

LABOUR MARKET FLEXIBILITY AND EFFICIENT USE OF TALENT. IMPACT STUDY FOR CEE COUNTRIES

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Abstract: *To increase the competitiveness and efficiency of companies in a market who change its structure every day, the role of human resource become one of the most influence factor. The main aim of our paper is to analyze the relationship between the labor market flexibility and the efficient use of talent, through the indicators as cooperation in labor-employer relations, hiring and firing practices, flexibility of wage determination, redundancy costs, pay and productivity, reliance on professional management and women in labor force, ratio to men. The indicators describe labor market flexibility and efficiency use of talents across states from Central and Eastern European countries. The data are set for the period 2007-2015. Our research shows that are the most efficient labor market regimes in enhancing competitiveness.*

Keywords: *labor market relations, efficiency, competitiveness*

JEL Classification: *E020, J500, J850*

INTRODUCTION

The contribution of human resources to economic competitiveness is influenced by the size and skills and the flexibility of the labor market. When human resource is heavily under evaluated, it is harmful for cultivating of core firms competitiveness (Yao & Cui, 2010). On the other hand, labor market flexibility in very important in managing hiring and firing practices, and implicitly, business competitiveness. A flexible environment allow to shift workers from one activity to another at a low cost level and, allow for wage fluctuations without much social disruption (Swab, 2010). This paper aims analyzing the major constraints on competitiveness in terms of cooperation in labor-employer relations, hiring and firing practices, flexibility of wage determination, redundancy costs, pay and productivity, reliance on professional management and women in labor force, ratio to men within Eastern and Central European member states between 2007 and 2015.

Starting with 2007, Labor market efficiency represent one of the twelve pillars of Global Competitiveness Index. The methodology for calculating the labor market efficiency has changed over time. In 2007 a number of 12 variables were used in calculating labor market efficiency aggregate indicator, namely: Cooperation in labor-employer relations, Flexibility of wage determination, Nonwage labour costs, Rigidity of Employment, Hiring and firing practices,

Firing Costs (known as Redundancy Cost from 2010 onwards), Extent and effect of taxation (Effect of taxation on incentives to work from 2014), Total Tax Rate, Pay and productivity, Reliance on professional management, Brain drain, Female participation in the labor force. From 2010-2011 onwards Total Tax rate was not registered as variable in measuring Labor Market Flexibility, neither Nonwage labour cost, from 2009-2010 and Rigidity of Employment, from 2012-2013. Starting with 2013-2014 and 2014-2015 reports, the Brain Drain component was replaced by other two components “Country capacity to retain talent” and “Country capacity to attract talent”. The above variables were grouped into two categories, the ones that are related to labor market flexibility and the ones that describe the efficiency of using human factors (Table 1).

Table 1 Labour market efficiency, 2007-2015

Component	Type of data (1-7 Likert scale questions or calculation)	Scale	Source
A. Flexibility			
Cooperation in labor-employer relations	In your country, how would you characterize labor-employer relations?	[1 = generally confrontational; 7 = generally cooperative]	World Economic Forum (WEF), Executive Opinion Survey
Flexibility of wage determination	In your country, how are wages generally set?	[1 = by a centralized bargaining process; 7 = by each individual company]	WEF, Executive Opinion Survey
*Nonwage labour costs	<i>Calculation</i>	<i>Estimate of social security payment¹ and payroll taxes associated with hiring an employee in a fiscal year, expressed as a percentage of the worker's salary in that fiscal year</i>	<i>World Bank, Doing Business.</i>
**Rigidity of Employment	<i>Hard Data</i>	<i>Rigidity of Employment Index on a 0 (best)-to-100</i>	<i>The World Bank, Doing Business</i>
Hiring and firing practices	In your country, how would you characterize the hiring and firing of workers?	[1 = heavily impeded by regulations; 7 = extremely flexible]	WEF, Executive Opinion Survey
Redundancy costs	<i>Calculation</i>	<i>In weeks of salary (Estimates the cost of advance notice requirements, severance payments, and penalties due when terminating a redundant worker, expressed in weekly wages.)</i>	<i>World Bank, Doing Business, WEF Forum's calculations</i>
Effect of taxation on incentives to work	In your country, to what extent do taxes reduce the incentive to work?	[1 = significantly reduce the incentive to work; 7 = do not reduce incentive to work at all]	WEF, Executive Opinion Survey

¹retirement fund, sickness, maternity and health insurance, workplace injury, family allowance, and other obligatory contributions

