trailers and semi-trailers, 19-tanning and dressing of leather,

TABLE 4
Employment Entry and Exit Rates of Slovenian Manufacturing at NACE-2

D - Manufacturing
15 - Manufacture of food products and beverages
16 - Manufacture of tobacco products
17 - Manufacture of textiles
18 - Manufacture of wearing apparel, dressing and dyeing of fur
19 - Tanning and dressing of leather, manufacture of luggage, handbags, etc.
20 - Manufacture of products of wood and cork, excluding furniture; etc.
21 - Manufacture of pulp, paper and paper products

	D		15		16		17		18		19		20		21	
	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)
1988	12	12	3	11	0	0	30	31	0	1	11	12	7	9	40	33
1989	13	20	9	21	0	0	13	13	8	16	14	23	16	18	24	15
1990	27	38	15	21	122	100	13	32	42	65	34	60	19	42	18	26
1991	23	12	2	3	0	0	11	10	9	3	14	27	41	12	7	11
1992	10	8	9	2	0	0	5	0	2	2	3	6	11	8	11	14
1993	9	8	1	4	0	0	11	3	3	1	4	2	7	7	10	0
1994	3	4	3	1	0	0	4	7	3	1	1	4	3	8	0	0
1995	4	8	1	1	0	0	1	2	7	8	0	6	3	9	1	2
1996	5	4	3	4	0	0	7	5	7	8	10	9	3	4	3	0
1997	7	5	6	1	0	0	3	9	6	5	14	1	3	15	1	0
1998	5	6	2	0	0	0	7	8	2	6	1	2	2	9	1	2
1999	5	4	5	4	0	0	3	10	9	1	3	6	1	2	27	5
2000	3	3	2	4	0	0	13	0	2	3	0	3	2	2	0	1

22 - Publishing, printing and reproduction of recorded media
23 - Manufacture of coke, refined petroleum products and nuclear fuel
24 - Manufacture of chemicals and chemical products
25 - Manufacture of rubber and plastic products
26 - Manufacture of other non-metallic mineral products
27 - Manufacture of basic metals
28 - Manufacture of certain fabricated metal products, except machinery
29 - Manufacture of machinery and equipment n.e.c.

	22		23		24		25		26		27		28		29	
	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)
1988	9	9	221	88	11	12	0	1	13	12	18	15	5	14	10	12
1989	0	4	0	0	14	18	7	40	14	19	11	24	15	21	13	17
1990	14	17	0	0	29	39	8	28	40	42	36	62	18	34	37	41
1991	11	0	5	0	6	2	29	4	15	7	126	35	24	3	29	23
1992	2	0	0	0	7	0	13	2	8	2	20	23	10	3	23	24
1993	2	1	0	0	2	10	10	9	4	4	19	46	7	6	21	9
1994	3	1	0	0	1	3	6	2	1	3	0	2	6	8	2	4
1995	3	3	0	0	0	0	13	6	4	7	3	14	9	11	3	13
1996	3	4	0	0	1	3	7	2	2	1	5	3	6	10	4	3
1997	64	18	0	0	0	3	21	0	1	1	6	4	14	4	7	4
1998	2	1	0	84	1	0	40	2	2	0	2	0	8	7	5	27
1999	6	3	1224	0	0	0	2	3	5	10	1	9	11	3	4	4
2000	3	6	0	0	0	0	1	1	3	1	1	1	4	3	0	3

TABLE 4 (continued) Employment Entry and Exit Rates of Slovenian Manufacturing at NACE-2

30 - Manufacture of office machinery and computers
31 - Manufacture of electrical machinery and apparatus n.e.c.
32 - Manufacture of radio, television and communication equipment and apparatus
33 - Manufacture of medical, precision and optical instruments, watches and clocks
34 - Manufacture of motor vehicles, trailers and semi-trailers
35 - Manufacture of other transport equipment
36 - Manufacture of furniture; manufacturing n.e.c.
37 - Recycling

	30		31		32		33		34		35		36		37	
	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)	Entry rate (%)	Exit rate (%)
1988	46	0	0	2	31	0	7	10	8	7	0	0	75	0	0	0
1989	15	20	11	13	21	31	0	2	23	42	32	33	0	0	0	0
1990	85	5	34	27	13	22	2	12	47	41	31	34	22	19	24	88
1991	10	2	4	8	21	10	12	23	37	20	13	16	14	22	105	0
1992	34	0	4	0	6	0	8	0	6	0	14	44	2	5	19	0
1993	11	8	3	1	17	6	2	0	11	5	0	0	1	1	0	0
1994	14	4	2	2	2	19	12	5	2	0	0	0	5	0	4	0
1995	5	7	1	0	4	12	3	1	8	23	12	51	0	7	17	0
1996	2	23	0	2	4	1	4	2	9	2	0	1	53	0	1	11
1997	4	11	2	0	6	8	4	0	0	5	1	0	21	10	5	0
1998	11	11	2	0	7	5	0	0	1	1	5	0	7	3	0	7
1999	3	5	1	0	0	2	1	1	3	9	40	0	11	11	5	16
2000	4	3	2	2	1	2	0	1	0	7	34	35	31	2	4	0

Source: Own calculations based on data from the Statistical Business Register of Slovenia.

