

MEASURING PUBLIC ADMINISTRATION EFFICIENCY IN SELECTED TRANSITION COUNTRIES - CASE OF CROATIA

Alka Obadić, Marijana Bađun

Graduate School of Business and Economics, University of Zagreb

Trg J. F. Kennedy 6, 10000 Zagreb, CROATIA

Phone: ++385 1 2383 147; Fax: ++ 385 1 2335 633

E-mail: aobadic@efzg.hr; mbadjun@efzg.hr

1. INTRODUCTION

There is a growing perception that inadequate public administration was one of the key impediments to the successful transition from centralized systems towards a more democratic society and free-market economy. Still and all, public administration remained one of the weakest links in the institutional development process in transition countries and thus turned into an obstacle to economic growth (UNDP, 2001:2).

Recently, there has been a notion that inefficient public administrations raise transaction costs by which they hamper investments in a particular country.¹ Although there are many different dimensions of efficiency, this paper concentrates only on two: the efficiency of public administration in terms of corruption and regulatory impediments to starting a private sector business. The latter has been included because potential for corruption increases with the expansion in the supply of regulations and is also a function of their wording and complexity (Kaminski and Kaminski, 2001: 25). Furthermore, excessive regulations encourage bureaucratic delays and facilitate corruption. Unfortunately, bureaucratic delays have not been analyzed in this paper due to lack of data.

During the early public administration reform process, states in Central and Eastern Europe tended to use across-the board cuts in staff numbers as the main reform tool (UNDP, 2001: 1). Also, there has been a pressure to compress wages in order to obtain fiscal savings. This is why we include relative size of government administration employment and a measure of relative wages of government employees in our analysis to find out whether there is a link between these variables and public administration efficiency in selected transition countries.² In the case of Croatia, the paper examines the key changes in the public administration paid net wages and average net wages in other sectors according to educational level of employees.

2. METHODOLOGY - THE PROBLEMS OF MEASURING GOVERNMENT EMPLOYMENT AND PAY

The concept of the public sector consists of many different levels, which have to be properly identified in order to obtain accurate picture. Public administration³, the subject of our

¹ For a more detailed explanation of the link between institutions, investment and growth see Aron (2000).

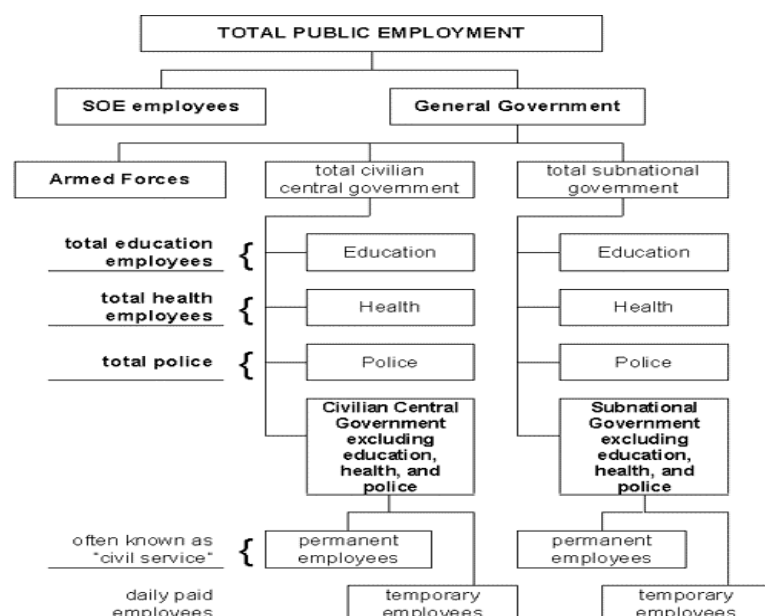
² Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia.

³ Public administration consists of Civilian Central Government and Subnational Government both excluding education, health and police. Civilian Central Government includes central executive and legislative administration in departments directly dependent on the Head of State or the Parliament, together with all other

research, is included in general government, which is a part of the total public sector that comprises general government plus public enterprises (see figure 1⁴).

Despite the existence of a common definition of the public sector, it is not always clear how countries can apply such fully different definitions. Another major problem is that some concepts appear to have different meanings in different countries, and it is not always made clear exactly what is covered by the figures provided. All this complicates the comparison of national data on public sector employment.