*** <i>Total Tax Rate</i>	<i>Calculation</i>	<i>Combination of profit tax (per cent of profits), labour tax and contributions (per cent of profits), and other taxes (per cent of profits)</i>	<i>The World Bank, Doing Business.</i>
**** <i>Firing Costs – (Redundancy Cost from 2010 onwards)</i>	<i>Calculation</i>	<i>Cost of advance notice requirements, severance payments and penalties due to a terminated worker, expressed in weekly wages</i>	<i>The World Bank, Doing Business</i>
B. Efficient use of talent			
Pay and productivity	In your country, to what extent is pay related to worker productivity?	[1 = not related to worker productivity; 7 = strongly related to worker productivity]	WEF, Executive Opinion Survey
Reliance on professional management	In your country, who holds senior management positions?	[1 = usually relatives or friends without regard to merit; 7 = mostly professional managers chosen for merit and qualifications]	WEF, Executive Opinion Survey
Country capacity to retain talent	Does your country retain talented people?	[1 = the best and brightest leave to pursue opportunities in other countries; 7 = the best and brightest stay and pursue opportunities in the country]	WEF, Executive Opinion Survey For more details, refer to Chapter 1.3 of this Report
Country capacity to attract talent	Does your country attract talented people from abroad?	[1 = not at all; 7 = attracts the best and brightest from around the world]	WEF, Executive Opinion Survey
***** <i>Brain drain</i>	<i>Does your country retain and attract talented people?</i>	<i>[1 = no, the best and brightest normally leave to pursue opportunities in other countries; 7 =, there are many opportunities for talented people within the country)</i>	<i>Executive Opinion Survey, WEF</i>
Female participation in the labor force	<i>Calculation</i>	Ratio of women to men in the labor force	International Labour Organization, national sources

* In 2007-2008, 2008-2009, the Labor market efficiency was calculated based on 13 variables, including Nonwage labour cost which was removed afterwards.

** In 2007-2008, 2008-2009, 2009-2010, 2010-2011, 2011-2012 reports included Rigidity of Employment, as additional variable in measuring Labor Market Flexibility. The values were evaluated on a 0 (best)-to-100 scale.

*** In 2007-2008, 2008-2009, 2009-2010 reports included an additional variable in measuring labor market flexibility: Total Tax rate.

****This indicator is reported as Redundancy Cost from 2010 onwards. In 2009-2010, reference is made to the worker profile with 20 years of tenure. From 2011 onwards, reference is made to the workers profile with 1, 5, and 10 years of tenure.

*****In 2007-2008, 2008-2009, 2009-2010, 2010-2011, 2011-2012, 2012-2013 reports the two components “Country capacity to retain talent” and “Country capacity to attract talent” were grouped into one variable titled “Brain drain”.

Source: Based on the Global Competitiveness Reports from 2007-2008 until 2014-2015.

Due to different methodologies used in analyzing labor market efficiency, our research will encapsulate only the variables that are subject to whole reference period. The analyzed

countries are the Central and Eastern European Member countries, namely: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

2. LABOR MARKET RELATIONS IN CENTRAL AND EASTERN EUROPE

In table 2 are described all the variables used in our analysis: Cooperation in labor-employer relations, Hiring and firing practices, Flexibility of wage determination, Redundancy costs, Pay and productivity, Reliance on professional management and Women in labor force, ratio to men.

Table 2 Labor market relations in ECE, 2007-2015

	Minimum	Maximum	Mean	Std. Deviation
Cooperation in labor-employer relations	3.1695	5.1723	4.267328	.4396404
Hiring and firing practices	2.2892	4.9488	3.647700	.5699465
Flexibility of wage determination	3.8429	6.2320	5.383565	.5616473
Redundancy costs	3.0000	40.0000	19.486843	10.6023962
Pay and productivity	3.4856	5.4520	4.467819	.4365938
Reliance on professional management	3.2741	5.5023	4.452163	.5674145
Women in labor force, ratio to men	.7801	.9490	.852812	.0490288

Source: Authors' calculation based on the Global Competitiveness Reports from 2007-2008 until 2014-2015

The type of collective work relationships is an important mechanism that influence labor market productivity and competitiveness. In the literature, many specialists (Sala-i-Martin & Artadi, 2004, Ostoj, 2015) have found that a work relationship characterized by *cooperation* positively influences productivity, while a conflictual one generates a disadvantageous business environment which may lead to an endangered output.

Figure 1 Cooperation in labor-employer relations in ECE, 2007-2015 (mean)



Source: Authors' calculation based on the Global Competitiveness Reports from 2007-2008 until 2014-2015

In countries with high values for cooperation usually are dominated by the sense of joint responsibility for the entrepreneurship’s performance and of the need of employees’ participation in decision-making process and labor organization (Ostoj, 2015). This scenario brings on front two important postulates: first, employers consider that labor innovativeness is significant and, second, employees’ participation in decision-making process brings business profits. As a consequences, an efficient communication between involved parties leads to an enhanced productivity. Moreover, any rapid changes in the management can be solved very quickly through an efficient cooperation between parties. On the other hand, confrontational collective work relationships are characterized by lower productivity, strike threatens and higher associated costs (Sala-i-Martin & Artadi, 2004, Ostoj, 2015).

In the above figure (Figure 1), cooperation in labor-employer relations mean, for 2007-2015 period, is calculated using the following question: In your country, how would you characterize labor-employer relations?. The responders’ attributes values using a 7 points Likert scale, where ”1” represents generally confrontational relationships and ”7”, generally cooperative ones. An overall picture reveals that in Bulgaria and Romania respondents consider that the labor relations are characterized by a low cooperation environment while in, Czech Republic, Estonia and Slovak Republic the situation is reversed.

