Teo Matković
Social work study centre

Zagreb Law School

Nazorova 51
10000 Zagreb
Croatia

Phone:
Fax:
Email: Teo.Matkovic@pravo.hr

Vedran Šošić
Ministry of foreign affairs and European integration
Mission of the Republic of Croatia to the EU
Avenue des Arts, 50
B-1000 Brussels
Belgium

Phone: + 32-2-507-54-61
Fax: + 32-2-646-56-64
Email: Vedran.Sosic@mvpei.hr

EU integration and Croatian labour market flexibility

Abstract

This paper seeks to identify the extent of labour market flexibility in Croatia. It measures different dimensions of flexibility using a range of various indicators and compares them against available indicators for EU member countries.

The presented evidence runs counter to some of the previous research as several of the selected indicators point to significant flexibility in their domains. However, there also remain some weak points where appropriate policies need to be designed in order to bring the expected flexibility.

Introduction

Although labour market flexibility became central issue in many discussions on employment, productivity, competitiveness and economic and monetary integration, economists still lack a comprehensive framework to assess it. This paper utilizes the classification developed by Monastiriotis (2003) in order to assess Croatian labour market flexibility against the EU member countries while allowing for different components of flexibility. While such an approach tolerates specialization of countries in different types of flexibility and allows identification of strengths and weaknesses exhibited by particular countries, there is no straightforward way to aggregate across different dimensions and rank their relative positions.

First chapter briefly addresses the literature on labour market reform in EU countries and questions why transition countries that recently acceded to the EU, as well as those on the way to accede, may be keen to promote labour market flexibility. The second chapter elaborates on the concept of labour market flexibility and different types of labour market flexibility. The third chapter explores in detail the particular features of the Croatian labour market flexibility and where it is possible, benchmarks the performance against the labour markets of the EU member states and other advanced economies. Finally, the paper concludes by highlighting the particular strengths and weaknesses of the Croatian labour market and identifies main points for future research.

Why labour market flexibility?

There are many authors documenting the move towards more flexible labour markets that has taken place in EU member countries for the past two decades. The shift was both substantial and wide-ranging as it was noticed in many different dimensions. Garibaldi and Mauro (2002) note that EU member countries in aggregate undertook about 40 reforms that reduced the stringency of the labour market regulations during the 1986-2000 period. Fundamental reforms with significant impact were especially frequent in the second half of the 1990's. Reforms aimed at easing the tax burden on labour and increasing the attractiveness of employment were even more numerous as

their number exceeded 90 over the same period. The same authors document the resurgence of employment growth that took place in the Continental Europe since the mid-1990's and attribute it to the magnitude of the conducted reforms. Analogously, Moure (2004) finds a break in the employment function of the euroarea as GDP growth became more job intensive, ant dates this break to 1997. He offers a list of possible candidates to account for recent employment growth, including transformation of labour market institution. Further on, Borghijs, Ederveen and de Mooij (2003) note the tendency for introduction of more decentralised wage setting institution in EU countries over the past two decades. Finally, Boeri (2004) reports fall of the labour market rents in EMU member countries in the second half of the 1990's.

The source of these tendencies is to be found in deliberate policy efforts to reach several prioritized developmental goals:

- First of all, since there is a significant gap in employment rates between the EU and US, employment growth was clearly an important policy objective for most EU member states.
- Moreover, it was formalized by the Lisbon European Council Presidency conclusions in 2000 as their prime policy goal. Further on, GDP growth rates have consistently been lower in EU than in the US throughout the 1990's. As recent OECD findings (Scarpetta, Hemmings, Tressel and Woo, 2002) suggest that dismissal barriers may impede productivity growth, increasing labour market flexibility may be an important precondition for the fast productivity growth.
- Finally, labour market flexibility became an overarching issue with the advent of the monetary union. It is an important optimality criterion with respect to the entrance into the EMU because a low degree of labour market flexibility could be more costly inside the monetary union than outside it due to loss of the independent monetary and exchange rate policies (HM Treasury, 2003).

Policy priorities in Central and Eastern European countries did not necessarily reflect those of the EU and EU coordination of the labour market regulation remains "soft", but Schüttpelz (2006) nevertheless document the importance of European policy

initiatives on accession countries. Even more, labour market flexibility remains one of the important preconditions for successful transition and integration into the EU for at least two reasons. First of all, many researchers considered sufficient degree of labour market flexibility to be a requirement for good performance during the transition period as it facilitates restructuring of production and labour away from large, state owned enterprises to small, private sector enterprises (Haltiwanger and Vodopivec, 2003). Further on, economic integration in general, and particularly integration of the Central and Eastern European countries into the EU, induces the need for significant labour market adjustment (Landesmann and Stehrer, 2001; Faucompret, Konings, and Vandenbussche, 1999). Such adjustment involves convergence towards the employment and wage structures that are still unknown at present, but it is known that adjustment is likely to require a significant labour reallocation. Therefore, in order to successfully complete the transition, smoothly function within the EU and upon the EMU entry, Central and Eastern European countries clearly need to achieve at least a comparable level of labour market flexibility. However, it is not always apparent what is meant by the labour market flexibility. Therefore, the concept of the labour market flexibility will be elaborated in the following chapter. It will be followed by an evaluation of the Croatian labour market flexibility in accordance with the adopted concepts.