Figure 1: Classification of total public sector employment



Source: World Bank (2003).

ministries and administrative departments, including autonomous agencies. Subnational Government encompasses all government administration employees who are not directly funded by the central government. It includes municipalities, as well as regional, provincial, or state (in federal systems) employment. The distinction between Central and Subnational Government employment is budgetary, not geographic.

⁴ The United Nation System of National Accounts provides clear definitions of "general government" and "total public sector". According to the United Nations, "general government" comprises: (1) producers of government services; all bodies, departments and establishments of any level of government (central, state, local) which engage in administration, defence, maintenance of public order, health, education and cultural, recreational and other social services, furnished but usually not sold to the public; (2) non-profit-making institutions which are wholly or mainly financed and controlled by government; (3) social security arrangements imposed, controlled or financed by the government; (4) government enterprises that are highly integrated with the public authorities - these consist of ancillary departments and establishments mainly engaged in supplying goods and services to other units of government, but also include agencies that sell goods mainly to the public but operate on a small scale; (5) public saving and lending bodies which are financially integrated with the government or which lack the authority to acquire financial assets or incur liabilities in the capital market (see more detailed in UN, 1968).

As Heller and Tait (1983: 35) noted: “It is surprising and depressing how little information is readily available on public sector employment and pay”. When government employment is concerned, paucity of data is one of the major concerns. Other common problems are for example, facts that people engaged in defence and security are sometimes excluded from the official statistics; non-profit-making activities and autonomous institutions financed by the state, such as universities, are not always included in public sector employment, but this is not always properly pointed out (Marinakakis, 1994: 53). Due to the fact that basic social services (education and health) raise different policy and practical issues than government administration, it is useful to separate out employment of teaching and health personnel, which is hardly an easy task (Schiavo-Campo et al., 1997: 1). In our paper we have used both data on general government and public administration employment.

It is even more complicated to make international comparisons for government wages than it is for employment because of the existence of different non-wage allowances. Certain sources include them in the wage package while others show only the basic salary. The only reliable measure of the adequacy of government wages is the comparison between public and private salaries (for comparable skills), which should be obtained through statistically representative surveys. Unfortunately, such surveys are not common. Also, public administration wages are rarely separated from general government's. Therefore, the paper compares total average gross monthly wages and average gross monthly wages in public administration, defence and compulsory social security activities in all selected countries. In Croatian case, paper explores public administration paid net wages and average wages according to educational level of employees.

All this can result in huge disparities if comparisons are made between countries. The cross-country comparison of disaggregated government levels (central, regional or local) may be misleading because of the differences in countries' political and administrative structure.

3. MEASURING PUBLIC ADMINISTRATION EFFICIENCY

There is a growing realization that a highly competent, professional, accountable and nonpartisan public administration is necessary to adjust to changing social needs. However, it seems that nowadays everybody has got some kind of problems with public administration: employees are not enthusiastic about being part of it, managers have problems with controlling the employees, clients cannot get what they demand (Pusić, 1999: 238). The stereotypical view of government officials is that they are obsessed with red tape, unmotivated for their official tasks, probably corrupt, unskilled, unprofessional and unresponsive to citizens' needs. In other words, it appears that they have some image problems. The question is: how to measure the intangible?

Public organizations do not have a single performance indicator that can compare across different types of organizations. In the last ten years a lot of effort has been put in constructing governance indicators databases, which in some aspects include perceptions of the public administration performance. The problem is that the perceptions tend to be subjective (measurement errors can be significant), that transition countries have been included in such studies mostly at the end of 1990s and that it is difficult to observe changes because systematic research does not exist.⁵ When discussing about public administration

⁵ Some studies describing public administration performance are: Mauro (1995), Campos (2000), Evans and Rauch (1999), Hellman et al. (2000), Kaufmann et al. (2002), La Porta et al. (1999), Putnam (1993).

performance, the most frequently used terms are: quality, effectiveness and efficiency. Sometimes they overlap but usually they have a quite different meaning. Also, there is no clear cut in such studies between the terms public administration, government, state and bureaucracy.

International Country Risk Guide – ICRG (Political Risk Services, 2003) evaluates “bureaucracy quality”. According to it, high quality of the bureaucracy is manifested through strength and expertise to govern without drastic changes in policy or interruptions in government services. It tends to be somewhat autonomous from political pressure and has an established mechanism for recruitment and training. Table 1 shows bureaucracy quality in selected transition countries for the years 1999 and 2001, based on ICRG survey. Unfortunately, data are available for only two years, which makes it impossible to draw sound conclusions. However, it can be noticed that Croatia was ranked in the lower part of the selected group in 1999, together with Romania and Bulgaria, while in 2001 it performed slightly better and moved up to CEE-5⁶ countries among which Hungary is evaluated to have the highest bureaucracy quality (see table 1).

