Three essays on firm behavior and entrepreneurship
in former Yugoslav republics

by

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To my parents

Acknowledgments

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Abstract

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This dissertation shows how the transformation of social ownership to private ownership affected the behavior of firms and entrepreneurship in selected former Yugoslav countries. The goal was to determine whether firms' objective remains the maximization of income per worker and, on the other hand, whether the future growth of these economies can be based on privatized firms, entrepreneurship, and self-employment.

The answers and insights provided by these three essays reveal that merely implementing the difficult and complex market-oriented and structural reforms that took place in all countries of the former Yugoslavia does not necessarily lead to changes in firms' behavior, and that more self-employment does not necessarily mean more entrepreneurship and therefore cannot always serve as a basis for future growth.

The first essay uses Macedonian firm-level data to examine whether the privatization of socially owned capital transformed the behavior of firms closer to profit maximization. It shows (a) that the behavior of the Macedonian firms from 1994 to 1999 is closer to the

hypothesis of maximizing income per worker rather than maximization of profit, and (b) that firms that were privatized internally and firms that were privatized externally behave similarly, although the evidence indicates that the second group of firms mainly used strategic restructuring whereas the first group used defensive restructuring.

The second essay seeks to determine whether the Slovenian apparel and footwear industries are an example of creative or plain destruction. The findings show limited support for the case of creative destruction. However, the last years of the analysis (1999–2001) reveal that the increase in productivity (albeit modest) was mainly due to surviving firms becoming more productive.

The third essay focuses on entrepreneurship as the main source of future economic growth in Kosovo's economy. The findings show that the highest potential for Kosovo's economic growth lies in entrepreneurs with at least two employees. Self-employed persons are more constrained in their capabilities and opportunities and can therefore serve neither as a potential resource for the future development of entrepreneurship in Kosovo nor as a source of future economic growth.

Chapter I

Introduction

The introduction of self-management in the early 1950s placed the former Yugoslavia on the world map, demonstrating a third path of socioeconomic development between market-based and centrally-planned economic systems. Social property was defined as the property of all and none. It was managed by employees on the principle of one employee, one vote. Until then, economic democracy had not been introduced on such a large scale, and so the Yugoslav economy soon attracted research attention from around the world.

At the microeconomic level, this literature was marked by a paper by Ward (1958). According to Ward, the objective function of labor-managed firms was income per worker. He compared such firms with neoclassical ones, whose objective is the maximization of profit. The results of such a comparison did not favor labor-managed firms. Later on, Horvat (1967) managed to refute these results. He used alternative hypotheses, under which Yugoslav companies created an aspiration size of salaries and therefore maximized profit at the final stage. Vanek (1970) incorporated the labor-managed firm into the general equilibrium model of Arrow and Debreu (1954). He showed that under certain conditions it can meet the criteria of effectiveness. Based on the Yugoslav experience, Weizman (1984) inserted the idea of the capitalist economy into his share economy, in which employees are not only rewarded with market-designed

wages, but also participate in profit-sharing. In his model, greater flexibility of wages contributed to easing the aftermath of the cyclicality of the economy and, due to participation in profit-sharing, employees were more productive than in conventional market economies.

Although the introduction of self-management in Yugoslavia was first and foremost a political project, it clearly had a significant impact on the behavior of firms and the economy. From the 1950s to the 1980s, when Yugoslavia disintegrated, the development of self-management went through various stages. It was subject to radical changes from the initial phases of the release of "etatist" ties and transmission of some decisions to the working collective (1952–1960), to the exercise of market socialism (1961–1970), when the state transferred the majority of economic functions to enterprises. Later on (1971–1980), the process continued to "integrated self-management," when the market mechanism was replaced by planning and a greater role was given to the Yugoslav republics and the autonomous provinces. In the 1980s, after many crises, self-management reached its end.

What happened to the Yugoslav miracle was examined by economists at the end of the 1970s (Sapir, 1980). From the mid-1950s until the end of the 1960s, Yugoslavia was characterized by high economic growth, which put it among the fastest growing economies. The occurrence of the first and second oil crises in the 1970s revealed a number of weaknesses, which were exacerbated in the 1980s. Did the fault for this lie with the participation of employees in firms' decision-making processes? Although employees certainly had some influence on the decision-making process, both the scope and effect of this participation was limited. In fact, in Yugoslav firms the decisions were

made by many parties. The three most important parties were: state (local authorities), workers, and managers. The state mainly had two objectives: achieving maximum employment and maximum income, so that it could collect more taxes. Workers' goals were higher wages and stable employment. Management personnel's objective was to maximize income and develop their own careers. The objective function of the Yugoslav firm is consistent with the model of bargaining based on the concept of cooperative asymmetric Nash bargaining. Empirical testing of this function through large-scale data shows that, as a result of the bargaining process among the parties, a Yugoslav firm placed the greatest emphasis on maintaining employment. It was relatively inelastic to changes in market parameters and it was allocative inefficient. The observed distortion and inefficiencies have been attributed to ideas of social property and unusual policies of state and quasi-state institutions rather than to pursuing the interests of employees in firms (Prasnikar et al., 1994).

Almost twenty years after the disintegration of the former Yugoslavia, a series of new countries (Slovenia, Croatia, Bosnia-Herzegovina, Macedonia, Serbia, Montenegro, and Kosovo) exist in its place. A common characteristic of all of these new countries is that the transformation of social ownership was one of the key policies of transition to a market economy. Some have closely based their privatization legislation on a law that was already established in the former Yugoslavia (the Marković act) and was characterized by a soft transition of social property in the hands of employees (Serbia, Montenegro, and Macedonia). Others (Slovenia, Croatia, and Bosnia-Herzegovina) adopted modified legislation, which also established other methods of privatization. Several countries (Serbia, Montenegro, Bosnia-Herzegovina, and Macedonia) are

characterized by the fact that the privatization law was amended many times, so that the privatization process changed direction several times. Slovenia and Croatia preserved the original design of privatization, but maintained a significant role of state and quasi-state institutions in the ownership of large enterprises in particular. The common characteristic of all countries is that the social property issue has mostly been resolved and, if it still exists (e.g., in Serbia and Kosovo), it is present to a much lesser extent. Employee participation in ownership and decision-making is peripheral. Private ownership (both domestic and foreign) and orientation toward liberalization of the economy have become the source of economic growth. However, the state still substantially affects the economy through ownership links and its regulatory role.

The aim of this dissertation is to investigate whether the transition from a self-managed economy to a market economy – which took place in the countries of the former Yugoslavia almost two decades ago and was characterized by the liberalization and openness of economies and implementation of difficult and complex market-oriented and structural reforms, including the transformation of ownership – had a positive effect on firms' behavior and can therefore lead to future growth. However, in order for future growth to be stable, it needs to be accompanied by entrepreneurship that serves as a binding mechanism among the activities developed by privatized firms. Hence, the second question raised in the dissertation is how the transition process affected the entrepreneurship activity of self-employed persons in particular, and whether more self-employment leads to more entrepreneurship.

The first essay[1] uses Macedonian firm-level data to determine whether privatization of socially owned capital transformed the behavior of firms closer to profit maximization. Macedonia is particularly suitable for testing the hypothesis of a labor-managed firm because, first of all, the Ward-Domar-Vanek model has its roots in the Yugoslav decentralized system and Macedonia is a former Yugoslav republic. Second, Macedonia was one of the least developed regions of the former Yugoslavia, and research by Prasnikar et al. (1994) tends to confirm the Ward-Domar-Vanek hypothesis for the less developed regions of the former Yugoslavia. This essay shows (a) that the behavior of Macedonian firms from 1994 to 1999 is closer to the hypothesis of maximizing income per worker rather than maximization of profit, and (b) that firms that were privatized internally and firms that were privatized externally behave similarly, although the evidence indicates that the second group of firms mainly used strategic restructuring whereas the first group used defensive restructuring.

The defensive and strategic restructuring of privatized firms was also studied by Domadenik et al. (2008) for Slovenian firms. Using firm-level data for the period from 1996 to 2000, they show that firms use both types of restructuring as well as bargaining with respect to investment. Their findings also indicate that privatized Slovenian firms display profit-maximizing behavior. However a firm's export orientation and institutional features, such as insider versus outsider privatization, employee ownership, and employee control, do not affect the firm's employment and investment behavior. Their findings imply that major exposure to world competition induces similar economic behavior in firms with different structural and institutional characteristics.

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[1] The first essay was jointly authored with Verica Hadzi Vasileva Markovska and was published in *Economic and Business Review* 9(1), 2007, pp. 23–45.

The major exposure to world competition clearly affects the behavior of Slovenian firms in the apparel and footwear industries, as shown in the second essay.[2] This essay seeks to determine whether the Slovenian apparel and footwear industries are examples of creative or plain destruction. Specifically, the aggregate evidence suggests that both industries are plain destructing: employment declines, output shrinks, and plants close. However, such aggregate behavior is also consistent with creative destruction. According to the creative destruction model: (i) exit is accompanied by simultaneous entry of firms, (ii) new jobs simultaneously replace old ones, and (iii) the least efficient firms exit whereas the survivors become more productive. Employing plant-level analysis for the period from 1994 to 2001 shows limited support for creative destruction. However, the last years of the analysis reveal that the increase in productivity (albeit modest) is mainly due to surviving firms becoming more productive.

The third essay focuses on the economy of Kosovo. Due to political reasons, the privatization process started in Kosovo very late, only after other central and eastern European transitional countries had already finished it. Although the goal was for the privatization process in Kosovo to be finished by the middle of 2005, only 10% of this plan was achieved. One of the reasons for such a delay was the cautiousness of foreign investors. However in recent years the privatization process has accelerated because foreign investors have also shown substantial interest in Kosovo firms.

With the development of its own state and institutions, Kosovo will open up to the world. The source of future growth for Kosovo lies in foreign direct investment, mainly in the production of electricity and minerals, but also in unfinished privatization.

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[2] The second essay was jointly authored with Andreja Cirman. A shorter version of this essay was published as Chapter 13 in Janez Prasnikar (ed.). *Medium-Sized Firms and Economic Growth*. New York: Nova Science Publishers, 2005, pp. 197–211.

Entrepreneurship will need to serve as a binding mechanism among those activities and will also need to play the role of creative destruction in the production of goods and services for domestic and foreign markets that are currently unavailable. The important question for Kosovo's economy is therefore the following: What is the current potential of entrepreneurship and how can it be increased in the near future? This question is addressed in the third essay.[3] The findings show that the highest potential for economic growth in Kosovo lies in entrepreneurs with at least two employees (entrepreneurs in the narrower sense). Self-employed persons are more constrained in their capabilities and opportunities, whereas non-entrepreneurs have a very naive view of business.

This dissertation seeks to show how the transformation of social ownership to private ownership affected the behavior of firms and entrepreneurship in selected former Yugoslav countries. The goal was to determine whether firms' objective remains the maximization of income per worker and, on the other hand, whether the future growth of these economies can be based on privatized firms, entrepreneurship, and self-employment.

The answers and insights provided by these three essays reveal that merely implementing the difficult and complex market-oriented and structural reforms that took place in all countries of the former Yugoslavia does not necessarily lead to the changes in firms' behavior, and that more self-employment does not necessarily mean more entrepreneurship and therefore cannot always serve as a basis for future growth.

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[3] The third essay was jointly authored with Janez Prasnikar and Gazmend Qorraj (2008).

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Chapter II

Transition Firms in Illyria: Do Workers Still Manage?
Evidence from Macedonian Firms

2.1. Introduction

According to the Ward-Domar-Vanek theoretical model of labor-managed firms (Ward, 1958; Domar, 1966; Vanek, 1970), which had its roots in the Yugoslav decentralized socialist system, the goal of a firm was to maximize its income per worker rather than profit. This resulted in perverse economic behavior and a propensity for allocative inefficiency. For an income-per-worker-maximizing firm, on one hand an increase in output prices leads to a decrease in employment and output and, on the other hand, a rise in fixed costs causes an increase in employment and output. Since a labor-managed firm (LMF) does not equate the marginal product of labor with a shadow wage as a profit-maximizing firm does, but instead tends to restrict output and hence employment (it produces on the marginal revenue curve of labor above the shadow wage), it is likely that in the long run LMF firms misallocate resources, especially if an LMF is operating in industries in which there is no room for many small-scale firms and/or in industries where the entry of new firms is not easy (Meade, 1974).

The empirical analysis of Yugoslav firm-level data from the 1970s and 1980s revealed that the predictions of the Ward-Domar-Vanek model are not supported by data since firms in fact place an emphasis on both wages and employment (Prasnikar et al., 1994). Using a random sample of Yugoslav firms Prasnikar et al. showed that firms do

not respond to domestic price changes and that the effect of a non-labor cost on employment is negative, which directly contradicts the LMF model's predictions. However, for a sample of firms that are more heavily weighted towards less-developed regions they found that their behavior is consistent with the income-per-worker-maximization hypothesis.

Since Macedonia was one of the poorest republics of former Yugoslavia, with its gross social product per capita being 29.7% and 36.4% lower than the Yugoslav average in 1947 and 1990, respectively, the above findings suggest that the behavior of Macedonian firms before the break up of former Yugoslavia (1991) was in accordance with the LMF model.

The aim of this paper is to investigate whether the transition from a central planning to a market economy that took place in all Eastern European countries including Macedonia a decade ago and was characterized by the liberalization and openness of economies and implementation of difficult and complex market-oriented and structural reforms, including the transformation of ownership, resulted in the change of firms' behavior from maximizing income per worker to profit maximization and thus led to greater efficiency.

We develop a slightly modified structural model of Prasnikar et al. (1994). The model reflects the Macedonian institutions, especially the characteristics of the Macedonian Privatization Law that was adopted in 1993, and assumes that policies of Macedonian firms are jointly determined by workers, managers and external owners. Using panel data for Macedonian firms in the 1994-1999 period we test whether Macedonian firms are maximizing income per worker or if the reforms that took place in

Macedonia after 1991 have led to the behavior of firms that is consistent with profit maximization.

Our analysis might also shed some light on concerns raised by the promoters of the external method of privatization. They feared that where the transformation of ownership resulted in firms that are in majority owned by insiders (workers and management), the behavior of enterprises would not change since the only thing that changed was the firms' greater autonomy from the state. Hence, in their view firms that are majority owned by outsiders are now maximizing their profits, while firms that were privatized to insiders are still maximizing income per worker. Since our data allow us to distinguish between the firms that ended up in hands of insiders and those firms that were privatized to outsiders, we are able to test if the behavior of the above groups of firms is different and to see if the view of the promoters of the external method of privatization is supported by the data.

Our results show that: 1) the behavior of Macedonian firms in the 1994-1999 period is closer to income per worker maximization than profit maximization; and 2) internal-owned and externally-owned firms behave similarly despite the fact that there is some evidence that externally-owned firms have chosen strategic restructuring while internally-owned firms have chosen defensive restructuring.

The chapter is organized as follows: Section 2 briefly describes the institutional characteristics of the Macedonian economy, especially the characteristics of the Privatization Law. In Section 3 we present the main characteristics and implications of the LMF model. Based on the institutional characteristics of the Macedonian economy and anecdotal evidence we develop a bargaining model in Section 4. This model allows

us to test if the perverse behavior, as suggested by the Ward-Domar-Vanek proposition, is still present in Macedonian firms. Econometric issues are presented in Section 5. Sections 6 and 7 present the data and results, respectively. We conclude in Section 8.

2.2. Main features of the Macedonian economy

Former Yugoslavia (Macedonia was one of its six republics) was a socialist country with quite a decentralized economy. Decision-making was decentralized with an emphasis on export incentives for firms, a great reliance on Western technology and the establishment of significant joint-venture partnerships with Western firms (Prasnikar et al., 2001). Firms were socially owned and had considerable autonomy. Although in a legal sense the social property simultaneously belonged to everyone and no one, the true economic owners of firms were the employees (Bajt, 1992).

Macedonia was one of the least developed republics of former Yugoslavia. Its gross social product per capita in 1947 and 1990 was around 30% and 36% lower than the Yugoslav average, respectively. It was over-industrialized and under-supplied with services and housing. In 1989 the industrial sector had a 52.9% share of the gross social product, while the share of the trade sector was 19.8%. Labor force mobility was low. This was mainly a result of attitudes among working people (that were also supported by the socialist system) that one's workplace should not change during one's career and should be as close as possible to one's place of residence (Micevska et al., 2001). The unemployment rate in the 1980s was around 20%.

In 1991 Macedonia declared its independence and so broke off from former Yugoslavia. As a result, it lost around 60% of its market and suffered a substantial

decline in its GDP[1]. Although the initial decline was not as sharp as in Central European countries, Macedonia experienced a deeper and longer lasting depression that partly resulted from the non-harmonized market reforms and their indecisive implementation.

Following its independence, Macedonia has liberalized and opened up its economy and has implemented difficult and complex market-oriented and structural reforms. Price liberalization together with a lack of control over monetary aggregates resulted in hyperinflation that reached 86% per month in April 1992. As a result, with the help of the IMF and the World Bank the Macedonian government began to carry out an extensive stabilization programme. Restrictive monetary policy, strict fiscal discipline, wage control and tying the Macedonian denar to the German mark resulted in a substantial year-on-year drop in inflation that reached just 2.3% in 1996. The strengthening of fiscal discipline led to a reduction of the budget deficit to about 2% of GDP in 1996. Other reforms carried out include the deregulation of trade exchange and foreign investments, banking sector reforms and structural reforms (privatization of socially-owned firms, SME development, reform of firms with high debt levels). All reforms were carried out gradually.

The banking reform consisted of low entry capital requirements and broke up and transformed the existing Yugoslav banks into independent banks as joint-stock companies. As a result the number of banks increased too rapidly. Together with the lack of adequate risk management and lack of supervisory control (commercial banks failed to switch their operations away from giving loans to firms already in debt) this led to a serious banking crisis in 1995-1996. As a consequence, the current account deficit

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[1] GDP per capita between 1991-1999 was USD 2083, USD 1937, USD 1785, USD 1742, USD 1705, USD 1709, USD 1722, USD 1763 and USD $1801, respectively. This corresponds to growth rates of GDP of –

increased drastically, reaching USD 222 million in 1995 and USD 309 million in 1996. The Central Bank did not bail the banks out. Hence the owners lost their investments while the depositors in all the troubled banks bore a significant share of the burden of restructuring. This led to a loss of confidence in the banking sector through dollarization and the withdrawal of deposits and capital outflows. On the other hand, much tighter supervision and higher capital requirements were introduced while a willingness to sell banks to foreigners emerged.

As a result of the abovementioned reforms some promising results occurred in the 1996-1999 period. GDP started to rise after 1996, inflation dropped to 2.3% in 1996 and even deflation occurred in 1999 while, in the same year, Macedonia experienced a budget surplus. The government even started to repay its external debt.

Due to the Kosovo crisis (April-August 1999) the performance of the economy significantly worsened. However, with the help of the international community Macedonia was able to quickly overcome this negative impact.

Throughout the transition period the country's high level of unemployment has been an important problem of the Macedonian economy. Unemployment reached its peak in 1997 with a level of 36%. In 2000 the unemployment rate was 32.1% and affected both men and women in most age groups. Even more troublesome is the fact that unemployment was long-term. This high unemployment rates in Macedonia were on one hand a consequence of the restructuring process that significantly lowered the demand for labor and the massive lay-offs in the public administration and, on the other hand, the consequence of the low labor mobility which stemmed from personal attachments to

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7.0%, -8.0%, -9.1%, -1.8%, -1.2% 0.8%, 1.4%, 2.9% and 2.7%, respectively.

particular localities and from the low purchasing power of most households to buy or rent homes.

The process of privatizing socially-owned firms was initially introduced in 1989 by the so-called Markovic Law (Law on the Social Capital of Former Yugoslavia). The Law emphasized the sale of shares to employees through special buy-out schemes and at big discounts. In this process, over 600 enterprises in Macedonia were transformed into joint-stock or limited-liability companies between 1990 and 1991. However, the real boost to privatization came in June 1993 with the new Law on the Transformation of Enterprises with Social Capital. The results of the previous law with internal shares were recognized after a prior audit of the official supervisory institutions. As a result, only 66 enterprises out of the more than 600 that were initially transformed under the Markovic Law were granted an approval.

The 1993 Privatization Law[2] was based on a commercial, case-by-case approach. The privatization scheme was the following: 1) 30% of social capital was offered to employees under big discounts. They had an initial discount of 30% plus 1% for each year of work in the enterprise. They were able to buy a share in a maximum amount of DEM 25,000 in five installments without a down payment and with a two-year grace period; 2) 15% of social capital was transferred to the State Pension Fund; and 3) the remaining 55% was available for sale on equal conditions for both domestic and foreign investors.

