

Job Creation Process in a Transition Economy

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ABSTRACT. In many European countries, SME policy is close to being a synonym for job creation. Most empirical research on the job-generation potential of small firms over the last decade has been done in the stable and favorable economic conditions of market economies. The paper investigates the role of small firms in more difficult circumstances. On an empirical data set for Slovenia, the paper tries to show that small firms have been the most important employer during the transition period, a finding that very likely can be extrapolated for other European transition economies. Over the last decade Slovenia has transformed from a labor-managed economic system to a market-oriented economy. If we compare the firm-size structure in a socialist-like economy to the firm-size structure in a mature market economy close to equilibrium, we notice a typical absence of small- and medium-sized firms, with the exception of craft shops. That was how Slovenia appeared in the early nineties. Characterized by the removal of administrative barriers, transition encouraged a spontaneous entrepreneurial wave through an expanding small business sector. The ensuing changes in employment distribution changed the firm-size structure.

1. Introduction

During the transition from a socialist to a market economy, high unemployment has been one of the most critical economic and political problems in most Central and Eastern European countries, including Slovenia. Formulating policy recommendations to ameliorate unemployment in this region is therefore an obvious priority, but the precise nature of these policy recommendations depends on assumptions about the drivers of new job creation. To address this question, this study explores the role small and medium-sized enter-

prises (SMEs) have taken on in creating new jobs in Slovenia in the nineties.

Although any country in Central and Eastern Europe is distinctive in its own right, they share a number of attributes owing to their common socialist economic system legacy; most relevant for our purposes is the traditional paucity of small enterprises. The restructuring process was encouraged by the deregulation of administrative barriers to private ownership, something typical of the majority of ex-socialist countries. Specifically, the economic transition in Slovenia involved several economic and social processes, including the restructuring and privatization of large socially-owned conglomerates, and the creation of small privately-owned companies. The restructuring of large socially-owned companies resulted in many workers losing their jobs and the threat of growing unemployment. On the other hand, economic and political transition also created many business opportunities. A host of new small business units were created in new market niches, especially in the service sector.

In this analysis, we follow job creation process during transition. Our approach is distinctive for two reasons. First, going beyond several other job creation studies based on cross-sectional data on a limited sample of industry sectors, we have compiled an original panel data set that includes all active incorporated firms existing in the Slovenian economy over a period of 10 years. Second, we track employment changes at the firm level during the period of analysis, and are thus able to incorporate methodological innovations suggested from recent empirical studies in the field.

We begin our discussion in the next section with a brief overview of previous research on the relationship between firm size and job creation, which is followed by a presentation of the sample,

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methods and results. Finally, some conclusions to the results are withdrawn and limitations to the approach are discussed.

The first empirical study on the job creation potential of the small business sector was the seminal work of David Birch (Birch, 1979). His outreaching conclusion was that small firms with fewer than 20 workers created two out of three new jobs in the United States from 1969 to 1976. Birch's contribution prompted two streams of research. The first, predominantly American, tried to resolve the empirical question as to the actual job creation potential of SMEs. Much of this work revolved around methodological questions. The most significant contributions were made by Armington and Odle (1982), Phillips and Kirchhoff (1989), Davis et al. (1993) and, finally, by Canadian economists Picot and Dupuy (1996). Picot and Dupuy (1996) provided an insightful analysis of the statistical methods used up to that point in job creation research acknowledging the statistical bias caused by using beginning firm size as a classification variable of size groups.

A second stream of research predominated in Europe. Among the most notable national studies were, for instance, Gallagher and Stewart (1986), Storey and Johnson (1986), Johnson (1989), Blanchflower and Burgess (1994), Konings (1995), Tether and Massini (1998) for the United Kingdom; Boeri and Cramer (1994) for Germany, Davidsson et al. (1994) for Sweden, Huigen and Kleijweg (1991) and Broersma and Gautier (1997) for the Netherlands, Kangasharju and Moisio (1998), Autio and Parhankangas (1998) for Finland and Liargovas (1998) for Greece.