Table 1: Bureaucracy quality (max = 4 points)

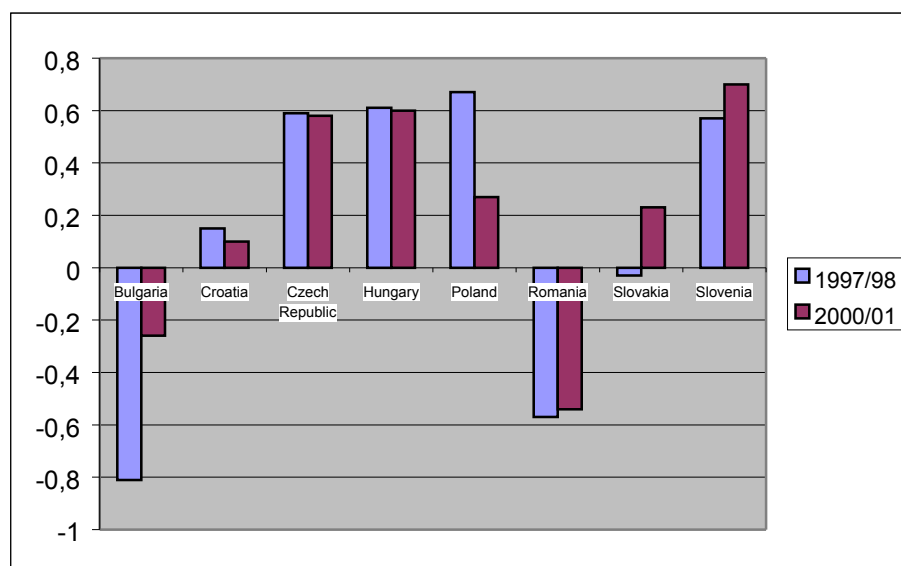
Country	1999	2001
Bulgaria	2	2
Croatia	2	3
Czech Republic	3	3
Hungary	4	4
Poland	3	3
Romania	1	1
Slovakia	3	3
Slovenia	3	3

Source: Political Risk Services Group (2003).

Kaufmann et al. (2002) constructed an aggregate index describing “government effectiveness”. It combines perceptions of the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressure, and the credibility of the government's commitment to policies into a single grouping. Figure 2 shows that, based on this indicator, Croatia is again lagging behind CEE-5 countries. Slovenia and Hungary are on the top of the list, while Romania and Bulgaria are perceived to have the lowest government effectiveness.

⁶ Czech Republic, Hungary, Poland, Slovakia and Slovenia.

Figure 2: Government effectiveness



Source: Kaufmann et al. (2002: 20-21).

Finally we come to the term “efficiency”. As stated in the introduction, our assumption is that efficient public administration is the one that does not raise transaction costs with corruption (additional payments to get things done) and excessive regulations that slow down setting up a private business. Does efficiency reconcile with quality and effectiveness? Campos (2000) showed strong correlation among different indicators of governance; however, the link between above described variables still has to be tested and is not subject of our research. For the time being we concentrate only on the relation between efficiency, employment and wages and do not try to pin-point all the determinants of efficiency.

3.1. REGULATORY BURDEN

Poor administration and inadequately conceived or unnecessary regulations can substantially burden the private sector (Jenei and Zupkó, 2001: 80). One of the reasons why these excessive regulations exist is probably to give officials the power to deny them and to collect bribes in return for providing the permits (De Soto, 1989). If a lot of time is spent on dealing with public officials, entrepreneurs could get tempted to speed up the process with paying bribes. Sometimes it seems that government administrations’ slogan might be: “Things could be so simple but we rather make them hard”.

Djankov et al. (2002) described in their paper the required procedures governing entry regulation, as well as time and the cost following these procedures. They only measured official requirements, official time and official cost and did not take into account corruption and bureaucratic delays that further raise the cost of entry. They found that heavier regulation of entry is generally associated with greater corruption and a larger unofficial economy. Their evidence supports the public choice approach, especially the tollbooth theory, which emphasizes rent extractions by politicians and bureaucrats through greater number of procedures and longer delays. Rich countries regulate entry relatively less than all the other countries (Djankov et al., 2002: 22). Table 2 shows that among selected countries Hungary and Croatia have the highest total cost of following procedures to start up a firm. However, it

takes the longest time to start up a firm in Romania and the number of required procedures is the highest as well.