Table 2 reveals that in 2007, the smallest values were registered in countries like Romania (3.33), Bulgaria (3.97) and Poland (4.02). The highest values were recorded in Hungary (5.06) and Slovak Republic (5.17). In 2008, a notable improvement was registered by Estonia (5.06) which advanced two position since 2007, occupying the first position within ECE countries.

Table 2 Country change and associated values for cooperation in labor-employer relations in ECE, 2007-2015

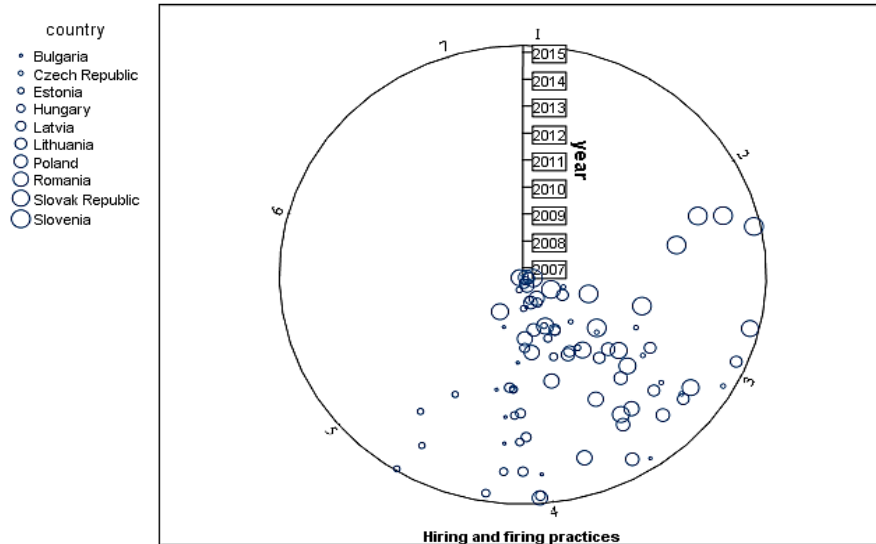
<i>Country</i>	2007	<i>Country</i>	2009	<i>Country</i>	2011	<i>Country</i>	2013	<i>Country</i>	2015
RO	3.33	RO	3.65	RO	3.58	RO	3.17	RO	3.73
BG	3.97	BG	3.82	BG	3.85	SI	3.86	SI	3.74
PL	4.02	PL	3.86	PL	4.08	BG	3.94	BG	3.90
SI	4.35	LV	4.30	H	4.10	PL	4.01	SK	3.96
LT	4.49	H	4.39	LV	4.26	SK	4.04	PL	4.01
CZ	4.74	SI	4.49	SI	4.29	H	4.10	LT	4.12
LV	4.77	LT	4.55	LT	4.38	LT	4.30	H	4.29
EE	4.92	CZ	4.63	CZ	4.55	LV	4.31	CZ	4.52
H	5.07	SK	4.81	EE	4.55	CZ	4.37	LV	4.82
SK	5.17	EE	4.84	SK	4.79	EE	4.84	EE	4.92

Source: Authors' representation based on the Global Competitiveness Reports from 2007-2008 until 2014-2015

From 2009 until 2010, some small rank changes were registered only in the case of Latvia (increase of 1.02% value for cooperation, 1 rank higher), Hungary (decrease of 1.04% value, one rank lower), Slovak Republic (increase of 0.98% in value, 1 rank higher) and Estonia (1.02% decrease in value, 1 rank lower). In 2012, the majority of the ECE countries register small decreases (around 1%) in comparison with the previous year. Only Bulgaria, Slovak Republic, Latvia and Estonia have a small increase in people’s perceived cooperation in labor-

employer relations. In 2013 and 2014, Romania, Slovak Republic and Slovenia occupied the last positions although small values improvements were registered for the first two countries. In 2015, Bulgaria replaces Slovak Republic as one of the third countries with the lowest values for perceived cooperation in labor-employer relations. Estonia registered the highest values not only in 2015 but also in previous years (except 2007 and 2010) (Table 2).