Since at the beginning of privatization the capital market in Macedonia was not developed, the 1993 Privatization Law provided a wide range of different models depending on the size of the firms. Small enterprises were privatized through the

employee buy-out (EBO) or through the sale of part of an enterprise. According to the EBO method employees had the opportunity to buy a firm by purchasing a stake of at least 51% of its appraised value and committing to buy the remaining part over at most five annual installments. Medium-sized firms were transformed by: 1) the sale of part of an enterprise; 2) an enterprise buy-out. Firms themselves organized the procedure. The bidders only needed to submit a copy of the bid to the Agency of Privatization; 3) a management buy-out (MBO). According to the MBO model the bidder which offered the most attractive programme and paid the down payment of 20% of the appraised value of an enterprise obtained the right to control the firm as if it had owned 51% of the firm. It was obliged to buy this share in the next five years; 4) the issue of shares to raise additional equity; and 5) a debt equity swap. For large enterprises, the privatization methods were the same as for medium-sized firms. The only differences in the privatization of large enterprises and medium-sized firms were the amounts of the down payments. For example, in the case of an MBO the required down payment for large enterprises is 10%. In addition, the Agency for Privatization played a more active role in the privatization of large enterprises compared to medium-sized ones[3].

By the end of the first quarter of 2001 more than 95% of enterprises that entered the process had already been privatized. The 1,628 privatized enterprises employed 226,311 workers and their capital value was EUR 2.25 billion. The dominant privatization method, according to the number of firms, was an EBO. This is due to the fact that small firms, which represented almost 65% of all firms privatized, ended up in

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[2] For a deeper discussion of Macedonian privatization consult Markovska (2001) and Slavevski (1997).
[3] Additional methods that could be used in the privatization of an enterprise regardless of its size are leasing, sale of all assets of the enterprise and transformation of enterprises under the bankruptcy law. In

the hands of workers. Based on the number of employees and value of capital the prevalent method was an MBO. This is, on one hand, the result of the relatively low interest of foreign capital in the privatization of Macedonian firms together with the choice of 'paid' privatization and, on the other hand, the result of the 'accelerated' privatization process in 1995. The World Bank supported the privatization process with the use of a Financial and Enterprise Sector Adjustment Credit (FESAC) for the privatization of 23 large and medium-sized firms with the highest debt levels. These firms created 13% of GDP, employed 55,000 workers and accounted for 80% of the losses of the entire economy. They were split into smaller units and the unprofitable ones were closed down. More than 15,000 workers were laid off with redundancy payments paid by the Macedonian government. The World Bank gave special financial assistance to unemployed workers in order to set up a new business of their own (Prasnikar et al. 2001).

Thus the internal buy out became the most widely used method of ownership transformation in Macedonia. More than 80% of firms ended up in the hands of insiders (workers and managers). The remaining firms had external ownership. The external owners were: a) firms in former Yugoslav republics whose privatized Macedonian firm was a subsidiary before the transition; b) banks which mainly privatized firms with huge losses through debt-to-equity swaps or through the leasing out of assets; c) foreign investors that bought firms through the direct sale method introduced in 1999. This mostly involved the acquisition of firms that have a competitive advantage by world standards; and d) 'parent firms' which established so-called 'spin-off' or subsidiary firms.

1999 an additional method was introduced, that is the direct sale of an enterprise to a strategic investor. Due to huge pressure from the public this method was withdrawn 2000.

These firms, among other things, also provided re-employment possibilities for unemployed workers (Prasnikar et al., 2001).

In the next sections we develop the bargaining model and present the empirical results of it for the 1994-1999 panel data of Macedonian firms.

Macedonia is particularly suitable for testing the hypothesis of a labor-managed firm since: 1) the Ward-Domar-Vanek model has its roots in the Yugoslav decentralized system and Macedonia is a former Yugoslav republic; and 2) Macedonia was one of the least developed regions of former Yugoslavia and the research by Prasnikar et al. (1994) tends to confirm the Ward-Domar-Vanek hypothesis for the lesser developed regions of former Yugoslavia.

2.3. Main characteristics and predictions of the labor-managed firm model

Since the pioneering theoretical work of Ward (1958), Domar (1986) and Vanek (1970), the objective of participatory and labor-managed firms was to maximize the income per worker:

$$(2.1) \quad W = \frac{P \cdot Q - H}{L},$$

where P is the price, Q is the quantity produced, $TR = P \cdot Q$ is the total revenue, H is non-labor (fixed) costs[4] and L is the labor input. Differentiating (2.1) with respect to labor input gives us the following first-order condition:

$$(2.2) \quad \frac{\partial W}{\partial L} = \frac{(MRP_L)L - (TR - H)}{L^2} = 0 \Leftrightarrow MRP_L = W \Leftrightarrow MR(L) \cdot MP_L = W$$

where MRP_L is the marginal revenue product of labor, MR(L) is the marginal revenue and MP_L is the marginal product of labor.

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[4] H=r*K, where r is the rental fee of capital and K is the capital input.

Equation (2.2) shows that an LMF will keep employing workers up to the point where the additional revenue, which is to be distributed between new and existing workers, will be equal to the existing income per worker. Namely, if the additional revenue from employing a worker is bigger than the existing income per worker, employing him would cause the average net income per worker to rise[5].

In contrast, for a firm that is maximizing profit, Π:

$$(2.3) \quad \Pi = P * Q - W^d \cdot L - H \text{ ,}$$

where W^d is the given market wage rate, the first-order condition is:

$$(2.4) \quad \frac{\partial \Pi}{\partial L} = MRP_L - W^d = 0 \Leftrightarrow MRP_L = W^d$$

Equation (2.4) shows that a profit-maximizing firm will keep employing workers up to the point where the increase of revenue from an additional worker equals the cost of employing them[6].

Comparing the first-order conditions (2.2) and (2.4) reveals that the LMF and the profit-maximizing firm will employ an equal number of workers if and only if the market wage rate (W^d) is equal to the income per worker (W). In this case the profit would be zero. Hence, in a perfectly competitive system without rents the LMF would employ the same number of workers than an identical profit-maximization firm. In all other cases, the labor-managed firm will tend to employ fewer workers than the identical profit-

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[5] The second-order condition is given by $\dfrac{\partial^2 W}{\partial L \partial L} = \dfrac{1}{L} \dfrac{\partial MRP_L}{\partial L} < 0$

[6] The second condition requires that $\dfrac{\partial^2 \Pi}{\partial L \partial L} = \dfrac{\partial MRP_L}{\partial L} < 0$, which is similar to the second-order condition of LMF.

maximizing firm. This stems from the fact that income per worker is an endogenous variable and a maximand rather than a parametric wage.

To show that the LMF will tend to employ fewer workers than the profit-maximizing firm consider Figure 2.1 which shows the marginal revenue product of the labor curve and the isoprofit curves. According to the second-order condition, this marginal revenue product of labor curve is downward sloping. Since at each point on MRP_L curve the profit is maximized given the wage, each isoprofit curve reaches its maximum at the intersection with the demand curve. As we move along a given isoprofit curve in either direction from the MRP_L curve, wages must fall to keep the profit unchanged. A higher isoprofit curve shows lower profits since for each level of employment the associated wage is higher.

The firm that maximizes its income per worker chooses the point on the demand curve where profits are zero. Hence, this corresponds to point B in Figure 2.1 where employment is L*. On the other hand, the identical profit-maximizing firm chooses the point on the MRP_L curve where the marginal revenue product of labor is equal to its wage, that is point A in Figure 2.1 where employment is L**. The two firms would only allocate resources identically when profits are zero i.e. $\Pi_{max} = \Pi_{min} = TR - W^d \cdot L - H = 0$.

Next we consider the effects of an increase in price on the employment level in a labor-managed and a profit-maximizing firm.

Let us suppose that the capital is fixed in the short run but the number of workers is variable. Also suppose that we start in equilibrium and that the price of the output increases. Since the marginal revenue product of labor also increases, we have

$MRP_L > W^d$. Hence the firm will hire more workers. For a profit-maximizing firm the increase in price for the product leads to higher employment. To also see this algebraically, we totally differentiate (2.4) and after rearranging we obtain:

$$(2.5) \quad \frac{\partial^2 \Pi}{\partial L \partial L} dL + \frac{\partial^2 \Pi}{\partial L \partial P} dP = 0 \Leftrightarrow \frac{dL}{dP} \Big|_{\Pi} = -\frac{MP_L}{\partial MRP_L / \partial L} > 0$$

since by the second-order condition the denominator is negative.

In contrast, the increase in price of the output will lead to a reduction in employment in a labor-managed firm. A rise in the output price would increase both the marginal value product of labor and the income per worker. But the increase in the marginal value product of labor would be smaller than the increase in income per worker so that the income per worker could still be raised if some workers were dismissed. Showing this algebraically requires totally differentiating the first-order condition (2.2) and rearranging it to obtain:

$$(2.6) \quad \frac{\partial^2 W}{\partial L \partial L} dL + \frac{\partial^2 W}{\partial L \partial P} dP = 0 \Leftrightarrow \frac{dL}{dP} \Big|_{LMF} = -\frac{(MP_L - Q/L)/L}{\dfrac{\partial MRP_L / \partial L}{L}} = \frac{Q/L - MP_L}{PQ_{LL}} < 0 .$$

Expression in (2.6) is negative since according to the second-order condition Q_{LL} is negative. That namely implies that both the denominator and nominator are negative (the marginal product of labor is decreasing and hence the average product lies below the marginal product).

The intuition for this strikingly perverse behavior is as follows: with the fixed non-labor cost (debt interest) workers-partners want to have a large partnership so that the fixed non-labor cost per worker is small (debt effect). On the other hand, the decreasing returns to labor, given the capital, require a small partnership so that the value

of output per worker is high (decreasing returns to labor effect). A rise in the price of output increases the importance of the influence of the last factor relative to the influence of the first one, and so leads to a decrease in the number of workers (Meade, 1972)[7].

The analysis so far suggests that for a labor-managed firm $dL/dP < 0$. However, this result was derived assuming perfect competition with one input and only one output. As Meade (1974) showed, the above conclusions are still valid in the case of imperfect competition in an output market as long as an increase in demand does not cause too big a change in elasticity. The perverse economic behavior of the LMF also remains unchanged in the case of a multi-input firm as long as the inputs are not too high complements. For a multi-output LMF the comparative static results remain the same as long as the outputs are not very high substitutes[8].

2.4. Bargaining model

In this section we derive a more general model, which nests the LMF model as a special case. The model is based on a co-operative non-symmetric Nash bargaining solution concept and has been used in labor economics to analyze bargaining between unions and employers (see, for example, McDonald and Solow, 1981) and also in the labor-management literature (see Prasnikar et al., 1994).

The model is a modified version of Prasnikar et al. (1994). It reflects Macedonian institutions which are presented in Section 2. The framework on which it is based reflects the objectives of all decision-makers in a firm as well as their strategic interactions. The

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[7] The other consequence of a labor-managed firm is that an increase in fixed cost causes an increase in the number of workers. This result stems from the fact that workers want to have a large partnership so that the fixed non-labor cost per worker is small.

[8] For a discussion of LMF behavior in the case of multi-inputs and multi-outputs, see Domar (1966), Oi and Clayton (1968), Guesnerie and Laffont (1984), Bonin and Fukuda (1986) and Pfouts and Rosenfielde (1986).

model assumes that the polices of Macedonian firms are jointly determined by the workers, managers and external owners, if they exist. Since firm behavior is probably different if the majority owners are insiders (managers and workers) compared to majority owners being outsiders, we have to distinguish between the two types of firms. This will be reflected by subscript p, which will represent the type of firm (E-externally or I-internally owned)

Let, $U_{L,p}$, $U_{M,p}$ $U_{O,p}$ represent Von Neuman-Morgenstern utility functions of workers (L), managers (M) and external owners (O, if they exist) respectively, if the type of firm is p. As Svejnar (1986) showed under the axioms of independence of equivalent utility representations, the independence of irrelevant alternatives, strong individual rationality and equality of fear of disagreement relative to bargaining powers, the behavior of the firm (depending on which type it is) can be characterized by the following objective function

(2.9) $\quad U_p = U_{L,p}^{\gamma_{L,p}} U_{M,p}^{\gamma_{M,p}} U_{O,p}^{\gamma_{0,p}}$,

where $\gamma_{i,p}$ is the bargaining power of group i if the type of firm is p, $0 \le \gamma_{i,p} \le 1$ and

$\sum_i \gamma_{i,p} = 1$.

Equation (2.9) shows that the objective function of the firm can be represented as a weighted geometric average of the Von Neumann-Morgenstern utility function of each group where the weights are the bargaining powers of each group. The strength of the above model can easily be seen by considering the special cases that are nested in equation (9). For example, for a firm whose majority owners are outsiders equation (9) nests the profit-maximizing firm ($\gamma_{L,E} = \gamma_{M,E} = 0$), a Japanese firm where managers have

a bigger role in making decisions than other groups ($\gamma_{M,E} > \gamma_{L,E}, \gamma_{M,E} > \gamma_{O,E}$) and also a pure LMF ($\gamma_{M,E} = \gamma_{O,E} = 0$).

In order to operationalise equation (2.9) we need to specify the preferences of each group. One possibility would be to set the Von Neumann-Morgenstern utility functions of workers, managers and external owners to $W - W^d$, $m - m^d$ and $r - r^d$, respectively, where W, m and r are the average wage, managerial salary and rate on return on capital that the firm actually pays. These assume that each group has some minimum unit price or threat point below which it would not supply any of its input to the firm. These prices are denoted as W^d, m^d and r^d, respectively, and are usually taken to be the prices of best alternative employment of the input. Svejnar (1982) showed that in this case (under some regularity conditions) the optimal level of labor, management input and capital is given by equating respective values of marginal product with corresponding input prices. Each of these input prices, W, m and r equals the corresponding best alternative price plus a share of net profit per unit of input, where the profit share is determined by the relative bargaining power of group which supplies the input. However, the evidence from Macedonia suggests the preferences of each group are more complex as they have multiple goals.

An examination of the role played by the workers suggests that their prime goal is stable employment and a decent income. The desire for higher wages is natural in a utility-maximization context. The stability of employment stems from the rigid labor market, low mobility and high unemployment rates. In the period under investigation (1994-1999) the unemployment rate ranged between 30% and 36%. In has to be noted that profit was not the workers' goal even if they were also the owners of the firm. This

can be explained by each worker owning only a small fraction of the firm which they practically got for free. Hence this suggests that the utility function of workers is the same in both types of firms and can be written as

(2.10) $\quad U_{L,I} = U_{L,E} = V_L(W/C, L) - V_L^d$

where V_L is the general objective function of workers, which depends on the actual income per worker (W), cost of living index (C) and its number of workers (L). With the worker's threat point being V_L^d, the utility function of the workers is 0-normalised i.e. $U_{L,I} = U_{L,E} = 0$ at disagreement.

Anecdotal evidence suggests that in the case of a firm being majority owned by external owners, the manager's goal is higher income and career progression. Fulfillment of this goal depends on the extent to which the management satisfies the workers and the external owners who select them. Where a firm is majority owned by the workers and managers, the managers must still satisfy workers, however the profit is also their concern. This can be explained by the fact that in internally-owned firms the managers usually ended up with a high fraction of shares (which they got almost for free) so it is their interest to act in such a way as to increase the value of the firm[9]. The managerial utility function depends on the workers' income, employment and profit and can be written as

(2.11) $\quad U_{M,I} = U_{M,E} = V_M(W/C, L, \Pi/C) - V_M^d$

where V_M^d is the managers' disagreement utility level. Hence, the utility function of the managers is 0-normalised.

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[9] For some managers the assets-stripping incentive is also present.

The external owners' goal is profit ($\Pi = TR - WL - H$) so their utility function, 0-normalised, can be written as

(2.12) $U_{O,E} = V_O(\Pi / C) - V_O^d$,

where V_O^d is the external owner's disagreement utility level.

To make objective functions (2.10)-(2.12) of each group operational we use the Stone-Geary specification. The objective functions can then be written as

(2.13) $U_{L,p} = \Theta(W/C - W^d/C)^{\alpha_{L,p}} (L - L^d)^{1-\alpha_{L,p}}$

(2.14) $U_{M,p} = \Xi(W/C - W^d/C)^{\alpha_{M,p}^1} (L - L^d)^{\alpha_{M,p}^2} (\Pi/C)^{1-\alpha_{M,p}^1-\alpha_{M,p}^2}$

(2.15) $U_{O,E} = \Phi(\Pi/C) = \Phi[(R - WL - H)/C]$

The restrictive nature of this specification (equations (2.13)-(2.15)) is that it requires specifying the disagreement levels for each of the outcomes[10].

Combining the above three equations with equation (9) and assuming that the disagreement value of employment is zero[11] results in the firms' objective function of the form

$$U_p = \Psi_1 (W/C - W^d/C)^{\gamma_{1,p}} \Psi_2 L^{\gamma_{2,p}} \Psi_3 (\Pi/C)^{\gamma_{3,p}}$$

where

$$\gamma_{1,p} = \alpha_{L,p}\gamma_{L,p} + \alpha_{M,p}^1\gamma_{M,p},$$

(2.16) $$\gamma_{2,p} = (1 - \alpha_{L,p})\gamma_{L,p} + \alpha_{M,p}^2\gamma_{M,p},$$

$$\gamma_{3,p} = (1 - \alpha_{M,p}^1 - \alpha_{M,p}^2)\gamma_{M,p} + \gamma_{O,p} \text{ and}$$

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[10] For more on Stone-Geary utility functions, see Klein and Rubin (1947-1948), Geary (1950-1951), Samuelson (1947-1948) and Stone (1954).

$$\Psi_i > 0.$$

Equation (2.16) shows that the extent to which firms maximize income per worker, employment or profit depends on the relative bargaining power of each decision-making group in the firm and on how important each of the goals is in the objective function of the workers, managers and external owners (if they exist).

Differentiating (16) with respect to employment and wages and rearranging results in

$$(2.17) \quad MRP_L = W - \frac{\gamma_{2,p}}{\gamma_{1,p}}(W - W^d)$$

where $\gamma_{2,p}/\gamma_{1,p}$ is the weight that the firm places on the generation of employment relative to the generation of earnings.

Equation (2.17) nests a variety of special cases. For example, if the firm does not place any weight on the employment generation ($\gamma_{2,p} = 0$), so $MRP_L = W$, which implies that the firm is behaving according to a pure labor-managed firm, presented in Section 2. It is operating at point B in Figure 2.1. The other interesting case is when a firm puts equal weight on employment and earnings so that $\gamma_{2,p} = \gamma_{1,p}$. Then $MRP_L = W^d$. A labor-managed firm operates at point A in Figure 2.1. It behaves identically to a profit-maximizing firm that pays W^d for its labor inputs and operates at point A in Figure 2.1.

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[11] It is hard to tell what the disagreement value of employment is in practice. Prasnikar et al. (1994) used different values for the disagreement level of employment and found that the results were similar if they used the value of zero.

The problem with specification (2.17) is that in an empirical implementation it may result in $\gamma_{2,p} / \gamma_{1,p} < 0$, which implies that a firm places a negative emphasis on wages or employment. This problem is also present in our estimation (see table 2.2)[12].

There are many solutions to this puzzle. Here we follow the solution proposed by Prasnikar et al. (1994). They argued that the profit of a firm should also include the cost of labor turnover. The idea behind this can be explained as follows: if we increase wage (W) above alternative wage W^d, workers will be less willing to leave the firm and the expected cost connected with hiring and training new workers should be smaller. The descriptive statistics in table 2.1 reveal that the average wage was above the alternative wage, despite the fact employment was declining in the observed period. Firms were probably only keeping their most productive workers and paid them according to their productivity.

Mathematically, this means that profit can be written as $\Pi = R - WL - C(W - W^d) - H$, where $C(W - W^d)$ is the cost of labor turnover, which decreases with earnings (C'<0). Based on this new profit function, equation (2.17) becomes

(2.18) $MRP_L = W - \dfrac{\gamma_{2,p}}{\gamma_{1,p}}(1 + C'/L)\left[W - W^d\right].$

For the sake of notation let us define $\xi_p \equiv (\gamma_{2,p} / \gamma_{1,p})(1 + C'/L)$. Note that in case that C'/L<1, $\xi_p < 0$ and so $MRP_L > W$. This implies that we are somewhere on the left of the marginal revenue product of labor curve in Figure 2.1. In case that $\xi_p = 0$, we are on

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[12] Brown and Ashenfelter (1986) and Card (1986) also found in a union-management bargaining context that bargaining's emphasis on either employment or wages is negative.

the marginal revenue product of the labor curve $MRP_L = W$. However, it has to be noted that this can be due to C'/L=-1 or $\gamma_{2,p} = 0$ [13]. If $\xi_p > 0$ then $MRP_L < W$ and hence we are on the right of MRP_L curve in Figure 2.1.

Equation (2.18) will serve as the basis for empirical implementation.