What is labour market flexibility?

According to Monastiriotis (2003), labour market flexibility refers to the extent to which labour market forces determine labour market outcomes, or absence of any factors entering the labour market other than supply and demand. This approach looks at flexibility as an outcome, which is possible to measure, rather than some unrealized potential. However, labour market flexibility is neither uniform nor homogeneous and it can, therefore, be decomposed in different ways. One of the traditional ways, to do it as pioneered by Atkinson (1984.) is to measure it along two axes: numerical versus functional and internal versus external flexibility. This decomposition gives four different types of flexibility: internal numerical flexibility (adjustability of labour inputs already employed by the firm – working hours, working time, leave and holidays), external numerical flexibility (adjustment by exchange with the external

labour market, inflows of workers as well as their outflows), internal functional flexibility (ability to improve efficiency by reorganizing the methods of production and labour content) and finally external functional flexibility (ability to externalize or diversify parts of production through sub-contracting). Some of these categories are extensively used in practice (see, for example, Lowther, 2003). Monastiriotis (2003) prefers to take somewhat wider perspective encompassing three different broad domains of flexibility: production function flexibility, labour costs flexibility and supply side flexibility, which further collapse into smaller sub-domains.

Table 1 Types of labour market flexibility

Labour market flexibility						
Production-function		Labour-costs			Supply – side	
		Wage costs (pay)				
Flex. in labour input (external numerical)	Flex. in work content (internal numerical)	Determination of reservation wages	Determination of average wages	Flex. in non-wage costs	Labour mobility	Flex. in skills acquisition

Source: Monastiriotis (2003)

There are many possible impediments to flexibility, defined in this manner. Employment protection legislation and other regulations are not sole forces shaping labour market flexibility, but they are often prominent in practice. Also, regulations are more likely to affect some dimensions of flexibility, like numerical flexibility or flexibility in labour input and labour mobility, rather than others. Therefore, it is possible for the labour market to retain a certain level of flexibility regardless of increased regulation due to compensating trends in other areas, and conversely, more flexible regulation not to bring expected increases of the overall flexibility. For example, Abraham and Houseman (1993) find that adjustment of the employment level to fall in demand is much slower in Belgium and Germany than in the United States, but adjustment in the hours of work is similar, which means that internal flexibility almost fully compensates for the lack of external flexibility. However, it is also possible that different restrictions sometimes reinforce each other. For instance, stricter firing regulation is likely to increase insider power of employees and hence reduce wage flexibility (Rutkowski, 2003).

Although comprehensive, described approach to labour market flexibility also has some weaknesses that make its application rather difficult. First and foremost, it makes every attempt to compare different configurations of labour market outcomes very difficult, regardless whether one is interested in measuring a distance between different economies or simply in their relative rankings. Gruber (2004) offers a methodology to integrate certain indicators within individual dimension (namely labour costs) on the basis of their policy relevance. This is a step in good direction, which still needs to be expanded further in order to create comprehensive indicators of labour market flexibility that are suitable for comparison purposes.

How flexible is the Croatian labour market?

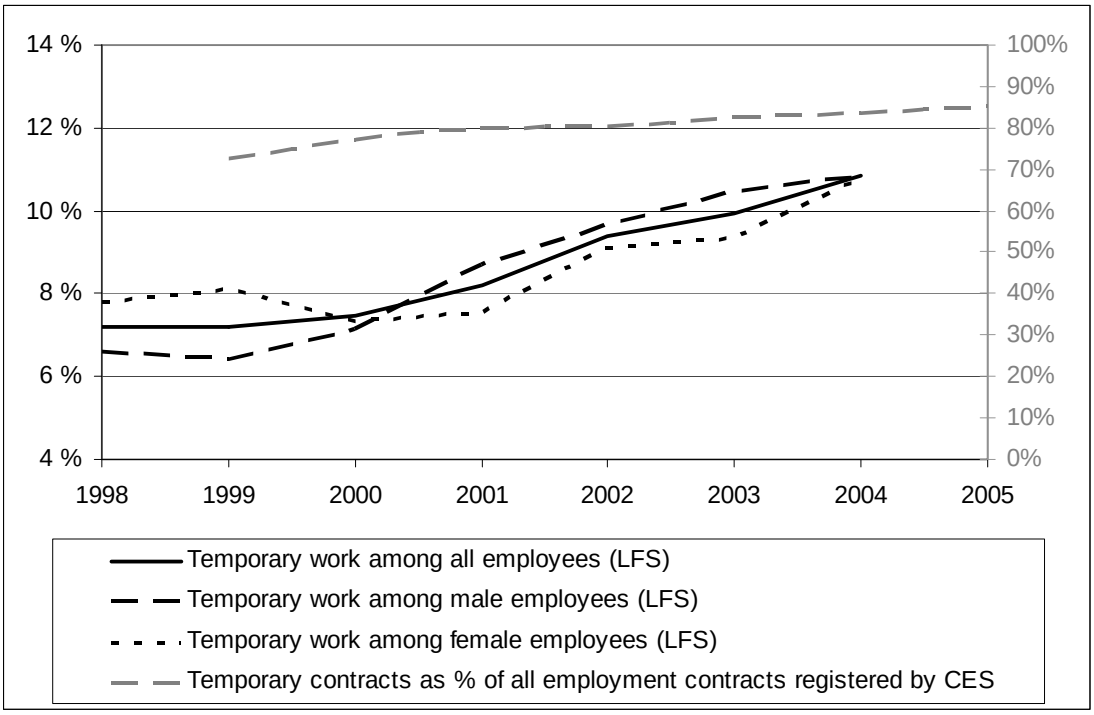
There is a wide range of different observable indicators that can be associated with labour market flexibility. Nevertheless, as there is significant overlap between different types of flexibility, it has to be kept in mind that most indicators used do not correspond directly and exclusively to one group only.