manufacture of luggage, handbags and similar products, 20--manufacture of products of wood and cork, excluding furniture, and 35-manufacture of other transport equipment. These are declining traditional manufacturing branches, which often experienced lower-value added per unit of labour and where the decline in employment has been the most severe. A decline in the number of employees, but less than the average for the manufacturing sector, is recorded by the increasing job destruction rates, for the following two-digit NACE Rev. 1 manufacturing branches: 22-publishing, printing and reproduction of recorded media, 25-manufacture of rubber and plastic products, 33-manufacture of medical, precision and optical instruments, watches and clocks, 24-manufacture of chemicals and chemical products, 15-manufacture of food products and beverages, 16-manufacture of tobacco products, 21-manufacture of pulp, paper and paper products, 31-manufacture of electrical machinery and apparatus, 28-manufacture of certain fabricated metal products, except machinery, 32-manufacture of radio, television and communication equipment and apparatus, 29-manufacture of machinery and equipment, and 37-recycling. These are manufacturing branches that rely on more qualified labour and that were able to adjust their production and sales towards domestic and foreign demand. In addition to the differences by the two-digit NACE Rev. 1 manufacturing branches, there are also some differences by individual years. This indicates that the changes in the pattern of labour adjustment over time are not always in the same direction or of similar magnitude across different manufacturing branches.

As an outcome of labour shedding and their differences by individual two-digit NACE branches over time, the structure of employment by manufacturing branches has changed (see also Table 3).[4] The two-digit NACE Rev. 1 manufacturing branches with more than 10,000 employees are 15-manufacture of food products and beverages, 17-manufacture of textiles, 18-manufacture of wearing apparel, dressing and dyeing of fur, 28-manufacture of certain fabricated metal products, except machinery, 29-manufacture of machinery and equipment, 31-manufacture of electrical machinery and apparatus, and 36-manufacture of furniture. However, some of these branches are shrinking over time and are likely to shrink further to less than 10,000 employees (e. g. 17--textiles and 18-wearing apparel). Yet, 19-leather and leather products, 20-wood and wood products, 24-chemicals (with some recovery), 25-rubber and plastic products (with recovery), 26-other non-metallic products, 27-basic metals, 34-motor vehicles and to a lesser extent 21-pulp, paper and paper products are the two--digit NACE Rev. 1 manufacturing branches in which the employment declined to less than 10,000 employees. It is also worth mentioning that the two-digit NACE Rev. 1 manufacturing branches with less than 1,000 employees are the following: 16-tobacco products, 23-coke and petroleum products, 30-office machinery and computers, and 37-recycling. The former two branches were relatively small according to the number of employees also in the pre-transition period, while the latter two branches are growing with the development of new demand for their products and services.

It is interesting to note employment changes by firm ownership. We use the classification of the firms provided by the SORS, which in its registry of business entities classifies the firms according to the prevailing firm ownership in the following four categories: socially owned enterprises, mixed enterprises, co-operatives, and privately owned enterprises. As in several cases the firm ownership in the register of business entities is not clearly identified, we introduce an additional category of the "not-identified" firm according to its ownership (Table 5).

➲ TABLE 5
Employment by Ownership in Slovenian Manufacturing, 1987-2000

	Total	Socially--owned	Not identified	Mixed	Co--operative	Private
1987	321,945	321,945				
1988	317,729	317,729				
1989	294,396	294,396				
1990	243,716	203,513	26,784	13,349	38	32
1991	240,149	202,608	4,695	32,505	95	246
1992	220,216	181,009	1,697	33,124	82	4,304
1993	200,601	158,465	25	35,040	110	6,961
1994	194,698	145,519	6	33,215	210	15,748
1995	184,233	111,090	2,460	32,040	234	38,409
1996	170,219	71,122	4,143	32,193	193	62,568
1997	172,769	48,521	233	37,097	169	86,749
1998	176,847	31,243	1,324	38,360	167	105,753
1999	177,044	24,030	1,444	38,380	165	113,025
2000	177,121	17,948	1,737	38,878	165	118,393

Source: Own calculations based on data from the Statistical Business Register of Slovenia.

		Total	Social	Non--identified	Mixed	Co--operative	Private
15-Manufacture of food products and beverages	1990	14,158	13,326	832			
	2000	11,691	701		3,856	71	7,063
16-Manufacture of tobacco products	1990	948	948				
	2000	458					458
17-Manufacture of textiles	1990	21,292	18,884	2,399	9		
	2000	12,016	1,732	103	1,486		8,695
18-Manufacture of wearing apparel,	1990	16,015	14,377	1,083	555		
dressing and dyeing of fur	2000	11,372	223		334		10,815
19-Tanning and dressing of leather, manufacture	1990	8,347	8,322	25			
of luggage, handbags, etc.	2000	4,620	60		348		4,212
20-Manufacture of products of wood and cork,	1990	17,890	14,938	2,136	816		
excluding furniture; etc.	2000	7,978	1,530	47	2,594	25	3,782
21-Manufacture of pulp, paper and paper products	1990	9,791	4,432	2,096	3,261		2
	2000	5,751	318		2,443		2,990
22-Publishing, printing and reproduction	1990	5,418	5,084	329	5		
of recorded media	2000	6,388	65	7	402		5,914
23-Manufacture of coke, refined petroleum products	1990	1,177	1,177				
and nuclear fuel	2000	696			662		34
24-Manufacture of chemicals and chemical products	1990	11,646	9,467	1,001	1,178		
	2000	9,221	177		973		8,071
25-Manufacture of rubber and plastic products	1990	5,471	4,302	1,120	25	24	
	2000	8,254	214		1,825	7	6,208
26-Manufacture of other non-metallic mineral products	1990	13,666	12,028	1,621	17		
	2000	8,494	239		2,607		5,648
27-Manufacture of basic metals	1990	11,985	9,309	2,676			
	2000	7,864	4,154	941	1,035		1,734
28-Manufacture of certain fabricated metal products,	1990	19,448	14,430	4,999	8	11	
except machinery	2000	18,294	1,645	408	2,169	52	14,020
29-Manufacture of machinery and equipment n.e.c	1990	28,943	25,849	2,974	117	3	
	2000	20,832	2,331	190	4,705		13,606
30-Manufacture of office machinery and computers	1990	1,015	953	11	27		24
	2000	839	18		174	6	641
31-Manufacture of electrical machinery	1990	18,172	14,108	2,523	1,541		
and apparatus n.e.c.	2000	11,381	1,452		4,933		4,996
32-Manufacture of radio, television and communication	1990	9,317	7,618	1	1,698		
equipment and apparatus	2000	5,789	326		2,285		3,178
33-Manufacture of medical, precision	1990	7,000	6,150	376	474		
and optical instruments, watches and clocks	2000	6,740	371		1,067		5,302
34-Manufacture of motor vehicles, trailers and semi-trailers	1990	13,709	10,092		3,617		
	2000	6,295	1,067		2,735		2,493
35-Manufacture of other transport equipment	1990	5,224	5,218				6
	2000	1,579		33	435		1,111
36-Manufacture of furniture; manufacturing n.e.c.	1990	2,955	2,372	582	1		
	2000	10,246	1,325	8	1,769	4	7,140
37-Recycling	1990	129	129				
	2000	323			41		282