Table 2: Regulation of entry (1999)

Country	Number of procedures	Time ¹	Cost ²	Cost + time ³	GDP p.c. (1999, USD)
Bulgaria	10	27	0,14	0,25	1380
Croatia	12	38	0,45	0,60	4580
Czech Republic	10	65	0,08	0,34	5060
Hungary	8	39	0,86	1,01	4650
Poland	11	58	0,25	0,49	3960
Romania	16	97	0,15	0,54	1520
Slovakia	12	89	0,14	0,50	3590
Slovenia	9	47	0,21	0,40	9890

¹ business days

² fraction of GDP per capita in 1999

³ direct cost plus the monetized value of the entrepreneur's time (as country's per capita income per working day)

Source: Djankov et al. (2002)

In countries where red tape slows down regulatory procedures, corruption is likely to be more widespread (Mauro, 1995: 685). Unfortunately, data for bureaucratic delays are not available; their inclusion would probably change the country rankings regarding cost of entry and be of valuable use in explaining corruption.

3.2. CORRUPTION IN PUBLIC ADMINISTRATION

The "invasive" role of government in countries in transition, played through higher public spending and more regulations, can have an immediate impact on the behavior of civil servants and on corruption. In contrast, short-term impact of a larger government role on public officials will be limited in countries with traditionally well-functioning and honest bureaucracy (Tanzi, 1998: 562).

Although some authors have suggested that corruption might raise economic growth⁷, majority of recent studies conclude that corruption slows down development.⁸ Moreover,

⁷ See Leff (1964) and Huntington (1968).

Kaufmann and Wei (1999) found out that firms that pay more bribes are also likely to spend more, not less, time with public officials negotiating regulations.

The Transparency International Corruption Perceptions Index (CPI) is a composite index which ranks countries in terms of the degree to which corruption is perceived to exist among public officials and politicians.⁹ Among the selected countries in transition, Slovenia has the significantly highest score (and the highest GDP p.c.), followed by Hungary. Since 1997, scores have been deteriorating for the Czech Republic, Poland and Romania. The largest improvements can be observed for Bulgaria. Data for Croatia are available for the 1999-2002 period and they show that only Romanian public sector is worse off in terms of corruption (also the lowest GDP p.c.). Slovakia is slightly better ranked than Croatia (see table 3). It cannot be claimed that low corruption causes high growth, but it appears that there is a negative relation between the two variables in the chosen group of transition countries. That only shows that fighting corruption in public administration might contribute to higher GDP p.c. due to the fact that investors in Central and Eastern Europe see corruption as second most important obstacle (after tax regulations and/or high taxes) for doing business (Brunetti et al., 1997: 24).

Table 3: Corruption Perceptions Index

Country	1996	1997	1998	1999	2000	2001	2002
Bulgaria	-	-	2,9	3,3	3,5	3,9	4,0
Croatia	-	-	-	2,7	3,7	3,9	3,6
Czech Republic	5,4	5,2	4,8	4,6	4,3	3,9	3,7
Hungary	4,9	5,2	5,0	5,2	5,2	5,3	4,9
Poland	5,6	5,1	4,6	4,2	4,1	4,1	4,0
Romania	-	3,4	3,0	3,3	2,9	2,8	2,6
Slovakia	-	-	3,9	3,7	3,5	3,7	3,7
Slovenia	-	-	-	6,0	5,5	5,2	6,0

Source: Transparency International (2003).

⁸ See Shleifer and Vishny (1993) for a detailed review of the literature on corruption.

⁹ The CPI focuses on corruption in the public sector and defines corruption as the abuse of public office for private gain. It is based on surveys carried out among business people and country analysts and ranges between 10 (highly clean) and 0 (highly corrupt). Data are available from Transparency International (2003).

4. GOVERNMENT EMPLOYMENT

Although many new companies have been established during the transition process from centralized systems towards free-market economy, there has been a sharp increase in unemployment. Many state-owned companies were privatised and as a consequence of restructuring process great number of people became redundant, because small private firms could not compensate the loss in public sector. But at the same time all selected transition countries experienced increase in general government employment¹⁰ in the last decade.

