1 Does Rigid Employment Legislation Impede Employment Prospects? Evidence from Slovenia

RESEARCH PAPER

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Abstract

This paper presents a matching model with adverse selection to explain a link between employment legislation and the probability of switching from inactivity or unemployment to employment. In the countries with strict employment protection legislation firms find it more costly to hire a bad worker, so they prefer to hire out of a pool of the employed rather than out of a pool of the unemployed, who are more likely to be "lemons". Based on Slovene Labour Force Survey data for the 1997-2002 period we find that high dismissal costs created mostly by the adverse selection model and rigid legislation introduce certain distortions on the labor market that are not similar for all groups of potential or current employees. The highest probability of switching from unemployment or inactivity to employment or from one employer to another are detected in the case of prime age population (20-29 years old) while in 2002, the probability of switching increased substantially for individuals with tertiary education. The young who were already married at the time of the survey have a substantially lower probability of improving their labor market status. We can also detect selfdiscrimination of the unemployed receiving unemployment benefits.

Keywords: matching model with adverse selection, labor market, Slovenia JEL classification: C2, J12, J13, J24, J30, P23, P52

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Introduction¹

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Why some countries grow more than others is one of the most important questions in economics. Several studies show that countries with better regulations grow faster. Hall and Jones (1999) and Acemoglu et al. (2001) show that institutions are a major determinant of wealth and long-term growth. Countries with better developed political and economic institutions developed faster in the past and are richer compared to the countries whose institutions are not so well developed (Djankov et al., 2006). Numerous negative effects of rigid labor market regulation, which is characterized by difficulties in the hiring and firing of workers, as well as working time regulation and high costs associated with these factors have led to intense debates over the labor market reform in numerous European economies.² However, reforms of the labor market regulation can be hard to implement. Trade unions often fiercely defend their adopted rights due to potential negative short-term consequences for some groups in the labor market and fear of a loss of social security. In Germany, where policy makers adopted a gradual approach to labor market reforms, changes in the unemployment benefits system were debated for 11 years. In 2007, a number of macroeconomic analysts from the OECD and IMF attribute a recent economic upswing of German economy to some crucial reforms on the labor market that were implemented in 2004. The Dutch government reached an agreement on reforms with unions and business organizations in 1982 after negotiations had stalled for 9 years.³ The situation in developing countries is even more complicated. Opponents of reform argue that because such countries lack social safety nets, they need more rigid rules

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² Inflexible labor markets thus stifle new job creation but even more importantly, they also push workers into the informal sector. According to World Bank surveys, three quarters of informal workers are women. They receive no social security benefits, no sick leave or pensions. If abused by their employer, they have no recourse to courts. Far from protecting the vulnerable, rigid employment regulation excludes them from the market. (World Bank, 2006).

³ Rigid regulations in European countries have a significant impact on their economies' adjustment to external shocks. Kugler and Saint-Paul (2004) argue that differences between different inflows and outflows to unemployment but similar employment-to-employment flows between Europe and North America arise due to labor market institutions that increase the costs of adverse selections.

on hiring and firing. Obviously, there are some tradeoffs. Rich countries can afford to finance more generous social security systems while poor countries may need to rely more on employment regulation. As countries develop, they can move to a more flexible employment regulation and more generous social security. In some countries (such as in Latin America's Argentina and Brazil) we can observe that rigid labor legislation is in place together with high social security taxes that are higher than in Denmark or the Netherlands.

This paper contributes to the ongoing debates about direct and indirect implications of rigid labor market legislation by identifying the most vulnerable groups of people affected by inefficient legislation. It studies the magnitude of flows between different labor market statuses (unemployment to employment, inactivity to employment) and flows within the group of employed job seekers, linking them to labor market institutions' development in one of the most developed transition economies, namely Slovenia. The paper presents a model of adverse selection, in which hiring and firing costs (as the implicit value of rigid labor market legislation) reduce the hiring of both unemployed and employed job seekers, but where the hiring of the former is more sensitive to increases in turnover costs than that of the latter. The matching model with adverse selection shows that being exposed to unemployment stigmatizes workers because, in the absence of other signals, firms infer that unemployed workers are of poorer quality. High ability workers generate higher profits for the firm than low ability workers. Consequently, when the firm faces a negative shock, the latter are more likely to be dismissed than the former. The market therefore infers that the average quality of the unemployed is lower than the average quality of employed workers and, at the time of hiring, firms prefer to hire out of a pool of employed job seekers rather than out of the pool of the unemployed. If hiring and firing costs are high (option value effect), the costs of a firm that has to regret its hiring choice because worker quality turns out to be too low will be very high. Therefore, discrimination against unemployed job seekers is likely to increase as turnover costs rise.