By contrast, in the transition economies of Central and Eastern Europe, where the issue of employment is compelling, research in the field has been sparse. Konings examined gross job flows with regard to the ownership type and size of Polish firms (Konings et al., 1996), Konings (1997) investigated firms' employment growth in Romania, Bulgaria and Hungary, Erutku and Vallee (1997), Jackson gave evidence on firm creation processes in Poland (Jackson et al., 1999), while Acquisti and Lehmann (1999) analyzed job creation and destruction in Russia. In Slovenia, the link between firm restructuring and the small business sector has primarily been investigated by Vahcic and Petrin (1990) who found that in the

short term newly-created firms are more efficient in employing factors of production than state-owned firms and are therefore more inclined to create new jobs. They introduced, on the basis of empirical investigation, the phenomenon of a "socialist black hole" to explain the absence of typical small firms in socialist economies. The socialist black hole is supposed to be filled from the bottom up by entries of new start-ups and from the top-down by the restructuring of state-owned companies. This would explain the rapid development of SMEs in the last decade in transition economies. Hence, small business sector in transition economies played a lead role in industrial restructuring since one of the challenges confronting nations throughout Eastern Europe is to generate or regenerate the entrepreneurial sector in order to achieve a more balanced industrial structure (Acs and Audretsch, 1993). Based on the creative destruction theory and empirical evidence from other economies, we propose:

P1: Small firms in Slovenia create a higher share of net new jobs than large firms during economic transition.

2. Methodology, sample and variables in the analysis

2.1. Methodology

The most commonly used criteria to define firm size are the number of workers employed, the level of annual sales and the average annual value of a firm's assets. In the empirical model presented in the paper, we categorize firms using the criteria of the number of workers employed. This criterion to classify firms by size does not suffer from problems related with the currency changing and hyperinflation experienced in most socialist economies towards the end of eighties on their path to economic restructuring. We follow the definition of firm-size classes proposed by the European Commission Directorate-General XXIII (Enterprises in Europe, 1996), which identifies three types of firms: small, medium and large respectively.

The methodological approach is based on Birch's (1987) original conceptualization, which incorporates a dynamic component of job creation

analysis. When measuring job creation potential, this approach takes into account that, when firms grow, they cross the boundaries of their size classes which basically means that the employment contribution of a firm crossing over from a lower to an upper class should be attributed to the lower class. The critique of the dynamic approach has pointed out two main problems related to job creation analysis at the aggregate level: size distribution fallacy and regression-to-the-mean fallacy.¹