Figure 2 Hiring and firing practices in ECE, 2007-2015

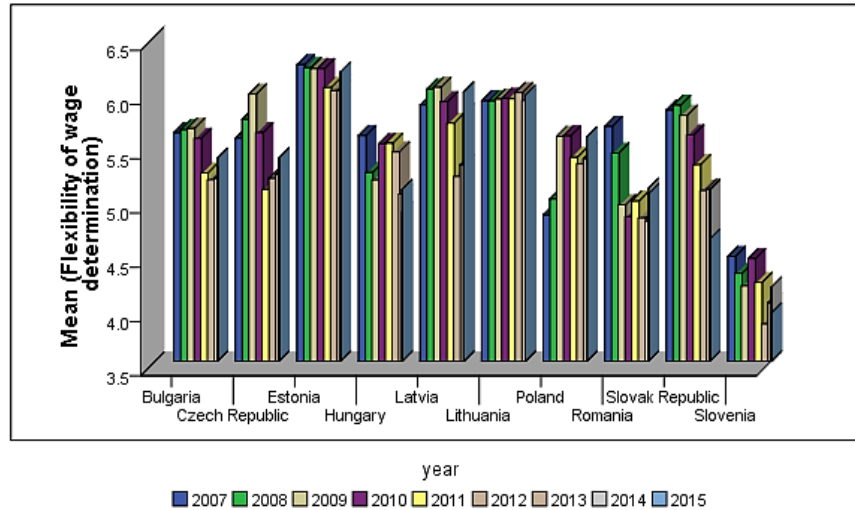


Source: Authors' calculation based on the Global Competitiveness Reports from 2007-2008 until 2014-2015

„Hiring and firing practices” are illustrated using the following survey question: In your country, how would you characterize the hiring and firing of workers?. The respondents can assign values from 1 to 7, where “1” represents hiring and firing practices heavily impeded by regulations and “7”, very flexible operations. Hiring and firing practices reveal the presence of regulations within working relations, that can shape employer’s freedom in determine the number of employees. For instance, such restriction may be related to the necessity of explaining each dismissal or noticing trade unions or other forms of leading employee representation about future labor contract termination. The existence of such regulations slows down the matching process between entrepreneurs needs and labor market supply, and on the long run it may lower productivity (Ostoj, 2015).

In 2007, Slovenia (2.81), Lithuania (3.13), Czech Republic (3.19) and Romania (3.31) were considered to have the most rigid hiring and firing practices. From the ECE countries only Latvia, Bulgaria, Estonia and Slovak Republic register values greater than 4 and higher flexibility in hiring and firing workers. In contrast with 2007, Bulgaria (-0.13%), Lithuania (-0.05%), Poland (-0.09%), Slovak Republic (-0.41%) and Slovenia (-0.13%) register in 2015, a small decrease regarding people perception on hiring and firing flexibility practices. In 2015 a slightly increase were registered only in Czech Republic (0.01%), Estonia (0.11%), Hungary (0.08%), Latvia (0.02%), and Romania (0.22%) (Figure 2).

Figure 3 Flexibility of wage determination in ECE, 2007-2015



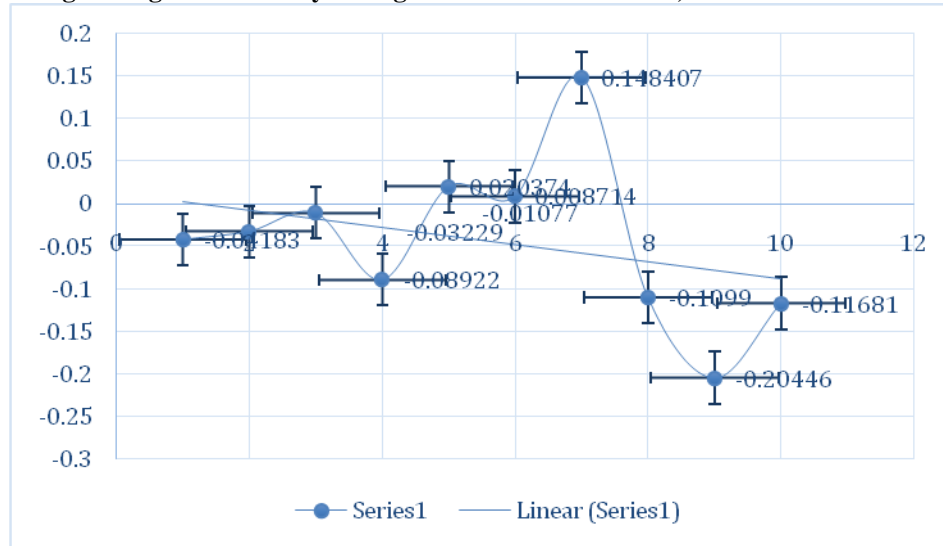
Source: Authors' calculation based on the Global Competitiveness Reports from 2007-2008 until 2014-2015

„Flexibility of wage determination” is set up using the following survey question: “In your country, how are generally wages set?”. The responders’ answers are situated between 1 and 7, where “1” represents centralized bargaining process setting and “7”, wage determination by individual company. Flexibility of wage determination strongly applies to the level of wage bargaining centralization. Collective Bargaining Centralization represents important assets in association of wage setting with economic and labor market performance measures (Bercu & Vodá, 2017). Decentralized negotiations are associated with higher levels of wage flexibility and more efficiency of the usage of labor factor. For instance in a flexible environment, negotiations or renegotiations are much easier to reach, and employees are aware of their salary standards. However, the degree of wage flexibility depends on the behavior of wage setters. For example, the ability of bargaining and parties willingness to compromise in order to reach an agreement are also important factors that influence wage determination.