The outline of the paper is as follows. Section 2 presents the theoretical framework and estimating equation. Section 3 discusses the evolution of labor market institutions in Slovenia during transition. Section 4 gives a data description and

definitions of variables while Section 5 discusses the results, followed by some concluding remarks.

2 Theoretical Framework

Employment regulations are motivated by an assumption that free labor markets are imperfect and might cause a creation of rents in the employment relationship. In order to extract these rents employers are motivated to abuse workers, leading to both unfairness and inefficiency in the labor market (Stigler, 1971; Becker and Mulligan, 2003). In response to the perceived unfairness and inefficiency of the free market employment relationship, nearly every state intervenes to protect the workers in this relationship. The regulations, dealing with the issues that range from a mandatory minimum wage to premiums for overtime work and from grounds for dismissal to severance pay, have been introduced to remedy at least the most apparent market failures. These range from the inability to diversify the risk of unemployment to discrimination based on gender, race or age. Social security regulation was created to protect against the risk of unemployment or sickness and, through pensions, against the risk of poverty in old age while a regulatory framework was created to protect against discrimination.

But despite the obvious benefits of such an intervention of the state in the labor market, there are also several drawbacks to it and the intervention itself, although aimed well, might actually cause the exact opposite effect of that desired. Several negative side effects of well-intentioned labor regulation have been identified, from less intense job creation to even more obvious discrimination. First, with rigid regulation employers choose conservatively. Some groups of workers benefit from rigid regulation; data show that it is mostly men with several years of working experience (Botero et al., 2004). Young workers, female workers and low-skilled workers, on the other hand, often lose out, being denied job opportunities. Rigid employment regulations often end up protecting the existing jobs at the expense of workers in general and do not help in the process of job creation or toward reducing unemployment. Second, high severance payments are usually adopted with a view to reducing the risk of unemployment but, again, the beneficiaries are people who already have jobs. Meanwhile, the high cost forces employers to cut back on new hiring. As a result, very few new jobs are created. Far from diversifying risks and being beneficial to the economy at large, such policies reduce the odds of finding a job and decrease the dynamics in the economy. This is especially problematic in the globalization era. Namely, Bolaky and Freund (2004) report that flexible employment regulation also increases the benefits of trade liberalization. As the economy opens, competition from the now cheaper imports drives jobs away from less productive to more productive ones, expanding the economy. But this happens only if workers have the ability to move. Where barriers to hiring and firing are high, labor stays in unproductive sectors. This results in less job creation and a loss of competitiveness.

The model I present in the paper is based on Mortensen and Pissarides (1994) and upgraded by Kugler and Saint Paul (2004) where, on the one hand, the latter have simplified some aspects to preserve the analytical tractability and, on the other hand, they have introduced dismissal costs and imperfect observability of worker quality in order to capture the phenomena discussed in the introduction. In the asymmetric information model firms use discretion in terms of whom to fire and, thus, low quality workers are more likely to be dismissed than high quality workers. Therefore, the proportion of low quality workers is greater among the unemployed than among the employed, and prospective employers know it.

The total labor force is normalized to one and split between two types of workers: "good" and "bad". The proportion of workers who are "good" is denoted by z. Prior to hiring, firms do not observe the quality of applicants, nor do they observe their past labor history. The only thing they observe is whether the applicant is currently employed or not. Immediately after hiring, however, firms observe the productivity of a worker as being either "high" or "low". Workers are matched to firms and together they produce output. This matching process takes time. A job seeker meets a vacant job with some probability while a position meets a worker with probability. Firms freely enter the market by creating vacant positions. There is a fixed setup cost of creating a position equal to C in equilibrium. Once a position is filled, production takes place. Production takes place until either the firm decides to close the position or the worker quits voluntarily. When hit by a shock, firms may decide to fire the worker, in which case they have to pay a tax F.

This tax is dissipated, i.e. paid to a third party. When a firm decides to fire, the position is closed and the firm's value drops to zero. Moreover, production may also end when workers quit voluntarily. A fraction π of workers is constantly looking for another job. The day they leave to take another job, the position becomes vacant and its value falls back to *C*. In addition, in case of voluntary quits firms do not have to pay the tax, *F*.

Kugler and Saint Paul (2004) showed that bad workers are fired more often than good workers and, thus, the pool of the unemployed is composed of a disproportionate number of "lemons". For this reason, at the time of hiring firms use the employment status as a signal of quality and are more reluctant to hire unemployed than employed job seekers. Moreover, they show that increases in hiring and firing costs exacerbate the discrimination against the unemployed, while large enough reductions of hiring and firing costs might eliminate discrimination against unemployed workers completely. The reason for this lies in the fact that if hiring and firing costs are nil, firms can always hire workers to sample their quality and fire them at no cost. In contrast, when hiring and firing costs are high, firms are reluctant to hire unemployed workers who are more likely to turn out to be "lemons" and, consequently, might have to be fired eventually when a firm is hit by a shock. However, the impact of hiring and firing costs on the discrimination of the unemployed clashes with the impact of wages on discrimination.