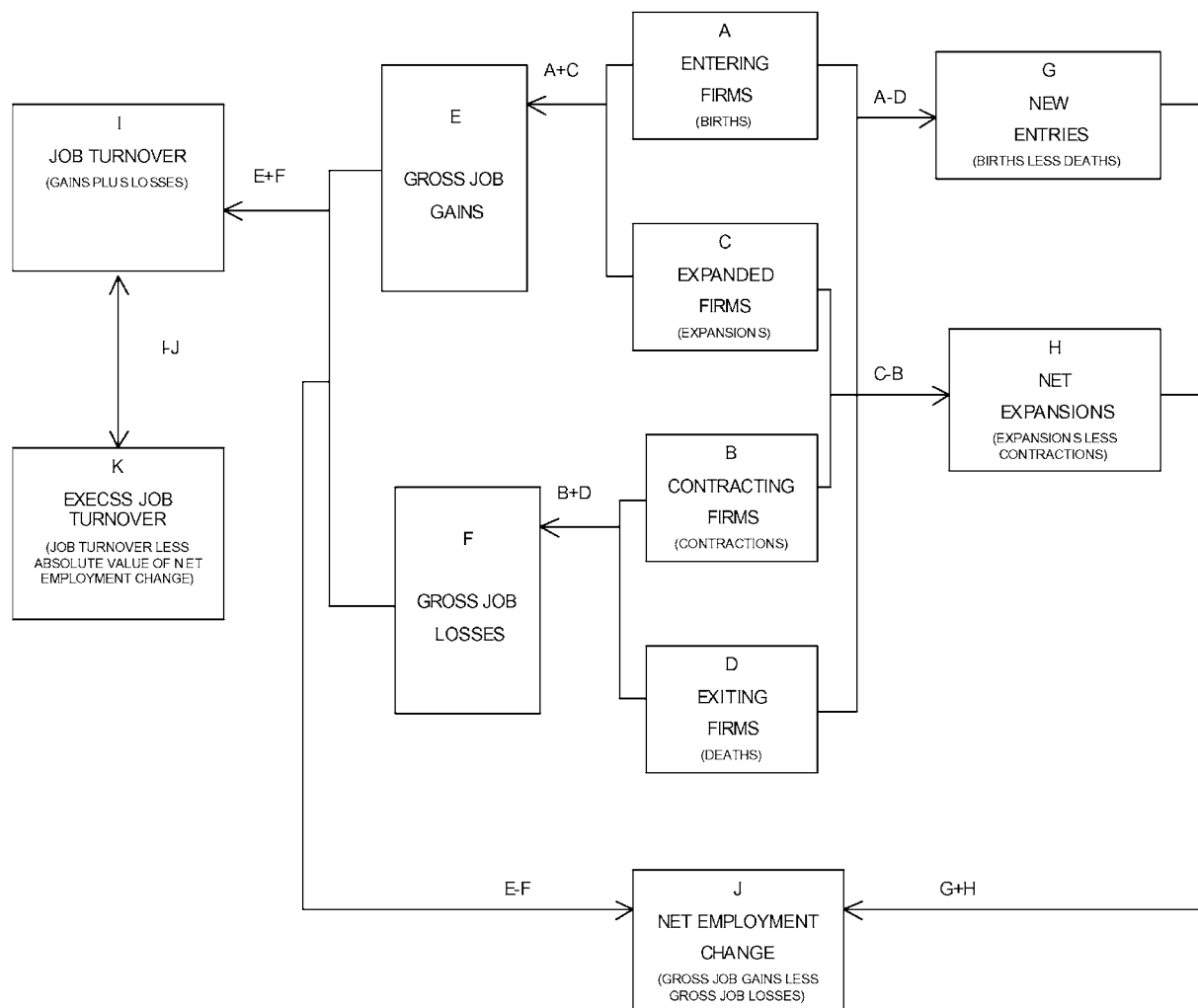
Employment changes in Slovenian firms from 1989 to 1998 are analyzed using dynamic quantitative approaches. Two different measures of firm size are employed in order to be able to control for statistical pitfalls at the aggregate level. In the main analysis, the long-run average-size method, which is the average firm size over the period, is used. In order to isolate the characteristics of job creation contributions by groups of firms, the long-run average-size method in continuing firms is used, when job change by groups of firms is estimated solely on the basis of expansions and contractions of continuing firms taking out birth and death processes.

2.2. Variables

The *unit* under investigation in analyzing the job creation of Slovenian firms in the period 1989 to 1998 is a legal economic entity – a firm with full autonomy in the decision-making process. Solely incorporated business units (of all legal forms) are taken for analysis. There are often two facets to a business activity in any country – incorporated business units on one hand and non-incorporated business (i.e. individual private entrepreneurs) units on the other. The biggest share of incorporated businesses in Slovenia (1999) took the legal form of a limited liability company (86%), partnership (8%), joint-stock company (3%) while the rest were other legal forms (i.e. limited partnership, co-operative etc.). The predominant legal form of non-incorporated business is the sole proprietorship. The administrative procedure for obtaining the status of an individual private entrepreneur² is a cumbersome one. Only people wanting to become self-employed would have an advantage in utilizing this legal form. Further, self-employment is not strongly related to the growth

motive and consequently does not represent an important source of job creation potential. In the 1990s, the number of craft shops in Slovenia was around 30,000 and increased, after major changes to the legislation, to a total of around 64,000 sole-proprietorships at the end of the nineties. When adding up all non-incorporated and incorporated business units, we reach the number of 110,000 registered business units at the end of the nineties.