Source: Own calculations based on data from the Statistical Business Register of Slovenia.

TABLE 6
Employment by Ownership in Slovenian Manufacturing at NACE-2, 1990 and 2000

In the beginning of the 1990s there was an employment reallocation from employment in socially owned enterprises toward firms with mixed and not-clearly identified ownership structures. The number of employees in mixed owned enterprises tripled and the small number of employees increased also in co--operative owned enterprises. The most striking feature is, however, the increase in the number of employees in privately owned manufacturing enterprises caused by both the changing structure of employment on the basis of employment reallocation from the traditional socially owned enterprises towards the private ones and the employment resulting by the new set ups or *de novo* enterprises.

As the employment in the manufacturing sector is almost twice as little in 2000 than in 1987, the new emerging and growing private manufacturing sector in terms of employment was not growing as quickly as the traditional socially owned manufacturing sector was declining. This is a stylised fact observed also in the other CEE transition economies. During the pre-transition period, the manufacturing sector was likely to be big in comparison to market demand conditions and over-employed with hidden-unemployment of employees. With the induced process of restructuring and reallocation, a part of labour is turned to the unemployment pool and to (early) retirement. Besides the labour shedding in the manufacturing sector, most of the employment in the private manufacturing sector is a result of reallocation of employment from traditional socially owned enterprises. The pattern in the development of employment in the private manufacturing sector appears to reflect the pattern of restructuring and privatisation of manufacturing enterprises. Additionally, there are also new private or *de novo* enterprises, which have contributed to new employment.

The shift of employment from socially owned enterprises towards not-identified and mixed and later towards privately owned enterprises is recorded for most of the two-digit manufacturing NACE branches (Table 6). Among major exceptions are 23-manufacture of coke, refined petroleum products and nuclear fuel, 31-manufacture of electrical machinery and apparatus n.e.c., and 34-manufacture of motor vehicles, trailers and semi-trailers, where employment in mixed owned enterprises continued as the most important.

The Average Firm Size: Mean Employment per Firm and Firm Ownership

The average size of manufacturing firms in terms of the number of employees per firm declined (Table 7). This is consistent with the fact that the number of employees declined, while the number of firms increased (see previous Tables). The decline in the firm size, except for the NACE16-manufacture of tobacco products, is also recorded for all other two-digit NACE Rev. 1 manufacturing branches.

While at the end of the 1980s, an increase in the average size of the manufacturing firm in terms of the employee number per firm is still recorded, when most of large socially owned enterprises were not being transformed and restructured, later during the 1990s the average size of the firm declined steadily. This is consistent with some fundamental institutional and policy changes leading to an extensive process of firm organisational transformation and firm restructuring imposed by the institutional and policy changes. Most large manufacturing enterprises had undergone the process of re-organisation and the dy-

namic process of both restructuring and splitting the large traditional firms into more parts and the entry of smaller *de novo* firms.

While the average size of manufacturing enterprises in terms of employment per firm declined, it differs across ownership structures and by individual two-digit NACE Rev. 1 manufacturing branches (Table 8).

TABLE 7
Firm Size: Employment per Manufacturing Firm in Slovenia at NACE-2, 1987-2000

D - Manufacturing
15 - Manufacture of food products and beverages
16 - Manufacture of tobacco products
17 - Manufacture of textiles
18 - Manufacture of wearing apparel, dressing and dyeing of fur
19 - Tanning and dressing of leather, manufacture of luggage, handbags, etc.
20 - Manufacture of products of wood and cork, excluding furniture; etc.
21 - Manufacture of pulp, paper and paper products
22 - Publishing, printing and reproduction of recorded media
23 - Manufacture of coke, refined petroleum products and nuclear fuel
24 - Manufacture of chemicals and chemical products
25 - Manufacture of rubber and plastic products

	D	15	16	17	18	19	20	21	22	23	24	25
1987	235	140	377	260	292	307	169	249	180	185	188	167
1988	254	136	378	302	294	313	184	347	186	649	209	168
1989	266	142	387	324	334	345	206	448	194	654	218	158
1990	300	163	948	387	471	379	195	515	201	589	253	156
1991	240	155	772	298	433	261	151	438	165	380	203	132
1992	166	118	737	218	278	205	113	370	111	168	146	94
1993	142	111	689	195	251	136	105	239	94	159	137	78
1994	131	101	611	172	203	139	101	207	72	148	147	64
1995	129	100	625	167	188	153	102	192	73	185	154	62
1996	112	89	564	143	176	140	85	149	58	119	140	61
1997	96	81	504	155	138	135	69	136	47	111	141	62
1998	94	76	476	144	136	142	69	130	46	30	144	76
1999	84	71	458	117	113	126	62	146	39	176	140	68
2000	83	70	458	118	108	140	58	148	36	174	144	67