Production function flexibility

The extent of production function flexibility or external numerical flexibility could be approximated by indicators of flexible employment, such as fixed-term employment, contracts over a fixed task and seasonal work. The share of newly employed with fixed-term contracts steadily grew from the range of 50% to 60% in 1995, passing 80% mark in 2001 and standing at 85,6 of all the new contracts registered at the Croatian Employment service in 2005. Consequently, the fraction of persons with fixed-term contracts among all employees, as measured by LFS, expanded as well, rising since 2001 by an annual average of 0.85 percentage points and reaching 10.5% in 2004 (figure 1) . Despite recent growth, this figure is still less than the average (14.2%) yet higher than median (9,9%) share of temporary contracts in EU member states (2nd quarter of 2005). When seasonal workers are added, the share for 2005 increases to about 12.4% of employees in Croatia, providing for a place slightly above the median, along with Greece and Germany. However, the average duration of

temporary contracts in Croatia is extremely short as according to the 2002/2 Labour force survey only 8.9% of temporary contracts exceeded 12 months in duration, down from 15% in 1997.

Figure 1 Temporary employees as percentage of total number of employees (left scale) and share of temporary contracts among all the employment contract registered with Croatian Employment Service (right scale).



Sources: Croatian employment service and Labour Force Survey.

Note: figure does not include seasonal workers.

High share of temporary employment is usually associated with high dismissal costs for workers with regular contracts in some of the EU member countries. However, stringent regulation of temporary contracts may cancel this relationship as it restricts the scope of permissible cases for engagement of such workers. Relatively modest level of formal temporary employment in Croatia despite fairly high sub-index of employment protection legislation for regular workers seemed to result exactly from such a pattern. Up until 2003 employment protection legislation sub-index for regular contracts was slightly above the average value for the EU, while the sub-index for temporary employment was way higher that the value of this index in any EU member country and it significantly contributed to the high value of the aggregate employment protection legislation index. Therefore, during the late 1990s employers often resorted to a number of strategies to avoid restrictions imposed on formal fixed-term

employment. Principal amongst those were the use of seasonal contracts and non-employment contracts (former accounting for 2.0 and later for 2.9 of total employment in 1997), as well as informal work. A significant relaxing of temporary employment legislation in Labour law reform of 2003, coupled with way more modest relaxation of regular employment legislation and introduction of contributions for non-contract work increased the share of temporary contracts amongst the newly employed, but resulted in only a moderate growth in level of overall temporary employment[1]. As these restrictions used to constrain the longest duration of temporary contract (or cumulative duration of several subsequent contracts) to a maximum of three years (two years prior to the reform), employers were compelled to let temporary workers churn between employment and unemployment, thus increasing labour market segmentation (Račić et al, 2005).

Table 2 EPL index and indicators of temporary employment (2001).