2.5. Empirical implementation, hypothesis and econometric issues

Empirical implementation requires the specification of production technology and the demand curve. Assuming a production function of the CES form $\left(Q = A\left(\delta L^{-\rho} + (1-\delta)K^{-\rho} \right)^{1/\rho} \right.$, where K is capital and A is technological progress which may vary with time[14]$\left. \right)$ and a constant elasticity of the demand function $\left(TR = P(1-\varepsilon)Q \right.$, where P is the product price and ε is the output elasticity of demand$\left. \right)$, the marginal revenue product of labor can be rewritten as $MRP_L = P(1-\varepsilon)\dfrac{\delta}{A^\rho}\left(\dfrac{Q}{L}\right)^{\rho+1}$. Substituting this expression into (18) and rearranging results in

$$(2.19) \quad \ln(L/Q) = \frac{1}{1+\rho_p}\ln\left((1-\varepsilon)\frac{\delta}{A^\rho}\right) - \frac{1}{1+\rho_p}\ln\left(w - \xi_p(w - w^d)\right) =$$

$$= \lambda_p - \sigma_p \ln[w - \xi_p(w - w^d)]$$

where $\sigma_p \equiv 1/(1+\rho_p)$ is the constant elasticity of substitution and $w \equiv W/P$, $w^d \equiv W^d/P$, are product and reservation product wages, respectively.

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[13] The latter case corresponds to an enterprise behaving as a pure labor-managed firm.
[14] The CES function behaved well on Yugoslav industry-level data (see Prasnikar et al., 1992) and was also used by Prasnikar et al., (1994).

Since $(W - W^d)/W$ is relatively small in our data[15] and assuming that $(W - R_L)/W$ is also small we can linearly approximate equation (19), which results in

(2.20) $\quad ln(L/Q) \approx \lambda_p - \sigma_p(1 - \xi_p)ln(w) - \sigma_p\xi_p ln(w^d)$,

where ξ_p and the elasticity of substitution are the main parameters of interest.

In terms of the conceptual framework, equations (19) and (20) permit us to test the basic hypotheses of interest:

Ha: Firms that are majority owned by insiders (internally-owned firms) and firms that are majority owned by outsiders (externally-owned firms) establish employment identical to profit-maximizing firms (ξ_I =1 and ξ_E =1).

Hb: Internally-owned and externally-owned firms are behaving according to the Ward-Domar-Vanek model (ξ_I =0 and ξ_E =0).

Hc: Internally-owned and externally-owned firms put emphasis on both W and L (0< ξ_I <1 and 0< ξ_E 1). If ξ_p is closer to 0, firms put more emphasis on income, on the other hand if ξ_p is closer to 1 firms put more emphasis on employment.

One problem of estimating equation (2.20) is the endogeneity of the method of privatization discussed in Section 3. One way to control for selection is to specify the endogenous switching regression model. However, this model relies heavily on the

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[15] Based on the 1994-1999 period in table 2.1, $(W - W^d)/W$ varies from 0.25 to 0.38 depending on the

assumption of normality, assumptions of the error term in regime and switching equations. As pointed out by Heckman (1978), the alternative is to use the two-stage least squares procedure. In our case, this would imply that in the first stage we regress the method of privatization (dummy variable) on pre-privatization variables (profit and labor in 1992). In the second stage we would apply least squares to equation (2.20) where the predicted values of privatization would be used as a regressor.

An additional problem with implementing equation (2.20) is the endogeneity of variable w. As instruments of wage we use material inputs and firm dummies.

In order to correctly identify the parameters of equation (2.20), which depend on the labor market institutions, it is crucial that the unobserved disagreement (reservation) wage is correctly specified. As a proxy for w^d we use the following measure

(2.21) $\qquad w^d = \overline{w}_{INDUSTRY}(1-U) + U*UB$,

where $\overline{w}_{INDUSTRY}$ is the average wage in a specific industry in the given year and U is the unemployment rate at the national level in a given year. Probably a better proxy for the reservation wage is $w^d = \overline{w}_{REGION}(1-U_{REGION}) + U_{REGION}*UB$, where $\overline{w}_{REGION}$ is the regional specific average wage in a given year, U_{REGION} is the regional unemployment rate in a given year and UB is the unemployment benefit in a given year. The last specification shows the fact that the actual outside opportunities of workers employed in the given firm reflect the weighted average of finding another job in the region and becoming unemployed and hence getting unemployment benefit. However, we are only able to construct it for the years 1994-1996. For later years, the Statistical Office of Macedonia did not report average wages and unemployment rates by region. Hence, in

sample we use.

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our empirical analysis we used a proxy for the reservation wage that is specified in equation (2.21)[16]

2.6. The data

The group of enterprises which formed the basis of our analysis consisted of 1,167 enterprises privatized in the 1994-1999 period and which had sent their financial statements data to the Macedonian Agency of Privatization. Due to inconsistencies in the data (negative or zero values of fixed capital, employment) and missing values in one or more relevant years we ended up with balanced panel of 510 enterprises for 1994-1999.

In table 2.1 we present the means and standard deviations of the principal variables. They are presented for the entire sample of 501 firms as well as for the two principal categories of the firms that were based on the chosen privatization method. The largest group, the so-called INTERNAL OWNERS, consists of 386 firms that were majority owned by insiders (workers or managers). The smaller group (EXTERNAL OWNERS) consists of 124 firms that were majority owned by outsiders.

As may be seen in table 2.1, during the 1994-1999 period the average firm employed 228 workers, generated MKD 239 million in revenues, paid MKD 42 million in wages and fringe benefits, and reported losses in an amount of MKD 0.911 million. The average annual wage per worker for the average firm was MKD 200,263, which is 32% higher than the corresponding alternative wage that was calculated by equation (21).

In examining the variable values across the types of firms in table 2.1, one observes that those firms that were privatized to insiders were on average larger, less profitable and more heterogeneous than the firms with external owners. The average firm

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[16] To check for the robustness of our results we also estimated equation (2.20) for 1994-1996 , that is in the period for which we have both alternative wages. The results were almost identical and are not reported.

with prevailing external ownership employed 114 workers and had a profit of MKD 2.59 million, while a corresponding firm with prevailing internal ownership employed 265 workers and had a loss of MKD 2.03 million. This reflects the fact that the group of firms with prevailing internal ownership consists of two types of firms. First, there is a group of firms for which internal ownership was desired and planned. This group consists of small firms. The second group comprises firms that should have ended up in the hands of foreigners but due to a lack of interest from foreign investors mainly ended up in the hands of managers. It is interesting to see that firms with prevailing external ownership on average paid much higher wages than firms with prevailing internal ownership, even though they operated in similar industries (the difference of alternative wages between groups of firms is much smaller than the corresponding difference between wages).

A comparison of the number of workers across years reveals that for the entire sample employment was reduced each year, from 267 workers in 1994 to 204 workers in 1999. This is due mainly to the downsizing of firms with prevailing inside ownership. Although firms with prevailing external ownership reduced their employment in the observed period only slightly, they increased their revenue from MKD 190 million in 1994 to MKD 237 million in 1999. Firms with prevailing internal ownership were able to sustain a similar value of revenue between 1994 and 1999 with a much smaller number of workers. This suggests that both types of firms were successful in restructuring although it seems that externally-owned firms chose strategic restructuring while internally-owned firms chose defensive restructuring.

2.7 Empirical results

This is clearly a consequence of the very high correlation (almost 0.95) between alternative wages.

In table 2.2 we show the empirical results of different specifications of employment equation (2.20).

The left part of table 2.2 shows the estimates based on restriction that the elasticity of substitution (σ) and parameter ξ do not differ between internal and external owners. For this part of the table estimates of the elasticity of substitution vary from 0.78 to 1.2 depending on the model used and are always different from zero. Since the values are close to one, the technology is approximately Cobb-Douglas. The corresponding estimates of ξ are slightly negative or positive, depending on the specification, however they are never statistically significant from zero. The finding of $\xi = 0$ therefore corresponds to the Ward-Domar-Vanek model. Hence, the average firm may emphasize income rather than employment generation. The cost of labor turnover hypothesis, which would imply that ξ is statistically negative, receives no support.

In the right part of table 2.2 we allow the elasticity of substitution (σ) and parameter ξ to be different between internal and external owners. Although parameter ξ differs between firms with prevailing internal ownership and external ownership, it is not statistically (except in one specification when it is negative) different from zero. Hence both types of firms behave similarly, despite the evidence that firms with prevailing external ownership chose the method of strategic restructuring, while firms with prevailing internal ownership chose the method of defensive restructuring. Both types of firms place an emphasis on wages and not on employment. The results indicate that the maximization of income per worker is the goal of the group of firms with internal ownership and also of the group of firms with external ownership. Inside owners were just starting to learn their role in the governance of the firms and hence a longer time

span would be needed to see if they have mastered the learning process. On the other hand, the same is true for external owners. Namely the biggest group of firms that chose the external method are firms from former Yugoslav republics.

Support for the cost of labor turnover hypothesis is modest since only in one specification is ξ statistically negative.

2.8. Conclusion

The empirical analysis at Yugoslav firm-level data from the 1970s and 1980s revealed that the predictions of the LMF model are supported by data for a sample of firms that belong to less-developed regions since firms place an emphasis on wages and not on employment (Prasnikar et al., 1994). Since Macedonia was one of the least developed republics in former Yugoslavia this implies that the pre-transition behavior of Macedonia's industrial firms is consistent with the Ward-Domar-Vanek model.

According to the Ward-Domar-Vanek model the goal of a firm is to maximize its income per worker rather than its profit. As a result, an increase in the price of output leads to a reduction in employment. Since we were unable to obtain good output price data for Macedonian firms, we had to use a modified version of the Prasnikar et al. (1994) bargaining model in order to test the Ward-Domar-Vanek hypothesis. According to this model, a firm behaves according to a profit-maximizing firm if only employment enters the objective function of the firm. The firm equates the value of the marginal product of labor with the reservation wage. On the other hand, if only earning enters the objective function of a firm the firm is behaving in the way predicted by the Ward-Domar-Vanek model.

Our model takes the Macedonian characteristics into account, especially the characteristics of the 1993 Privatization Law and assumes that workers, managers and external owners jointly determine the policies of Macedonian firms. Our model also allows us to test if the behavior of those firms that chose the external method of privatization differs from the behavior of firms that chose the internal method of privatization. Hence, we are able to shed some light on the concerns raised by the promoters of the external method of privatization who feared that privatization to insiders would not change the behavior of firms since the only thing that would changed was the greater autonomy of firms from the state.

We carried out our analysis on a sample of Macedonian enterprises in the 1994-1999 period. The descriptive statistics suggests that externally-owned and internally-owned firms underwent a true restructuring process, however the method of restructuring was different. While firms with prevailing inside ownership created the same revenue with substantially reduced employment, those firms with prevailing external ownership significantly increased their revenues but reduced their employment very modestly. This implies that firms with prevailing inside ownership chose defensive restructuring while firms with prevailing external ownership chose strategic restructuring.

Based on the descriptive statistics we expected that the Ward-Domar-Vanek hypothesis would not be confirmed for both types of Macedonian firms in the transition period (1994-1999). We believed that Macedonian firms would at least put an emphasis on both employment and income generation and hence behave somewhere between the Ward-Domar-Vanek model and the model of profit-maximizing firms, if not behaving according to profit-maximizing firms. However the empirical results revealed that firms

with prevailing inside ownership and firms with prevailing external ownership behave in accordance with a labor-managed firm. They only emphasize income generation. Their goal is still to maximize the income per worker.

This implies that the implementation of the difficult and complex market-oriented and structural reforms that took place in the 1990s in Macedonia, including a transformation of ownership, in a short time period has not resulted in a change of behavior from maximizing income per worker to profit maximization. Namely, inside owners were just starting to learn their role in the governance of the firms. The same is true of firms with prevailing external ownership since the owners of most of these firms came from the former republics of Yugoslavia. We believe that over a longer time frame we would see changes in behavior for both types of firms from income per worker maximization towards profit maximization.

Figure 2.1: The wage-employment outcome
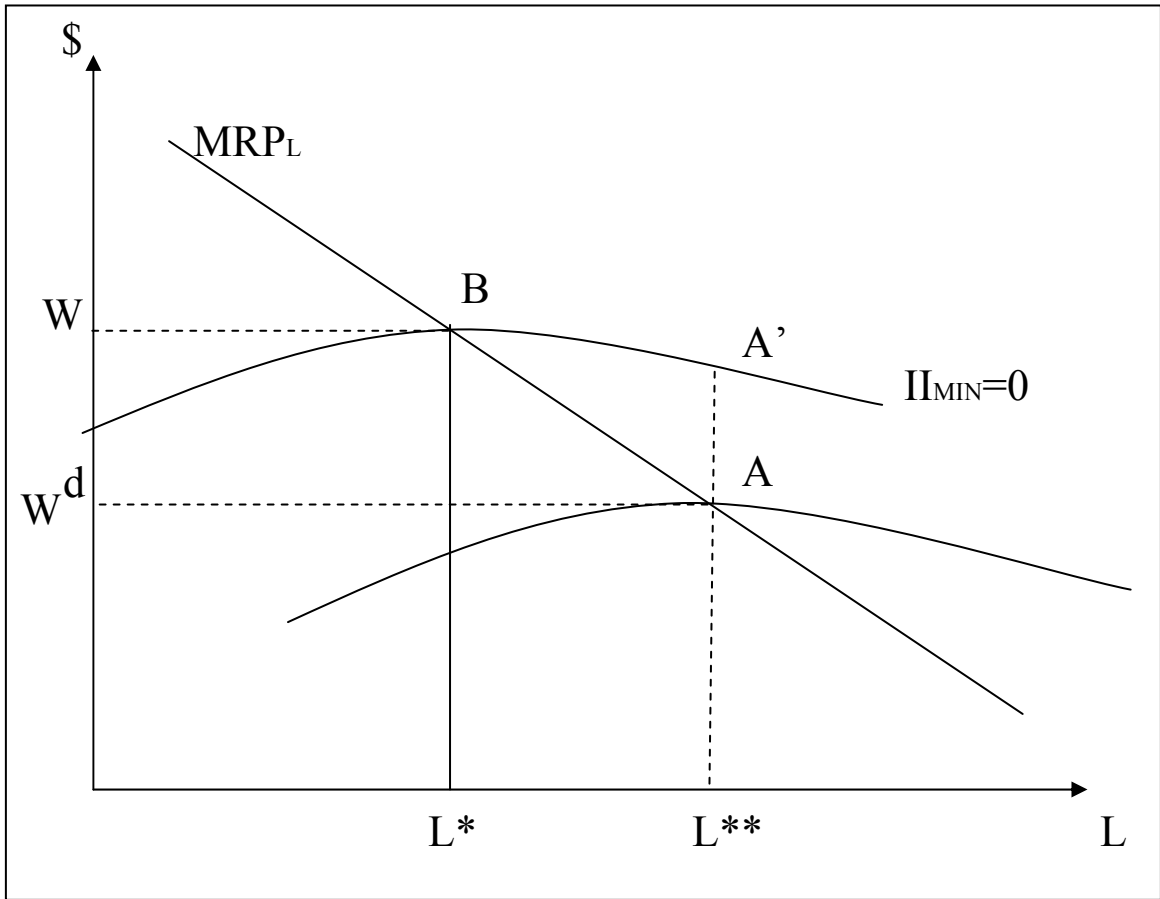
Source: Prasnikar et al. (1994)

Table 2.1: Summary statistics of the main variables in Macedonian firms

		Entire Sample		Internal Owners		External Owners	
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
1994-1999	Wage	200263	132222	180822	98339	260783	192356
	Reservation Wage	150838	42112	147980	40203	159734	46482
	Number of Workers	228	459	265	507	114	220
	Revenue	2.39e+08	7.30e+08	2.54e+08	7.66e+08	1.92e+08	6.06e+08
	Profit	-911137	6.47e+07	-2037231	5.94e+08	2594280	7.88e+07
	Material Input	1.26e+08	4.38e+08	1.32e+08	4.42e+08	1.06e+08	4.24e+08
	Number of observations	3060		2316		744	
1994	Wage	215466	139083	199032	121498	266623	174237
	Reservation Wage	149596	33239	147747	32430	155351	35157
	Number of Workers	267	529	314	587	119	228
	Revenue	2.70e+08	7.65e+08	2.96e+08	8.27e+08	1.90e+08	5.23e+08
	Profit	-3779376	8.49e+07	-5543985	9.21e+07	1713681	5.67e+07
	Material Input	1.21e+08	3.53e+08	1.33e+08	3.74e+08	8.07e+07	2.77e+08
	Number of Firms	510		386		124	
1995	Wage	198161	126312	182829	96868	245886	183356
	Reservation Wage	136539	126312	134820	30023	141889	33114
	Number of Workers	246	492	289	545	112	217
	Revenue	2.30e+08	6.26e+08	2.50e+08	6.66e+08	1.67e+08	4.80e+08
	Profit	1932466	6.65e+07	1831838	6.83e+07	2245714	6.12e+07
	Material Input	1.08e+08	3.30e+08	1.18e+08	3.47e+08	7.77e+07	2.68e+08
	Number of Firms	510		386		124	
1996	Wage	195436	124005	177194	89600	252221	184960
	Reservation Wage	146994	36985	144118	35747	155946	39421
	Number of Workers	229	469	265	520	116	221
	Revenue	2.19e+08	6.71e+08	2.36e+08	7.13e+08	1.67e+08	5.18e+08
	Profit	-5168560	5.93e+07	-5133173	4.14e+07	-5278717	9.57e+07
	Material Input	1.09e+08	3.48e+08	1.13e+08	3.31e+08	9.34e+07	3.97e+08
	Number of Firms	510		386		124	
1997	Wage	193494	127026	172180	93830	259844	182623
	Reservation Wage	145630	40469	142680	38571	154811	44816
	Number of Workers	214	439	247	485	112	218
	Revenue	2.29e+08	7.37e+08	2.41e+08	7.73e+08	1.94e+08	6.14e+08
	Profit	768427	5.79e+07	-11050	4.26e+07	3194867	9.05e+07
	Material Input	1.15e+08	3.59e+08	1.17e+08	3.32e+08	1.08e+08	4.34e+08
	Number of Firms	510		386		124	
1998	Wage	196609	133570	174096	93008	266691	200527
	Reservation Wage	158767	49110	154828	46381	171027	55196
	Number of Workers	208	408	239	448	111	217
	Revenue	2.20e+08	6.59e+08	2.27e+08	6.62e+08	1.97e+08	6.53e+08
	Profit	-332906	4.71e+07	-2355057	3.91e+07	5961852	6.58e+07
	Material Input	1.21e+08	3.84e+08	1.24e+08	3.54e+08	1.13e+08	4.65e+08
	Number of Firms	510		386		124	
1999	Wage	202414	141746	179598	89720	273435	226339
	Reservation Wage	167501	50893	163685	48350	179382	56682
	Number of Workers	204	401	233	440	113	223
	Revenue	2.64e+08	8.93e+08	2.73e+08	9.22e+08	2.37e+08	8.00e+08
	Profit	1113123	6.63e+07	-1011955	5.47e+07	7728283	9.38e+07
	Material Input	1.83e+08	7.19e+08	1.89e+08	7.52e+08	1.65e+08	6.08e+08
	Number of Firms	510		386		124	

Source: own calculations.
Values are in MKD in constant 1999 prices.

Table 2.2: Estimates of employment equation (2.20) for Macedonian firms

	$\xi_E = \xi_I = \xi$ and $\sigma_E = \sigma_I = \sigma$				$\xi_E \neq \xi_I$ and $\sigma_E \neq \sigma_I$			
	OLS Levels	OLS First Difference	IV Levels	IV First Difference	OLS Levels	OLS First Difference	IV Levels	IV First Difference
σ	1.132*	0.785*	1.202*	1.116*				
	(0.080)	(0.138)	(0.081)	(0.158)				
σ_E					1.345	0.624*	1.473*	0.145
					(0.133)	(0.262)	(0.153)	(0.687)
σ_I					1.027*	0.847*	1.118*	1.268*
					(0.089)	(0.161)	(0.089)	(0.258)
ξ	-0.168	0.128	-0.293	-0.183				
	(0.088)	(0.154)	(0.093)	(0.157)				
ξ_E					-0.166	-0.065	-0.178	-8.502
					(0.123)	(0.444)	(0.132)	(44.248)
ξ_I					-0.106	0.175	-0.296*	0.327
					(0.103)	(0.158)	(0.113)	(0.159)
Regional Dummies	Yes	No	Yes	No	Yes	No	Yes	No
Year Dummies	Yes	No	Yes	No	Yes	No	Yes	No
Industry Dummies	Yes	No	Yes	No	Yes	No	Yes	No
Adjusted R-squared	0.409	0.102	0.391	0.016	0.416	0.101	0.393	0.019
Number of Observations	3060	2550	2606	2550	3060	2550	2606	2175

Source: own calculations

Standard errors calculated by delfi method are reported in parentheses.

Asterisk denote: *= significant at 5% .

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Chapter III

Are Slovenian Apparel and Footwear Industries Examples of Creative Destruction?