In order to operationalize the model, a reduced form specification is presented. In the discrete choice model, the dependent variable y takes the value of 1 if the person was successful in finding a job within a given time interval and the value of zero otherwise. Generally, success in finding a job depends on the contract rate, on the offer rate and on the acceptance rate (which is simply equal to 1 in model⁴). According to the model, what generates differences in job finding rates between the two groups is the difference in the offer probabilities between the two groups. If we take $J(m, \eta)$ to be the value to the firm of a job with worker-specific productivity η

⁴ If a person applies for a job, he/she is always accepted. In reality there are also differences in the contract and acceptance rates between unemployed workers and employed job seekers that must be taken into account. In empirical analysis these differences are partly controlled by a number of variables that control for the contract and the acceptance rate.

and firm-specific productivity m, we might assume that firms extend a job offer if the expected profits (J) out of hiring an applicant are greater than or equal to the hiring cost, and they do not make a job offer if the expected profits fall below the hiring cost, or:

$$y = \frac{1 if \ EJs \ge C}{0, \ otherwise} \tag{1}$$

Letting *EJs-C* be a continuous random variable, it can be expressed as a linear function of a vector of explanatory variables, X, and an indicator of whether the job applicant is unemployed, U, and a random term, ε .

$$EJ - C = y^* = \beta X + \delta U + \varepsilon \tag{2}$$

From (1) and (2) we can derive the following:

$$y = \frac{1 \text{ if } y^* = \beta X + \delta U + \varepsilon \ge 0}{0 \text{ if } y^* \le 0}$$
(3)

Thus, if ε is assumed to be normally distributed, the probability of finding a job is:

$$\Pr(y=1) = \Pr(\beta X + \delta U + \varepsilon \ge 0) = \Phi(\beta X + \delta U)$$
⁽⁴⁾

The vector of X includes individual characteristics affecting the contract rate, the offer rate and the acceptance rate of workers, among which: age, education, occupation, industry, union status, tenure, gender, race, marital status, number of children, the wage (wage in the current job for employed job seekers and wage in the last job for the unemployed), and other income of the household. In addition, the local unemployment rate and gross domestic product are both included because they should affect the contract rate.

The unemployment dummy is included because the model above tells us that employment status should affect the expected profits out of a new hire and, thus, the offer rate. In addition, employment status may also affect the contract rate if the unemployed can search more intensively for jobs than employed job seekers and it may affect the acceptance rate if the unemployed have different reservation wages from employed workers. However, as literature suggests that there might be

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other groups of workers discriminated when looking for a job, I also included dummies for women, married couples and young married couples. Due to labor force surveys in Slovenia, that do not include regions, wages or the number of children of individuals in the survey, I was not able to control either for the number of children, wages or several acceptance and contract rate characteristics (local unemployment rate, gross domestic product in the region, industry, or union status).

3 Labor Market Transition in Slovenia

Slovenia's transition from a communist system to a market-oriented economy has been based on two sets of policies. The first relates to the policies aimed at macroeconomic stabilization and internal and external liberalization. The second deals with structural and institutional reforms including, among others, institution-building, large-scale privatization, reform of the enterprise sector, the financial sector, the labor market, etc. At first glance, the results achieved by the Slovene economy are very good. Since 1993, Slovenia has maintained a robust growth rate of about 4 percent a year on average, substantially narrowing the income gap with the European Union (in 2006, GDP per capita amounted to almost 82 percent of the average EU-25). Much of this economic performance has come through gains in productivity as employment remained more or less constant during this period. Slovenia also managed to gradually bring inflation down to 8.6 percent already by the end of 1995. Inflation continued to ease and declined significantly (to 2.8 percent in 2006) in order to accomplish the Maastricht criteria and enter the Euro-zone in 2007 as the first country among all transition economies. But despite its relatively successful macroeconomic performance, Slovenia has significant problems in many areas such as labor market, pension system, bureaucracy and governance quality, which all lead to a continuing loss of competitive position.⁵

⁵ Tax legislation (including high personal taxes and social security payments) and labor market characteristics are among the most problematic areas, both according to Porter and Schwab (2006) and IMD (2006). Especially problematic are the firing legislation, where Slovenia ranked 102nd among 117 economies, wage rigidities (78th/117), problems associated with employing immigration workers (76th/117) and employment of women in the private sector (74th/117). Thus labor market reform will crucially determine future competitive position and growth: Slovenia has one of the strictest employment protection legislations, high taxes on wages and inefficient system of social assistance (unemployment benefits and social help).