26-Manufacture of other non-metallic mineral products
27-Manufacture of basic metals
28-Manufacture of certain fabricated metal products, except machinery
29-Manufacture of machinery and equipment n.e.c.
30-Manufacture of office machinery and computers
31-Manufacture of electrical machinery and apparatus n.e.c.
32-Manufacture of radio, television and communication equipment and apparatus
33-Manufacture of medical, precision and optical instruments, watches and clocks
34-Manufacture of motor vehicles, trailers and semi-trailers
35-Manufacture of other transport equipment
36-Manufacture of furniture; manufacturing n.e.c.
37-Recycling

	26	27	28	29	30	31	32	33	34	35	36	37
1987	186	276	223	272	83	331	374	331	412	428	210	53
1988	218	313	231	286	75	339	473	353	409	411	328	50
1989	224	323	243	291	31	374	363	336	554	429	314	48
1990	311	545	246	381	36	466	311	250	623	435	296	65
1991	204	523	206	249	305	407	236	204	420	375	179	30
1992	148	348	141	181	18	256	183	112	310	210	143	21
1993	134	225	126	180	16	200	137	87	241	189	132	21
1994	135	235	108	161	17	197	150	91	219	189	108	19
1995	143	195	110	159	18	208	126	98	215	231	121	19
1996	128	292	78	136	22	162	110	89	139	182	100	20
1997	110	269	61	119	17	117	118	80	159	140	90	19
1998	102	233	60	117	23	115	110	84	156	108	84	21
1999	90	200	55	101	21	104	110	77	131	93	73	18
2000	89	197	56	105	20	102	116	78	121	113	73	17

Source: Own calculations based on data from the Statistical Business Register of Slovenia.

TABLE 8
Firm Size: Employment per Manufacturing Firm in Slovenia at NACE-2, 1990 and 2000

At the end of the 1980s, the increase in the average size of manufacturing enterprise was exclusively determined by the increase in the average size of socially owned enterprises. During the 1990s, the socially owned enterprises were important in the manufacturing structures, but with the declining weights. On average, the socially owned enterprises are larger than other owned enterprises.

		Total	Social	Non--identified	Mixed	Co--operative	Private
D-manufacturing	1987	235	235	-	-	-	-
	1990	300	333	193	252	10	6
	2000	83	155	158	160	11	68
15-Manufacture of food products and beverages	1990	163	188	52	-	-	-
	2000	70	70	-	154	36	54
16-Manufacture of tobacco products	1990	948	948	-	-	-	-
	2000	458	-	-	-	-	458
17-Manufacture of textiles	1990	387	420	267	9	-	-
	2000	118	173	103	212	-	104
18-Manufacture of wearing apparel,	1990	471	553	217	185	-	-
dressing and dyeing of fur	2000	108	112	-	111	-	108
19-Tanning and dressing of leather, manufacture	1990	379	396	25	-	-	-
of luggage, handbags, etc.	2000	140	60	-	174	-	140
20-Manufacture of products of wood and cork,	1990	195	210	142	136	-	-
excluding furniture; etc.	2000	58	118	47	173	13	35
21-Manufacture of pulp, paper and paper products	1990	515	443	419	1087	-	2
	2000	148	106	-	305	-	107
22-Publishing, printing and reproduction	1990	201	231	82	5	-	-
of recorded media	2000	36	16	7	80	-	35
23-Manufacture of coke, refined petroleum products	1990	589	589	-	-	-	-
and nuclear fuel	2000	174	-	-	221	-	34
24-Manufacture of chemicals and chemical products	1990	253	249	200	393	-	-
	2000	144	89	-	89	-	158
25-Manufacture of rubber and plastic products	1990	156	205	112	8	24	-
	2000	67	71	-	140	7	59
26-Manufacture of other non-metallic mineral products	1990	311	344	203	17	-	-
	2000	89	60	-	145	-	77
27-Manufacture of basic metals	1990	545	490	892	-	-	-
	2000	197	415	941	207	-	72
28-Manufacture of certain fabricated metal products,	1990	246	295	185	8	6	-
except machinery	2000	56	127	136	70	7	51
29-Manufacture of machinery and equipment n.e.c	1990	381	462	212	23	3	-
	2000	105	179	95	162	-	88
30-Manufacture of office machinery and computers	1990	36	53	6	5	-	8
	2000	20	18	-	44	6	18
31-Manufacture of electrical machinery	1990	466	613	280	220	-	-
and apparatus n.e.c	2000	102	242	-	329	-	55
32-Manufacture of radio, television and communication	1990	311	317	1	340	-	-
equipment and apparatus	2000	116	109	-	229	-	86
33-Manufacture of medical, precision and optical	1990	250	308	125	95	-	-
instruments, watches and clocks	2000	78	93	-	97	-	75
34-Manufacture of motor vehicles, trailers and semi-trailers	1990	623	531	-	1206	-	-
	2000	121	178	-	391	-	64
35-Manufacture of other transport equipment	1990	435	474	-	-	-	6
	2000	113	-	33	145	-	111
36-Manufacture of furniture; manufacturing n.e.c.	1990	296	339	291	1	-	-
	2000	73	166	8	111	4	62
37-Recycling	1990	65	65	-	-	-	-
	2000	17	-	-	21	-	17

Source: Own calculations based on data from the Statistical Business Register of Slovenia.