This increase mainly comes from the state's role of "employer of last resort", as the rest of the economy failed to generate enough jobs for labour market entrants. On that way, the role of "employer of last resort" is typically a counter-cyclical one, because it increases employment opportunities during periods of recession. Under this perspective, considerations of productivity and efficient allocation of resources are secondary. For example, in Latin America public sector employment creation has often been used as an instrument for reducing social tension (Marinakakis, 1994: 61). According to this, the proportion of general government employees in total population in selected transition countries is larger in 2001 than in 1990 (see table 4).

Table 4: General Government Employment

Country	GG Employment as a percentage of the total population		
	1990	2000	2001
Bulgaria	0,84 ¹⁾	1,12	1,21
Croatia	1,01 ¹⁾	2,79	2,73
Czech Republic	0,93	1,78	1,86
Hungary	2,84	2,93	2,85
Poland	0,86 ²⁾	1,35	1,42
Romania	0,38	0,66	0,66
Slovakia	1,06 ³⁾	1,48	1,50
Slovenia	2,02 ¹⁾	2,22	2,30
Country	GG Employment as a percentage of the total employment		
	1990	2000	2001
Bulgaria	1,79	3,08	3,30
Croatia	2,87	9,12	9,0
Czech Republic	1,79	3,91	4,09
Hungary	5,54	-	-
Poland	2,01	3,42	3,67
Romania	0,81	1,70	1,72
Slovakia	2,30	3,94	-
Slovenia	4,44	5,74	5,88

Methodology: Data for total employment for Croatia includes defence and policy from 1998.

1) Data are calculated according to 1996.

2) Data are calculated according to 1992.

¹⁰ As mentioned earlier, data only on public administration are rarely separated from general government, therefore in this cross-country comparison general government employment includes also employment in public administration, defence, and compulsory social security activities.

3) Data are calculated according to 1991.

Source: Calculated according to WIIW Database.

The table shows a continuous increase in general government employment as a proportion of total population and as a proportion of total employment in all selected countries in last decade. General government employment as a percentage of the total population decreased only in Croatia in the last two years and stayed rather constant in Hungary during whole decade, although exactly these two countries have the largest proportion of general government employment in total population. More disturbing figures are in the bottom part of the table where it is evident that general government employment in 2001 makes more than 3% (except Romania where it is only 1,72%) of the total employment in all selected countries. Astonishing situation is in the case of Croatia where general government employment makes 9% of the total employment.

There are only few studies where the data for public administration employment as a percentage of total employment exist. Such available results are published for many countries in Schiavo-Campo et al. (1997), including our selected countries. The research shows that public administration employment as a percentage of total employment in 1993 is: 2,8% in Bulgaria, 1,3% in Czech Republic, 5,9% in Hungary and 1,3% in Poland; in 1994, 0,4% in Romania, 5,5% in Slovakia and 4,3% in Slovenia; and 6,0% in Croatia for the year 1995. Taking that result in consideration, we can conclude that the number of public administration employment in total employment is the largest in Croatia as well.

As a consequence, the public sector is becoming too expensive and overstaffed. Therefore, downsizing process seems to make a natural step for every public sector reform in transition countries. Downsizing of public sector employment increases government consumption efficiency, because it reduces state expenditure and makes net gain for whole economy (Rama, 1999: 2). In this context, the main question is how to define optimal composition of the layoffs of excess employees.

Standard separations government programs usually lead to the departure of the workers with high productivity (those with low production cost), because those workers have the best prospects outside the public sector. Unfortunately, there are several examples that when the government is in charge of downsizing, it may separate the wrong workers from their jobs at high cost. A wrong composition of the separations is possible because governments are usually not good at managing human resources (Rama, 1999: 17). Then it may happen that only highly skilled workers (among workers with the same educational level) leave the public sector. If the consequence of this brain drain is serious, than downsizing may result in a worse rather than better public sector performance (Jeon, Laffont, 1999: 67). Furthermore, the opportunity cost of leaving the public for the private sector raises with years of age and the workers who decide to stay might not be suitable to respond to changing demands.