Moreover, the flexibility of wages depends on the relations of labour and organized business. If unions are strong and powerful than wages are less likely to be flexible. In 2007, the values associated with the flexibility of wage determination were under 5 for Poland (4.84) and Slovenia (4.46) and above 6, only for Estonia (6.23). Values between 5 and 6 were registered in Bulgaria (5.60), Czech Republic (5.55), Hungary (5.57), Latvia (5.86), Lithuania (5.89), Romania (5.66) and, Slovak Republic (5.81) (Figure 3).

Figure 4 shows the percentage change in the flexibility of wages determination from 2007-2015. The higher increase was registered in Poland (0.14%), followed by Lithuania (0.008%) and Latvia (0.02%). In all Central and Eastern European Countries the leading employee is represented by unions, except the cases of Poland and Slovakia where the division of tasks is between trade unions and works councils in setting terms of employment. Nowadays, the Central-Eastern system is characterized by the existence of 1 up to 6 union confederations and, in some cases, by individual unions marked with significant autonomy and impact.

Figure 4 Percentage change in Flexibility of wage determination in ECE, 2007 and 2015

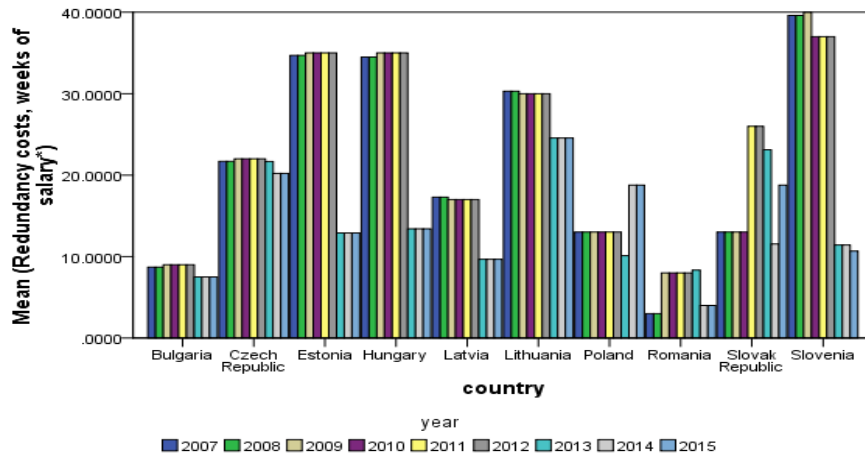


Source: Authors' calculation based on the Global Competitiveness Reports from 2007-2008 and 2014-2015

According to the World Economic Forum (2015), the *redundancy costs* represent the estimates the cost of advance notice requirements, severance payments, and penalties due when terminating a redundant worker. The amount of benefits associated with the redundancy costs is calculated in proportion to the working time and expressed in weekly wages. Redundancy costs are paid directly by the employer and are not included in the unemployment benefit system.

Holzmann et al (2011) found an important relationship between national income and redundancy arrangements. The authors found that in low income countries the redundancy costs decreases with the income level. Betcherman (2013), Calmfors and Holmlund (2000) identify that high redundancy costs reduce employer incentives to introduce new technology, therefore dampening production factors' productivity. Ostoj (2015) found that high redundancy costs may hold back the employment of workers. According to the author, „the higher they are, the more limited the employer is in his decisions about matching the number and structure of employment in a firm with the needs that are required by the market. He then refrains from dismissals, but makes decision about hiring new personnel very cautiously” (Ostoj, 2015, p.86).

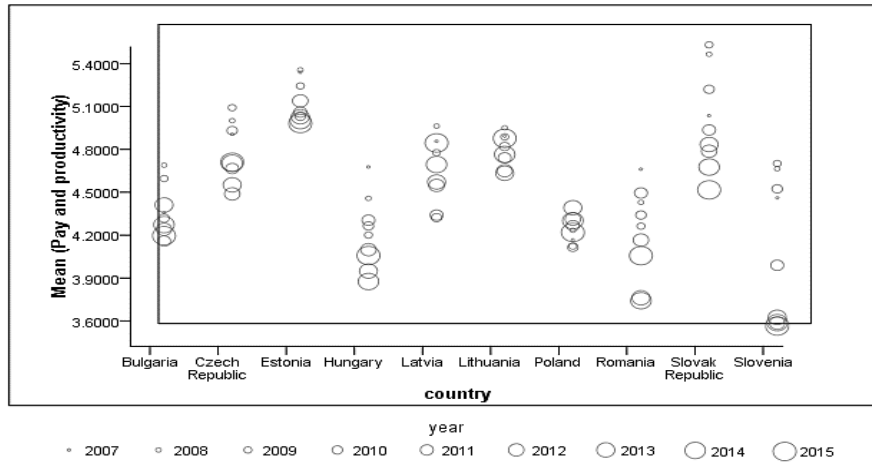
Figure 5 Redundancy costs in ECE, 2007-2015



Source: Authors' calculation based on the Global Competitiveness Reports from 2007-2008 until 2014-2015