The "not-identified" enterprises according to the ownership largely originated from transformation of socially owned

enterprises with temporarily less clearly defined ownership structure were also initially large. In the early 1990s, the average size of "not-identified" enterprises was more than 120 employees per enterprise. Their average size declined considerably up to the mid-1990s, but increased afterwards then suggesting that some large socially owned enterprises had during transformation and privatisation less clear, statistically "not-identified" ownership structures. However, transparency in the ownership structure of manufacturing enterprises improved as the process of mass transformation and privatisation came to an end. They almost disappeared at the end of the 1990s (Bojnec and Xavier, 2004b).

The mixed owned enterprises are on average also among the larger enterprises. They were mostly created as a result of reallocation, transformation and privatisation of traditional socially owned enterprises. The average size of mixed owned enterprises declined with cyclical up and downwards movements by individual years. In 2000, the average size of mixed owned enterprises is the greatest in comparison to any other ownership structure of enterprises. This suggests that several large enterprises are being reallocated and privatised among the dispersed owners. This is one of the most striking outcomes of the Slovenian privatisation process of manufacturing enterprises.

The co-operative owned enterprises often with less than 20 employees on average are on average smaller than is the average for manufacturing enterprises. In several cases, the co-operative owned enterprises are the result of privatisation. Namely, (agricultural) service co-operatives participated in privatisation of food processing enterprises such as dairies, slaughterhouses, and vineries. The average size of co-operative owned enterprises doubled up to the mid 1990s, but declined later.

The average size of private manufacturing enterprises increased, but on average they are smaller than socially owned and mixed owned manufacturing enterprises. The average size of private enterprise in 2000 is a bit less than in 1996 and in the years in between. This might indicate some rationalisation in terms of the growth of private firms in response to already fulfilled market niches and to the increased competitive pressures by the entry of new firms and trade liberalisation.

MAIN INSTITUTIONAL AND POLICY CHANGES

For a better understanding of the presented results on the dynamics of firms and labour and the average size of firm in the Slovenian manufacturing sector, we assess our results also within the main institutional and policy changes that took place at the end of the 1980s and during the 1990s that are related to the dynamics of manufacturing firms and employment: institutional and policy changes in the areas regulating

setting up of firms and transformation of commercial companies, bankruptcy and bankruptcy procedures, government rehabilitation and support programmes, competition and trade policy measures.

1. *Companies and Commercial Framework*. The 1989 former Yugoslav law on enterprises had one of the most considerable roles for transformation and setting up of new enterprises. At the beginning of the 1990s there was a period when an important reorganisation of socially owned enterprises took place in agreement with the changes stipulated in the law on enterprises. The number of registered firms at the beginning of the 1990s rapidly increased, but most of the new entries turned out to be "empty" or zero employment firms, which existed only in the registry, but economically inactive in reality (for more detail see Bojnec and Xavier, 2004b). However, there was also an important increase in the economically active manufacturing firms.

2. *Bankruptcy and Bankruptcy Procedures*. The legal and regulatory environment for bankruptcy and bankruptcy procedures in Slovenia has passed through different stages, which were largely related to the bankruptcy laws and their implementation.

Initially, the 1989 Yugoslav law on compulsory settlement, bankruptcy and liquidation covered company bankruptcy. This law inherited only the principles of liquidation and compulsory settlement without an active reorganisation of the company (Gray, 1993). According to this law bankruptcy proceedings could be initiated by the insolvent company itself, the company's creditor or debtor, and the Social Accounting Services (SAS).[5] Companies' bad liquidity position and financial disorder were an important systemic problem. The insolvent company could declare itself bankrupt under certain conditions and employees were dismissed on the basis of redundancy due to "technological surplus". Those laid-off were entitled to some kind of unemployment benefits from the office for unemployment. During that time, there was in place also the rather generous retirement system. The creditors could also declare the company insolvent under certain conditions and when the convened creditors' meeting did not agree to compulsory settlement. The debtor company or the creditors with claims could also propose the compulsory settlement. The court had to approve it or to decide to sell the bankrupt company. The bankruptcy procedure was closed as the company was sold and the dismissal of employees remained valid. The SAS could initiate a bankruptcy proceeding when the company was insolvent for a certain period of time. The SAS was authorised to initiate bankruptcy proceedings against the insolvent company when, neither the insolvent company itself, nor its creditors filed for its bankruptcy. In

Slovenia, a moratorium on the bankruptcy of companies was however introduced in 1991 as a policy to prevent accelerating bankruptcies and the emerging unemployment. The bankruptcy moratorium concerned mainly bankruptcies proposed by the SAS.

In the second stage, the Slovenian law on forced settlement, bankruptcy and liquidation was passed in 1993 and became operative in 1994, enacting the bankruptcy law. The SAS could no longer initiate a bankruptcy procedure but only propose a compulsory reconciliation for socially owned enterprises. Importantly, the obligatory settlement could allow for the restructuring of some parts of companies for future market operations. Only the enterprise owner or its creditors could declare bankruptcy. The 1993 bankruptcy law and its amendment in 1997 represent the key regulatory environment for the bankruptcy of enterprises in Slovenia nowadays. Then, the process of enterprise bankruptcy was considered as a process where the interest of owners, borrowers and employees should be matched.