Although Slovenia's economy proved itself capable of a fast output turnaround, this has not led to significant employment growth. The labor force declined 2 percent during the first 6 years of transition (1992-1997), while employment declined 5 percent although real output increased 21 percent. For the 1992-2002 decade as a whole, employment and the labor force have remained practically flat, while real output increased 48 percent, reflecting significant productivity gains.

The unemployment rate remained relatively low and on a declining trend during transition mostly due to the choice of Slovenia's privatization model, which maintained status quo and avoided massive layoffs during the transition period. Thanks to substantial state subsidies to loss-making firms in the textile, leather and many other industries policy makers avoided social tensions. From 1993 to 2002, the ILO unemployment rate fell by about one-third to 6.3 percent. Such unemployment levels are low in comparison with other transition economies and lower than those in a number of EU member states (Riboud et al., 2002). The low overall unemployment rate hides large regional disparities, with unemployment remaining highly concentrated among unskilled and older workers. Moreover, the average duration of unemployment has increased, suggesting that the bulk of unemployment is structural. As Slovenia became a full member of the EU, many firms in loss-making industries (generally labor intensive industries) face big problems how to survive without state subsidies.

The bulk of adjustment occurred in the early 1990s and by 2001, when transition was almost over, the picture was relatively favorable. Both employment and wages had started to rise, unemployment was on a steady decline, with a turnaround occurring in 1993-1995. In 2001, total employment and labor force exceeded the 1991 levels. But the structure of employment changed significantly. First, the employment shares of young and older workers declined. The share of employed workers who are under 30 decreased from more than 32 percent in 1990 to 25 percent in 2001, and the share of employed workers who are over 50 decreased from more than 12 percent to below 10 percent in the same period (Vodopivec, 2004). When it comes to the young, both push and pull factors were at work. On the one hand, young workers faced more difficulties in accessing jobs because of the labor market tightening; on the other hand, the returns of education increased dramatically, making schooling at the college level more attractive. Many older

workers retired in the early 1990s, some under pressure and with the encouragement of government-sponsored early retirement programs. A trend of the falling share of older workers was reversed in 1998 by the pension reform, which introduced a gradual increase in the retirement age.

The number of workers in the labor force fell in the early 1990s and again the late 1990s. Because of strong growth in the interval, however, in 2001 the labor force exceeded its 1991 level by 2.7 percent. Despite this growth, the labor force participation rate declined, reflecting strong flows of the working-age population into non-participation. In 2001, the labor force participation rate stood at 58 percent, which is relatively low by international standards (2.6 percentage points below that of a group of six industrialized Western European countries).

A major part of the inactive young cohort is undergoing the education process. The number of college students nearly tripled by 2002, which can be attributed to a considerable increase of returns of education for all the educational attainment groups. The wage premium for four-year college graduates over unskilled laborers (those who have not finished elementary school) doubled over a six-year period from 1987 to 1993: from 104 percent to 208 percent (Orazem and Vodopivec, 1995). After 1995, the value of education for all educational groups remained remarkably constant, with only a modest additional increase for the most highly educated in 2001. Converted to yearly rates, returns to education in 2001 amounted to 2 percent for those with elementary education, 3 percent for those with vocational education, 8 percent for those who have finished high school, 15 percent for those with a two-year college degree and 20 percent for those with a four-year college degree. (Vodopivec, 2004)

The youth unemployment rate fell during the transition period to stand at only 13.6 percent according to the latest data available for January 2005. Compared to other countries of the EU, this is one of the lowest rates (5.1 percentage points below the EU-25 average and 3.4 percentage points below the EU-15 average). In a way this also represents a specific functioning of the Slovene labor market with stringent labor regulation on the one hand (difficult firing) and a generous system of student work that implicitly stimulates young people to extend their schooling period. After all, we have to stress that the ratio between the youth and adult

unemployment is one of the highest in the EU, indicating an unfavorable position of young job seekers on the Slovene labor market. In this respect the youth unemployment rate may not be an efficient indicator of the youth labor market position.

If we look at unemployment by educational attainment, we can observe a downward trend for those without elementary school education who were probably included in the non-active cohort. More than 25 percent of the registered jobless in 2003 had secondary education of some sort and their share increased slightly during the transition period. In the case of the youth cohort, the share of the jobless with secondary education prevails and represented more than 35 percent already in 2003.