In 2007, World Economic Forms estimates that the cost associated with making a worker redundant were of 8.7 weeks of salary for Bulgaria, 21.7 for Czech Republic, 34.7 for Estonia, 34.5 for Hungary, 17.3 for Latvia, 30.3 for Lithuania, 13 for Poland, 3 for Romania, 13 for Slovak Republic and 39.6 for Slovenia In 2010, a small reduction (2.6 weeks) of the firing of redundant workers costs was register in Slovenia while Romania and Italy increase them from 3 to 8 weeks of salary, respectively from 1.7 to 11 for the last country. Starting with 2013 major decreases were register in Hungary (-61%) and Estonia (-62%). In 2015, the estimates for the cost associated with making a worker redundant were of 7.5 weeks of salary for Bulgaria, 20.2 for Czech Republic, 12.9 for Estonia, 13.4 for Hungary, 9.6 for Latvia, 24.5 for Lithuania, 18.7 for Poland, 4 for Romania, 18.77 for Slovak Republic and 10.6 for Slovenia. In comparison with 2007, the major increase of redundancy costs were register in Poland, followed by Slovak Republic.

Figure 6 Pay and Productivity in ECE, 2007-2015



Source: Authors' calculation based on the Global Competitiveness Reports from 2007-2008 until 2014-2015

Pay and productivity is measured using the following question: In your country, to what extent is pay related to worker productivity? The respondents answers were evaluated based on a 7 Likert scale (1=not related to worker productivity and 7= strongly related to worker productivity). For the ECE countries the responders' answers ranged from 4.27 up to 5.2 in 2007 and from 3.97 up to 4.90 in 2015. „Pay and productivity” links pay to employee or company performance. Several studies (Fernie & Metcalf, 1999; Lavy, 2002) foster the widespread belief that incentive pay can raise productivity growth and augment profitability. For instance, Fernie and Metcalf (1999) analyzed the situation of 413 British jokers which some were employed on fixed retainers, while others were offered prizes for winning races. The results display large incentive effects- those facing prizes supply were making much more effort. Lavy (2002) find similar results but among Israeli teachers. The analysis reveal significant improvement in teacher performance due to the introduction of group bonuses

Table 3 Perceived change in Pay and Productivity, in ECE

	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015
Bulgaria	0.078	-0.020	-0.061	-0.038	0.020	0.041	-0.032	-0.018
Czech Republic	0.020	0.018	-0.032	-0.055	-0.039	0.014	0.034	0.001
Estonia	0.003	-0.021	-0.041	0.006	0.016	-0.022	-0.005	-0.004
Hungary	-0.048	-0.059	0.016	0.010	-0.049	-0.037	-0.019	0.048
Latvia	0.022	-0.038	-0.097	0.004	0.049	0.005	0.027	0.033
Lithuania	0.012	-0.013	-0.014	-0.017	-0.019	-0.004	0.029	0.024
Poland	0.017	-0.027	-0.002	0.038	0.011	0.019	-0.021	-0.020
Romania	-0.051	-0.038	0.019	0.036	-0.074	-0.099	-0.006	0.086
Slovak Republic	0.087	0.012	-0.057	-0.055	-0.030	0.010	-0.033	-0.035

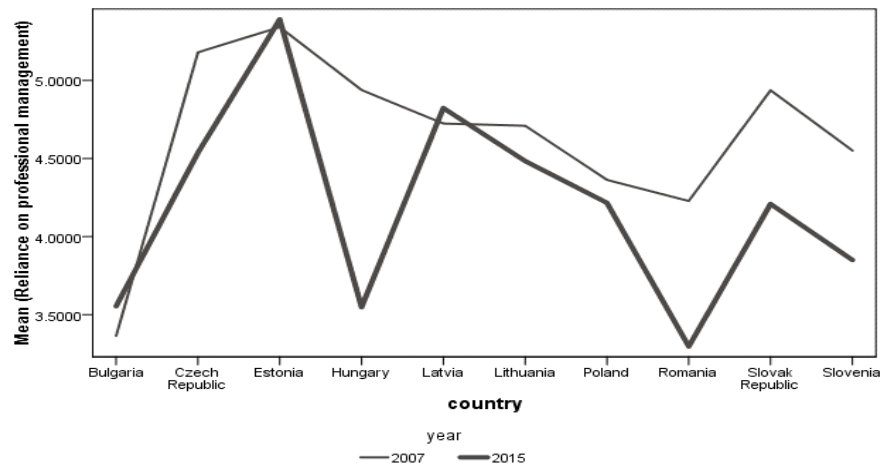
Slovenia	0.046	0.008	-0.038	-0.120	-0.103	0.012	-0.011	-0.007
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Source: Authors' calculation based on the Global Competitiveness Reports from 2007-2008 until 2014-2015

Hoffer and Spiecker (2011) analysis encapsulate the importance of unit labor costs as an important determinant of competitiveness. The authors stated that „in the Euro zone, balanced trade involves that member states wages grow in line with national productivity in addition with the communally agreed inflation rate. Apart from that, countries with relative higher growth in unit labor costs will systematically lose market share and experience trade deficits. The case for a coordinated wage policy to avoid imbalances, beggar thy neighbor policies and a waste of potential growth is overwhelming: it is alarming that it has been ignored for so long. Those who let unit labour costs rise too fast are equally responsible for the explosion of imbalances after the abolition of the exchange rate mechanism as those who gained market shares through wage restraint” (Hoffer & Spiecker, 2011, p.2).