The bankruptcy procedures in practice have been however complicated and lengthy because of some other existing laws and the different state agencies whose activity can interfere in the process at least indirectly. These include, for example, the law on financial operation and the law on pledgeable funds, important in the process of bankruptcy settlement, and the Guarantee Fund, which also monitored enterprise bankruptcy procedures and was related to the compensation of laid-off workers. Furthermore, a gap has often existed between the regulatory framework and its implementation due to a potential lack of transparency and the possible conflict of interests. The transparency problem has been associated with a lack of clear criteria: the relations and importance of a bankruptcy process as a legal and as an economic problem were not always defined in a very clear way. The conflict of interests was likely to occur when the firm ownership was dispersed. The creditors usually wanted immediate payments from the enterprise in bankruptcy but so may wish the creditor's protection (e.g. banks) with their own unsettled claims and debts thus facing a conflict of interests. Complicated and lengthy bankruptcy processes have also been the result of a lengthy evaluation process of the firm's assets, which could take up to several years and were considered one of the most important constraints for a bankruptcy process to be finalised together with the slow selling process during the bankruptcy process. The process of dispute settlement was also slowed--down by a lengthy court process. Consequently, the bankruptcy process in its implementation was often long and costly.[6] Yet another constraint has been the lack of qualified and

experienced staff. The knowledge and experience of the bankruptcy manager can play an important role in a successful bankruptcy procedure and the payment of creditors to take place. The role of the bankruptcy manager differs from one bankruptcy procedure to another. This might be one of the reasons why information on bankruptcy procedures and bankruptcy managers' activity has so often been limited. Finally, the interest of employees and labour unions has also complicated the trade-off between financial-economic and legal importance of the bankruptcy. Protection of employment or labour hoarding has been argued of public or national interest as a means to overcome the financial crisis and to keep employment. This came in the interest of employees against bankruptcy. Workers when laid-off were eligible to claim for compensation for dismissal. This constituted an area for social and retirement policy, as many of the cases in question involved elderly employees and handicapped people. The pledgeable and alimony fund has taken over some burdens of employee compensation for payments of unpaid wages and employee benefits in the form of one-amount of one-minimum wage payment. It has served to temporarily reduce social problems of individual workers who have lost their job as a consequence of bankruptcy. This institute of employee compensation and forced settlement is aimed to have a similar function to that of similar institutes in some the EU countries (e.g. in Germany).

Throughout the 1990s some manufacturing enterprises did go bankrupt and falling employment appears to have been more the result of enterprise bankruptcy than of enterprise restructuring (EBRD, 1998). Some of these enterprises were later re-established but, as a rule particularly in labour intensive enterprises, they reduced the level of employment. Among capital-intensive enterprises, they were often heavy industry enterprises and loss-making enterprises during the longer period in the 1980s. Some training / re-education programmes to re-qualify and train workers were developed and directed at labour intensive branches. However, due to relatively high wages in Slovenia, a fact that alters international competitiveness, several labour intensive activities are still under the pressure of having a relatively low value-added to pay high wages and to compete in the EU and international markets where there is growing competition from some developing countries with relatively much lower wages. Among such branches are textiles and shoes industries.

3. *State Development Fund (SDF)*. The SDF was established in 1990, went through different stages, and abolished in 2002. It was an enterprise-restructuring agency for the restructuring of large-loss making enterprises. It took over several en-

terprises in financial distress for possible restructuring. In 1992, many companies in bad financial situation leading to possible bankruptcy entered into the pre-bankruptcy programme under the supervision of the SDF for restructuring. In 1997 it was transformed into the Development Corporation of Slovenia (DCS). This transformation granted the DCS new powers and widened the scope of its activities so as to include the financing and restructuring of enterprises that had not yet been privatised as well as privatised enterprises in financial distress (EBRD, 1998). Large-scale enterprises in the aluminium, steel and oil sectors were included in the rehabilitation process led by the state-owned DCS and other state agencies. As the bankruptcy was often not considered as a method of restructuring, the restructuring of enterprises has thus been postponed so as to either keep employment or find a strategic investor. The efficiency of the DCS was largely questionable in terms of attracting new investors interested in modernization of the firm, in terms of enterprise restructuring, and in terms of human capital improvements. Finally, the DCS was important in relaxing firms' budget constraints and in providing them with subsidies. The prevalence of soft-budget constraints was intended to keep employment levels and lead to a gradual restructure of the enterprise. In some enterprises development centres were established or re-established (e.g. wooden and textile industries) aiming at employee re-training and enterprise adjustment towards a greater ability to compete on developed western markets. With the abolishment of the DCS, the enterprises in the DCS are being transferred to privatisation investment companies, pension funds and some other agencies.

4. *Competition Policy*. The competition policy considering competition levels (or market concentration) may allow firms easier entry into the market and exit from it. Competition and the protection of competition in Slovenia is covered by competition law, which covers both the areas of anti-trust regulation (prohibition of monopolistic agreements and abuse of the monopolistic position) and regulation of (unfair) competition (prohibition of unfair competition). Prior to transition and the Slovenian independence from the former Yugoslavia in 1991, the law on the regulation of unfair competition and monopolistic agreements formally regulated the area of competition policy within the former self-managing economy. During the 1990s, following transition to a market economy and Slovenian independence, the area of protection of competition gained in importance as a reflection of internal and external deregulation, commercialisation and marketisation of the economy. In 1993, the competition law or the law on

the protection of competition was adopted creating the legal environment in the areas of unfair competition and entrepreneurial restriction of competition. More recently, Slovenia has harmonised national legislation in the area of protection of competition with EU regulations and their implementation. In 1995, the competition agency or the Office for the protection of competition (OPC) was established for the competencies with the provisions of the competition law and regulations as a relatively new area. According to the OPC evidence, the activities of the OPC have increased since 2000. Mergers have been among the most important activities of investigation. For example, in 2000, among 51 investigated cases, 9 cases were related to restrictive agreements, 3 cases were related to abuse of dominant position, and 39 cases were related to mergers. Most of these merger investigations were directed at banks and non-manufacturing enterprises, particularly trade enterprises, telecommunications, and similar service activities. Less than 20 cases under "decision" and less than 10 cases under "resolution" were investigated within the manufacturing sector, which includes the NACE 15.00 - 37.00 Rev. 1 branches. Moreover, some manufacturing enterprises were involved in some of the investigated cases because their activity was associated with firms in trade and service activities mostly as a result of merger activity. This suggests that only a very small number of manufacturing enterprises were investigated for the violation of the rules of competition.[7]