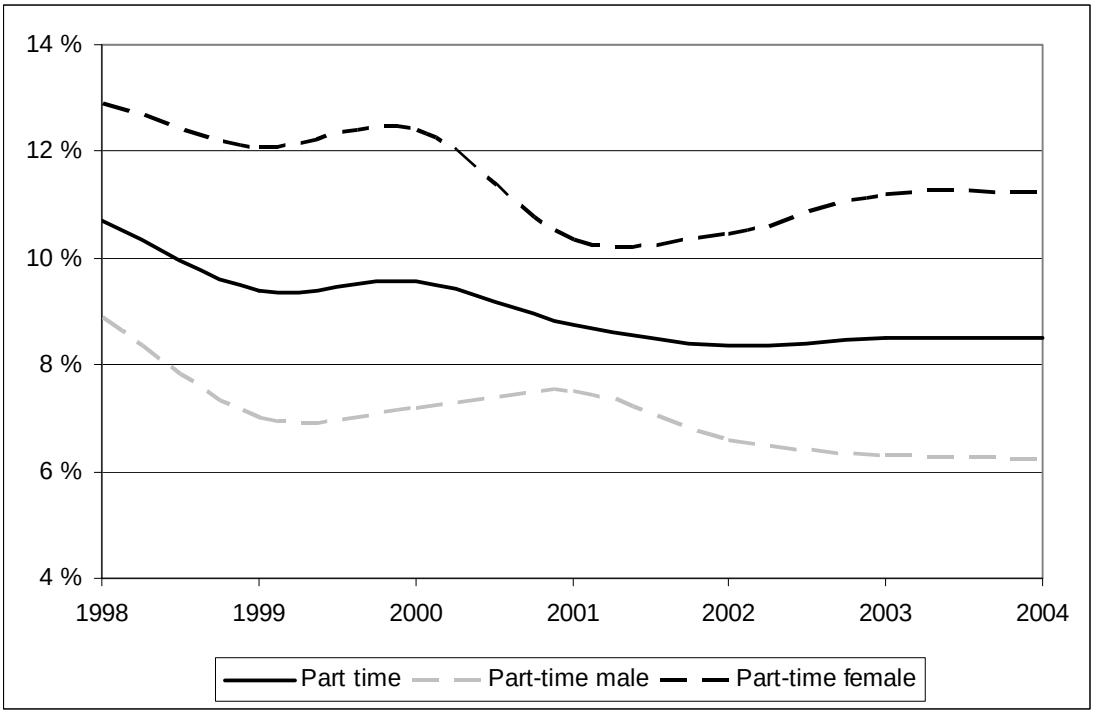
	EPL sub-index - regular employment	EPL sub-index - temporary employment	Aggregate EPL index	Temporary employees (% of total – annual average)
Austria	2.6	1.8	2.3	7.3
Belgium	1.5	2.8	2.5	7.6
Denmark	1.6	0.9	1.5	12.0
Finland	2.1	1.9	2.1	17.2
France	2.3	3.6	2.8	14.1
Germany	2.8	2.3	2.6	12.0
Ireland	1.6	0.3	1.1	5.3
Italy	2.8	3.8	3.4	9.8
Netherlands	3.1	1.2	2.2	14.1
Portugal	4.3	3.0	3.7	21.7
Spain	2.6	3.5	3.1	31.1
Sweden	2.8	1.6	2.6	15.2
UK	0.8	0.3	0.9	5.9
EU average	*2.4*	*2.1*	*2.4*	*13.0*
EU median	*2.6*	*1.9*	*2.5*	*12.0*
Croatia - until 2003	2.8	3.9	3.5	10.9 (2001.)
Croatia - from 2004	2.6	2.6	2.7	12.4 (2005.)

Sources: OECD (1999), Eurostat and Biondić and Matković (2003)

[1] As well, non-contract employment was phased out, halving from 2,9 to 1,5 between 1997 and 2002 , while seasonal employment dropped from 2 to 1.3 (Crnković-Pozaić, 2003), where it stayed since.

The extent and dynamics of internal numerical flexibility can be described with indicators of working schedules, such as work in shifts and on weekends. Apart from work in night and evening shifts which is direly underrepresented in Croatia, incidence of other work schedules does not deviate a lot from the European average, weekend work actually being more prevalent than in most member states. Within the last few years, presence of weekend work has increased, while all shift-based work arrangements have become less frequent.

Figure 2 Workers working shorter than normal hours



Source: Labour Force Survey

Working time flexibility is one of most expansive ways of coping with labour flexibility in Europe – and one of generally best accepted ones on the workers' part. Croatia follows the choir in respect that such work is more common among females, old and young, yet it departs from the general trends with percentage of part-time workers decreasing within the past decade. On closer observation, it turns out that for whole decade, about 60% of part-time work is being performed by persons self-employed as subsistence farmers. As of 2004, only 2.8% of persons employed outside the agriculture worked part-time, equaling only about one-seventh of EU average, with annual growth of only about 0.1% over the 1998-2004 period. Yet, most of those 2.8% are self-employed persons. Part-time work as a form of employment contract is

barely present; according to survey of incorporated businesses, in spring of 2004 only 1.4% of employees were working short hours (up from 1.0% in 1999), two thirds of them within the niche education sector. Such inflexibility in working time arrangements is not least thanks to inadequate legal provisions regarding insuring and taxing part-time work (Zuber, 2006). Not unlike other countries where part-time employment is barely present, about 40% of those working so are not doing it out of their own willing.

Table 3 Indicators of work content flexibility (2001)

Usually work:	Croatia 2001	Croatia 2004	EU-15 min	EU-15 max	EU15 average
in shifts	20.9	19.7	5.0	24.4	15.7
in the evening	5.5	5.3	4.5	30.6	18.3
at night	2.4	2.3	2.1	12.5	7.0
on Saturday	24.4	25.8	9.6	41.3	27.8
on Sunday	12.7	13.2	4.0	17.6	11.7
part-time (w/o agriculture)	2.5	2.8	2.7	40.8	16.9

Source: Central Bureau of Statistics (2002, 2005)

Wage costs flexibility

There are several different ways to look at wage flexibility. One of the approaches looks at the responsiveness of real wages to unemployment. Real wage flexibility in Croatia seems especially low from this perspective as real wages continued to grow at high rates throughout the second half of the 1990's despite growing unemployment. Average total wage cost in Croatia is the second highest amongst all Central and Eastern European countries (next to Slovenia). Since the level of labour productivity in Croatia is not as exceptional, the level of unit labour costs in Croatia was recently higher than its level in any of the transition countries acceding to the EU and above the EU average[2] (Nacionalno vijeće za konkurentnost, 2005). Although averaged GDP growth rate in the 2001-2005 period increased by more than one percentage point over the average for the 1996-2000 period (from 3.4% to 4.7%), average real net wage growth in the later period was less than half the growth rate in the former period, as it decreased from 7.8% to 3.0%.The consistent policy of nominal wage moderation and restrained wage growth conducted in the public sector contained

wage pressures across the economy and labour costs since the early 2000's, which somewhat improved indicator of unit labour costs. As well, wage differences between economic sectors have significantly decreased since late 1990s.