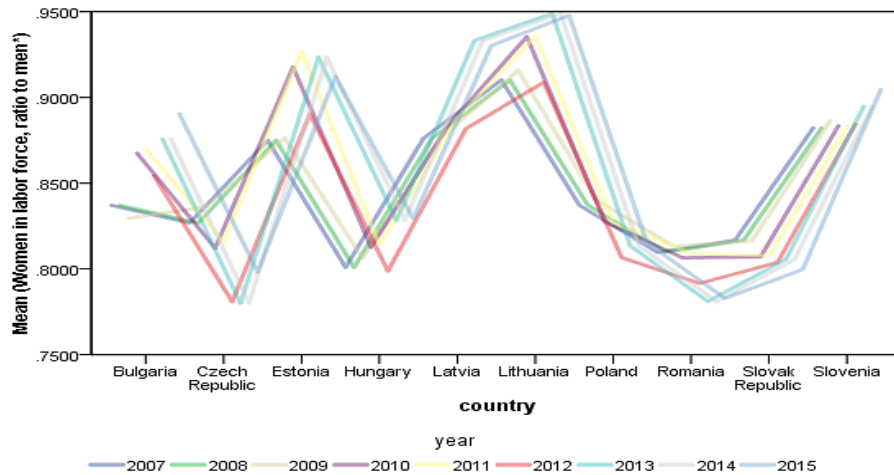
Figure 6 clearly shows the relationship between salaries and productivity for 10 European countries for the years 2007-2015. In the medium and long-term, the connection between productivity growth and wage increase may help achieve higher employment levels and reduce the competitiveness gap between economies especially hit by the recession (Meager & Speckesser, 2011, p.4). In other words such *wage moderation* can be achieved through institutional reforms targeted to facilitate the wages growth at a lower rate than productivity. In the above analysis in some European countries, the relationship between pay and productivity shows a declining rank (Table 3). Restrictive labor regulations and high tax rates remain the most problematic factors for doing business according to the Executive Opinion Survey.

Figure 7 Reliance on professional management in ECE, 2007-2015



Source: Authors' calculation based on the Global Competitiveness Reports from 2007-2008 until 2014-2015

Figure 8 Female participation in labor force, ratio to men in ECE, 2007-2015



Source: Authors' calculation based on the Global Competitiveness Reports from 2007-2008 until 2014-2015

„Reliance on professional management” is an indicator that is measured on a scale of 1 to 7, using the following survey question: “In your country, who holds senior management positions?. On the scale, 1=“usually relatives or friends without regard to merit”, while 7 = “mostly professional managers chosen for merit and qualifications” (World Economic Forum, 2015, p.69). The most competitive economies according to GCI, Czech Republic and Estonia occupy also the first two position in the reliance on professional management indicator. Similar, in 2015 from the ECE countries, Hungary, Slovak Republic, Romania and Bulgaria and Slovenia register the lowest values at both competitiveness and reliance on professional management (Figure 7).

“Female participation in the labor force” indicate the economic consequences of unfair women participation in job resource for instance, it is one of the manifestations of discrimination (Ostoj, 2015, p. 88). Different studies reveal that inclusiveness and diversity of perspectives improve decision-making about resource allocation (Chamlou, 2004). Not only the different perspectives that women brings in the decision making process but also the significant investment in women’s education are important factors that need to be taken into consideration. Very low level of female participation in the labor force mean that the country is not capturing a large part of the return on its investment (Chamlou, 2004).

Also, cross country data shows that increase participation of women in the labor force may contribute to achieve higher levels of per capita income, and implicitly, to faster economic growth. In most ECE countries the ratio of women to men in the labor force have increase in 2015, in comparison with 2007, expect the cases of Czech Republic, Poland, Romania and Slovak Republic where the values decrease up to 2-3 % (Figure 8).

3. CONCLUSIONS

The paper analyze the relationship between labor market and economy competitiveness showing the role of human resource to economic competitiveness and the flexibility of labor market and the efficiency of using talents in countries form Eastern and Central Europe, namely: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia between 2007 and 2015. The methodology used is based on transversal and comparative approach using the uni/multivariate analysis and statistical modeling. Our research is based on the variables that are subject for the whole period analyzed. The main results reveal differences between the analyzed countries for each indicator used. The high values for *cooperation* indicator reflect a low cooperation in countries like Romania and Bulgaria and a strong cooperation in Czech Republic, Estonia and Slovak Republic. These means that in some countries exists a strong correlation between joint responsibilities, entrepreneurship's performance and the need of employees to participate in decision making process, until in other countries the level is very low. The *hiring and firing practices* are correlated with the pressure of regulation within working relations, determined by the employer's freedom to hire and fire people, taking account by the rules of collective contract or the rules established with employees representatives. States like Slovenia, Lithuania, Czech Republic and Romania have a rigid system of hiring and firing practices, until Latvia, Bulgaria, Estonia and Slovak Republic are more flexible. The indicator *flexibility of wage determination* determines the system used by the countries in establishing the level of salaries and the entire process of negotiation with unions or employees representatives. The results show that ECE countries an important assets is Collective Bargaining Centralization which reflect the wage-settings and its impact on labor market performance measures. Considering the *redundancy costs*, the ECE countries reveal the employers are limited to decide the number and the structure of the employment. Related, the *pay and productivity* of employees shows a decline rank due to the labor regulation and high tax. The indicator considering the *competitiveness and reliance of professional management* reflect a discrepancy between countries like Czech Republic, Romania and Estonia, where are registered high values, and countries like Hungary, Slovak Republic, Romania, Bulgaria and Slovenia, where the levels are low. These are direct correlated with the used of managerial practices in choosing the best managers based on performance and merit systems.