All the labor market statistics are supported by objective measures of business regulations and their enforcement, as presented in the *Doing Business database* and some of the annual reports presented there (World Bank, 2006). The Doing Business labor market indicators are comparable across 175 economies. According to the Rigidity of Employment Index⁶ in 2006 that encompasses three aspects of rigidity – difficulty of hiring, rigidity of working time and difficulty of firing, Slovenia ranked 146th among 175 economies, far below other Central and Eastern European countries. Firing costs under the Slovene labor code amounted to 10 average monthly wages in 2006, while the average for OECD countries did not exceeded 8 monthly wages. Minimum wages in Slovenia were set at 48 percent of the average wage in 2005, making it very high by international standards (Domadenik et al., 2006). These international comparisons and an unfavorable trend for specific groups of active population clearly indicate that there are some significant fundamental institutional distortions that need to be resolved. Rigid labor market institutions led to low international competitiveness of the Slovene

⁶ The Rigidity of Employment Index was created by Botero et al. (2004) and is more representative than the Employment Protection Legislation Index (EPL), calculated by the OECD.

labor market and contributed significantly to low international competitiveness of the economy as a whole (IMD, 2006).⁷

4 Description of Data and Variables

The data used in the analysis originate from the Labor Force Surveys conducted in Slovenia by the Slovene Statistical Office. These surveys are representative of the underlying population and follow similar ILO definitions to detect the labor market status. The data is elicited quarterly on a sample of over 60,000 individuals. The sub-sample consists of individuals who either changed their labor market status (switching from inactivity to employment or from unemployment to employment) or their employers (switching from employment to employment). Due to a specific organization of labor market survey we are able to trace individuals – switchers – only on the basis of consecutive years. Therefore, we have 1089 switchers in 1997, 1124 in 1998, 1199 in 1999, 767 in 2000, 803 in 2001 and 815 in 2002.⁸

The estimates are based on the fourth quarter of yearly data in the period of 1997-2002. These years are interesting as the earliest year spots transitional labor markets in the middle of the decade when transition was still under discussion, while the latest year is representative of a mature phase of economic transition.

Table 1 provides basic descriptive statistics for individuals included in the Slovene Labor Force study in 1997 and 2002. In the four surveys carried out in Slovenia in 2002, 66,143 individuals were interviewed, of whom 52.2 percent were women. In the whole sample almost 56 percent of individuals were participating in the labor market, while almost 14 percent were in education. Some 1.3 percent of the sampled population were self-employed, 8.3 percent were unemployed, while the

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⁷ This impression of rigidity is also confirmed by recent studies of the labor demand. Domadenik et al. (2003) estimated the labor demand elasticity with respect to wages and output by using company level data for 1996-1998 and found that it is extremely low, much lower than that estimated in similar studies for Hungary and the Czech Republic. Whether greater labor market rigidity would be better to deal with unemployment in the long-run as well is the issue that deserves careful consideration.

⁸ I am grateful to the referee for pointing to a declining number of switchers during the period under study. This is probably another consequence of stricter labor market legislation that reduced labor market flows significantly. In the period between 1997 and 2002, the number of switchers shrank 20 percent.

rest were employed on a permanent (40.6) or temporary (4.8) basis. Women had a higher non-participation rate than men, with fewer women permanently employed or self-employed. About 0.4 percent of the sample consists of foreign nationals. If we group the respondents by labor market status and age, we find out that young adults (20-24) are the age group exhibiting the highest unemployment to the population ratio of almost twice the total sample average. This is essentially due to the typically very high inactivity rate of young teenagers (15-19), which stands at over 90 percent in the Slovenian case as a consequence of the high level of education attainment. The unemployment rate of young teenagers is around 61.1 percent, more than double than that of young adults (20-24) and about 4 times higher than that recorded for the average sample. This group is the most likely to enter long-term unemployment. While the unemployment rate of young adults is half that of young teenagers, it is numerically conspicuous. The unemployment rate declines gently with age up to the over 55, when it rises again to 22.7 percent, perhaps a heritage of the structural change brought on by economic transition during the 1990s.

	Me	en	Wor	nen	TO	AL
	1997	2002	1997	2002	1997	2002
Students	12.36	13.91	11.74	13.68	12.03	13.79
Other inactive	24.97	25.74	37.04	36.25	31.24	31.22
Unemployed	10.08	8.68	8.67	7.94	9.35	8.29
Permanently employed	43.28	44.81	36.12	36.74	39.56	40.6
Temporarily employed	4.71	4.82	4.60	4.75	4.65	4.78
Self-employed	4.61	2.05	1.83	0.65	3.16	1.32
TOTAL	100	100	100	100	100	100

About 10 percent of the employees are employed on a temporary basis, which is quite high compared to the EU average of 13.7 in 1998. Comparing labor market statuses by level of education attained we see that the highest non-participation rate is that of individuals with no education (without any or with incomplete compulsory education) or with compulsory education only. Similarly, the unemployment rate is the highest for those two groups and it falls when moving

to groups of individuals with higher education.⁹ A much lower than average unemployment rate is found among persons holding a bachelor or a university degree, suggesting that education is an important variable in predicting the probability of being active or employed in the labor market.