Table 4 Unemployment and wage dynamics in Croatia

	Registered unemployment change (thousands)	Real wage growth (%)	GDP change (%)
1993	-17.9	-14.7	-8.0
1994	4.5	38.1	5.9
1995	1.5	44.1	6.8
1996	20.2	7.2	5.9
1997	17.9	12.3	6.8
1998	15.6	6.0	2.5
1999	39.0	9.6	-0.9
2000	36.8	4.1	2.9
2001	16.6	2.6	4.4
2002	-29.0	3.3	5.6
2003	-47.5	4.0	5.3
2004	-1.1	3.7	3.8
2005	-9.7	1.5	4.3

Sources: Croatian employment service and Central Bureau of Statistics

A more formal approach seeks to test the sensitivity of wages to unemployment. Gruber (2004) recently suggested the following specification of a wage setting equation:

$\Delta nw_t = c_1 + c_2 * \Delta u_{t-j} + c_3 \Delta p^e_{t-k} + \varepsilon_t$

where Δnw_t is the change of nominal wages (expressed in logarithms), Δu_{t-j} is change in the unemployment rate (with j lags) and Δp^e_{t-k} change in consumer price level (with k lags, all in logarithm) expected by the workers (approximated with the actual inflation rate). If wages respond to the unemployment, than the coefficient on wages should be negative, while the size of the coefficient indicates the level of wage flexibility.

Table 5 Regression results

	c_t	u_t	p_t
Coefficient	0.009	0.185	-0.045
Standard errors	(0.003)	(0.100)	(0.330)

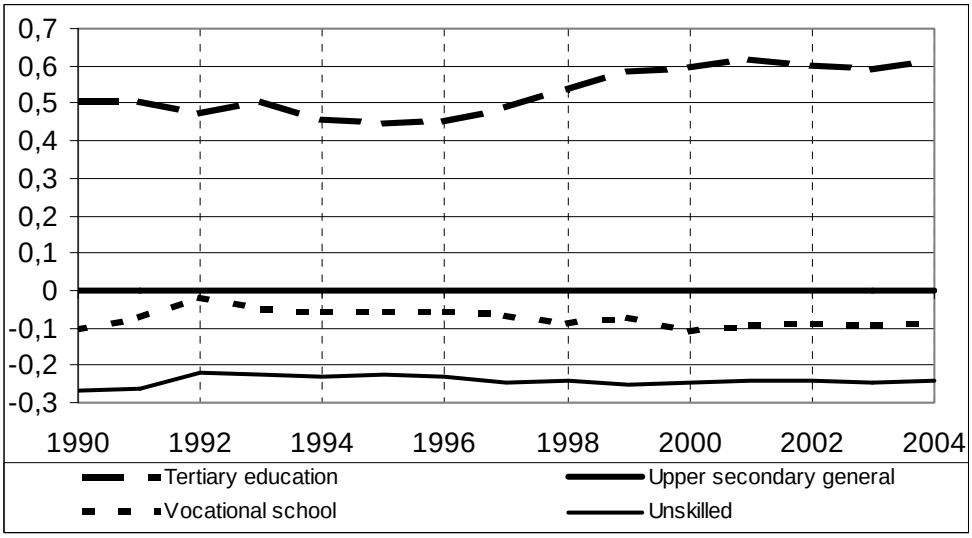
[2] Croatia yet has to adjust the official GDP and subsequently the productivity data for the share of gray economy, which would somewhat improve the unit labour cost indicator.

R-square	Adj. R-square	N
0.36	0.25	36

The regression was performed using a quarterly data on average net wage, registered unemployment rate and consumer prices for the 1997-2005 period. Coefficient on the unemployment variable is of a wrong sign, but statistically significant, indicating that wages did not respond to changes in registered unemployment rate in the expected way. However, this result might be the property of activation measures introduced in 2002 by the Croatian Employment Service (significantly reducing the registered unemployment over subsequent years) or the importance of administrative wage setting.

Another approach to assessment of wage flexibility looks at the variability of relative wages between workers possessing different skills. Similar to average wage dynamics, evolution of relative wages during most of the 1990's points to significant wage rigidity. Unlike relative wage behaviour in other transition countries where skill wage premium quickly rose at the onset of transition, skill premium in Croatia stagnated and changed very little until late 1990's, despite significant losses of jobs held by the unskilled workers and workers with vocational education. There was even some compression of wages, in the early 1990's, especially at the lower end of the scale. However, in the late 1990's there was an improvement in relative wage flexibility as the wage premium for highly skilled labour started to grow, until about 2000 since when premiums for all levels of education stabilized.

Figure 3 Evolution of relative wages according to skills (based on wages of workers with secondary school)



Source: Central Bureau of Statistics

With respect to non-wage costs, situation looks a bit better than described wage flexibility. Government was able to consistently conduct a policy of cutting non-wage labour costs during the previous decade. The labour tax wedge at the level of average gross wages reduced from about 48% of total labour costs in 1995 to about 41% in 2001. This policy was pursued even further as average tax wedge was by 2003 reduced to about 38% and then somewhat increased due to tax progression, but still remained somewhat below the EU average and the corresponding figures in other transition countries of the Central and Eastern Europe. However, even the reductions of labour tax wedge did not contain the growth of wage pressures during the 1990's.