5. *Trade Policies and Trade Reorientation*. Unlike other CEE countries, Slovenia and the other republics of the former Yugoslavia gained in trade with the EU on the basis of the stipulated cooperation agreements that took place during the 1970s and 1980s. Joint ventures, foreign direct investment (FDI) and cooperation with western companies under administratively set constraints contributed to a certain technological advantage in comparison with the other CEE countries to which access to western markets and technology, except partly for Hungary and Poland, was almost impossible. The former Yugoslavia was also a contracting party and a participant in the Uruguay Round of the GATT and concluded several free-trade agreements with developed and developing countries. Prior to Slovenian independence, during the 1980s, a substantial share of Slovenian trade was with the former Yugoslav Republics. During the 1990s, there was the breakaway from the former traditional markets in the former Yugoslav Republics. The Slovenian reorientation of trade and new foreign trade activity occurred after the partial loss of traditional former Yugoslav markets. In 1993, Slovenia signed the cooperation agreement with the EU. At the end of 1994, Slovenia became a member of the General Agreement on Tariffs

and Trade (GATT) and one of the founder members of the World Trade Organisation (WTO). With the WTO membership, trade measures have been transformed into more transparent and less discretionary trade policies. The widening and deepening of the East-West European integration was stipulated by the Association Agreements with the EU and deepened through the negotiation process for EU membership. In 1996, Slovenia signed an Association Agreement with the EU, which entered into force as an Interim Agreement in 1997. The Association Agreement between Slovenia and the EU includes a list of concessions based on traditional trade relations (e.g. textiles). Finally, Slovenia entered negotiations for EU membership in 1998 and on 1 May 2004 Slovenia became the EU member together with seven other CEE countries (Estonia, the Czech Republic, Hungary, Latvia, Lithuania, Poland, and the Slovak Republic), Malta and Cyprus. It is important to notice the great importance of external trade for the Slovenian manufacturing firms, as the manufacturing products constitute the most important item in Slovenian merchandise trade.

CONCLUDING REMARKS

In spite of the increase in the number of economically active manufacturing firms, most of the Slovenian manufacturing branches have witnessed labour shedding since 1987. The increase in the number of manufacturing firms is particularly related to a considerable increase in the number of privately owned firms. However, the growth of private firms and the consequent job creation was not enough to offset the reduction of employment in the Slovenian traditional, formerly socially owned manufacturing firms.

The firm and labour dynamics in the Slovenian manufacturing sector were relatively large in the first stage of institutional changes with enterprise reorganisation and enterprise transformation at the end of the 1980s and in the early 1990s. During the initial stage of transition some large manufacturing firms faced a demand shock, which occurred with the collapse of the traditional former Yugoslav markets. In general, manufacturing firms with low-value added, in-ward oriented towards the former Yugoslav markets, and some labour-intensive activities (e. g. textiles) have faced the major problems in market reorientation and thus the most shrinking firm and labour adjustments.

The EU rules and the commitments accepted by Slovenia for EU membership have been the major forces shaping and speeding up the adjustment of the Slovenian economy, including the manufacturing sector, during the most recent years. Slovenia has adjusted its institutional and policy frame-

works as requested by the EU membership particularly in the areas regulating commercial companies, bankruptcy and bankruptcy procedures, government rehabilitation and support programmes, competition and trade policy measures.

The increase in the number of manufacturing firms, particularly the new private ones, which are typically smaller, and the reduction in the number of employees led to the decline in the number of the employees per manufacturing firm. The decline in the average size of the firm holds also by NACE-2 digit manufacturing branches. Mixed, socially-owned and enterprises with less clearly identified ownership structures are on average greater, while cooperatives and privately owned, smaller and medium-sized enterprises. The greatest average size of firms among manufacturing enterprises is found for NACE-16 manufacture of tobacco products and for NACE-24 manufacture of chemicals and chemical products.

Since 1997, the rate of employment growth is again positive indicating a slight increase in the number of employees in Slovenian manufacturing. This recovery in job creation is recorded particularly for manufacturing branches belonging to manufacture of furniture, office rubber and plastic products, fabricated metal products, machinery, computers, medical, precision and optical instruments. These are largely activities with existing demands for higher value-added manufacturing products.

On the other hand, among the job destructive manufacturing branches, there are some traditional, low value-added, labour intensive branches such as shoes and textiles. The increasing competitive pressures in the firm output markets are one of the most important driving forces for the more recent market selection process and associated firm and labour dynamics.

NOTES

[1] This research was undertaken with support from the European Union's Phare-ACE Programme 1998 and from the Slovenian National Science Foundation. The content of the article is the sole responsibility of the authors and does not represent the views of the Commission, its services or any other institution.

[2] The analysis of all registered firms in the BRS, including the greatest number of the firms without registered any full-time employment, is more detail conducted by Bojnec and Xavier (2004b). As these inactive by creating the full-time employment firms are in a large extent also economically inactive firms in terms of sales and financial transactions, we ignore them in this article, but analyse only manufacturing firms with at least one full-time employed, including the full-time self-employed owner of the firm.