The role of human resource to economic competitiveness is an important indicator that reflects the capacity of states of taking the public policies in order to use and maintain the market flexibility, to increase work performance and to use the brains to create values and to be more innovative. The analyze reflect different patterns for the ECE countries, due to different policies and decisions applied.

References

1. Bercu, A. M. & Vodă, A. I. (2017). Labor Relations: Contemporary Issues in Human Resource Management. In Mura, L. (ed.) *Issues of Human Resource Management*. Rijeka: InTech, pp. Ch. 08, DOI: 10.5772/intechopen.68625.

2. Betcherman, G. (2013). Labor Market Institutions: A Review of the Literature. *Background Paper for the World Development Report*.
3. Calmfors, L., & Holmlund, B. (2000). Unemployment and economic growth: a partial survey. *Swedish Economic Policy Review*, 7(1), 107-154.
4. Chamlou, N. (2004). Gender and Development in the Middle East and North Africa. *The World Bank, briefing prepared for the Woodrow Wilson Center*, 30.
5. Dutta, S., & Mia, I. (2010). The global information technology report 2009–2010. In *World Economic Forum and INSEAD, SRO-Kundig Geneva, Switzerland*.
6. Fernie, S. & Metcalf D., (1999). It's Not What You Pay it's the Way that You Pay it and that's What Gets Results: Jockeys' Pay and Performance. *Labour*, 13(2), 385-411.
7. Hoffer, F., & Spiecker, F. (2011). Change or Lose Europe: ILO Global Job Crisis Observatory, Geneva: International Labour Office. Retrieved from http://www.ilo.org/public/libdoc/jobcrisis/download/story108_change_europe.pdf.
8. Holzmann, R., Pouget Y., Vodopivec M. & Weber M. (2011). Severance Pay Programs around the World: History, Rationale, Status, and Reforms. World Bank. *Social Protection Discussion Paper 1111*. Washington, DC.
9. Klaus, S., & Xavier, S. (2010). The Global Competitiveness Report 2011–2012. In *World Economic Forum, Geneva, Switzerland*.
10. Lavy, V. (2002). Evaluating the effect of Teachers' Performance Incentives on Pupils' achievement. *Journal of Political Economy*, 110(6), 1283-1317
11. Meager, N., & Speckesser, S. (2011). Wages, productivity and employment: A review of theory and international data. *EEO Thematic Report, European Employment Observatory*, 73.
12. Ostoj, I. (2015). Labor market efficiency as one of the pillars of the global competitiveness of an economy- conclusions for the labor market regimes of the EU countries. *Journal of Economics & Management*, 20, 80.
13. Porter, M. E., Schwab, K., & Sala-i-Martin, X. (Eds.). (2007). *The global competitiveness report 2007-2008* (pp. 3-50). New York: Palgrave Macmillan.
14. Sala-I-Martin X., & Artadi E.V. (2004). *The Global Competitiveness Index*. The Global Competitiveness Report 2004-2005. The World Economic Forum, Geneva.
15. Sala-i-Martin, X. A. V. I. E. R., Bilbao-Osorio, B., Blanke, J., Crotti, R., Hanouz, M. D., Geiger, T., & Ko, C. (2012). The global competitiveness index 2012–2013: Strengthening recovery by raising productivity. *The Global Competitiveness Report 2012–2013*, 49-68.
16. Sala-i-Martin, X., Bilbao-Osorio, B., Blanke, J., Hanouz, M. D., Geiger, T., & Ko, C. (2013). The Global Competitiveness Index 2013–2014: sustaining growth, building resilience. *The Global Competitiveness Report, 2014*, 3-52.
17. Sala-i-Martin, X., Dervis, K., Hausmann, R., Bascuñán, H. D. F. L., & Pangestu, H. D. M. E. (2010). The Global Competitiveness Report 2010–2011: Highlights. In *World Economic Forum*.
18. Schwab, K. (2011). Sala-i-Martin X. The Global Competitiveness Report 2014-2015. In *World Economic Forum*. URL: http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf.
19. Schwab, K., & Porter, M. (2008). The global competitiveness report 2008–2009. World Economic Forum.



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