3.1. Introduction

What is happening in the Slovenian apparel and footwear industries? Are they examples of the creative destruction or can they be characterized by just plain destruction? In answering above questions we first need to define creative destruction and plain destruction. A plain destruction can be characterized as the process in which plants close, employment declines, output shrinks and the productivity stagnates. On the other hand, defining creative destruction is much more difficult. Levisohn and Petropoulos (2001) define creative destruction as the process in which: (i) exit is accompanied by simultaneous entry of firms; (ii) new jobs are simultaneously replacing old ones and (iii) the least efficient firms exit while the survivors become more productive.

The aggregate evidence of Slovenian apparel and footwear industries suggests that they are examples of plain destruction. The employment is declining, the output is shrinking, the plants are closing, and firms are facing more severe competition from abroad. However, the aggregate data are not able to reveal the dynamics happening within the firms. In order to distinguish between creative destruction and plain destruction we need to study the dynamics which is taking place within the firms.

In this chapter we use the firm-level data[1] that were collected from the Statistical Office of the Republic of Slovenia to see wheatear apparel and footwear industries[2] are an example of plain destruction or of creative destruction. The answer is important from the economic policy perspective. In case the industries are plain destructing, the economic policy must just ease the burden of restructuring. On the other hand, if apparel and footwear industries are creative destructing, the economic policy needs to be much more active. It should stimulate the entry of new plants and at the same time give incentives for incumbent plants to adapt.

The organization of the chapter is as follows. After the description of the apparel and the footwear industries in Europe and Slovenia we present the evidence of entry and exit of new firms and the job dynamics. In section 4 we analyze the productivity growth. The conclusions of the paper are drawn in the final section.

3.2. Apparel and footwear industries in Europe and in Slovenia

Apparel and footwear industries are an important part of the European manufacturing industry and with traditional labor-intensive character. Both operate in mature markets, with relatively simple transfer of know-how. There are low entry barriers to both industries, however, a high dependence of regional labor market on working places provided by this industry makes the exit very painful for the wider social environment. Competition, especially from Asia and transitional countries with low labor costs, and saturated European market makes both industries very dynamic.

Both industries were subject to intensive restructuring in Europe. We can divide them in two parts: developed western part and transitional eastern part of Europe.

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[1] Slovenian firms are generally small firms that usually have only one plant.

Western part dictates the directions and the pace of fashion, the standards of quality, modernization, improvement and responsiveness of technological processes. Although substituting high labor cost with higher productivity, they cannot compete with low cost producers from transitional and Asian countries. Therefore they focus on higher value added processes within the value chain: design, brand development and retail. The production part is predominantly outsourced to producers in the countries with lower costs of labor or to small and therefore very flexible European producers that often operate within clusters. With all this the nature of the industry has therefore changed from being labor-intensive toward much more capital-intensive industry.

On the other hand, the Eastern European part of the apparel and footwear industry is competing on relatively low labor costs and is highly dependent on "loan" deals (see table 3.1). Slovenian producers of apparel and footwear share most of the characteristics of the Eastern European part of the industry. In the 1990s they were lulled into a false sense of security by facing a high demand for "loan" deals by West European producers, since many traditional "loan" deals capacities in the former Yugoslavia were out of operation due to political instability in the region. Although it was evident that this high demand for capacities of Slovenian apparel and footwear producers was of transitional nature, most of the companies started to restructure when it was already too late. When most of the European apparel and footwear companies were transforming to capital-intensive marketing companies, Slovenian producers still tried to compete on low costs. The comparison of Slovenian apparel producers with their competitors in Western and Eastern part of Europe (see table 3.1) clearly shows that Slovenian apparel and footwear

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[2] In defining the apparel and footwear industries we use the SKD classification. The apparel industry includes firms with the SKD code 18.210 and 18.220. The SKD code for the footwear industry is 19.300.

producers are stuck somewhere in the middle. They are not yet as oriented toward higher value added and more capital-intensive processes as their Western counterparts, while they are also far too expensive to compete with other Eastern European competitors

The consequences of late restructuring in both industries are evident also from results in the period of 1994 to 2001. The data were collected from the Statistical Office of Slovenia and they include the data on industry production and also the balance sheet data. In figure 4.1 we show the industrial production volume indices. It can be seen that the industrial production is declining in both industries. In the footwear industry the industrial production in 2001 was halved compared to 1994, while in the apparel industry the drop was "only" 25 percent. For comparison, the total industrial production has increased in the observed period of 1994-2001.

The data on the total revenue and the value added reveal similar picture (see table 3.2). The total revenue and the value added have been declining in real terms. Consequently, the employment has been also declining (figure 4.2). In the apparel industry the decline in period 1994-2001 was 30 percent, while in the footwear industry the employment shrunk by half.

In table 3.3 we show the number of business subjects in analyzed industries on 31st of December, for the period 1994-2002. From the table it can be seen that the number of business subjects starts to decline in both industries after the year 1999.

The table 3.2 shows means of some variables from the balance sheets for the period of 1994-2001. Several conclusions can be drawn from the table 3.2. The mean firm in the apparel industry employed 49 workers in year 1994, created value added in the amount of SIT 85 million and total revenues of SIT 112 million. In year 2001 only 39

workers were employed in a mean firm. The mean value added dropped to SIT 66 million and total revenue was SIT 85 million. In addition to the employment, value added and revenues, the capital was also declining in the observed period. The capital-labor ratio has declined by half. In 2001 the mean capital-labor ratio was only SIT 610.000 per worker. The share of exports in total revenues has also been declining in the apparel industry. In 1994 this share was 15 percent, while in 2001 it was only 12 percent. Similar process was also present in the footwear industry. The mean employment, total revenue, value added, capital and export are drastically smaller in 2001 compared to 1994. In comparison with the apparel industry, the mean firm in the footwear industry is larger. In 2001 the mean firm in the footwear industry employed 100 workers and had a value added of SIT 230 million. Also, the share of exports in the mean footwear firm is bigger as in the apparel one, while the reverse holds for the capital-labor ratio.

The analysis so far revealed that both the apparel and the footwear industry are destructing. However, it remains silent about the dynamic processes that were/are taking place in those industries. In order to distinguish between the creative destruction and plain destruction we need to study the dynamics that has taken place within the plants. In the case of creative destruction, the less productive firms are exiting; firms that survive become more productive, while at the same time new firms that are eager to learn, enter. From the employment perspective creative destruction implies that, although the overall employment is declining, new and better jobs are being created.

In the next sections we present the evidence of entry and exit of new firms, the job dynamics and the analysis of productivity, since only in-depth analysis will give us a proper picture of what is going on in the Slovenian apparel and footwear industry.

3.3. Entry, exit and job flows

In the observed period there was a substantial dynamics regarding firms entering and exiting apparel and footwear industry, which is presented in table 3.4. For each industry we have calculated the gross rate of entry and exit. The gross rate of entry is defined as the number of new firms divided by the number of the initial firms in a given period. The gross rate of exit, on the other side, is defined as the number of firms that exit divided by the number of the initial firms in a given period.

We can conclude that there was a simultaneous entry and exit in both industries. In the apparel industry the average early gross rate of the entry is 4 percent, while the gross rate of exit is 12.5 percent. The corresponding numbers for the footwear industry are 4 and 8.5 percent. Table 3.4 also reveals that the decline in the number of business subjects from 1999 on is mainly due to the increase in exit of the firms and not due to the lack of entry. This suggests that the industries are probably not creative destructing.

The data about the entry and exit dynamics are important since they shed some light upon the job flow dynamics. When the firm exits, it cannot contribute to the creation of new jobs. On the other hand, the firm that enters can create new jobs in the future. The difference between the creative destruction and plain destruction is that in case of the former one, also new jobs are created. As a result, the gross job rate and the net job rate are very different. Next we present the methodology that is used in job dynamics.

The growth rate of the employment of firm i is defined as:

$$g_{it} = (l_i - l_{it-1}) / 0.5 * (l_{it} + l_{it-1}) = (l_i - l_{it-1}) / X_{it},$$

where l_{it} stands for the number of workers in a firm i at year t. The growth rate defined in such a way has some advantages:[3] (a) it easily accommodates births and deaths and (b) it is symmetric.

Based on this growth rate, the job creation and the job destruction are defined as:

$$POS_t = \sum_{g_{it} \geq 0}(X_{it}/X_t)*g_{it},$$

$$NEG_t = \sum_{g_{it} < 0}(X_{it}/X_t)*|g_{it}|,$$

where $X_t = \sum X_{it}$.

The job creation (POS) measures the gross increment of employment that can come from the incumbent firms that expand their employment or from the firms that are entering. On the other hand, the job destruction (NEG) measures gross reduction in employment that can come from the incumbent firms that contract their employment or from firms that are exiting. The net job creation (NET) is defined as the difference between POS and NEG, while the gross job reallocation (SUM) is defined as the sum of POS and NEG.

In table 3.5 we show the job flows. We can see that 5 percent of new jobs were created on average in both industries each year. Based on the annual averages half of the new jobs came from the incumbent firms. On the other hand, the average annual rate of job destruction is much higher as the POS rate, or more specifically, it is higher in the footwear than in the apparel industry. The comparison between years 1994 and 2001 reveals that the job creation is around 10 percent in both industries. The job destruction rate, on the other hand, is much higher in the footwear industry and is mainly due to the

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[3] Look in Davis, Haltiwanger and Schuh (1996) for details.

employment reduction of the incumbent firms. The net effect, however, is negative for both industries. Hence, we can conclude: (a) the gross job reallocation rate in the period 1994-2001 was high in both industries; (b) the net flow of employment in the same period was negative in both industries, but was higher in absolute value in the footwear industry; (c) the creation of new jobs in both industries was mainly due to new firms.

Table 3.5 confirms that the footwear industry is an example of plain destruction (for the period 1994-2001 the difference between the SUM and NET measures is not big). On the other hand, for the apparel industry the SUM measure is almost four times bigger than the NET measure in period 1994-2001. This is not consistent with the plain destruction. Quite contrary, it implies that the apparel industry might be an example of creative destruction.

3.4. Productivity analysis

3.4.1. Model and Empirical Implementation

The technology of the firm i in the period t can be written with the Cobb-Douglas production function as:

(3.1) $\ln y_{it} = \beta_0 + \beta_l \ln l_{it} + \beta_k \ln k_{it} + \varpi_{it} + \mu_{it},$

where y_{it} is the value added, l_{it} is the employment, k_{it} is the capital, ϖ_{it} measures unobserved productivity and μ_{it} is the error term with the expected value of zero. μ_{it} can be due to the measurement error in variables or to the unexpected shock in the productivity to which inputs (l_{it}) do not respond. The variable ϖ_{it} as well as the variable μ_{it} are unobserved. The main difference between them is that ϖ_{it} has an effect on the decision making process in the firm. As a result, ϖ_{it} is correlated with the variable inputs and also with the capital.

In order to get consistent estimates of the parameters of the production function, we need to control for the effect of the unobserved productivity on the input choices. We apply the methodology developed by Levinsohn and Petrin (2000). According to their approach the unobserved methodology can be written as a function of the capital and material costs (m_{it}):

(3.2) $\varpi_{it} = h_t(\ln m_{it}, \ln k_{it})$.

Inserting equation (3.2) into (3.1) give us:

(3.3) $\ln y_{it} = \beta_l \ln l_{it} + \theta(\ln m_{it}, \ln k_{it}) + \mu_{it}$,

where $\theta_t(\ln m_{it}, \ln k_{it}) = \beta_0 + \beta_k \ln k_{it} + h(\ln m_{it}, \ln k_{it})$. Equation (3.3) is partially linear: it is linear in the variable input and non-linear in the capital and the material costs. Equation (3.3) enable us to get consistent estimates of variable input coefficient (β_l) with the OLS method, where for θ we use the fourth-order polynomial[4] in the capital and the material costs (Olley and Pakes, 1996).

In order to get the firm productivity measure we also need a consistent estimate of the capital coefficient, which we will get in the second stage. Using the labor coefficient that we got in first stage, the equation (3.3) can be written as:

(3.4) $\ln y_{it} - \beta_l \ln l_{it} = \beta_k \ln k_{it} + h(\ln m_{it}, \ln k_{it}) + \beta_0 + \mu_{it}$.

We cannot directly estimated equation (3.4), since the capital and the productivity are correlated. The identification of the capital coefficient is based on the assumption that the capital is quasi-fixed and so adjusts slowly to the unexpected productivity shock. Assuming that ϖ follows the Markovian process of the first-order (Olley and Pakes, 1996) we get:

(3.5) $\quad \varpi_{it+1} = E(\varpi_{it+1} | \varpi_{it}) + \zeta_{it+1},$

where ζ is the unexpected part of the productivity. The endogeniety problem in the capital can be resolved if we control for $E(\varpi_{it+1} | \varpi_{it})$. The expected productivity in the next period depends on the current productivity and can be written as $g(\varpi_{it})$. Using equation (3.2) and function θ give us:

(3.6) $\quad E(\varpi_{it+1} | \varpi_{it}) = g(\varpi_{it}) - \beta_0 = g(\theta_t - \beta_k \ln k_{it}) - \beta_0.$

Substituting the equation (3.6) into the equation (3.1) in the time period t+1 results in:

(3.7) $\quad \ln y_{it+1} - \beta_l \ln l_{it+1} = \beta_k \ln k_{it+1} + g(\theta_t - \beta_k \ln k_{it}) + \zeta_{it+1} + \mu_{it+1}.$

The equation (3.7) is nonlinear in the capital coefficient. In case that there would be no exit or entry into the industry or that they were random, the nonlinear least square method would give us the consistent estimate of the capital coefficient.

In the next step we model the entry and the exit decision. The probability that the firm remains in the industry also in period t+1, can be written as the function of the capital and the material costs:

(3.8) $\quad \Pr(X_{it+1} = 1) = \Pr\{\varpi_{it+1} > \varpi_{iL,it+1}(\ln k_{it+1} | \varpi_{L,it+1}(\ln k_{it+1}), \varpi_{it}\}$

$$= p_{it}(\ln m_{it}, \ln k_{it}) \equiv P_{it}$$

The equation (3.8) implies that the firm remains in the market if the expected value of the future profits is greater as the liquidation value. Assuming that function p is invertible, the ϖ_L can be written as the function of survival (P) and the productivity. As a result the equation (3.7) becomes now:

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[4] Results were similar when we used fifth-order polynomial.

$$(3.9) \quad \ln y_{it+1} - \beta_l \ln l_{it+1} = \beta_k \ln k_{it+1} + \Phi(\theta_t - \beta_k \ln k_{it}, P_{it}) + \zeta_{it+1} + \mu_{it+1}$$

Based on the equation (3.9) we implemented the NLS method to get the consistent estimate of the capital coefficient (β_k^*). As the dependent variable we used $\ln y_{it+1} - \beta_l^* \ln l_{it+1}$, where β_l^* is the estimate of labor coefficient based on the OLS estimation of the equation (3.3). The regressors were $\ln k_{it+1}$ and the polynomial of fourth-order in P_{it}^* and $\theta_{it}^* - \beta_k \ln k_{it}$, where the variable P_{it}^* came from the probit regression of the equation (3.8) and the variable $\theta_{it}^* = \ln \hat{y}_{it} - \beta_l^* \ln l_{it}$ came from the OLS estimation of the equation (3.3).

3.4.2. Results

In table 3.6 we show the estimates of the production function given in the equation (3.1). They are based on the OLS estimation and on the Levinsohn and Petrin (LP) methodology. Results reveal that all the coefficients are statistically significant. Also we can see that in both industries decreasing returns to scale are present.

Comparing the labor coefficient between OLS and LP reveals that the labor coefficient is smaller in case of the LP method. This is in accordance with the expectations since it shows that firms react to productivity shocks. Namely, if the number of workers is positively correlated with the productivity, one can show that the OLS coefficient of the labor is upward biased. The capital coefficient is also smaller in case of the LP method. There are at least three reasons why the capital coefficient should differ between the OLS and the LP method. First, if the capital is positively correlated with the current and/or previous period productivity, the OLS estimate is too high. Second, if the exit is important, the OLS coefficient is too small. However since our estimates are based

on the unbalanced panel, this reason is probably not very important. The third reason stems from the connection between capital and labor. If the capital is correlated with the labor and the labor is correlated with the productivity, the OLS estimate of the capital coefficient is too low even if the exit is random and the capital and the productivity are not correlated. In practice probably all of the above effects are present.

Based on the estimates of production function shown in table 3.6 we defined the productivity estimates of the firm i in the time t as:

$$(3.10) \quad \hat{\varpi}_{it} = \ln y_{it} - \beta_l^{LP} \ln l_{it} - \beta_k^{LP} \ln k_{it},$$

where we used the coefficients from the LP method.

The industry productivity (Ω) is the weighted average of the firms' productivities, where value added was used as a weight. Hence, average annual productivity of the industry is defined as:

$$(3.11) \quad \Omega_t = \sum_i s_{it} \hat{\varpi}_{it}$$

where s_{it} is the share of the firm's value added in the value added of the industry.

In table 3.7 we show the productivity indices. They were normalized in such a way that for each industry the productivity in 1994 has a value of 1. For each industry we have calculated indices. In the columns LP we show the productivity indices that are based on the equation (3.11). The columns QL show the productivity indices that were calculated as the ratio between the industrial volume index and the index of the employment. Hence they are based on the aggregate data. Table 3.7 also contains the QL indices for the entire industrial sector.

The first conclusion that can be drawn from table 3.7 is that there is a huge discrepancy between LP and QL indices. There are two main reasons for such a discrepancy: (i) QL measure is based on the aggregate data and so does not reveal the dynamics that is present in the industry; (ii) QL measure is not based on the value added and because of that does not take into the account the other factors (beside labor) that influence productivity. As a result, our further analysis is going to be based solely on the LP productivity.

Results show that in 2001 the productivity in the apparel industry was only 3 percentage points higher than in 1994, while it was 3 percentage points lower in the footwear industry. However, both industries experienced fluctuations in the productivity. For the apparel industry we had a small growth in the productivity between 1994 and 1996, followed by a small decline, while in the last five years the productivity was growing again, although the growth was very modest. In the footwear industry we have a modest growth after the initial decline (1994-1996).

We can conclude that the productivity has been more or less stagnating in both industries, and hence it seems that the plain destruction is taking place. The productivity in both industries namely lags fair behind the productivity of the whole industrial sector.

Next we would like to know what causes the changes in the productivity. However, since LP productivity is based on the industry as a whole, it does not tell us what is going on over time in the productivity within firms. Hence we need to decompose the aggregate productivity. We used the following decomposition:

$$(3.12) \quad \Delta\Omega_t = \sum_{i \in C} s_{it-1}(\omega_{it} - \omega_{it-1}) + \sum_{i \in C} (\omega_{it-1} - \overline{\varpi}_{t-1})\Delta s_{it} + \sum_{i \in C} \Delta\omega_{it}\Delta s_{it}$$

$$+ \sum_{i \in ENT} (\omega_{it} - \overline{\varpi}_{t-1}) s_{it} - \sum_{i \in EXT} (\omega_{it-1} - \overline{\varpi}_{t-1}) s_{it-1},$$

where $\overline{\varpi}_{t-1}$ is the average productivity of firms in the initial period, C is a set of firms that are remaining, EXT is set of firms that exit and ENT is a set of firms that enter.

The first term in the equation (3.12) shows the contribution to the aggregate productivity that stems from the continuing firms. In table 3.8 this term is labeled as WITHIN. If the industry productivity increased solely because each firm in the industry would became uniformly more productive, then the WITHIN term would correspond to the overall increase in aggregate productivity.

The aggregate productivity can also increase due to reallocation of the value added from the less productive to the more productive firms. This is reflected with the second term of the equation (3.12). In table 3.8 this term is labeled as REALOC. The continuing firms which increase their share of value added will positively add to the reallocation effect only if their productivity is higher than the productivity of an average firm in the initial period.

The third term is covariance (COV). It contains both the changes in firm's productivity ($\Delta \varpi_{it}$) and changes in the share of value added (Δs_{it}). It tells us how connected are changes in firm's productivity with changes in the firm's share of value added.

The fourth term is due to the entry. The firm that enters increases aggregate productivity only if its productivity is bigger than the average firm's productivity.

The fifth term is due to exit. This term increases aggregate productivity only if the exiting firm has smaller productivity than is the average productivity of a firm in the

initial period. The summation of fourth and fifth term shows the contribution of the net entry to the aggregate productivity. In table 3.8 it is labeled as NET ENTRY.

The decomposition results are presented in table 3.8. For each industry we have made two decompositions: one for the whole period (1994-2001) and one for the period where we encounter a modest increase in the productivity in both industries (1999-2001). The values in table 3.8 are percentages of the overall change in the aggregate productivity.

For the apparel industry results show that despite the fact that covariance term is not negligible, the productivity growth is mainly due to the fact that firms became more productive than to the reallocation effect. The joint effect of reallocation and covariance is smaller than the within effect. The 1999-2001 decomposition results are also interesting for the footwear industry[5]. They show that the aggregate productivity was mainly due to the continuing firms becoming more productive. This is very encouraging since it indicates that firms are on the right track if they want to seriously compete with foreigners and to survive in the long run.