Research on the labor market participation of people follows the assumption that their labor market status is mutually exclusive. According to their answers to similar questions in the surveys, respondents have been grouped into one of three homogeneous statuses:

- Inactivity, including those still undergoing compulsory schooling, vocational schooling, apprenticeship, academic or university education as well as those holding domestic unpaid jobs, being on maternity leave, undergoing military service or involved in other activities;
- Unemployment, including those who are jobless, but actively seeking a job;
- *Employment*, including those holding permanent or temporary paid jobs or the self-employed.

The switchers are identified as the individuals within a group of the employed who successfully or unsuccessfully switched between different labor market statuses in a given year (inactivity to employment, unemployment to employment) or moved successfully from one employer to another. Unfortunately, we are unable to detect the individuals who had the intention to move but failed to do so for various reasons. From the sample of individuals older than 15 but younger than 65, I eliminated students, retired individuals¹⁰ and workers who are employed in agriculture.

⁹ Interestingly, the only exemption is the group with a four-year bachelor degree, where the unemployment is higher than in the group with a three-year bachelor degree. One possible reason lies in the fact that this academic qualification was introduced in the education system recently (the first graduates entered the labor market in 2000) and hence, the group consists mostly of first-time job seekers.

¹⁰ Due to unfavorable legislation retired people are not motivated to gain other employment once they receive their full pension.

If we compare the sub-sample of switchers to the complete labor force survey sample for year 2002¹¹, we can observe some differences. Among all switchers, 69 percent had secondary and 20 percent tertiary education while the representation of individuals with such an education level in the full sample is 21 percentage points lower. Obviously, prime age (age 20-29) single men are more likely to belong to the group of actual or potential switchers.

5 Results

Based on Equation 4 that represents the core of the estimating equation, I ran probit in order to predict the probability that an individual would switch his/her labor market status based on individual characteristics. The summary statistics of those characteristics are presented in Table 2. Unfortunately, due to data limitations, we can not check for firm level characteristics. The control group of people is represented by single inactive women who attained primary education and are more than 30 but less than 40 years. Based on the yearly estimations that are presented in Table 3, we can see that the level of attained education did not affect the individual probability of switching different labor market statuses (inactivity or unemployment) to employment or from one type of employment to another. However, in 2002, individuals with a higher education level were more likely to switch into employment, indicating that education gained a signaling effect and people with higher education were more likely to be employed than people with lower educational attainment. Also, young people were more likely to switch their labor market status than their older counterparts. But if we control whether they are married or not their probability of switching decreases significantly and becomes negative, although insignificant. Obviously, "being married" as an individual characteristic in the case of older counterparts does not play a significant role anymore, indicating that marriage in itself is not treated as a negative factor.

¹¹ Differences are very similar from one year to another. Other tables can be obtained from the author upon request.

(in %)				
VARIABLES	Switchers	Full sample		
Individuals with primary education	9.44	25.2		
Individuals with secondary education	69.44	56.93		
Individuals with tertiary education	20.36	12.89		
Individuals older than 15 but younger than 19	4.90	7.97		
Individuals older than 20 but younger than 29	54.96	19.49		
Individuals older than 30 but younger than 39	19.50	14.05		
Individuals older than 40 but younger than 65	18.15	56.74		
Unemployed receiving unemployment benefits among all unemployed	33.92	27.26		
Unemployed	38.40	51.11		
Married	36.81	60.21		
Male	52.88	48.78		
Young married individuals	8.22	3.04		
Number of observations	815	17833		

Table 2	Proportion of Particular Groups in Switchers and Sample Population in 2002
	(in %)

Source: Author's calculations based on LFS data.

Rather, it is related to higher costs that employers have if they employ parents with voung children.¹² Results also show that the least motivated group of switchers might be that of unemployed people who receive unemployment benefits. Obviously, the government's social benefit system acts in a rather perverted fashion. Instead of helping people in their difficulties over a short period without a regular income, state unemployment benefits motivate them to remain unemployed as long as possible.¹³ If they lose benefits, their probability of switching increases substantially.

¹² With one of the most generous system fostering motherhood in the world (100 percent income coverage, possibility of extending maternity leave up to three years, etc.) Slovenia creates an environment that works implicitly against those who would like to set up a family. In order to minimize the costs associated with labor employers are reluctant to hire young married couples as they do not want to cover all the benefits that young parents are entitled to. However, it is beyond the scope of this paper to analyze potentially discriminatory actions of employers against the individuals who should take care of younger children.