Table 6 Non-wage labour costs (2004)

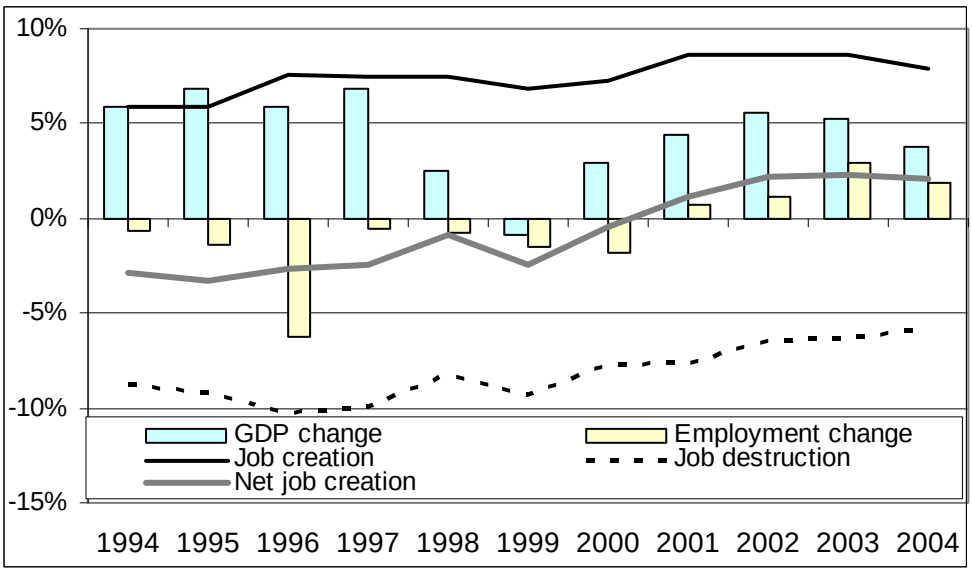
EU-15 maximum	54.2
EU-15 minimum	23.8
EU-15 average	40.8
Selected transition countries	
Czech Republic	43.6
Poland	43.1
Slovak Republic	42.0
Hungary	45.8
Croatia	39.6

Source: OECD and authors calculation

Supply-side flexibility

Job and worker flows are good indicators of labour mobility, although they overlap to a great extent with external numerical flexibility. Overall job and worker mobility does not seem lower in Croatia than in other transition countries or the advanced economies. Average job turnover rate in Croatia during the 1994-2004 period was about 15.6%, which is in middle of the 10 percent-20 percent range of job turnover observed in most market economies (OECD, 1999)[3]. Overall turnover was somewhat higher during the 1990's, as it stood at about 16%, while since 2000 it dropped to about 15.1% due to less job destruction[4]. However, even as the overall turnover decreased somewhat after 2000, it was due to lesser job destruction, while there were actually more new jobs created over that period.

Figure 4 Dynamics of job flows



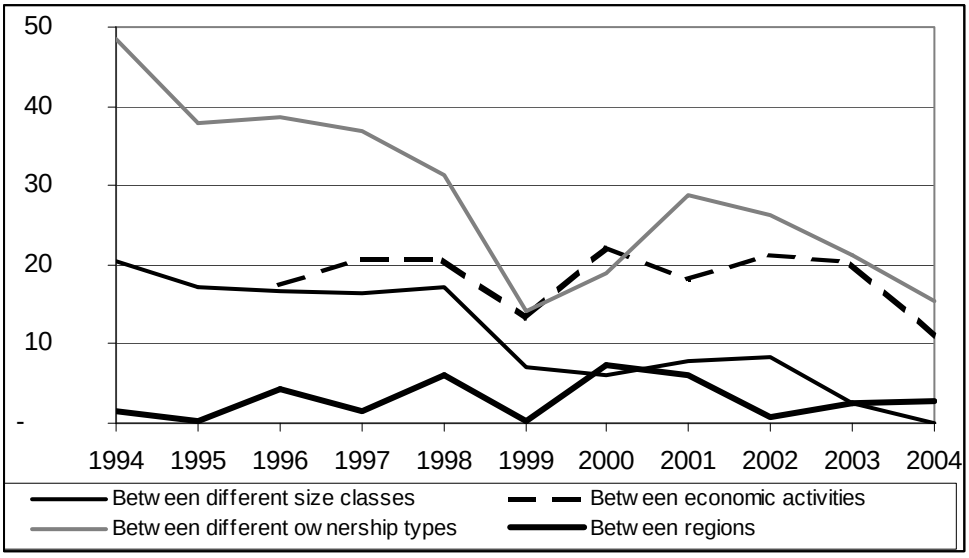
Source: Croatian Bureau of Statistics; authors calculations

[3] Job creation equals employment gains summed over all business units that expanded during the year under observation, while job destruction equals employment losses summed over all business units that contracted during the year under observation. Net job creation equals the difference between job creation and job destruction (and should in principle also equal employment change, but a difference arises due to incomplete coverage and omitted flows). Job turnover equals the sum of job creation and job destruction. Job flows are usually expressed as a proportion of average employment at the beginning and at the end of the period under observation. However, job flows omit both within-firm flows and flows taking place in starting/closing firms.