The variable list includes: size, employer status, job turnover, gross job gain, gross job loss, net job change, and change in employment. The method of assigning firms to *size classes* can influence the results in the analysis of employment change by firm size groups. In order to avoid transitory movements in employment, we used the long-run average-firm size method, which calculates the average firm size over the period 1989 to 1998³ to classify firms into size classes. Long-run average size was computed for each firm individually by adding up its annually reported employment data and averaging it over the number of years of available data a firm had in the period. *Firm employer status* is defined for each record in the database by answering three questions. First, does the firm exist? Second, if it exists, is it active? And if so, how many workers does it employ? If we want to analyze all critical factors influencing employment changes between two consecutive years, we have to investigate a firm's employer status at both the beginning and end of the year. When a firm first appears in the database, it is recorded as a *birth*. In the year following the year of its very last appearance in the database it is recorded as a *death*. For remaining appearances in the database, an *expansion* is recorded if it increases the number of employed workers between consecutive years and a *contraction* is recorded in case of a drop in the number of employed workers between consecutive years. Finally, a firm is given a *neutral* status if it does not change its employment between consecutive years. The schematic representation of relations among the variables is shown in Figure 1, which illustrates that firms can be classified into one of the four mentioned categories: births (block A), expansions (block C), contractions (block D) and deaths (block B).



Source: Adopted from job creation and loss, 1996

Figure 1. Components of job turnover.

2.3. Sample

Data used in the analysis were extracted from the annual financial reports of incorporated firms collected by the Slovenian Agency for Payment Transactions, which provides the most complex yearly data on registered active businesses⁴ in Slovenia. In the first step, we created a single longitudinal database of records (firms) on the basis of annual sub-samples. The main objective was to consistently position each firm appearing in the analysis of our data set. When registered, each incorporated business is given a unique transac-

tion account code number which, together with a number similar to a social security number, served as the primary key of a record invariant to time. The number of registered businesses in the period reported by census data (i.e. Statistical Yearbook) is higher than the number of actually operating (active) firms as reported by the Slovenian Agency for Payment Transactions. This discrepancy, somewhat typical of the early years of transition, is a consequence of the enormous spontaneous entrepreneurship wave after political and economic deregulation in Slovenia. This prompted managers to start their own companies

“just in case” while still employed by a state-owned company (Glas and Drnovsek, 1999). The final panel structure database is organized in a way that enables one to follow changes in an employer’s status within an individual firm for each year and thus capture the picture of the dynamic processes occurring during the whole period under investigation.

3. Employment contribution by firm-size classes in Slovenia

Before examining changes in employment contribution by different firm size classes, it is important to understand the overall picture of employment flows in Slovenia during the transition period.

The Bureau of Census with its Statistical Yearbook, the official source of employment data in Slovenia, provides general data on firm size, the total number of registered firms and aggregate employment by legal forms, ownership structure and industry groups in the economy. As previously explained, in practice there is usually a substantive discrepancy between the number of registered and actually operating businesses. Further, the census does not follow firm-level data so one cannot accurately conclude about effective employment trends and movements in the analyzed economic categories.

Employment dropped continuously in the 1989 to 1998 period contributing to an overall fall of 20% in the decade. The biggest employment drop came between 1990–1991 when total employment decreased by 7% as a negative side effect of restructuring and downsizing in large state-owned firms. The increasing unemployment trend finally stopped with positive employment growth resulting in 1997. If we examined employment changes by economic sector we would note that, despite the growing general unemployment rate, some sectors actually increased their employment mainly due to organizational changes. Sectors increasing their employment in the last decade were mainly personal services, research and development, business services, whereas jobs were lost mainly in industry and agriculture.⁵ The registered unemployment rate was highest in 1991 with the highest rate of workforce fluctuation, but thereafter it stabilized at 14.5%.

In the following sections we present results on employment contribution by different size groups of companies using two alternative measures of classifying firms.