¹³ As described by Vodopivec (2004), Slovenia had one of the most generous passive labor market policies among all transition countries in that period. Although the system has been reformed to a degree, it is very comparable to the system adopted by developed EU countries. Unemployed workers in Slovenia may apply for unemployment benefits that range from 3 months' pay for workers with few years of service to 24 months for workers with longer service and older workers. The replacement rate in the period under study (1997-2002) was 70 percent in the first three months and dropped to 60 percent thereafter. In most other transition countries, the potential duration of eligibility is between 6 and 12 months. In the 1990s, the generosity of unemployment benefits index (defined as a product of the replacement rate and the share of compensated unemployed among all unemployed) standing at 21.8 in Slovenia was the highest among all transition countries, or well above the CEEC average of 12.7 (Vodopivec, 2004).

Table 3 Probability of Switching Labor Market Statuses to Employment	arket Statuses to	Employment				
Independent variables ⁽¹⁾	1997	1998	1999	2000	2001	2002
Secondary education	0.029 (0.038)	-0.019 (0.035)	-0.035 (0.033)	-0.002 (0.014)	0.073 (0.049)	0.059 (0.044)
University education	0.042 (0.046)	0.012 (0.043)	0.020 (0.042)	0.006 (0.018)	0.044 (0.050)	0.115*** (0.033)
Age: 15-19	0.204*** (0.037)	0.195*** (0.025)	0.180*** (0.024)	-0.025 (0.082)	0.226*** (0.019)	0.090 (0.042)
Age: 20-29	0.212*** (0.047)	0.204*** (0.046)	0.213*** (0.043)	-0.080** (0.040)	0.160*** (0.052)	0.094** (0.048)
Age: 40-65	0.015 (0.040)	0.026 (0.035)	-0.009 (0.034)	-0.076** (0.048)	0.107 (0.034)	-0.047 (0.043)
Unemployed receiving unemployment benefits	-0.545*** (0.060)	-0.758*** (0.039)	-0.761*** (0.054)	-0.384*** (0.245)	-0.672*** (0.095)	-0.700*** (0.081)
Unemployed	0.229*** (0.030)	0.212*** (0.022)	0.088 (0.046)	-0.084*** (0.023)	0.101*** (0.033)	0.145*** (0.022)
Married	-0.005 (0.048)	0.028 (0.044)	0.017 (0.042)	-0.031 (0.035)	0.022 (0.053)	0.020 (0.045)
Male	0.027 (0.028)	-0.026 (0.026)	0.010 (0.024)	0.003 (0.010)	0.024 (0.030)	0.041 (0.026)
Married + young	-0.092 (0.076)	-0.157** (0.078)	-0.142** (0.075)	0.025 (0.009)	-0.015 (0.077)	-0.138 (0.091)
Number of observations	1089	1124	1199	767	803	815
Log likelihood	-583.38	-518.19	-560.65	-118.92	-400.48	-326.35
Pseudo-R ²	0.109	0.149	0.102	0.181	0.073	0.141

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Note: Standard errors are reported in parentheses. *, *** and **** corresponds to significant coefficients at 10%, 5% and 1% level. Source : Author's calculations.

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6 Conclusion

Employment policies and labor market institutions are often targeted at some specific demographic groups, particularly those facing more difficulties in finding jobs (youth, female, long-term unemployed). However, as many empirical studies confirm, the effect of such policies on different population groups can be very different (Nickell and Layard, 1999). Broadly speaking, there are two streams in the empirical literature discussing the labor market effects of institutions. First, there are cross-country studies that use some quantitative and qualitative indicators representing those institutions to explain international differences in labor market outcomes (such as unemployment and employment rates). The second stream of literature looks at the specific country episodes and tries to evaluate the impact of reforms (like Kugler et al. (2003) did for Spain, Blanchard and Landier (2002) for France or Galiani and Hopenhayn (2003) for Argentina). This paper contributes to the second stream of literature by analyzing a specific group of people that are discriminated against most probably due to rigid employment regulation in Slovenia. This is done in a sound analytical framework where employment regulation is captured in the model of adverse selection and incomplete information.

The paper finds out that high dismissal costs, created mostly by the adverse selection model and rigid legislation, introduce certain distortions on the labor market that are not similar for all the groups of potential or current employees. The highest probability of switching from unemployment or inactivity to employment or from one employer to another is detected among prime age population (20-29 years old) while in 2002, the probability of switching increases substantially for individuals with tertiary education. Young people who were already married at the time of the survey have a substantially lower probability of improving their labor market status.