A number of instruments have been used for reducing public sector employment, or moderating its rate of increase¹¹. Some of the instruments used are (Marinakakis, 1994: 63-64):

¹¹ The World Bank indirectly supported more than 40 attempts to downsize the public sector in developing countries between early 1991 and late 1993 as a part of World Bank research project on *Public Sector Retrenchment and Efficient Compensation Schemes*. The units targeted included government administration, state-owned enterprises and military (Rama, 1999: 3). In the fiscal year 2000, World Bank credits and loans for public sector reforms in developing and transition countries amounting almost 1,9 billion dollars, out of a total of roughly 15,3 billion. Lending for public sector reform exceeded the combined lending for education and the

A freeze on recruitments - usually one of the first measures taken to attain the objective of reducing public sector employment. In fact, this instrument has proved to be more effective in slowing the rate of growth of employment than actually reducing it.

Laying off workers on temporary contracts - is one of the less costly alternatives for the state, but the social costs are very high as these workers are usually less protected than others.

Compulsory redundancies and dismissals - may be completely arbitrary (fixing a percentage as a target) or based on two alternatives criteria, either low seniority (last in first out), or high seniority (early retirement).

However, it should be stressed that overstaffing is a relative notion and that determining the right size of a government workforce should be done on a country-by-country basis, taking into account the state functions in particular country, the degree of centralization, the skills profile and the fiscal outlook (Schiavo-Campo, 1996). It is true that retrenchment can produce fiscal savings, but exaggerating can give the public administration reform a bad name and ensure resistance. In addition, costs are usually high. Short-term cost can be skill reduction, medium-term risk recurrence of overstaffing and long-term risks include staff demoralization, lower quality service and loss of credibility if retrenchment is perceived as arbitrary and opaque.

5. PUBLIC ADMINISTRATION WAGES VERSUS PRIVATE SECTOR WAGES

When analysing public administration employment and especially wages, important factors are socio-demographic characteristics of employees and state of budget deficits. To better evaluate socio-demographic characteristics it is important to analyse differences between private and public sector employees in labour market features.

Private sector employees were found to be more male-dominated, generally younger and less educated than their public sector counterparts. The fact that the more highly educated employees in the public sector are reluctant to move to smaller and riskier private firms might explain this. Another possibility is that they are too highly educated to be employed in small businesses (with the exception of high-tech industry, and certain services), which mainly provide jobs for low-skilled workers. Thus, the increase in private sector employment has mainly come from people entering the workforce for the first time. Fewer young females than males joined the private sector, probably because of the inferior working conditions (job characteristics) compared to the public sector. Employees in the private sector are expected to work harder and be more efficient, and fewer social services may be available than in public sector. Recruitment and separation rates of workers in the private sector are substantially higher than in the public sector. This indicates a different demographic manpower structure (younger workers in private firms), a more dynamic labour market and increased intensity in economic activity (Socha, Weisberg, 2002: 574).

The inefficiencies of public administration began to come to light when budget deficits became too high and existing sources of financing were exhausted. The first decision in the process of adjustment was whether to act on public expenditure and/or on revenues. As the possibilities of increasing revenues seemed extremely limited (partly owing to a fear of

environment and it also exceeded the combined lending for water supply, sanitation, population and the environment (Bales, Rama, 2002: 1).

provoking further cuts in private investment, and partly owing to structural inefficiencies in tax collection), cuts in the expenditure gained momentum. An oversimplified sequence of priorities in expenditure cuts shows that the initial targets were capital items, followed by non-labour current expenditure, and finally labour (Marinak, 1994: 62).