Overall, the decomposition of the productivity speaks more in favor of the creative destruction. However, the growth rates of the productivities are too small to be able to speak about the creative destruction process in the analyzed industries.

At the end we analyzed the exit decision. Which firms exit? The results are shown in table 3.9. The coefficients are based on the probit regression. The dependent variable has a value of 1 if the firm exits and 0 otherwise. The coefficients in the table are the change in the probability of exit for an infinitesimal change in the independent variable,

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[5] The decomposition results for the 1996-2001 period were very similar.

where each probability is evaluated at the mean value of the vector of the independent variables.

The independent variables used in the probit regression are: the productivity measure, the capital-labor ratio, the labor cost per worker and the number of workers. We have expected that the productivity would have a negative effect on the probability of exit. The results confirm it only for the footwear industry, while for the apparel industry the productivity coefficient has a correct sign, but is not statistically significant. The other regressors, after we control for the productivity, are not statistically significant for any industry.

Since the coefficients reported in table 3.9 are local derivates evaluated at the mean value of the vector of the independent variables, we can get semi-elasticity by multiplying coefficients by the mean level of the productivity in each industry. The semi-elasticity of the exit probability in the footwear industry is -0.34. This means that a 10 percent increase in the productivity lowers the exit probability of the "mean" firm in the footwear industry by 3.4 percent.

The analysis of exit reveals that in the footwear industry less productive firms exit. This is in accordance with the creative destruction story. On the other hand it seems that in the apparel industry the exit decision is more or less a random process.

3.5. Conclusion

In this article we tried to illustrate the position of apparel and footwear industries in Slovenia. Both industries are facing rapid changes. The competitors from Western Europe have predominantly focused on high value-added processes within the value chain and in the most part started to outsource low value-added processes. On the other

hand many Eastern European producers are still quite competitive with their low labor costs and high productivity also on the low value added parts of the value chain. Measured by the labor costs, Slovenia is closer to its Western counterparts, however the position in the value chain puts Slovenian producers closer to Eastern European counterparts. Holding this position, Slovenian producers face rapid changes in the last decade. In our paper we performed an analysis of the footwear and apparel industry in Slovenia for the period 1994-2001. We wanted to see if the aggregate behavior of both industries (the reduction in output and employment) can be explained by the creative destruction process. According to the creative destruction: (i) exit is accompanied by simultaneous entry of firms, (ii) new jobs are simultaneously replacing old ones and (iii) the least efficient firms exit while the survivors become more productive.

The firm-level analysis of entry and exit, job flows and productivity give us very limited support for the creative destruction. However, for the last years, our result show that an increase in the productivity, although very modest, is mainly due to the surviving firms becoming more productive. This might indicate that managers have finally realized that their firms could survive in more and more competitive markets only if they reduce the number of "loan" deals, produce products with higher value added and with the introduction of their own brands. In the words of the CEO of one of the footwear firms in Slovenia:

"The bigger firms that are present in the markets for a long period of time have taken into account the changes. Globalization works. The competition is more and more severe. On the other hand, small and medium-sized firms that were selling mainly domestically have not taken changes into account. However also for them, the

competition will increase. A firm needs to be indifferent between selling to domestic or to the foreign customer. The customers are more and more demanding. It is not enough just to offer them a product. They require a full service. My firm does not develop and produce only footwear but also the complementary products such as gloves, safeguard products... We need to be more market oriented. Also the work is more demanding and now we have more workers with college education compared to years before where my firm had tree times more workers." (Gospodarski vestnik, 33, 2003)

If Slovenian firms in the footwear and apparel industries want to successfully compete with foreigners and thus survive also in the long run, they will need to build on other means of comparative advantages then are low costs used in the past.

Table 3.1: Comparison of Slovenian apparel and footwear industry with their competitors in Western and Eastern Europe

	Apparel industry			Footwear industry		
	Slovenia	Eastern Europe	Western Europe	Slovenia	Eastern Europe	Western Europe
Operating revenue/empl. (000 USD)	19.0	3.4	119.6	34.9	3.6	107.5
Avg. cost of empl./year (000 USD)	8.2	1.0	22.0	10.1	1.0	21.6
Costs of empl./operating rev. (%)	38.9	44.5	19.6	32.2	23.8	16.4
Assets/empl. (000 USD)	18.7	2.0	71.0	30.0	2.6	59.1

Source: Cirman et al. 2003.

Table 3.2: The descriptive statistics of the main variables in Slovenian apparel and footwear industry

Apparel	1994	1995	1996	1997	1998	1999	2000	2001
Mean								
y	84,657.67	75,972.10	75,684.36	70,146.17	61,752.70	65.905.88	60,647.64	66,522.86
k	21,417.86	18,626.26	15,545.70	14.914.63	13,779.12	15.052.92	14,407.15	13,770.26
l	49 .56	46.74	43.92	42.76	40.43	41.75	40.24	39.35
Revenue	112,725.30	102,645.70	100,629.30	93,283.03	84,702.98	85,780.95	78,628,.9	85,179.91
Export	67,250.05	57,369.84	60,545.62	57,357.48	51,298.60	48,986.49	45,636.45	49,452.77
k/l	1,044.59	1,063.41	896.65	891.78	818.08	721.09	522.67	610.13
y/l	3,712.11	3,647.94	3,700,04	3,752.87	3,321.15	3,353.37	2,650.81	3,053.23
Revenue/l	4,949.82	4,611.99	4,690.51	4,733.12	4,351.60	4,340.57	3,522.73	4,113.01
Export/Revenue	0.1503	0.1461	0,1371	0,1351	0,1276	0,1308	0,1207	0,1270
Total								
y	24,300,000	22,900,000	23,100,000	21,100.000	18,300,000	18,200,000	15,900,000	16,000,000
Revenue	32,400,000	31,000,000	30,700,000	28,100.000	25,200,000	23,700,000	20,600.000	20,500,000

Footwear	1994	1995	1996	1997	1998	1999	2000	2001
Mean								
y	490,516.40	327,516.60	226,479.80	165,555.90	142,378.60	168,078.40	204,143.90	226,114.10
k	68,227.45	57,451.05	48,467.88	44,953.44	30,403.89	38,474.53	46,151.23	46,583.66
l	204.92	158.57	137.81	98.21	71.55	92.00	95.88	97.38
Revenue	796,556.30	536,690.70	398,174.90	302,154.80	220,068.70	322,263.20	366,706.90	425,000.00
Export	530,852.70	337,481.00	233,615.70	175,700.80	87,175.08	172,753.70	212,988.40	261,000.00
k/l	831.19	881.18	787.12	635.52	723.73	586.46	492.98	476.79

y/l	9,198.66	4,402.27	3,919.43	2,714.41	4,465.45	3,634.49	2,887.02	3,658.21
Revenue/l	10,232.94	6,142.22	6,294.39	4,827.72	6,617.54	5,969.66	4,557.47	525,406.10
Export/Revenue	0.3064	0.2270	0.2677	0.2266	0.2084	0.2331	0.2531	0.2300
Total								
y	18,600,000	14,400,000	10,900,000	7,946,684	6,976,549	8,235,843	8,574,043	9,044,565
Revenue	30,300,000	23,600,000	19,100,000	14,500,000	10,800,000	15,800,000	15,400,000	17,000,000

Source: Statistical Office of the Republic of Slovenia and own calculations.
All values are in constant 1994 prices and in thousands tolars.

Table 3.3: Number of business subjects on December 31st in Slovenian apparel and footwear industry

Year	Apparel industry	Footwear industry
1997	472	71
1998	481	74
1999	482	73
2000	388	63
2001	361	58
2002	332	56

Source: Statistical Office of the Republic of Slovenia.

Table 3.4: Exit and entry in Slovenian apparel and footwear industry

Period	Apparel industry		Footwear Industry	
	Entry rate (in %)	Exit rate (in %)	Entry rate (in %)	Exit rate (in %)
1997-1998	4.7	2.8	7.0	2.8
1998-1999	3.5	3.3	2.7	4.1
1999-2000	2.9	22.4	4.1	17.8
2000-2001	3.1	10.1	3.2	11.1
2001-2002	6.1	14.1	3.4	6.9

Source: Statistical Office of the Republic of Slovenia and own calculations.

Table 3.5: Job flows in Slovenian apparel and footwear industry

	Apparel industry		Footwear industry	
	Annual average	1994-2001	Annual average	1994-2001
Job creation (POS) – Total	5	15	5	11
Existing firms	2	2	2	1
Entering firms	3	13	3	10
Job destruction (NEG) – Total	11	55	17	78
Existing firms	7	30	14	60
Entering firms	4	25	3	18
Gross job allocation (SUM)	16	70	22	89
Net job creation (NET)	-6	-40	-12	-67

Source: Statistical Office of the Republic of Slovenia and own calculations.

Table 3.6: Estimates of the production function coefficients in Slovenian apparel and footwear industry

	Apparel industry		Footwear industry	
	OLS	LP	OLS	LP
Labor	0.731*	0.614*	0.609*	0.536
	(0.019)	(0.022)	(0.046)	(0.054)
Capital	0.248*	0.238*	0.305*	0.258*
	(0.018)	(0.036)	(0.045)	(0.031)
Returns to Scale	0.979	0.852	0.914	0.794

Source: own calculations.
Standard errors are in parentheses.
 Asterisks denote: *= significant at 5% .

Table 3.7: The productivity indices in Slovenian apparel and footwear industry

Year	Industrial sector	Apparel industry		Footwear industry	
		LP	QL	LP	QL
1994	1.000	1.000	1.000	1.000	1.000
1995	1.065	1.010	0.964	0.978	0.869
1996	1.166	1.024	1.006	0.938	0.742
1997	1.219	1.019	0.958	0.936	0.791
1998	1.284	1.016	0.921	0.952	0.792
1999	1.325	1.017	0.903	0.951	0.901
2000	1.438	1.021	0.858	0.976	0.983
2001	1.491	1.033	0.949	0.977	1.122

Source: own calculations.

Table 3.8: The productivity decompositions in Slovenian apparel and footwear industry

Year	The percent of overall change				Productivity growth (in %)
	REALOC	COV	WITHIN	NET ENTRY	
Apparel industry					
1999-2001	18	25	46	12	2.6
1994-2001	15	16	48	20	3.2
Footwear industry					
1999-2001	-10	3	89	18	2.8
1994-2001	-25	100	-48	-27	-2.7

Source: own calculations.

Table 3.9: Probit analysis of exit decision in Slovenian apparel and footwear industry

	Apparel industry		Footwear industry	
	dF/dx	z	dF/dx	z
Productivity	-0.0090728	-1.53	-0.0505177*	-2.66
Capital/empl.	0.0000042	1.42	0.0000161	0.96
Labor Costs/empl.	-0.0000051	-0.28	0.0000279	0.59
No. of employees	-0.0000199	-0.57	0.0000251	0.64

Source: own calculations.
Asterisks demote: *= significant at 5%.

Figure 3.1: The production volume indices in Slovenia in 1994-2002
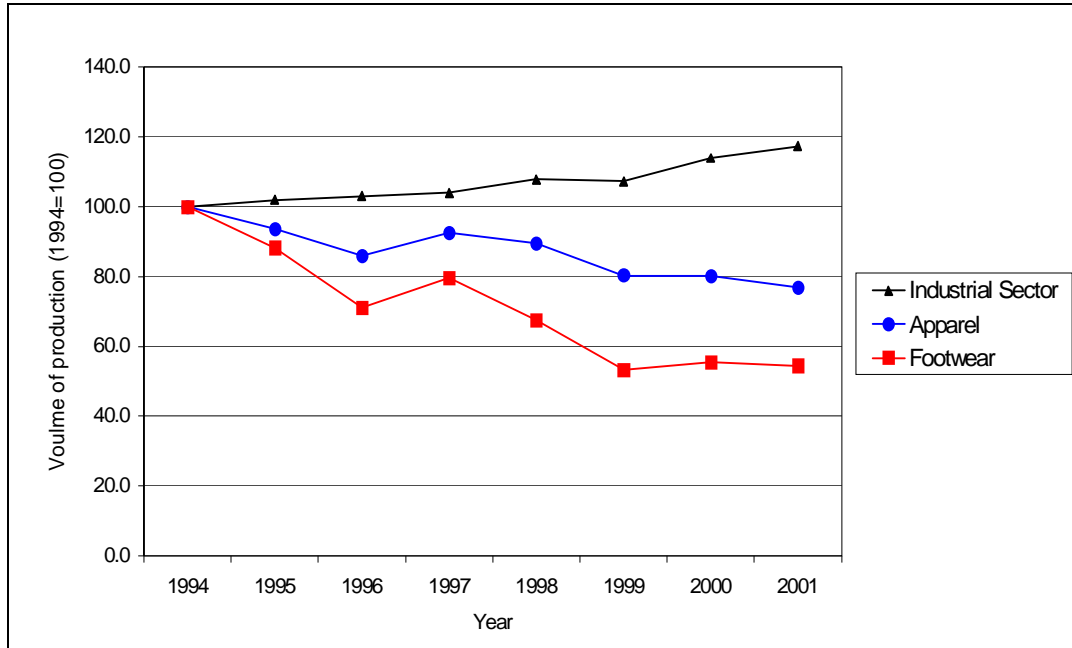
Source: Statistical Office of the Republic of Slovenia and own calculations.

Figure 3.2: The employment indices in Slovenia in 1994-2002
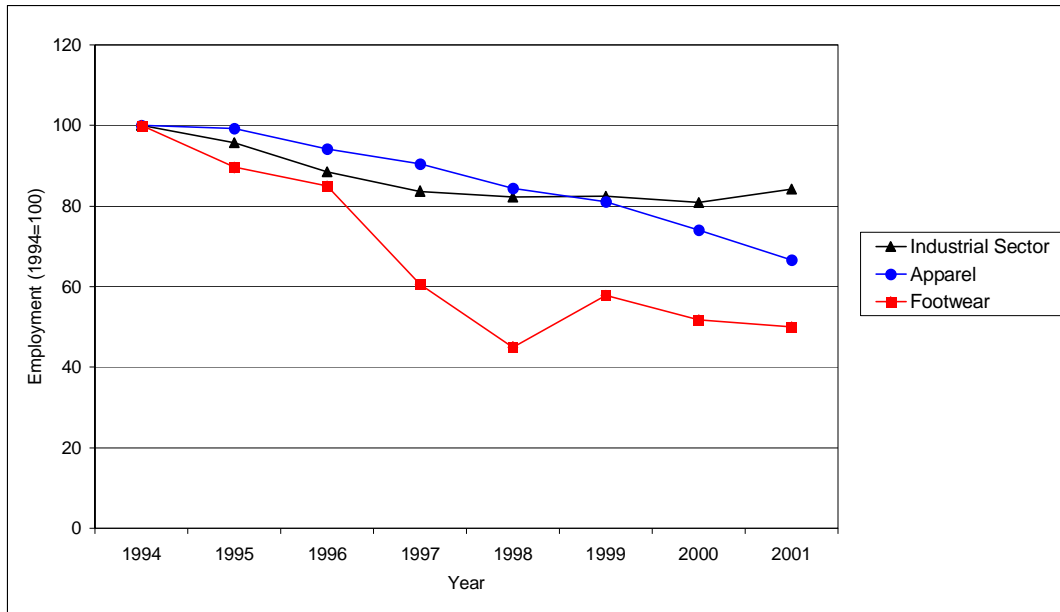
Source: Statistical Office of the Republic of Slovenia and own calculations.

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Chapter IV

The self-employment twist. Evidence from Kosovo

4.1. Introduction

Does more self-employment also mean more entrepreneurship? While entrepreneurship is often equated with self-employment, on the grounds that the self-employed fulfill the entrepreneurial function of being risk-bearing residual claimants, it could be also argued that this definition is too broad. Let us consider entrepreneurship as the creation of goods and services not currently existing within the market place (Kruger, 2004) and self-employment as individuals who earn no wage or salary but who derive their income by conducting a profession or business on their own account and at their own risk (Parker, 2004). If the latter only imitate and replicate, they are not performing basic entrepreneurial functions. As shown by Solymossy (2005), this is the situation in Kosovo. Besides an undeveloped infrastructure, weaknesses in the legal and regulatory framework, a poorly developed financial system and problems in the development of economic systems that are substantial obstacles in the growth of entrepreneurship all around the world, Kosovo also faces the problem of governance and the irresponsible management of property (social dysfunction). Due to the lack of economic momentum, i.e. a lack of joint dynamic activity of firms in different industries, entrepreneurship is extremely limited and its potential is substantially reduced, even though Kosovo has experienced high growth in the number of new, small enterprises.

In this chapter we further develop this argument by investigating the characteristics of Kosovo entrepreneurs and non-entrepreneurs. We first start from the supposition that there is no distinction between self-employed persons and entrepreneurs. We define entrepreneurs in a broader sense as individuals who work on their own account and who either employ or do not employ additional workers. We further divide this group into two groups: entrepreneurs in a narrower sense who have two or more employees, and self-employed persons who have one employee or who do not employ other workers. This distinction is suitable for Kosovo. If the enterprise has two or more employees, it is already more active, and has been in business for a longer time.[1] Therefore, the entrepreneur is actively engaged in the coordination function of factors of production and performs an entrepreneurial function. If the enterprise has one or no employees, its activities are more limited and it is less clear in which direction the business is headed.[2] We compare entrepreneurs in a broader sense with non-entrepreneurs as well as entrepreneurs in a narrower sense with self-employees and with non-entrepreneurs. The results show significant differences in characteristics among groups. The highest potential for the economic growth of Kosovo lies in entrepreneurs who have at least two employees (entrepreneurs in a narrower sense). Self-employees are more constrained in their capabilities and possibilities, while non-entrepreneurs have a very naive view of the business. There are not substantial differences between the three subgroups of non-entrepreneurs: those who already have been entrepreneurs, those who are thinking of

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[1] Many owners of such business have been gathering business experience over the difficult times of the near past. Some enterprises were already established in the time of Yugoslav socialism when legislation (mainly in the craft sector) at the end of eighties gave more freedom to the private sector (Prasnikar and Svejnar, 1988).

[2] See also the discussion by Parker (2004) in which he emphasizes that in the practical debate about entrepreneurship one needs to use the closest approximation that one believes that is suitable in a concrete case.

becoming entrepreneurs and those who have never thought about becoming entrepreneurs. The comparison also reveals that entrepreneurs in trade are more motivated than those in production and that those from Pristina differ somewhat from entrepreneurs from other areas of Kosovo.

These findings are important, since with the formation of its own state and the institutions it is also expected that economic and political conditions will improve in Kosovo. Great opportunities for economic growth exist in foreign direct investments, especially in the coal industry and in the production of energy and minerals. Those industries are going to help on the one hand revive the production of goods and services for export as well as for domestic consumption, and on the other hand they will lead to new jobs and hence to greater employment. Entrepreneurship should serve as a bounty to these industries. However, raising the general level of trust, doing things that one has promised and which are written down in contracts, increasing basic financial discipline and following the rule of law are prerequisite for such developments. This is in conjunction with the disintegration of the traditional, patriarchal family, as also seen from our data.

In next section we will briefly describe the Kosovo economy with emphasis on the development of entrepreneurship and small firms. In Section 3 we describe the summary statistics of the data we collected with the questionnaire. A Section 4 focuses on research strategy and empirical results. We conclude in Section 5.

4.2. Description of the Kosovo economy

After open conflicts in Kosovo and the NATO intervention in 1999, the Kosovo economy was almost completely destroyed. With help from the international society and

donors it managed to achieve positive economic growth in the period 1999-2001. In 2002 economic activity worsened as foreign aid started to decline. In 2004 Kosovo again achieved positive economic growth which was mainly due to increased public spending. After the recession in 2005, Kosovo achieved 3.9 % economic growth in 2006 and 4.1% in 2007 (IMF, 2008). Hence, economic activity in Kosovo is very unstable and crucially depends on foreign aid, i.e. donations from the international society (24.8% of GDP in 2005, 27.7% in 2006, 30.7% in 2007 and 14.2% in 2008; BPK, 2008) and remittances (9.2% of GDP in 2005, 11.6% in 2006 and 12.9% in 2007; IMF, 2008). The increased economic growth in the last two years was also achieved with an increase in investment, consumption and export (Kosovo Report, 2008). According to the Macroeconomic Department of the Ministry of Economy and Finance of Kosovo (MEF, 2008) imports constitute around 50% of GDP and are easily taxable and as such are a reliable source of government revenue. Government revenue represents around 26.9% of GDP in 2007, with taxes being the main source of revenue (87% of all revenue). The government managed to reduce government expenditures from 24.2% in 2005 to 19.6% in 2007. Prices are slightly increasing (the CPI in 2006 was 1.5%, 1.7% in 2007, and 4.7% in the first half of 2008).