Short-term transitive changes in the number of workers employed in a firm distort the measured results of job creation by firm-size groups. In order to eliminate the effect of transitive changes in firm size, we calculated the previously men-

TABLE I
Overview of employment distribution in the period from 1989 to 1998

Year	Employment			Self employment			TOTAL	Registered unemployed	Total active	Unemploy. rate% ^b
	Incorporated	Individual	Total	Entrepreneurs	Farmers	Total				
1989	819,055	31,320	850,375	37,737	58,804	96,541	946,916	28,218	975,134	2.9
1990	782,222	31,920	814,142	38,897	57,157	96,054	910,196	44,623	954,819	4.7
1991	709,595	33,154	742,749	41,662	54,520	96,142	838,931	75,079	914,010	8.2
1992	669,466	32,615	702,080	42,569	39,408	81,977	784,057	102,596	886,654	11.6
1993	634,522	36,328	670,850	45,613	39,408	85,021	755,871	129,087	884,958	14.6
1994	615,767	42,721	658,488	48,340	39,408	87,748	746,236	127,056	873,292	14.5
1995	607,289	48,039	655,328	50,502	39,408	89,910	745,237	121,483	866,721	14.0
1996	597,328	53,100	650,428	52,375	39,408	91,783	742,211	119,799	862,009	13.9
1997	593,086	58,140	651,226	52,505	39,700	92,205	743,431	125,189	868,619	14.4
1998	591,653	60,827	652,481	51,674	41,012	92,688	745,169	126,079	871,249	14.5
1999 ^a	610,977	65,393	676,370	50,765	38,920	89,685	766,055	115,336	881,391	13.1

^a Data for September 1999.

^b Unemployment rate in % = (registered unemployed workers)/(active population) × 100.

Source: Slovenian Statistical Yearbook 1992–1999.

tioned long-run average size of a firm during the whole period.

Small-sized firms saw positive net employment growth rates from 1989 to 1999. The highest net employment growth rates in small firms occurred from 1990 to 1993 when the first Enterprise Law (1988) introduced the private ownership of formerly state-owned business units and further stimulated new ventures. The slow privatization process of the early 1990s encouraged many managers to establish their own companies, often taking the form of 'wild privatization'. Bankruptcies of large companies slowed subcontractor spin-offs, creating opportunities for new firms to directly compete with larger companies, especially in the service sector (Glas and Drnovsek, 1999). In 1993 changes to the Company Law sharpened legal demands, which in turn slowed down the spontaneous entrepreneurial process in the country. The government also put an end to tax holidays and other advantages for small entrepreneurs that resulted in the slowing of entrepreneurial initiative. After 1994, the net employment growth rate started to rise again and reached its peak in 1997 at 26.6%. When contrasting our results to other studies in transition

economies, one has to bear in mind that the samples and methodology were different than, for example, in Konings et al. (1996). They studied aspects of gross job flows such as ownership and size effects and found that the transition induced a high jump in job destruction rates in state-owned companies yielding negative net employment growth, whereas disproportionate job creation growth rates in the private sector contributed positive net employment growth of 10%. Based on empirical data for three transition economies, Konings (1997) also found that new young privatized firms outperform old private and state-owned firms, a similar finding to that of Acquisti and Lehmann (1999) for Russia who found that size by itself does not determine firms' employment growth rates and that much job creation by small firms is due to their disproportionate entries into the labor market. In the Slovenian case, we can expect that the employment growth rate will be slightly lower in the future at an annual average level of 10% to 15% since the first entrepreneurial wave has been exhausted and the related regulations have become more stringent.