The second important conclusion is that there is also evidence of selfdiscrimination by the unemployed who are entitled to participate in unemployment benefits schemes. Such people are obviously not motivated to look actively for a job. Slovenia will have to remodel financial incentives to get the unemployed back to work (Boone and van Ours, 2006). Several studies show that a deterioration of the embodied human capital is positively linked with the spell of unemployment. An inefficient benefits system ruins the human capital implicitly and reduces the probability of finding employment of such people in the long-run.

Literature

Acemoglu, Daron, Simon Johnson and James A. Robinson, 2001, "The Colonial Origins of Comparative Development: an Empirical Investigation", *American Economic Review*, 91(5), pp. 1369-1401.

Becker, Gary and Casey B. Mulligan, 2003, "Deadweight Costs and the Size of Government", *Journal of Law and Economics*, 46(2), pp. 293-340.

Blanchard, Olivier J. and Augustin Landier, 2002, "The Perverse Effects of Partial Labor Market Reform: Fixed Duration Contracts in France", *Economic Journal*, 112(480), pp. F214-F244.

Bolaky, Bineswaree and Caroline L. Freund, 2004, "Trade, Regulations, and Growth", World Bank Policy Research Working Paper, No. 3255.

Boone, Jan and Jan C. van Ours, 2006, "Modeling Financial Incentives to Get Unemployed Back to Work", *Journal of Institutional and Theoretical Economics*, 162 (2), pp. 227-252.

Botero, Juan, Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes and Andrei Schleifer, 2004, "The Regulation of Labor", *Quarterly Journal of Economics*, 119 (4), pp. 1339-1382.

Djankov, Simeon, Caralee McLeish and Rita Ramalho, 2006, "Regulation and Growth", unpublished manuscript, World Bank.

Domadenik, Polona, Janez Prašnikar and Jan Svejnar, 2003, "Defensive and Strategic Restructuring of Firms during the Transition to a Market Economy", William Davidson Institute Working Paper Series, No.541.

Domadenik, Polona, Robert Kaše and Nada Zupan, 2006, "Flexibility throught labor market regulation: Comparing Slovenia with other European Countries", in Janez Prašnikar, ed., *Competitiveness, Social Rresponsibility and Economic Growth*, New York: Nova Science, pp. 137-150.

Hall, Robert E. and Charles I. Jones, 1999, "Why do some countries produce so much more output per worker than others?", *Quarterly Journal of Economics*, 144 (1), pp. 83-116.

Galiani, Sebastian and Hugo A. Hopenhayn, 2003, "Duration and Risk of Unemployment in Argentina", *Journal of Development Economics*, 71(1), pp. 199-212.

IMD, 2006, IMD World Competitiveness Yearbook 2006.

Kugler, Adriana, Juan F. Jimeno and Virginia Hernanz, 2003, "Employment Consequences of Restrictive Permanent Contracts: Evidence from Spanish Labor Market Reforms", IZA Working Paper, No. 657.

Kugler, Adriana D: and Gilles Saint-Paul, 2004, "How Do Firing Costs Affect Worker Flows in a World with Adverse Selection?", *Journal of Labor Economics*, 22, pp. 553-584.

Mortensen, Dale T. and Christopher A. Pissarides, 1994, "Job Creation and Job Destruction in the Theory of Unemployment", *The Review of Economic Studies*, 61(3), pp. 397-415.

Nickell, Stephen and Richard Layard, 1999, "Labour market institutions and economic performance", in Orey Ashenfelter and David Card, eds., *Handbook of Labor Economics*, Vol. 3, Amsterdam: North Holland, pp. 3029-3084.

Orazem, Peter and Milan Vodopivec, 1995, "Winners and Losers in Transition: Returns of Education, Experience and Gender", *World Bank Economic Review*, pp. 210-230.

Porter, Michael E. and Klaus Schwab, eds., 2006, *Global competitiveness report 2005-2006: Policies Underpinning Rising Prosperity*, Oxford: Oxford University Press.

Riboud, Michelle, Carolina Sanchez-Paramo and Carlos Silva-Jauregui, 2002, "Does Eurosclerosis Matter? Institutional Reform and Labor Market Performance in Central and Eastern European Countries", World Bank Technical Paper, No. 591.

Stigler, George J., 1971, "The Theory of Economic Regulation", *The Bell Journal of Economics and Management Science*, 2(1), pp. 3-21.

Vodopivec, Milan, 2004, "Labor Market Developments in the 90s", in Mojmir Mrak, Matija Rojec and Carlos Silva-Jauregui, eds., *Slovenia - From Yugoslavia to the European Union*, Washington: World Bank, pp. 292-315.

World Bank, 2006, *Doing Business in 2006: Creating Jobs*, Washington, D.C.: The World Bank.