One of the most problematic macroeconomic issues in Kosovo is the extremely high rate of unemployment. The unemployment rate as of 2008 is around 40% (MEF, 2008) and 336,436 unemployed people were registered as of April 2008 (SOK, 2008) The regional differences in the unemployment rate are extremely high, since the unemployment rate in Zubin Potoku was only 21%, while in Klina it was 67%. The problem also lies in the structure of the unemployed, since 86% of the unemployed are

either long-term unemployed, unqualified or are young. Also, the dynamics of employment is not the cause of optimism, since in the year 2007 only 5993 job seekers got employment, mainly in trade and services. Every year an additional 29,000 job seekers appear on the labor market (MEF, 2008).

Although Kosovo has one of the most friendly business environments to establish new enterprises[3], 15 years after transition new private businesses are still small, with unexpressive comparative advantages. Around 98% of enterprises employ less than 10 workers, 94% of them are self-employed, half of them operate in the trade sector and more than 60% of them are managed by the owner (IPAK, 2005). The actual employment level was estimated to be around 325,000 people (inclusive of self-maintained agriculture), of which 19% was in the public sector and 81% was in the private sector (SOK, 2008).

The sector structure of the Kosovo economy shows that the war caused major damage in manufacturing, since its share decreased from 47% of GDP to 15% of GDP. Before the war the strongest sectors of manufacturing were the production of food, metal and chemical products. They represented 37%, 24%, and 20% of total manufacturing production, respectively. The manufacturing sector needs thorough renovation, investment in new equipment and in new technology. Agriculture is the second largest sector and contributes around 25% of GDP and 25% to 30% of employment mainly in the informal sector. The tertiary sector is based mainly on trade. However, a fast

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[3] According to the USAID methodology of the World Bank, the period of a new business opening is very short (23 days). Also the costs of opening a new business are low, while the procedures to employ or lay-off workers result in a highly flexible labor market. The costs of registration of assets are the second lowest in the region, while the time needed to close a business is the shortest in the region. (World Bank, 2005)

development in the banking, insurance, telecommunications and other supporting service sectors is expected.

Privatization is one of the key areas of the transition process that started in Kosovo very late, i.e. in the period when other middle and east European transitional countries had already finished. Although the goal was that the privatization process in Kosovo would be finished by the middle of 2005, only 10% of the plan was achieved. One of the reasons for such a delay was the cautiousness of foreign investors. In the years 2006 and 2007 the process of privatization accelerated since foreign investors also showed substantial interest in Kosovo firms. In these two years they bought some comparatively large firms, for example, Newco Ferronikeli (now called Alferon), Peja Brewery, and Kosava Still.

The economic growth of the Kosovo economy is also heavily dependent on the restructuring of public enterprises. Their restructuring is not yet finished, despite the substantial progress that has been made in last few years in some local monopolies[4]. In the strategic sectors (postal, telecom and the production of energy) there are still a lot of unexploited opportunities. KEK, i.e. the whole sector of energy production, is of vital importance not only for Kosovo but for the whole region. If the ambitious plan in the production of energy is going to be fulfilled, the export of electricity is likely to become the most important product of the Kosovo economy.[5]

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[4] The Pristina airport was expanded and modernized. The postal service and telecom were reformed. They were transformed into joint-stock companies. The aim was to improve the governance in those firms, while the state still remained the major shareholder. Privatization should occur at a later date.

[5] Kosovo has a substantial stock of lignite. It is estimated that the stock of lignite is around 14 billion tons and as such is the second largest in Europe. The tender for a new EUR 2.7 billion thermonuclear plant was published in August 2006 and four companies were selected in 2008; however, a final selection has not yet been made.

The revival of the Kosovo economy will be based on the active promotion of those key sectors that have comparative advantages on the global scale. One of those sectors includes mining. Kosovo is rich with minerals. The acquisition of metals and non-metals is organized inside the conglomerate Trepča, which has branches scattered all around Kosovo. Investment in equipment and technology and the resolution of legal issues regarding ownership should help Trepča to become an important exporter.

The development of entrepreneurship is, however, crucial in playing a key role in the creative destruction of goods and services that at the moment still do not exist in the Kosovo market.[6] The important question for the Kosovo economy is therefore: What is the current potential of entrepreneurship and how to increase it in the near future?

4.3. The Data

Our goal was to collect information about the state of entrepreneurship in Kosovo. In order to achieve this goal we interviewed individuals, entrepreneurs and non-entrepreneurs from different regions of Kosovo. When designing the questionnaire we looked to the questionnaire that Djankov and others (2005, 2006a, and 2006b) used when they investigated entrepreneurship in China and Russia. However, due to the different characteristics of entrepreneurship in Kosovo we modified some questions and added some new ones.

As already mentioned, a group of entrepreneurs in the broader sense constitutes those individuals who derive their income on their own account and at their own risk. This group is then divided into entrepreneurs in the narrow sense (having at least two employees) and self-employed persons (without employees or with one employee). The

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[6] More about this see in Riinvest (2003), ESI (2006), Domadenik and others (2006), EBRD (2007), UNDP (2008) and in Kosovo report (2008).

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group of non-entrepreneurs consists of people who are not engaged in an organized business activity. In order to gain more information about this group we have divided it into three subgroups: 1) non-entrepreneurs who have already been entrepreneurs; 2) non-entrepreneurs who are (were) thinking of becoming entrepreneurs and 3) non-entrepreneurs who never thought about becoming entrepreneurs.

We conducted the interviews between March and November 2007. 300 entrepreneurs in the narrow sense, 300 self-employed persons and 500 non-entrepreneurs were interviewed. For each group we formed a stratified sample based on the number of companies registered in seven Kosovo regions (Pristina-34%, Prizreni-16%, Peja-11%, Mitrovica-11%, Gjilani-9%, Ferizaji-12%, Gjakova-6%). The self-employees were also selected randomly from the Business Registries of Kosovo in the same manner (Pristina-33%, Prizreni-19%, Peja-13%, Mitrovica-12%, Gjilani-9%, Ferizaji-12% and Gjakova-3%). As in Djankov and others (2005, 2006a, 2006b), 80% of respondents in the non-entrepreneurs sample were chosen randomly yet conditional on matching the age, gender, and educational attainment of entrepreneurs from the respective entrepreneur surveys, and 20% were chosen completely at random. In order to provide valid statistical estimates professional interviewers from Integra Consulting, Kosovo were employed and interviewers were trained in advance.

4.4. The research strategy and empirical results

4.4.1. The model and the key variables

The traditional views of entrepreneurship concentrate on conceptually identifying one dominant characteristic that makes entrepreneurs unique individuals vis-à-vis other economic agents, namely employees and capitalists. For Say (1845), coordination or

managing ability is what makes the entrepreneur different from the employee.   For Cantillon (1931) and Knight (1921), it is the ability for taking risks that differentiates the entrepreneur from the employee but there is no difference between the entrepreneur and the capitalist. For Kirzner (1979) the entrepreneur diagnoses the error and engages in market transactions that increase market efficiency while she profits by exploiting the error. On the other side, neoclassical economists inspired by conceptual differences rekindled the idea of a specific entrepreneurial activity, and started looking for an indicator of individual characteristics that one needs to posses in order to become an entrepreneur. Lucas' (1978) model assumes that individuals differ in managerial or entrepreneurial talent and that there is a cut-off point of talent above which sufficiently talented individuals are better off converting into managers (entrepreneurs) than remaining as employees. Calvo (1980) introduces technological change, which affects the age and human capital expected from an entrepreneur. Kihlstrom and Laffont (1979) obviate differences in human capital and concentrate only on the individual's relative risk aversion. According to them, the entrepreneurs are the relatively more risk tolerant individuals in the population. Based on these models an individual would become an entrepreneur if he or she possessed above a certain level of entrepreneurial talent, which could be either human capital or the inclination towards risk.

In our work we lean on the modern studies of Djankov and others (2005, 2006a, 2006b) and Demirgüc – Kunt et.al. (2007). Djankov and others divide the factors that influence entrepreneurial activity into three main groups: 1) individual characteristics such as skills, education and intellectual and personality traits. Thanks to psychological studies, we know that motivation, risk sharing and individual self-confidence are also

important in this group; 2) sociological variables such as family background, social origins, social networks, values and beliefs; 3) perceptions of the institutional, social and economic environment that the business faces, including the role of finance for small businesses and institutions securing property rights. In addition, we include in our research 4) wealth and access to finance and 5) labor market experience, elaborated in other studies, such as Demirgüc- Kunt et al. (2007).

In table 4.1 we present the descriptive statistics of variables grouped in five groups, which together form the basis of our model and empirical research. We also present the differences in means between the group of entrepreneurs in the broader sense, and non-entrepreneurs and their statistical significance. In the cases where we used the same variables as Djankov and others, a direct comparison with Chinese and Russian entrepreneurs and non-entrepreneurs is possible.

Looking at the variables from the first group in table 4.1, it is evident that Kosovo entrepreneurs are in the majority men, more then forty years old, married and with several children. They have, on average, almost 10 years of education and are in relatively good health. From the psychological point of view, it seems that they are not heavy risk takers. Only about 15% report taking the risk of investing EUR 50, if the probability to win was 50%. Motivation seems to be relatively high. If they won a lottery of EUR 800,000, only 10% would retire and about 45% would continue to work due to the desire to have more money (greediness). 84% of entrepreneurs were very happy or quite happy compared to 56% non-entrepreneurs. If happiness is taken as a sign of optimism, Kosovo entrepreneurs are more optimistic than non-entrepreneurs, but less than Russian or Chinese entrepreneurs, where this indicator is higher than 90%.

The second group of variables describes the social environment. The parents of many Kosovo entrepreneurs are not highly educated. Only 14% of fathers had a higher level of education than qualified workers. This holds for 9% of mothers. Entrepreneurs have been in the position of a boss or manager more frequently than non-entrepreneurs. However, the overall numbers are small. A very interesting observation relates to the proposition of entrepreneurs in one's family and among one's friends. Entrepreneurs are much more likely to have entrepreneurs in their family (39.5%) than non-entrepreneurs (26.4%). The average number of family members acting as entrepreneurs is much higher (15.4 on average) for entrepreneurs than for non-entrepreneurs (3.35). Namely, in Kosovo enterprises are very often organized as a network of enterprises inside the extended family with "arms" not only in Kosovo, but also outside of it (diaspora). From table 4.1, another striking trend emerges: while 95.5% entrepreneurs report that they have friends engaged in business activities, this number is much smaller for non-entrepreneurs (68.3%). When asked how many such friends they have, the average number for entrepreneurs (1.05) was much smaller than for non-entrepreneurs (4.24). This is closely related to trust. We will return to this issue later in the paper.

With the third group of variables we compare the individual perceptions of entrepreneurs and non-entrepreneurs on the institutional environment for the development of the entrepreneurship sector in Kosovo. Only 27.3% of non-entrepreneurs and 52% of entrepreneurs think that the population is at least partly favorable toward entrepreneurship. This is substantially lower than in the studies of Chinese and Russian entrepreneurs, where these numbers are between 60 and 70%. Also, regarding the attitude of the government toward entrepreneurs, the perceptions of Kosovo entrepreneurs and

non-entrepreneurs are harsher than in Russia and in China. Kosovo entrepreneurs are among the most critical about the role of the government towards entrepreneurship. It is interesting that a very small percent of entrepreneurs think that the change in rules are connected with paying a bribe (14% of entrepreneurs stated that this happens often or very often). This result is much smaller compared to Kosovo non-entrepreneurs (44%) and even smaller if we compare it to Chinese entrepreneurs and non-entrepreneurs (between 40 and 50%) and especially to Russian entrepreneurs and non-entrepreneurs (between 60 and 70%). When asking Kosovo entrepreneurs and non-entrepreneurs if the private entrepreneurs are subject to property theft, the results are similar to those in China and Russia (in all of the countries this number lies between 80 and 90%).

The fourth group of variables explored the labor market issues that were investigated in the transitional context by Earle and Sakova (2000) and Demirgüc-Kunt et al. (2007). The results for Kosovo reveal that entrepreneurs in Kosovo did not have many labor experiences before they started with the business activity. 39% of entrepreneurs were employed before they started their own business and only 1.8% had been managers before. In contrast to Kosovo, in Slovenia a much bigger share of new entrepreneurs was formed from either the quite highly developed craft sector that existed already in socialism or from managers or employees of labor-managed socialist enterprises who either found new business opportunities or who wanted to gain more independence (Bartlett and Prasnikar, 1995).

The final group of variables reflects the difficulty of getting access to the finances that are needed in order to start a new business. These issues generate a lot of interest in

studies of entrepreneurship.[7] The entrepreneurs from our sample rarely came from families that would have experienced above-average wealth in their youth (only 10%). Around one third of entrepreneurs stated that they were receiving remittances.[8] Only 6.1% of entrepreneurs stated that it is easy or relatively easy to gain access in order to finance business activities. For non-entrepreneurs this number is slightly larger (15.6%).

In addition to the descriptive statistics of the above variables which form our model, we present in tables 4.2 to 4.4 the results of the perceptions of entrepreneurs and non-entrepreneurs about values and trust. As seen from the values in table 4.2, both entrepreneurs and non-entrepreneurs put family in first place, followed by work and financial stability. Among both groups the differences are not substantial, except for the family which has a slightly smaller weight for non-entrepreneurs than for entrepreneurs. Greater differences between entrepreneurs and non-entrepreneurs were seen regarding the value of intellectual achievements and the importance of friends. While non-entrepreneurs put more stress on intellectual achievements, entrepreneurs put more weight on the importance of friends. The international comparison reveals that Kosovo entrepreneurs and non-entrepreneurs put more emphasis on the value of power compared to Chinese and Russian individuals. Around 50% of Kosovo entrepreneurs and non-entrepreneurs stress this variable as very important compared to only 10 and 7% of Russian entrepreneurs and non-entrepreneurs, respectively, and 32 and 26% of Chinese entrepreneurs and non-entrepreneurs, respectively. The variable 'friends' is less

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[7] See, for example, Evans and Jovanovic (1989) about the role of personal wealth, Paulson and Thowsend (2004) about the role of financial institutions, and Rodriguez and Tiongson (2001), Funkhouser (1992) and Amuedo-Dorantes and Pozo (2006) about the role of international remittances when financing new business activity.
[8] We were not able to collect this information for non-entrepreneurs. The amount of missing data on this question was very large.

important in Kosovo (very important for 40% of entrepreneurs and 34% of non-entrepreneurs) than in Russia (43% of entrepreneurs and 53% of non-entrepreneurs) and in China (60% of entrepreneurs and 66% of non-entrepreneurs). On the other hand, the variable 'service to others' is more important in Kosovo (very important for 45% of entrepreneurs and 49% of non-entrepreneurs) than in China (19% of entrepreneurs and non-entrepreneurs) and in Russia (21% of entrepreneurs and 49% of non-entrepreneurs). These variables confirm that in Kosovo the extended family is still important.

In table 4.3 we present individuals' perceptions on trust. Compared with the Russian and Chinese results one can conclude that individuals in Kosovo have a very low degree of trust. They trust most in the family (55% of entrepreneurs and 69% of non-entrepreneurs have a very high degree of trust in the family). The trust in family is much bigger in Russia (90% for both groups) and even bigger in China (96% of entrepreneurs and 92% of non-entrepreneurs). The Kosovo entrepreneurs show low levels of trust to friends (18% of them stated that they trust them highly) and colleagues (7%) compared to Chinese and Russian entrepreneurs. In contrast, 49 % and 26% of Russian and 58% and 38% of Chinese entrepreneurs have a very high trust in friends and colleagues, respectively. The Kosovo entrepreneurs also have a low level of trust compared to Kosovo non-entrepreneurs (55%, 18%, 4% and 3% entrepreneurs have a very high level of trust in family members, friends, colleagues and government officials compared to 68.2%, 27%, 13% and 3.4% of non-entrepreneurs, respectively).[9]

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[9] The question about the low level of trust among Kosovo entrepreneurs and non-entrepreneurs could also be partially a result of the disintegration of the traditional Kosovo family. The employed family members, especially those employed abroad (diaspora) are not prepared to support to such a degree the unemployed members of the extended family. Therefore, it happens more often than in the past that the head of the family refuses to send remittances to their family members in Kosovo (ESI, 2006).

In order to obtain additional information about Kosovo, entrepreneurs in the narrower sense (having at least two employees) were compared to self-employees (having at most one employee). The data in table 4.4 reveal that trust in colleagues, businessmen and government officials is even lower for the group of self-employees than for the group of entrepreneurs in the narrower sense. One of the reasons for the low trust among businessmen could be in the wide spread practice of borrowing among Kosovo entrepreneurs. After credit lines to SMEs were established, it became common that borrowers would lend the money to other persons instead of investing it in the business as envisaged in the business plan. Suppose a person A borrowed from a lending institution. Instead of paying for equipment as promised, he lends the money to person B and person B lends the money to person C. As person C is not able to repay the loan, the lending institution remains without repayment of the loan from person A. A report by the supervision mission of EAR/World Bank SME credit line noted the following: »Experience now shows that on quite a number of cases it seems to be certain that the client never intended to use the loan proceeds for the purposes stated in the business plan. Some clients still cannot show documents evidencing the actual purchase of the equipment for which the loan was intended and their plans are not operational«. (European Agency for Reconstruction, 2002). This kind of behavior substantially lowered trust in the business community. Since the existing literature (Demirgüc-Kunt et al., 2007) puts a special emphasis on self-employees as recruits to the pool of proper entrepreneurs, we shall also focus attention on this group later in the paper. We will compare it on the one side with the group of entrepreneurs in the narrower sense and on the other side with non-entrepreneurs.

4.4.2. The results of probit and multinomial logit analysis

In tables 4.5 to 4.9 we show the probit and multinomial probit results of different models that should, when taken together, reveal a coherent picture of entrepreneurship activity in Kosovo. In table 4.5 we continue the discussion on the group of entrepreneurs in the broader sense and non-entrepreneurs that we started with in the previous chapter. Marginal effects and robust standard errors of probit analysis are reported. Robust standard errors were clustered at the city level to correct the intra-city correlations. Table 4.5 introduces the main specifications. We start with individual characteristics (column 1), to which we first add sociological factors (column 2), followed by perceptions on institutional development (column 3), labor markets experience (column 4) and wealth and financial constraints at the time of entry (column 5). These results confirm our previous findings. The entrepreneurs from Kosovo have a higher probability of being married men and are more optimistic (happy) than non-entrepreneurs. They have less trust in business friends than in non-entrepreneurs. They also believe, compared to non-entrepreneurs, that paying bribes in order to change the rules is not so common in Kosovo. They move less often (change locations less frequently) than non-entrepreneurs and operate mainly in the formal sector (paying social contributions). They believe more that is difficult to get money for starting a business than do the non-entrepreneurs. Hence, our results show that non-entrepreneurs do not have a very good idea about how business functions in Kosovo. They naively believe that running a business is nothing special, mainly because they have quite a lot of friends who have a business. According to the non-entrepreneurs' view, in order to start a business one first needs to collect some money, which in Kosovo is not such a difficult task. After that one needs to bribe some

officials in order to change the rules. The next belief is that one needs to change locations quite frequently. The question remains why non-entrepreneurs have not done this already, since they would substantially increase their happiness.

In table 4.6 we made a comparison of three groups: entrepreneurs in the narrower sense, self-employees and non-entrepreneurs. In column 1 we report the results of a probit analysis between entrepreneurs and self-employees. Compared to entrepreneurs, the self-employees are less likely to be men and are less healthy. The father and mother of self-employees are more likely bosses, and self-employees have more family members that are running the business. Remittances play a smaller role in running a business among self-employees than among entrepreneurs. Column 2 shows probit results between self-employees and non-entrepreneurs. Self-employees are more likely to be older, men and married than non-entrepreneurs. They also have more family members that run the business and have fewer friends in business. Self-employees, compared to non-entrepreneurs, stress a more positive attitude of the population toward entrepreneurship and believe less that bribes are important when one needs to change rules. Self-employees are also less likely to change locations than non-entrepreneurs. In column 3 we report probit analysis results between entrepreneurs in the narrower sense and non-entrepreneurs. Entrepreneurs are more likely to be men and are happier than non-entrepreneurs. The entrepreneurs' mothers are more likely to be bosses, their families have fewer members that are running a business and they are less likely to have friends in business than non-entrepreneurs. The entrepreneurs put a more favorable attitude of the population toward entrepreneurship than non-entrepreneurs. They also believe that bribes

are used less often in order to change rules. The results of the multinomial analysis in columns 4 – 6 confirm the probit results.