When turning to medium and large firms, the numerical contribution to new jobs should be

TABLE II
Job gain, job loss and net changes rates by small medium and large firms in the period from 1989 to 1999 in %. Long run average size method

Firm size	1989–1990			1992–1993			1993–1994			1994–1995		
	Rnew ^a	Rlost ^b	RNet ^c	Rnew ^a	Rlost ^b	RNet ^c	Rnew ^a	Rlost ^b	RNet ^c	Rnew ^a	Rlost ^b	RNet ^c
Small firms	55.1	–34.4	20.7	35.7	–25.2	10.5	24.9	–25.3	–0.4	27.8	–14.8	13.0
Medium firms	21.1	–41.7	–20.6	14.9	–19.3	–4.4	8.6	–25.4	–16.8	8.2	–22.5	–14.3
Large firms	54.7	–34.7	20.0	10.8	–26.4	–15.6	4.1	–12.9	–8.8	5.5	–16.9	–11.4
	1995–1996			1996–1997			1997–1998			Average 1989–1998		
	Rnew ^a	Rlost ^b	RNet ^c	Rnew ^a	Rlost ^b	RNet ^c	Rnew ^a	Rlost ^b	RNet ^c	Rnew ^a	Rlost ^b	RNet ^c
Small firms	31.4	–14.1	17.3	34.3	–13.9	20.4	41.0	–14.8	26.2	41.0	–21.3	19.7
Medium firms	9.2	–26.0	–16.8	9.9	–24.0	–14.1	14.8	–26.1	–11.3	16.8	–24.5	–7.7
Large firms	5.1	–17.6	–12.5	5.5	–16.9	–11.4	7.4	–17.4	–10.0	16.2	–19.4	–3.2

Consecutive years of 1990 and 1991 were excluded in the calculation of job change due to discrepancy of firm level data series, which was the consequence of compulsory organisational and statutory changes of firms. Detailed results by size classes are presented in appendix – Table A-I.

^a Rnew: gross job gain rate.

^b Rlost: gross job loss rate.

^c Rnet: net job change rate ($Rnet = Rnew + Rlost$).

Source: Author's data.

analyzed together. If we analyze the net employment growth rate in 1989 and 1990 we find that, despite widespread layoffs, this rate was positive. However, one should distinguish between the net employment growth rate by size class and the total employment growth rate, which was actually negative over the 1989–1997 period. In the 1989–1993 period, new jobs created as a consequence of reorganization processes grew faster than job losses caused by large firms downsizing the number of their jobs. In fact, the administrative process of reorganization from 1989–1991 resulted in a new distribution of firms within size classes and did not create any new employment expressed in real terms. Net employment growth rates in large firms have been negative since 1992, with an average annual level of –10%, reaching a nadir of –12.5% in 1995.

The job creation analysis for medium-sized firms reveals the negative contribution of that size class to new jobs since net employment growth rates have been negative since 1992. They have mainly been negative due to the low values of job gain rates. The share of small firms in the total number of firms in Slovenia rose from 1989 to 1999 and reached 96% in 1998. As shown in Table II, only small firms have a positive net job change rate in the period under examination. Ultimately, the greatest job creation potential is in fact found in the small-firm sector, as the growth rate of net employment gradually falls along with increases in firm size. The total net employment growth rate was –1.6% in Slovenia in 1997, but that is expected to become positive in the near future given that the absolute figure for

total employment increased in 1998 for the first time in a decade.

Empirical evidence from other countries suggests that employment growth in existing small firms will not necessarily outstrip that of existing large firms. Thus, if one defines two groups of firms – all existing small and large firms at any given time – employment will tend to decline, or at least grow very slowly in both groups. This is because the birth process has been excluded, and that accounts for much of the expansion of employment in the small-firm sector. The results of such analysis are presented in section 3.3 where growth processes in continuing small and large firms are estimated.

In this part of analysis we ask whether the employment growth of continuing small businesses outstrips employment growth in continuing large businesses. The analysis of job creation potential where birth and death processes are excluded may shed light on that question.

The net employment growth rate in continuing small businesses over the period is considerably lower once we exclude the birth process as it accounts for much of the employment expansion in the small-firm sector. The greatest difference is seen in the initial period (1989–1994) during the first spontaneous entrepreneurial wave in Slovenia, when many firms started as a result of administrative deregulation.