[3] Entry and exit rates for the Slovenian manufacturing sector in the regression framework using the firm-level data set of the Agency for

payments and financial transactions were analysed by the authors in the article Bojnec and Xavier (2004a) for the period 1994/1995-2000.

[4] Firm restructuring, labour mobility and employment reallocation in other CEE countries have been analysed by several studies, for example by Carlin et al., 1995; Earle, 1997; and Sorm and Terrell, 2000.

[5] As in other former Yugoslav Republics, the SAS supervised the company accounts, collected data and carried out external control over the economy between the 1970s and the summer of 1994. In the summer of 1994, the SAS in Slovenia was reorganized into the Agency of the Republic of Slovenia for Financial Transactions, Supervision and Information within the Ministry for Finance. It was abolished in 2002 and the company accounts have been taken over by the banks.

[6] Among the best-known examples in Slovenia was the bankruptcy procedure of the Slovenian largest truck producer Truck Factory Maribor (TAM). There were interrelations between various bankruptcy procedures and between individual bankruptcy debtors. The bankruptcy procedures took more than four years and more than one hundred people worked on the bankruptcy procedure. Most assets were sold.

[7] During 2002 and 2005, there has been the well known example of Ljubljana's brewery Union by Belgium's brewery concern Interbrew and the Slovenian brewery Laško.

REFERENCES

Bojnec, Š. and Xavier, A. (2004a), Entry and Exit in Transition Economies: the Slovenian Manufacturing Sector. *Post-Communist Economies*, 16 (2): 191-214.

Bojnec, Š. and Xavier, A. (2004b), The Number and Size of Firms: Why So Big a Difference?. *Managing Global Transitions*, 2 (2): 89-105.

Carlin, W., Reenen, J. V. and Wolfe, T. (1995), Enterprise Restructuring in Early Transition: The Case Study Evidence from Central and Eastern Europe. *Economics of Transition,* 3 (4): 427-458.

Earle, J. S. (1997), *Industrial Decline and Labour Reallocation in Romania*. William Davidson Institute Working Paper no. 118. Ann Arbor, MI: WDI.

EBRD (1998), *Transition Report 1998.* London: European Bank for Reconstruction and Development.

EBRD (2001), *Transition Report 2001.* London: European Bank for Reconstruction and Development.

Gray, C. W. (1993), *Evolving Legal Frameworks for Private Sector Development in Central and Eastern Europe*. World Bank Discussion Papers No. 209. Washington, D.C.: The World Bank.

Hughes, G. A. and Hare, P. G. (1992), Industrial Policy and Restructuring in Eastern Europe. *Oxford Review of Economic Policy*, 8 (2): 82-104.

Newbery, D. M. and Kattuman, P. (1992), Market Concentration and Competition in Eastern Europe. *The World Economy*, 15 (3): 315-334.

Sorm, V. and Terrell, K. (2000), Sectoral Restructuring and Labor Mobility: A Comparative Look at the Czech Republic. *Journal of Comparative Economics*, 28 (3): 431-455.

DRUŠ. ISTRAŽ. ZAGREB
GOD. 14 (2005),
BR. 6 (80),
STR. 1103-1127

BOJNEC, Š., XAVIER, A.:
FIRM AND LABOUR...

Dinamika tvrtki i rada u slovenskoj proizvodnji

Štefan BOJNEC
Fakultet za menadžment, Koper

Ana XAVIER
Europska komisija, Brussels

Ovaj članak razmatra obrasce u dinamici slovenskih proizvodnih tvrtki i njihova rada po granama s obzirom na stope ulaza i izlaza koje se tiču broja tvrtki, njihove zaposlenosti i veličine. Unutar općih razvojnih obrazaca broj proizvodnih tvrtki se povećao, a zbog gubitka radne snage broj zaposlenika i prosječna veličina tvrtke u proizvodnom sektoru se smanjila. Postoje, međutim, osjetne razlike po granama, jer je neznatan broj proizvodnih grana koje otvaraju radna mjesta. Među većinom proizvodnih grana koje uništavaju radna mjesta ima i nekih tradicionalnih radno intenzivnih grana. Sve veći pritisak konkurencije na izlaznim tržištima tvrtki jedan je od najvažnijih čimbenika koji utječu na recentnu dinamiku tvrtki i radne snage.

Firmen- und Arbeitsdynamik in der slowenischen Produktion

Štefan BOJNEC
Fakultät für Management, Koper

Ana XAVIER
Europäische Kommission, Brüssel

Dieser Artikel untersucht bestimmte Muster in der Dynamik slowenischer Produktionsfirmen und ihrer Arbeit in verschiedenen Produktionszweigen hinsichtlich Income- und Outcome-Werten, die sich auf die Zahl der Firmen, ihre Größe und Arbeitnehmerzahlen beziehen. Innerhalb der allgemeinen Entwicklungstendenzen ist die Zahl der Produktionsfirmen angestiegen. Infolge des Verlustes von Arbeitskräften sind im Produktionssektor die Zahl der Beschäftigten und die durchschnittliche Firmengröße zurückgegangen. Zwischen den verschiedenen Produktionszweigen gibt es jedoch erhebliche Unterschiede, da in einigen (wenigen) Branchen neue Arbeitsplätze geschaffen werden. Unter den meisten Produktionszweigen, in denen immer mehr Arbeitsplätze gestrichen werden, befinden sich auch einige traditionelle arbeitsintensive Branchen. Der stets wachsende Konkurrenzdruck an den Absatzmärkten ist einer der Hauptfaktoren, die die rezente Dynamik der Produktionsfirmen und ihrer Arbeiterschaft beeinflussen.