Our results thus far have shown that there are substantial differences among the characteristics of entrepreneurs in the narrower sense, self-employees and non-entrepreneurs. Let us for a moment focus on self-employees. They are on average older, more likely married and less healthy than the other two groups of entrepreneurs. Compared to them, their fathers are more likely bosses. They come from an extended family of entrepreneurs. However, they are less likely to have friends among businessmen. Due to the limited resources that they posses, they compete on the same dimension, i.e. they open a small kiosk in which they sell imported merchandise or they run a business that requires simple operations and hardly allows them to survive. They do not put much emphasis on the attitude of the population towards entrepreneurship and on bribes. For them, business is cruel per se, since the lack of possibilities and capabilities does not give them much chance of succeeding. We also need to stress that for self-employees remittances play a much smaller role in starting a new business than for entrepreneurs in the narrower sense.

Let us turn now to the group of entrepreneurs in the narrower sense. The analysis till now has shown that they are firmly settled in entrepreneurship activity. With a high probability we can state that they are happier as people than in the other two groups. Their mothers are more likely to be bosses. However, their family members are less likely to deal with business activities and they also have fewer friends among entrepreneurs than the other two groups. These results support our earlier discussion that in Kosovo the extended family is probably disintegrating. Although remittances played

an important role during the establishment of their companies, over time entrepreneurs realized that less dependence on their families and friends is probably beneficial to their businesses. In column 1 of table 4.7 we show which factors distinguish entrepreneurs in the narrower sense by necessity and by opportunity. These two groups differ mainly in two dimensions: entrepreneurs by opportunity are more educated and have a lower probability of being employed in the formal sector than entrepreneurs by necessity. They might feel more liberal and therefore do not need or want to pay contributions. In column 2 we compared the entrepreneurs in the narrower sense by necessity with self-employees. There is no statistically significant difference for both groups in individual and sociological characteristics. However, there is a substantial difference in their perceptions about institutional development. The entrepreneurs by necessity have, compared to self-employees, a more favorable opinion about the attitude of the population and government toward entrepreneurship, and they also believe that paying bribes is important if one wants to change rules. They also are more likely to pay social contributions as self-employees. Remittances also have an important role when starting a business. Despite entering into business activity by necessity they probably achieved a higher stability in business operations than the self-employed persons. Hence, it is not so important whether one starts a business due to necessity or opportunity. However, it is of prime importance that the one who provides the initial financing achieves results that ensure more stable business operations in the future. In column 3 we show probit results between entrepreneurs (broadly defined) by necessity and entrepreneurs (broadly defined) by opportunity. The results reveal that those two groups only differ in the status of both parents. Entrepreneurs by necessity were more likely to have fathers and mothers that

were bosses (managers). This shows that parents of extended families may no longer be willing to support their family members (who are thus forced to establish their own companies).

In table 4.8 we present the results of the probit analysis between entrepreneurs in production and trade and between entrepreneurs from Pristina and other cities. As can be seen from columns 1 and 2 there are few differences in characteristics between entrepreneurs in production and trade. In column 1 we present the results for entrepreneurs in the narrower sense. The entrepreneurs in trade are more likely to pay social contributions than entrepreneurs in production. In column 2 we compare entrepreneurs in the broader sense in production and in trade. The results reveal that they differ in two characteristics: motivation and greed. The entrepreneurs in production would be less likely to continue with their activities if they won a lottery than the entrepreneurs in trade. Furthermore, they are less likely to retire, because they desire more money. This indicates that the entrepreneurs in production are less motivated than the entrepreneurs in trade. These results are reflected in the Kosovo economy. There are fewer entrepreneurs in production than in trade. The production sector is at a low level of development. Many industrial plants have closed their doors, including those in the textile industry. Entrepreneurship in the production sector is mainly focused on craft and construction, which is very cyclical.

In column 3 we compare entrepreneurship characteristics between entrepreneurs in the narrower sense in Pristina and entrepreneurs from other cities in Kosovo. In column 4 we extend this comparison to include self-employees. Entrepreneurs in the narrower sense from Pristina are younger and more educated than entrepreneurs from

other cities in Kosovo. Their mothers are probably also more educated. They believe that it is more likely that one needs to pay bribes in order to change rules. The last two conclusions also hold when we deal with entrepreneurs in the broader sense. The results from column 4 also reveal that is more likely that entrepreneurs in the broader sense from Pristina come from wealthier families than entrepreneurs from other cities.[10]

Lastly, let us focus on non-entrepreneurs. Entrepreneurship literature puts a special emphasis on non-entrepreneurs since they can serve as a pool for future entrepreneurs.[11] We have divided non-entrepreneurs into three subgroups: 1) those who have already been entrepreneurs but who did not succeed; 2) those who were thinking of becoming entrepreneurs; and 3) those who had never thought about becoming entrepreneurs. The results of the probit and multinomial probit analysis for those three groups are presented in table 4.9. In column 1 we compare non-entrepreneurs who had never thought about becoming entrepreneurs with non-entrepreneurs who were thinking of becoming entrepreneurs. Non-entrepreneurs who had never thought about becoming entrepreneurs were more likely to be women, healthier, less inclined toward risk and put less emphasis on the role of the government in the development of entrepreneurship. They were also more likely to be employed in the formal sector and believe that it is not so difficult to get money for operating a business than non-entrepreneurs who were thinking of becoming entrepreneurs. In column 2 we compare non-entrepreneurs who were thinking of becoming entrepreneurs and non-entrepreneurs who had already been

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[10] Different regions suffer from low levels of demand, poorly educated workers and effective barriers to entry (Robson, 1998). In Kosovo these differences are much higher due to the centralization of main activities in Pristina.

[11] Starting a business is by neoclassical economists simply a rational choice faced by an individual who chooses between uncertain self-employment, having certainty as an employee and possible unemployment, based on the expected utility in each state. If there is increased unemployment, start-up activities will increase due to the low opportunity cots of not starting a business (see for example Lucas, 1978, Evans and Leighton, 1989a and 1989b, Meager, 1992, Parker 2004).

entrepreneurs but did not succeed. The latter are happier, while their attitude toward the government is less favorable. They have changed more locations and are less likely to be employed in a formal sector of economy than the non-entrepreneurs who were thinking of becoming entrepreneurs. In column 3 we show the results between non-entrepreneurs who were not thinking of becoming entrepreneurs and non-entrepreneurs who had already been entrepreneurs but did not succeed. The latter are more likely to be men and are less likely employed in the formal sector.

Based on the above results we believe that non-entrepreneurs who were thinking of becoming entrepreneurs and non-entrepreneurs who had never thought of becoming entrepreneurs are more likely to be employed in the formal sector of the economy than non-entrepreneurs who had been entrepreneurs but did not succeed. The probability of employment in the formal sector is also higher for non-entrepreneurs who never thought of becoming entrepreneurs than for non-entrepreneurs who had already thought about becoming entrepreneurs. The first ones are, compared to later ones, also less inclined toward risk and expect greater support from the government if they decide to become entrepreneurs. Therefore, they strongly believe that it will be relatively easy to find money in order to start a business. It is evident that the group of non-entrepreneurs who had never thought of becoming entrepreneurs consisted of people who were most likely employed in state or para-state institutions and had a bureaucratic way of thinking, with very little entrepreneurship potential. Our analysis also reveals that the group of non-entrepreneurs who had failed as entrepreneurs were not substantially different from this group. Besides the different likelihood of employment in the formal sector, these two groups are basically the same. The only slight deviation was in the higher inclination

towards risk of the non-entrepreneurs who had already thought about becoming entrepreneurs. However, generally speaking there were no substantial differences between the three groups of non-entrepreneurs. This is also confirmed by multinomial analysis. Besides two variables, gender and health, where all three groups were significantly different, there were only a few variables which made a difference. With this we return back to table 4.5, where we compared entrepreneurs in the broader sense with non-entrepreneurs. There we assessed that the group of non-entrepreneurs, compared to entrepreneurs, behaved naively and were not adequately prepared for the challenges of entrepreneurship. Our final results confirm this assessment.

4.5. Conclusion

Our study brings innovation to the debate about entrepreneurship in transitional economies. While other studies attribute the growth of entrepreneurship mainly due to self-employment, our study shows that this is not the case in Kosovo. In our study we divided entrepreneurs in the broader sense into groups of entrepreneurs in a narrower sense (having at least two employees) and self-employees. Such a division can be justified in Kosovo by two reasons. Firstly, in Kosovo there is a small number of employees that have private entrepreneurs. Secondly, there is the substantial growth of enterprises that do not have any employees. These firms were often established due to necessity in order to carry out simple, occasional tasks - mainly in trade. Hence, these firms do not possess a clear concept of their operations and do not have any comparative advantages.

The comparison of entrepreneurs in the broader sense with non-entrepreneurs in Kosovo reveals some characteristics that were not noted in the studies of

entrepreneurship in transitional countries. The Kosovo entrepreneurs were less optimistic and more critical of the environment than, for example, the entrepreneurs in Russia and China. Among values, power and service to others are the most important ones. This shows that in Kosovo the extended family still serves as the basic social unit. It is also very interesting to note the low levels of trust (in family members, friends, colleagues, businessmen and the government) compared to Chinese and Russian entrepreneurs and also to Kosovo non-entrepreneurs. The latter are quite naïve about business operations and are quite distanced from reality. Even when we compared the three subgroups of Kosovo non-entrepreneurs (those who had already been entrepreneurs but did not succeed, those who were thinking of becoming entrepreneurs and those who had never thought about becoming entrepreneurs) among each other the results revealed that they do not differ greatly. As such, Kosovo non-entrepreneurs can not be said to represent a step towards the future growth of entrepreneurship in Kosovo.

Entrepreneurs in the narrower sense (with at least two employees) have a more favorable attitude toward business activity compared to self-employees. They have been involved in business activities for a longer period. They have survived different external shocks and have been able to learn from experience. The diaspora played an important role in the set-up phase of their business activities. They also have a clearer picture of their operations and are very tolerant of their environment (i.e. the state and the population). Above all, the Kosovo entrepreneurs in the narrower sense can be characterized as very optimistic and of good health. Among their family members they do not have many entrepreneurs. They strongly believe that one can not mix friendship with

business. Does this indicate that the ideal of the extended family, which has for a long time been a dominant depiction in Kosovo, is disintegrating?

The self-employees are an unsure group with little trust in the environment and in business operations. They come from extended families and their parents were often managers or bosses. It seems that their parents decided to stop taking care of their children. They left them, with their insufficiently developed skills, to a business life where there are very few opportunities. They, on the other hand, would like to do something else besides having their own business. As such, self-employees are also not likely to serve as a potential resource for the future development of entrepreneurship in Kosovo.

With the development of its own state and institutions Kosovo will open to the world. The source of future growth for Kosovo lies in foreign direct investments, mainly in the production of electricity and minerals but also in the unfinished privatization that made progress in the last few years mainly through investments of the diaspora. Entrepreneurship will need to serve as a binding mechanism among those activities and will also need to carry out the role of creative destruction in the production of goods and services that are currently not available for domestic and foreign markets. The origins of such entrepreneurship lie among entrepreneurs in the narrower sense.

It is often claimed that Kosovo entrepreneurs can be irresponsible, with an inappropriate attitude toward property. Such critiques are often legitimate. Our study confirms to some extent that such entrepreneurs exist. Namely, we found that some entrepreneurs do not pay social contributions. These entrepreneurs either started their business due to opportunity or they are situated mainly in Pristina. However, there are

also good examples of entrepreneurship (our study reveals that they mainly belong to the group of entrepreneurs that have at least two employees), which show that healthy entrepreneurship activity can also be implemented in the complicated Kosovo environment. Two examples of such entrepreneurship are the firms Elkos and Devolli. While Elkos began operating during the early 1990s, one of the original private enterprises of Kosovo in the trade (import and distribution) of consumer goods, Devolli was founded in 2000 by Mr. Devolli and his sons as a producer of coffee, milk and fruit drinks. Both companies started with no sophisticated management and gradually managed to increase their business operations. Elkos continued to operate in the trading sector, although at a much greater level, taking advantage of hitherto unprecedented levels of consumption. This was primarily fueled by donor funding, diaspora remittances, and the large presence of ex-pats. As such, in 2007 it reached sales of around €120 million and had around 1000 employees. (Elkos, 2008). Devolli, on the other hand, continued to invest in the production activities of milk, fruit and coffee. In 2007 Devolli had sales of around €27.8 million and 320 employees. In recent years it has also managed to substantially increase its exporting activities, mainly to neighboring countries (Devolli, 2008).

The goal of Kosovo's government is to support entrepreneurship activity. This may be achieved with a suitable industrial and educational policy - one that stimulates all sectors of the economy. However, special focus should be placed on the exporting sector. There should also be more attention given to entrepreneurs who operate in non-trade sectors of the economy. At the same time it needs to provide more choice, such as paid employment, and not simply self-employment or emigration.

Table 4.1: Comparison of characteristics between Kosovo entrepreneurs in a broader sense and non- entrepreneurs (mean comparison)

Variables	entrepreneurs & self-employees	non-entrepreneurs	p-value test for difference in means	significance of difference
Number of observations	600	500		
Individual characteristics				
Number of age (mean)	41	36	0.000	***
Male (%)	93.6	61.4	0.000	***
Urban (%: if from Pristina=1 , otherwise=0)	34.2	33.6	0.110	
Married (%)	92	70.5	0.000	***
Number of children (mean)	3.36	2.82	0.000	***
Education (number of years of education)	9.2	11.4	0.850	
Health (%: good or very good health=1, otherwise=0)	74.8	71.8	0.000	***
Risk taking (%: if win 50 with probability ½ and lose 50 with probability 50 = 1, otherwise=0)	15.5	14.3	0.031	
Motivation (%: retire if wins a lottery of €800,000 =1, continue working=0)	10.2	17	0.016	
Greed (%: continue working because want more money=1, otherwise=0)	46	45.4	0.352	
Happiness (%: very happy and quite happy in life=1, otherwise=0)	83.6	56	0.000	***
Sociological characteristics				
Father has higher education (%: qualified and more=1, otherwise=0)	13.7	13	0.405	
Father was a boss or director (%)	7.6	2,8	n/a	
Mother has higher education (%: qualified and more=1, otherwise=0)	8.8	9	0.900	
Mother was a boss or director (%)	0.9	0.2	0.000	***
Members of the family were/are running businesses (mean)	15.42	3.35	0.000	***
Friends were/are running businesses (mean)	1.05	4.24	0.000	***
Institutional environment				
Population has favorable view towards entrepreneurs (%: if favorable and somewhat favorable=1, otherwise=0)	52.4	27.3	0.000	***
Government has favorable view towards	42.1	52.7	0.525	

entrepreneurs (%: if favorable and somewhat favorable=1, otherwise = 0)				
Private entrepreneurs pay a bribe to change rules (%: if very often and often=1, otherwise=0)	14	44.2	0.000	***
Private entrepreneurs are subject to theft of property (%: if very often and often=1, otherwise=0)	87.3	82.6	0.015	
Labor market				
Number of localities (mean)	1.1	1,17	0.071	
Employed in a formal sector (%: if respondent pays pension contributions=1 , otherwise=0	61.2	33.6	0.000	***
Prior status (%: if employed=1, otherwise=0	39	n/a	n/a	
Working as manager (%: if yes=1, if no=0)	1.8	n/a	n/a	
Wealth and financial constraints				
Average wealth at 16 (%: if above average=1, otherwise=0	9.2	10.6	0.153	
Remittances (%: if respondent receives money from abroad=1, otherwise=0)	30. 5	n/a	n/a	
Relatively easy to find a money (%: if very easy or relatively easy=1, otherwise=0)	6.1	15.6	0.000	***

Source: questionnaire and own calculations.
Asterisks denote: ***: significant at 1%
n/a: not available

Table 4.2: Comparison of values between Kosovo entrepreneurs in a broader sense and non-entrepreneurs (mean comparison)

Variables	entrepreneurs & self-employees	non-entrepreneurs	p-value test for difference in means	significance of difference
Number of observations	600	500		
Work (%)	77.8	77.2	0.022	
Power (%)	53.2	52.6	0.036	
Intellectual achievement (%)	59	71.8	0.003	***
Family (%)	91.7	86.4	0.002	***
Service to others (%)	44.5	48.4	0.206	
Financial security(%)	72	71.6	0.198	
Friends (%)	40.3	34	0.000	***

Source: questionnaire and own calculations.
Asterisks denote: ***=significant at 1%.

Table 4.3: Comparison of trust between Kosovo entrepreneurs in a broader sense and non-entrepreneurs (mean comparison)

Variables	entrepreneurs & self-employees	non - entrepreneurs	p-value test for difference in means	significance of difference
Number of observations	600	500		
Have lot of trust in family members (%)	54.8	69.2	0.000	***
Have a lot of trust in friends (%)	18.2	26.5	0.564	
Have a lot of trust in colleagues (%)	7.3	15.4	0.282	
Have a lot of trust in businessmen (%)	3.7	13.2	0.006	***
Have a lot of trust in government officials (%)	3	3.4	0.000	***

Source: questionnaire and own calculations.
Asterisks denote: ***=significant at 1%.

Table 4.4: Comparison of trust between Kosovo entrepreneurs in a narrower sense and self-employees

Variables	entrepreneurs	self-employees	p-value test for difference in means	significance of difference
Number of observations	300	300		
Have lot of trust in family members (%)	50.7	59	0.114	
Have a lot of trust in friends (%)	18.3	18	0.095	
Have a lot of trust in colleagues (%)	8	6.7	0.000	***
Have a lot of trust in businessmen (%)	4.7	2.7	0.000	***
Have a lot of trust in government officials (%)	4.7	1.3	0.000	***

Source: questionnaire and own calculations.
Asterisks denote: ***=significant at 1%.

Table 4.5: Probit analysis of Kosovo entrepreneurs in a broader sense versus non-entrepreneurs

Variables	Probit 1	Probit 2	Probit 3	Probit 4	Probit 5
Number of observations	1100	1100	1100	1100	1100
Individual characteristics					
Age	0.317	0.284	0.214	0.196	0.151
	(0.155)	(0.147)	(0.150)	(0.158)	(0.213)
Male	0.374	0.305	0.331	0.33	0.356
	(0.052)***	(0.049)***	(0.041)***	(0.046)***	(0.020)***
Urban	0.031	0.004	0.078	0.099	-0.008
	(0.022)	(0.019)	(0.017)***	(0.021)***	(0.037)
Married	0.241	0.248	0.24	0.223	0.358
	(0.063)***	(0.047)***	(0.064)***	(0.065)***	(0.092)***
Number of children (mean)	0.065	0.052	0.052	0.071	-0.042
	(0.118)	(0.110)	(0.109)	(0.113)	(0.094)
Education	0.005	-0.053	-0.056	-0.07	0.035
	(0.070)	(0.093)	(0.077)	(0.086)	(0.087)
Good health	0.037	0.027	0.020	0.022	-0.005
	(0.066)	(0.053)	(0.056)	(0.056)	(0.044)
Risk taking	-0.044	-0.072	-0.065	-0.064	-0.102
	(0.062)	(0.062)	(0.078)	(0.078)	(0.119)
Retire if won €800,000	0.218	0.203	0.155	0.151	0.143
	(0.096)	(0.076)*	(0.080)	(0.079)	(0.118)
Not retire - I want more money	-0.003	-0.006	-0.006	-0.009	0.006
	(0.062)	(0.063)	(0.058)	(0.063)	(0.074)
Happy and very happy	0.309	0.407	0.377	0.362	1.049
	(0.010)***	(0.099)***	(0.094)***	(0.103)***	(0.089)***
Sociological factors					
Father has higher education		-0.038	-0.013	-0.012	0.080
		(0.059)***	(0.045)	(0.043)	(0.062)
Father was a boss		0.189	0.207	0.197	0.175
		(0.086)	(0.096)	(0.099)	(0.101)
Mother has higher education		0.09	0.110	0.113	0.122
		(0.168)	(0.185)	(0.188)	(0.127)
Mother was a boss		-0.083	0.087	0.08	0.187
		(0.225)	(0.172)	(0.160)	(0.124)
Family members in business		0.063	0.049	0.044	0.047
		(0.020)**	(0.025)	(0.024)	(0.041)
Friends were in business		-1.152	-1.163	-1.127	-0.929
		(0.276)***	(0.281)***	(0.279)***	(0.236)***
Institutional environment					

	Probit 1	Probit 2	Probit 3	Probit 4	Probit 5
Favorable attitude of the population			0.213 (0.030)***	0.195 (0.032)***	0.175 (0.03)***
Favorable attitude of the government			-0.062 (0.090)	-0.058 (0.091)	-0.029 (0.067)
Pay bribes			-0.329 (0.054)***	-0.320 (0.051)***	-0.170 (0.076)
Labor market					
Number of localities				-0.283 (0.118)	-0.456 (0.143)**
Employed in the formal sector				0.132 (0.043)**	0.163 (0.062)*
Prior status				n/a	n/a
Working as a manager				n/a	n/a
Wealth and financial constraints					
Average wealth at 16					0.041 (0.096)
Remittances					n/a
Relatively easy to find money					-0.911 (0.024)***

Source: questionnaire and own calculations.