Jobs were created and lost in all size classes of firms. However, the small business sector contributed disproportionately to net employment growth rates over the period 1989 to 1998 in Slovenia. The small business sector created many

TABLE III
Net job gain rates by small medium and large firms in the period from 1989 to 1999 in %. Long run average size method in two cohorts of firms: “all firms (LAS)” and “continuing firms (LASC)”

	1989–1990		1992–1993		1993–1994		1994–1995		1995–1996		1996–1997		1997–1998	
	LAS ^a	LASC ^b	LAS ^a	LASC ^b	LAS ^a	LASC ^b	LAS ^a	LASC ^b	LAS ^a	LASC ^b	LAS ^a	LASC ^b	LAS ^a	LASC ^b
Small firms	20.7	14.8	10.5	–3.2	–0.4	–0.8	13.0	9.4	17.3	15.7	20.4	20.4	26.2	25.1
Medium firms	–20.6	10.4	–4.4	–7.0	–16.8	–12.3	–14.3	–12.8	–16.8	–11.5	–14.1	–11.3	–11.3	–10.4
Large firms	20.0	19.6	–15.6	15.9	–8.8	–7.9	–11.4	–11.8	–12.5	–8.9	–11.4	–8.2	–10.0	–7.7

^a LAS: Long run average size method in all firms.

^b LASC: Long run average size method in continuing firms – the birth and death processes have been excluded.

Source: Author's data.

new jobs through the opening of new enterprises but, unfortunately, we are unable to say what proportion of the new openings relates to the reshuffling of jobs between size sectors as a consequence of the more effective use of the factors of production formerly employed by socially-owned companies. Further, the small business sector gained a large proportion of new jobs due to sectoral restructuring. During this period, many firms restructured from production-oriented activities to service activities, which were underdeveloped in Slovenia before 1990. Small-sized service businesses hire a large proportion of workers only on a part-time basis. This is why job quality is an important issue when discussing job creation in small and large firms. To obtain a complete picture of the contribution to job creation, a payroll distribution over firm-size classes would have to be examined.

There are certainly some limitations of this study. The first limitation is related to sample taken into analysis of job creation process. The analysis could not include employment effect of sole proprietorships since it is not officially recorded. This exclusion, essentially further strengthens our argument that small businesses were the major job creators in Slovenia during the transition period. In 1999 there were 64.000 sole proprietorships with around 45.000 of them having a craft licence (Glas and Drnovsek, 1999). While this group of firms does not generally account for a large number of new jobs, some jobs are created and, if counted, would likely increase the number of net job growth by small firms. Another limitation relates to the unavailability of data about payroll distribution by firm size classes. Information on payroll distribution would be a great contribution to interpretation of job creation distribution results. It is argued that the quality of positions is substantially lower in smaller than in large firms. The hourly pay rate increases with increasing size of the employer (Kruse, 1992) and further, the proportion of fringe benefits given to workers is likely to be higher in larger firms in order to compensate for working in more delineated environment. Finally, empirical analyses into job creation process, as the one in that paper, cannot give an explanation as to why some categories of firms create more new jobs than others. Several qualitative explanations have to be taken

into account when interpreting a broader context of job creation. The job creation potential of a firm is characterised by the sector of activity, the technology base of an industry, labour productivity, unionisation, capital intensity and ownership structure (Baldwin et al., 1998). Further, there is no relevant empirical evidence measuring the direct impact of government policy on the job creation potential of firms. International trade also shapes job creation potential of a firm, with increasing sales from export and decreases with increasing imports, however, the relationship is not statistically significant for 'domestic' and 'foreign' firms (Baldwin et al., 1998). Wages influence job creation potential in the following direction; the lower the variances of wages within an industry, the lower are the birth and death rates (Boeri and Cramer, 1992). Last but not least, legal regulation also matters. Job losses might tend to increase less dramatically during cyclical downturns in countries where related provisions are stricter (e.g. France, Germany and Sweden) than in countries where the index of employment protection is relatively low (e.g. USA, Canada and Australia) (Boeri and Cramer, 1992).