[4] The data on job flows were extracted from the FINA (financial agency) database of enterprises' annual reports which covers incorporated business sector, excuding trades and crafts.

There is a sharp contrast between job creation rates in de novo private enterprises and all other enterprises, including mixed ownership, majority private as well as fully privatized enterprises. While new, mostly small and medium sized private enterprises exhibit remarkable degree of flexibility, employment adjustment in other enterprises is exceptionally sluggish. While it is not surprising to find high job creation rates in newly established private enterprises, it is interesting to fins that job destruction rates in these enterprises exceeds the average as well. Stringent dismissal regulation obviously restricted the scope of the adjustment in older enterprises employing workers with longer tenures and relocated adjustment to newly established enterprises.

Figure 5 Decomposition of excess job flows (as % of total excess job turnover)



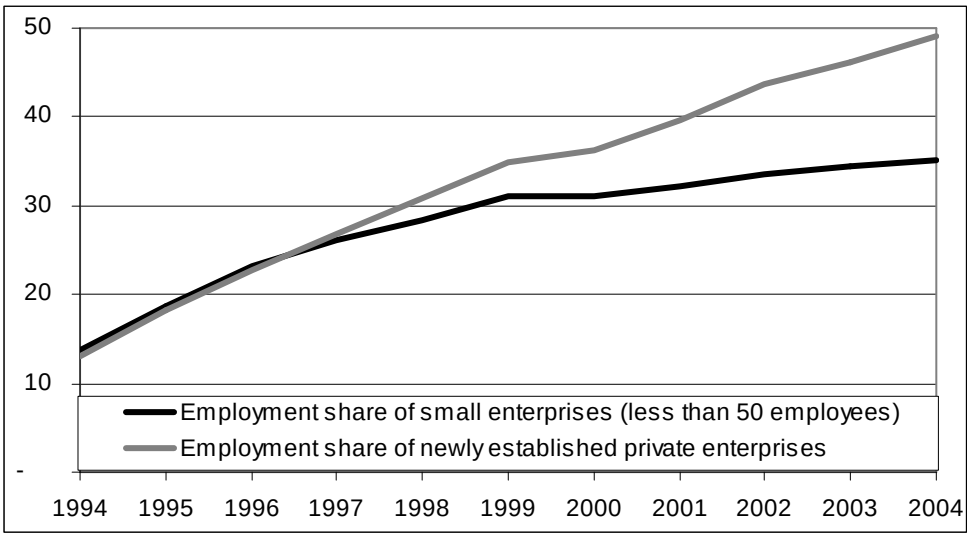
Source: authors calculations

Decomposition of excess job turnover, which represents the part of the total job turnover that is above the amount required to accommodate net employment change, can provide information on the share of jobs that each year "migrate" between different regions, economic activities and types of enterprises[5]. Major part of job reallocation occurred between expanding private enterprises founded anew in

[5] Decomposition of excess job flows depends on the classification of the observed units. According to ownership, we distinguish between four types of government owned (Communal etc., in privatization, privatization not started and mixed - majority st.) and four types of privately owned ("de novo", privatized, cooperative and mixed – majority pr.) enterprises. According to size, we classify enterprises in six classes (between 1 and 10 employees, between 11 and 20, between 21 and 50, between 51and 200, between 201 and 500 and finally enterprises with over 501 employees). Increasing the number of different categories would also increase the indicator of job migration between groups.

transition years and all other enterprises (both state-owned and privatized), as the employment share of former grew from about one-tenth in 1994 to about one-half of total employment in incorporated business sector in 2004. About one fifth of excess job reallocation happened between economic activities (defined at NACE-2 level), which is not particularly low according to international experience. Relocation of jobs from large to small enterprises was also an important until recently, when employment growth dispersed more widely across different groups of enterprises. Finally, data on job flows show that regional mobility is low as only about 3.5% of jobs reallocated between different counties, with the highest level reached in the middle of the observed period. Falling job mobility on all accounts may signal an end to the rapid restructuring phase rather than falling flexibility, which is also supported by only modest reduction of overall job turnover.

Figure 6 Share of small and newly established private enterprises in employment (in % of employment in incorporated business sector)



Source: own calculations

This is supported by actual data on population mobility. According to the official data only about 0.75% of resident population participates in internal migrates between counties (NUTS3 equivalent), whereas net migratory population change at the regional level (broad NUTS2 equivalent) is as low as 0.1-0.2%. In comparison with region-level EU data, even considering lower aggregation level in Croatia (warranting for higher estimates), Croatia is among the lower tier of European countries regarding population (and consequently labour) mobility.