Models: Probit 1 - independent variables are only individual characteristics; Probit 2 - independent variables are individual characteristics and sociological factors; Probit 3 - independent variables are individual characteristics, sociological factors and institutional development variables; Probit 4 - independent variables are individual characteristics, sociological factors, institutional development variables and labor market variables; Probit 5 - independent variables are individual characteristics, sociological factors, institutional development variables, labor market variables and wealth and finacial constrain variables.

Coefficients are marginal effects.

Robust standard errors corrected for clusters at the city level are reported in parenthesis.

Asterisks denote: *= significant 10% ,**=significant at 5% and ***= significant at 1%.

n/a: not available

Table 4.6: Probit analysis of Kosovo entrepreneurs versus self-employees, self-employees versus non-entrepreneurs and entrepreneurs versus non-entrepreneurs and multinomial logit analysis of entrepreneurs, self-employees and non-entrepreneurs

Variables	entrepreneurs versus self-employees	self-employees versus non-entrepreneurs	entrepreneurs versus non-entrepreneurs	entrepreneurs	self-employees	non-entrepreneurs
	Probit 1	Probit 2	Probit 3	Multinomial logit		
				4	5	6
Number of observations	600	600	800	1100	1100	1100
Individual characteristics						
Age	-0.079 (0.152)	0.396 (0.094)***	0.187 (0.189)	0.112 (0.168)	0.223 (0.072)**	-0.355 (0.090)***
Male	0.246 (0.062)***	0.233 (0.062)***	0.341 (0.014)***	0.244 (0.018)***	0.140 (0.057)*	-0.385 (0.041)***
Urban	0.023 (0.036)	0.016 (0.023)	0.039 (0.027)	0.025 (0.021)	0.004 (0.025)	-0.03 (0.037)
Married	-0.076 (0.127)	0.206 (0.034)***	0.184 (0.078)	0.1 (0.074)	0.154 (0.033)***	-0.255 (0.050)***
Number of children (mean)	0.069 (0.104)	0.014 (0.135)	0.108 (0.112)	0.075 (0.074)	-0.011 (0.104)	-0.064 (0.061)
Education	0.071 (0.091)	-0.053 (0.089)	0.051 (0.090)	0.058 (0.091)	-0.046 (0.052)	-0.012 (0.064)
Good health	0.245 (0.075)**	-0.034 (0.055)	0.135 (0.086)	0.154 (0.071)	-0.106 (0.038)*	-0.047 (0.042)
Risk taking	-0.071 (0.108)	-0.017 (0.06)	-0.063 (0.069)	-0.055 (0.057)	0.009 (0.060)	0.046 (0.050)
Retire if won €800,000	-0.061 (0.074)	0.218 (0.087)	0.139 (0.058)	0.064 (0.041)	0.162 (0.063)	-0.022 (0.046)***
Not retire - I want more money	0.015 (0.086)	-0.006 (0.089)	0.005 (0.032)	0.009 (0.026)	-0.009 (0.078)	0.003 (0.035)
Happy and very happy	0.017 (0.096)	0.332 (0.073)	0.322 (0.081)***	0.213 (0.104)	0.191 (0.043)***	-0.404 (0.040)***
Sociological factors						
Father has higher education	0.072 (0.062)	-0.042 (0.069)	0.001 (0.045)	0.015 (0.029)	-0.057 (0.052)	0.041 (0.056)

Father was a boss	-0.122 (0.038)**	0.155 (0.080)	0.083 (0.062)	0.021 (0.036)	0.157 (0.054)**	-0.178 (0.077)
Mother has higher education	0.124 (0.072)	0.005 (0.109)	0.085 (0.128)	0.082 (0.098)	-0.031 (0.069)	-0.051 (0.076)
Mother was a boss	-0.345 (0.106)**	-0.077 (0.215)	-0.224 (0.019)***	-0.132 (0.034)***	0.085 (0.199)	0.047 (0.210)
Family members in business	-0.485 (0.090)***	0.166 (0.021)***	-0.417 (0.058)***	-0.265 (0.043)***	0.225 (0.023)***	0.039 (0.035)
Friends were in business	-0.208 (0.211)	-0.648 (0.109)	-0.596 (0.107)***	-0.412 (0.138)*	-0.714 (0.141)***	1.127 (0.142)***
Institutional environment						
Favorable attitude of the population	0.031 (0.075)	0.160 (0.049)**	0.214 (0.035)***	0.115 (0.040)**	0.114 (0.049)	-0.212 (0.041)***
Favorable attitude of the government	0.151 (0.065)	-0.111 (0.087)	0.034 (0.073)	0.039 (0.033)	-0.119 (0.077)	0.075 (0.041)
Pay bribes	0.162 (0.082)	-0.372 (0.030)***	-0.195 (0.041)***	-0.078 (0.041)*	-0.291 (0.032)***	0.362 (0.044)***
Labor market						
Number of localities	0.420 (0.190)	-0.420 (0.088)***	-0.104 (0.108)	0.011 (0.086)	-0.421 (0.079)	0.410** (0.142)
Employed in the formal sector	0.111 (0.102)	0.058 (0.051)	0.110 (0.046)	0.101 (0.046)	0.019 (0.047)	-0.120 (0.040)**
Prior status	0.055 (0.094)	n/a	n/a	n/a	n/a	n/a
Working as a manager	-0.008 (0.149)	n/a	n/a	n/a	n/a	n/a
Wealth and financial constraints						
Average wealth at 16	0.148 (0.057)*	-0.116 (0.053)	0.019 (0.085)	0.107 (0.064)	-0.078 (0.032)	-0.020 (0.094)
Remittances	0.605 (0.071)***	n/a	n/a	n/a	n/a	n/a
Relatively easy to find money	0.120 (0.147)	-0.152 (0.054)	-0.106 (0.059)	-0.360 (0.063)***	-0.57 (0.072)***	0.93 (0.026)***

Source: questionnaire and own calculations.

Coefficients are marginal effects.

Robust standard errors corrected for clusters at the city level are reported in parenthesis.

Asterisks denote: *= significant 10% ,**=significant at 5% and ***= significant at 1%.

n/a: not available

Table 4.7: Probit analysis of Kosovo entrepreneurs (broader sense, narrower sense and self-employees) by necessity versus entrepreneurs (broader sense, narrower sense and self-employees) by opportunity

Variables	entrepreneurs by necessity versus entrepreneurs by opportunity	entrepreneurs by necessity versus self-employees	entrepreneurs and self-employees by necessity versus entrepreneurs and self-employees by opportunity
	Probit 1	Probit 2	Probit 3
Number of observations	170	350	380
Individual characteristics			
Age	0.173	-0.048	0.103
	(0.074)	(0.170)	(0.056)
Male	n/a	0.184	0.05
		(0.082)	(0.048)
Urban	-0.034	0.037	-0.027
	(0.033)	(0.060)	(0.018)
Married	0.033	0.069	-0.017
	(0.032)	(0.108)	(0.012)
Number of children (mean)	0.039	0.108	-0.026
	(0.020)	(0.086)	(0.019)
Education	-0.349	-0.0005	0.012
	(0.091)***	(0.105)	(0.022)
Good health	0.033	0.183	0.017
	(0.047)	(0.070)	(0.012)
Risk taking	0.017	0.011	-0.001
	(0.034)	(0.117)	(0.000)
Retire if won €800,000	0.110	0.065	0.006
	(0.054)	(0.107)	(0.013)
Not retire - I want more money	-0.004	0.034	0.065
	(0.039)	(0.044)	(0.018)
Happy and very happy	0.147	-0.014	0.043
	(0.026)	(0.090)	(0.022)
Sociological factors			
Father has higher education	-0.114	0.005	-0.022
	(0.061)	(0.028)	(0.033)

Father was a boss	-0.012 (0.118)	-0.14 (0.051)	-0.203 (0.051)***
Mother has higher education	-0.002 (0.020)	0.103 (0.064)	n/a
Mother was a boss	n/a	n/a	-0.257 (0.094)*
Family members in business	0.09 (0.052)	-0.309 (0.086)	-0.026 (0.043)
Friends were in business	n/a	-0.157 (0.171)	-0.008 (0.009)
Institutional environment			
Favorable attitude of the population	0.151 (0.033)	0.121 (0.046)*	0.032 (0.020)
Favorable attitude of the government	-0.028 (0.027)	0.146 (0.053)*	0.015 (0.015)
Pay bribes	0.025 (0.022)	0.287 (0.085)**	-0.001 (0.001)
Labor market			
Number of localities	-0.107 (0.072)	0.455 (0.184)	0.016 (0.031)
Employed in the formal sector	0.112 (0.031)***	0.138 (0.062)***	0.024 (0.026)
Prior status	-0.031 (0.019)	0.047 (0.088)	0.008 (0.014)
Working as a manager	-0.086 (0.212)	0.013 (0.080)	-0.338 (0.140)
Wealth and financial constraints			
Average wealth at 16	-0.023 (0.023)	0.098 (0.064)	-0.022 (0.014)
Remittances	-0.082 (0.051)	0.543 (0.057)*	n/a
Relatively easy to find money	0.018 (0.007)	0.336 (0.155)	-0.053 (0.024)

Source: questionnaire and own calculations.
Coefficients are marginal effects.
Robust standard errors corrected for clusters at the city level are reported in parenthesis.
Asterisks denote: *= significant 10% ,**=significant at 5% and ***= significant at 1%.
n/a: not available

Table 4.8: Probit analysis of Kosovo entrepreneurs in trade versus entrepreneurs in production and entrepreneurs in Pristina versus entrepreneurs in other cities

Variables	entrepreneurs in production versus entrepreneurs in trade	entrepreneurs and self-employees in production versus entrepreneurs and self-employees in trade	entrepreneurs in Pristna versus entrepreneurs in other cities	entrepreneurs and self-employees in Pristina versus entrepreneurs and self-employees in other cities
	Probit 1	Probit 2	Probit 3	Probit 4
Number of observations	180	345	300	600
Individual characteristics				
Age	-0.039 (0.094)	0.059 (0.050)	0.196 (0.112)	0.047 (0.084)
Male	-0.035 (0.044)	n/a	0.084 (0.097)	0.046 (0.079)
Urban	n/a	-0.019 (0.030)	n/a	n/a
Married	n/a	0.027 (0.046)	-0.259 (0.072)***	-0.112 (0.044)
Number of children (mean)	0.267 (0.149)	0.04 (0.048)	-0.255 (0.131)	-0.110 (0.095)
Education	-0.006 (0.059)	-0.02 (0.038)	0.189 (0.057)**	0.162 (0.065)
Good health	0.073 (0.041)	0.051 (0.043)	-0.01 (0.103)	-0.124 (0.105)
Risk taking	-0.079 (0.069)	-0.045 (0.073)	-0.133 (0.093)	-0.016 (0.059)
Retire if won €800,000	0.048 (0.042)	0.082 (0.026)**	-0.086 (0.094)	-0.005 (0.083)
Not retire - I want more money	0.009 (0.031)	-0.017 (0.006)*	0.009 (0.059)	-0.089 (0.063)
Happy and very happy	-0.161 (0.086)	-0.067 (0.052)	0.261 (0.163)	0.152 (0.085)
Sociological factors				
Father has higher education	-0.019 (0.078)	-0.054 (0.036)	-0.114 (0.053)	-0.096 (0.040)

Father was a boss	0.066 (0.149)	0.014 (0.085)	0.005 (0.122)	0.003 (0.083)
Mother has higher education	-0.051 (0.087)	-0.018 (0.041)	0.426 (0.101)***	0.335 (0.083)***
Mother was a boss	n/a	n/a	n/a	n/a
Family members in business	0.109 (0.095)	0.016 (0.014)	-0.23 (0.208)	-0.041 (0.022)
Friends were in business	n/a	0.004 (0.316)	-0.122 (0.297)	-0.399 (0.232)
Institutional environment				
Favorable attitude of the population	-0.001 (0.097)	-0.003 (0.045)	-0.021 (0.096)	-0.117 (0.064)
Favorable attitude of the government	-0.021 (0.548)	-0.003 (0.048)	0.036 (0.048)	-0.085 (0.063)
Pay bribes	0.190 (0.101)	0.142 (0.085)	0.369 (0.109)***	0.265 (0.085)**
Labor market				
Number of localities	-0.24 (0.140)	-0.118 (0.095)	-0.206 (0.193)	0.024 (0.129)
Employed in the formal sector	-0.121 (0.027)***	0.002 (0.037)	-0.288 (0.129)	-0.218 (0.091)
Prior status	-0.058 (0.045)	-0.034 (0.026)	-0.099 (0.082)	-0.016 (0.042)
Working as a manager	0.210 (0.164)	0.013 (0.163)	0.045 (0.057)	-0.016 (0.039)
Wealth and financial constraints				
Average wealth at 16	0.291 (0.269)	0.022 (0.077)	0.298 (0.117)	0.316 (0.110)**
Remittances	0.031 (0.059)	0.041 (0.040)	0.010 (0.008)	0.062 (0.038)
Relatively easy to find money	n/a	-0.057 (0.064)	-0.195 (0.129)	-0.107 (0.109)

Source: questionnaire and own calculations.
Coefficients are marginal effects.
Robust standard errors corrected for clusters at the city level are reported in parenthesis.
Asterisks denote: *= significant 10% ,**=significant at 5% and ***= significant at 1%.
n/a: not available

Table 4.9: Probit and multinomial logit analysis of characteristics between different groups of Kosovo non-entrepreneurs

Variables	never thought versus thought	thought versus failed	never thought versus failed	never thought	thought	failed
	Probit 1	Probit 2	Probit 3	Multinomial logit		
				4	5	6
Number of observations	425	250	315	500	500	500
Individual characteristics						
Age	0.396 (0.175)	-0.339 (0.247)	0.053 (0.157)	0.330 (0.138)	-0.379 (0.172)	0.049 (0.102)
Male	-0.245 (0.060)***	-0.149 (0.076)	-0.225 (0.040)***	-0.299 (0.050)***	0.172 (0.054)**	0.127 (0.033)***
Urban	-0.101 (0.048)	0.035 (0.051)	-0.015 (0.035)	-0.084 (0.053)	0.081 (0.044)	0.003 (0.023)
Married	0.052 (0.083)	-0.115 (0.119)	-0.047 (0.064)	0.012 (0.066)	-0.061 (0.091)	0.048 (0.044)
Number of children (mean)	0.097 (0.084)	0.025 (0.080)	0.004 (0.065)	0.084 (0.091)	-0.087 (0.069)	0.002 (0.040)
Education	0.101 (0.106)	0.193 (0.157)	0.157 (0.094)	0.147 (0.120)	-0.026 (0.072)	-0.12 (0.062)
Good health	0.202 (0.070)**	-0.139 (0.074)	-0.018 (0.088)	0.151 (0.059)**	-0.187 (0.062)**	0.035 (0.055)**
Risk taking	-0.278 (0.070)***	-0.071 (0.105)	-0.249 (0.155)	-0.285 (0.059)***	0.184 (0.076)	0.101 (0.092)
Retire if won €800,000	-0.087 (0.078)	-0.025 (0.063)	-0.054 (0.075)	-0.090 (0.066)	0.054 (0.072)	0.035 (0.033)
Not retire - I want more money	-0.033 (0.058)	0.129 (0.098)	0.039 (0.077)	-0.013 (0.050)	0.059 (0.431)	-0.046 (0.047)
Happy and very happy	0.169 (0.080)	-0.135 (0.034)***	-0.023 (0.037)	0.121 (0.050)	-0.16 (0.064)	0.038 (0.024)
Sociological factors						
Father has higher education	0.062 (0.085)	-0.033 (0.061)	-0.054 (0.051)	0.063 (109)	-0.034 (0.066)	-0.023 (0.022)
Father was a boss	-0.097 (0.160)	-0.116 (0.078)	-0.21 (0.091)	-0.159 (218)	0.048 (0.109)	0.107 (0.036)

Mother has higher education	-0.018 (0.061)	-0.14 (0.118)	-0.133 (0.090)	-0.062 (501)	-0.009 (0.056)	0.07 (0.050)
Mother was a boss	n/a	n/a	n/a	0.495 (0.025)***	-0.377 (0.022)	-0.119 (0.024)
Family members in business	0.091 (0.067)	0.152 (0.093)	0.184 (0.076)	0.140 (191)	-0.050 (0.074)	-0.086 (0.038)
Friends were in business	0.033 (0.036)	0.036 (0.046)	0.03 (0.052)	0.034 (474)	-0.021 (0.037)	-0.013 (0.027)
Institutional environment						
Favorable attitude of the population	0.012 (0.075)	0.012 (0.044)	0.019 (0.036)	0.017 (799)	-0.017 (0.063)	0.004 (0.015)
Favorable attitude of the government	-0.179 (0.032)***	0.119 (0.041)**	-0.009 (0.050)	-0.141 (6689)	0.146 (0.029)***	-0.006 (0.021)
Pay bribes	-0.087 (0.069)	0.107 (0.043)	0.048 (0.033)	-0.051 (7182)	0.085 (0.057)	-0.034 (0.018)
Labor market						
Number of localities	-0.037 (0.215)	-0.330 (0.082)***	-0.192 (0.142)	-0.125 (0.165)	-0.03 (102)	0.162 (273)
Employed in the formal sector	0.534 (0.086)***	0.253 (0.061)***	0.364 (0.061)***	0.569 (0.069)***	-0.456 (256)	-0.118 (218)
Prior status	n/a	n/a	n/a	n/a	n/a	n/a
Working as a manager	n/a	n/a	n/a	n/a	n/a	n/a
Wealth and financial constraints						
Average wealth at 16	-0.047 (0.114)	0.037 (0.110)	-0.032 (0.059)	-0.068 (138)	0.057 (0.105)	0.013 (0.050)
Remittances	n/a	n/a	n/a	n/a	n/a	n/a
Relatively easy to find money	0.173 (0.066)*	0.045 (0.121)	0.084 (0.042)	0.168 (325)	-0.123 (0.054)	-0.049 (0.043)

Source: questionnaire and own calculations.

Coefficients are marginal effects.

Robust standard errors corrected for clusters at the city level are reported in parenthesis.

Asterisks denote: *= significant 10% ,**=significant at 5% and ***= significant at 1%.

n/a: not available

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Chapter V

Conclusion

Almost twenty years after the disintegration of the former Yugoslavia, a series of new countries exists in its place. The common characteristic of all of these countries is that the social property issue has mostly been resolved and, if it still exists, it is present to a much lesser extent. Employee participation in ownership and decision-making is peripheral. Private ownership (domestic and foreign) and orientation toward the liberalization of the economy have become the source of economic growth. However, the state still substantially affects the economy through ownership links and its regulatory role.

The purpose of this dissertation was to assess the economic situation of democracy as practiced in the countries of the former Yugoslavia. This necessitated evaluating the former Yugoslav experiment in a world context. Specifically, the "self-management" system of the former Yugoslavia was characterized by perverse firm behavior, in which firms maximized income per worker instead of profit. The main question raised in this dissertation was therefore whether the implementation of difficult and complex market-oriented and structural reforms (privatization of social capital) that took place in all countries of the former Yugoslavia necessarily led to changes in firms' behavior, and how these changes affected entrepreneurship activity.

The first essay uses Macedonian firm-level data to focus on whether privatization of socially owned capital transformed the behavior of firms closer to profit maximization. It shows (a) that the behavior of Macedonian firms from 1994 to 1999 was closer to the hypothesis of maximizing income per worker rather than maximization of profit, and (b) that firms that were privatized internally and firms that were privatized externally behave similarly, although the evidence indicates that the second group of firms mainly used strategic restructuring whereas the first group used defensive restructuring.

The second essay seeks to determine whether the Slovenian apparel and footwear industries are an example of creative or plain destruction. The findings show limited support for the case of creative destruction. However, the last years of the analysis (1999–2001) reveal that the increase in productivity (albeit modest) was mainly due to surviving firms becoming more productive.

The third essay focuses on entrepreneurship as the main source of future economic growth in Kosovo's economy. The findings show that the highest potential for the economic growth of Kosovo lies in entrepreneurs with at least two employees. Self-employed persons are more constrained in their capabilities and opportunities, and can therefore serve neither as a potential resource for the future development of entrepreneurship in Kosovo nor as a source of future economic growth.

The answers and insights provided by the three essays reveal that:

1) The mere implementation of the difficult and complex market-oriented and structural reforms that took place in all countries of the former Yugoslavia does not necessarily lead to changes in firms' behavior.

2) Self-employment does not always mean more entrepreneurship. Specifically, if self-employed persons can only imitate and replicate, they are not performing basic entrepreneurial functions and therefore cannot serve a source of future growth.

All in all, this dissertation represents a step in understanding firms' behavior and entrepreneurship activity in the countries of the former Yugoslavia. My future work will build upon this by expanding the theoretical model presented in the first essay and the inclusion of other countries of the former Yugoslavia (Montenegro, Serbia, Croatia, Kosovo, and Bosnia-Herzegovina) for which there are as yet very few microeconomic studies on firms' behavior connected to corporate governance.