4. Conclusion

Our analysis was undertaken for the transition period characterized by a unique mix of economic, social and political conditions. Several processes have to be taken into account when analyzing and interpreting the results of the job creation potential of different firm-size classes. The first is that in Slovenia, like in other post-socialist economies, the previous legislation did not allow private business. After the removal of these legal barriers there was an enormous spontaneous wave of entrepreneurial activities (a large share of them being in the underground economy), resulting in intense start-up activities. New firms' births contributed a lot to new jobs in the SME sector. The most important finding of job creation analysis is that the small business sector contributed most of the new jobs in Slovenia during the transition period from 1989 to 1998. However, the analysis showed that both job losses and gains were highly concentrated among relatively few small firms. The largest share of labor fluctuation in Slovenia happened in the 1989–1991 period when the

majority of large state-owned companies were restructured. After 1991, it has been the small business sector that has experienced the greatest changes.

The Slovenian case showed that during the restructuring period this post-socialist economy faced specific macroeconomic problems (unemployment being just one), where the small business sector can play a significant role in resolving problems and keeping the economy on the road towards stability. The empirical finding about the job creation potential seen in Slovenian SMEs should not lead us to a general conclusion that any typical small firm has that potential. Job creation results in one period do not give us a very reliable basis for future estimations. Several recent findings of labour market research can substantially enrich qualitative interpretation of empirical evidence: job turnover is characterised by net employment changes (Job Creation and Loss, 1996) and the rate of job turnover is relatively high in all sectors of activity (Anderson and Meyer, 1994). Job gain and loss appears to be quite highly concentrated among a relatively few firms (Picot and Dupuy, 1996). There are considerable differences among sectors of activity, even among sectors (Blanchflower and Millword, 1988) since the labour market is more turbulent than hypothesised in traditional economic theory. Cyclical fluctuations are largely associated with expansions/contractions of continuing firms, while entry is the driving force behind the trend (Job Creation and Loss, 1996). Job creation results of a firm in the short term do not imply its long-term behaviour. Firms, which do well during one period, are replaced to some considerable degree by others in the subsequent period (Picot and Dupuy, 1996).

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Notes

¹ Size distribution fallacy happens when firms cross boundaries between size classes. For example, a firm that belongs to class k in year t can belong to size class $k + 1$ in year $t + 1$. If the development of total employment of both size classes k and $k + 1$ is not corrected to reflect this boundary crossing, job creation of class k is underestimated and that for class $k + 1$ is overestimated. Regression to-the-mean can be related to the firm-growth/firm-size relationship. The target variable is firm growth measured by the difference in firm size, which is a component of the target variable. Fluctuations over time in firm size influence both the target variable and the classification or explanatory variable (Kleijweg, Nieuwenhijzen, 1996)

² The legal form of an individual private entrepreneur has several tax advantages over incorporated businesses. Individual private entrepreneurs are not obliged to disclose much of the information regarding their companies which is why there is no data officially available on employment at the firm level.

³ Employment change at the firm level consists of long-run trend and a short-term, transitory component. It has been shown that much of the employment change in individual establishments is in fact transitory and will be reversed in the short run. When observed at the peak of the transitory movement, the firm will have a greater likelihood of being classified as a large firm than in other years, after that it will tend to face a transitory decline (Davis et al., 1993; Picot and Dupuy, 1996). Since the long-run employment level of a firm may not be changing, classifying firms on the basis of its current employment level may give a misleading picture on the creation potential of different size classes.

⁴ The time span covered the period from 1989 to 1998. The data series on the number of employees in the 1990–1992 period is troublesome due to the intense changes in the political and economic regime in Slovenia at that time. There were many administrative organizational changes in Slovenian firms which led to a high quantity of missing and inaccurate data on firms' names and legal forms. In 1992, after the main privatization wave of socially-owned companies, the data series stabilizes. Hence, we only report aggregate employment data for 1990, 1991 and 1992 and do not follow growth rates by size classes.

⁵ Detailed data is kept by the author.

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