Figure 7 Percentage of population migrating between regions in selected European countries, in 1999 (EU15 members) and 2000 (*new member*s), and Croatia (2002)

Denmark	3.45%
Sweden	3.06%
Netherlands	1.80%
Hungary	1.33%
Belgium	1.26%
Romania	1.09%
Austria	0.89%
Finland	0.83%
Croatia *(inter-county migration)*	*0.75%*
Spain	0.70%
Czech Republic	0.49%
Slovenia	0.30%

Sources: Eurostat, Central Bureau of Statistics

Increasing employment and rising share of temporary contracts made number of workers in Croatia with short tenures (less than one year) in 2002 comparable to other transition countries. However, as there is a gap in the middle of the tenure distribution, average tenure in Croatia is amongst the longest in transition countries. This "hollowing-out" in the middle of the tenure distribution continued until 2004 as the share of the workers with tenures ranging between two and ten years decreased even further, at the expense of workers with less than two years of experience. The fraction of workers with more than twenty years of experience decreased as well, while fraction of those with more than tens years proportionately increased. Consequently, average tenure somewhat decreased, although it was still higher than the corresponding figure in most comparable countries. As most of the shifts in the tenure structure taking place below or above the median tenure, it did not change at all. The magnitude of workers churning between the jobs in Croatia is similar to other countries, but the churning mostly takes place on the short-end of the tenure structure, which is compatible with the duality observed in job flow data. Newly emerged private sector to a great extent relies on younger persons, often employed on a temporary basis and those workers are often faced with excessive job insecurity as such policy of the employers makes their entry into the "core" workforce very hard. This could also be linked to limited training opportunities, narrowing even further their chances to make temporary contracts permanent.

Table 7 Distribution of tenures in transition countries

	Under 1 year	1 and under 2 years	2 and under 5 years	5 and under 10 years	10 and under 20 years	20 years or over	Average tenure (years)	Median tenure (years)
Nesporova and Cazes (2001) - data refer to 1999								
Czech R.	14.6	18.4*	15.3**	26.2	12.3	13.2	8.2	
Estonia	18.4	6.7	31.1	23.9	10.8	9.1	6.9	
Hungary	12.6	11.3	20.0	25.3	17.9	13.0	8.8	
Lithuania	12.8	9.2	29.0	24.8	14.5	9.6	7.6	
Poland	10.5	10.4	14.0	20.8	22.3	22.0	11.9	
Slovenia	12.0	5.1	18.2	16.5	23.6	24.6	12.0	
Rutkowski (2003)								
Bulgaria (2001)	14.0	9.5	25.2	20.8	19.8	10.8	8.1	5.5
Czech R. (1995)	19.2		36.6	12.0	14.8	17.4	9.0	2.0
Lithuania (2001)	15.4	8.9	21.6	25.4	16.8	11.9	8.3	5.0
Poland (1999)	14.5	11.7	19.0	17.7	20.3	16.7	9.6	6.2
Croatia (2001)	9.7	5.1	17.2	21.3	20.7	26.0	12.2	8.0
own calculation								
Croatia (2002)	13.4	6.3	16.7	21.1	19.2	23.3	11.8	7.9
Croatia (2004)	15.4	7.3	15.6	19.1	20.8	21.8	11.3	7.9

Sources: Rutkowski (2003), Nesporova and Cazes (2001) and own calculations based on Labor Force Survey, 1st half of 2002 and 2004

Note: * refers to 1-3 years; ** refers to 3-5 years

Flexibility in skill-input looks as a particularly weak category of the overall flexibility. Despite of recent growth in participation in education among younger cohorts, only negligible portion of persons over the age of 34 participate in any type of education or training. Many enterprises, especially small and medium sized ones (HZZ, 2005) are reluctant to invest in workers training, there are no tax incentives for employees to invest in their own training, while public funds directed into training activities through the active labour market policies are underdeveloped and under funded. These figures might also indicate the reluctance or incapability of workers to continue their education within the still rudimentary institutional system of lifelong learning in Croatia.

Table 8 Population in education, according to age groups, 2001

	15-24	25-34	35-59
Croatia 2001	53.7	4.8	0.2

Croatia 2004	56.8	5.5	0.25
EU average	64.3	14.5	6.9
EU maximum	71.9	28.5	20.7
EU minimum	53.0	4.3	0.4

Source: Central Bureau of Statistics (2002, 2005)

Conclusion

There seem to be some flexibility dimensions in which Croatian labour market does not score so badly, and some rather weak points. Unfortunately, those weak points are exactly the aspects of flexibility pursued by most European countries: internal numerical flexibility, in particular part-time work, flexibility in skills acquisitions, and mobility of both jobs and labour force are all dimensions where Croatia scores particularly badly. Wage flexibility also exhibited considerable deficiencies until recently, but there seem to be some recent improvements in that area, both concerning the real wage flexibility and flexibility of relative wages. The share of temporary workers is on an increase and that category of workers takes the disproportionate burden of the overall external numerical flexibility. The easing of regulations governing temporary contracts increased their share in total employment, although this increase may to some extent come at the expense of falling other types of non-typical employment. As many of temporary workers often churn between different jobs, both jobs and worker mobility in Croatia seem fairly high. However, it seems that small new enterprises from the private sector carry the bulk of the adjustment, while adjustment in privatized as well as state-owned enterprises remains modest.

One of the remaining problems is the aggregation of different indicators of flexibility and the assessment of the overall flexibility as well as facilitating international comparisons. Further research may seek ways to identify which labour market features are more important and therefore deserve greater weight. Also including additional set of indicators may provide more confidence in estimates of particular categories.

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