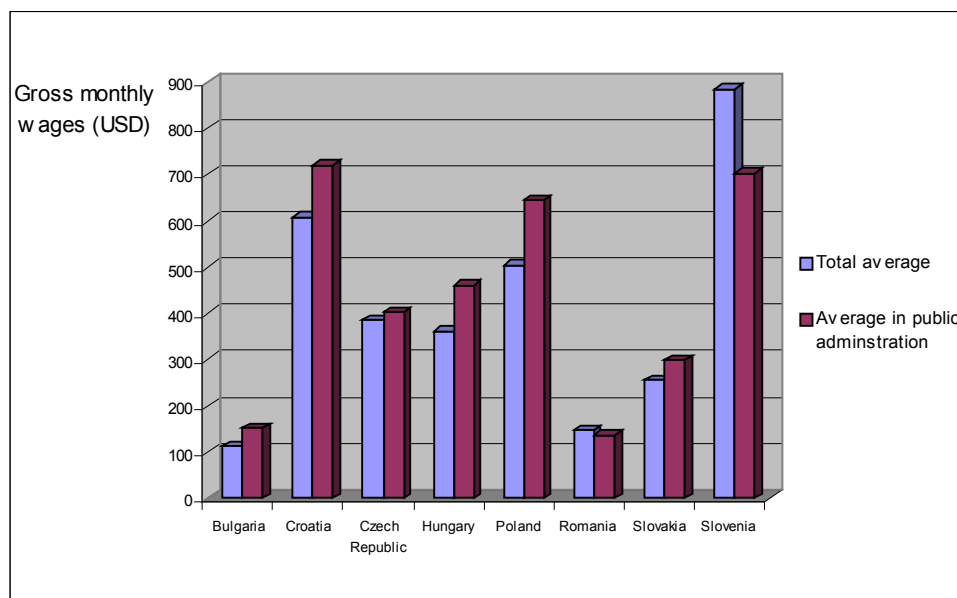
It should be noted that the International Monetary Fund stand-by agreements do not prescribe where cuts should be made. However, in the majority of the cases cuts nearly always fall on the development part of budget. They are not evenly distributed and sectors such as health, education and science tend to be more affected than defence and public administration. As the wage bill is the largest item in public sector spending, reforming the public sector usually entails changes in employment and pay, therefore pay restraints in the form of wage freezes (below inflation indexation of wages) occur. Cut in wages of public administration directly reduces budgetary expenditures making it a short-term gain (Rama, 1999: 12) but it also might cause long-term losses in the form of demotivation and underperformance.

Typically, public sector workers claim that they are underpaid compared to their private sector counterpart. Wage differentials between the private and public sectors may be explained by several factors. On the one hand, wages in private enterprises may incorporate an element of "efficiency wage"¹², and therefore private sector wages may be higher than those in the public sector. On the other hand, lower wages in the public sector are a consequence of greater job security and higher non-wage benefits. But comparisons of average wages stress that in some transition countries wages in public sector are higher than in private sector, although studies on private-public wage differentials in Central and Eastern European countries are very scanty. All these studies should be viewed with caution as the results are based on examining average wages without controlling for workers' characteristics (Adamchik, Bedi, 2000: 204). In year 2000 average gross wages in public sector in Croatia were approximately 30% higher than wages in private sector, but the main reason of such trend is the fact that approximately 50% of employees in public sector have tertiary education (college, faculty or higher degree of education) (Nestić, Lovrinčević, Mikulić, 2001: 255-259).

Due to lack of data on the disaggregated occupational level, figure 3 shows that total average gross monthly wages are lower than average gross monthly wages in public administration, defence and compulsory social security activities in all selected transition countries. In case of Romania and Slovenia, total average gross monthly wages are greater because they are compared with average net monthly wages in public administration, defence and compulsory social security activities.

¹² Private sector employers may set wages above market clearing levels in order to reduce turnover costs and, thus, to increase the efficiency of the firm (Salop, 1979) or may be paying higher wages to discourage workers from shrinking (Shapiro and Stiglitz, 1984).

Figure 3: Comparison of total average gross monthly wages and average gross monthly wages in public administration, defence and compulsory social security activities (USD), 2001



Source: WIIW Database.

Based on these results, it would be inappropriate to conclude that public sector workers are in general better paid than their counterparts in the private sector (in transition countries). The wage gaps vary not just between public and private sector, but also from occupation to occupation in a specific country at the specific point in time. Altogether, more educated individuals earn more in public and private sector, although individuals with university education earn more in private sector (Adamchik, Bedi, 2000: 213).

Considering this problem, we compare the relationship between the public administration paid net wages and average paid wages in other sectors in Croatia according to NACE¹³ classification and ISCED¹⁴ educational level of employees.

¹³ NACE - Nomenclature general des Activités Économiques dans les Communeautés Européennes.

¹⁴ ISCED-*The International Standard Classification of Education* - represents one tool which attempts to make the different national school and education systems comparable through the use of a common screen. The main ISCED groups are summarized in three classes:

- 1) Low - less than upper secondary (NKV, PKV workers in Croatia);
- 2) Middle - upper secondary (KV, VKV, secondary-school workers in Croatia);
- 3) High - tertiary (colleges and faculties in Croatia).

Table 5: Average monthly net wages in Croatia according to NACE and ISCED Classification (indexes)

	1997	1998	1999	2000
Average – all sectors	100,0	100,0	100,0	100,0
< secondary education	69,6	77,3	66,9	66,2
secondary education	90,4	89,1	87,0	86,8
Tertiary education	138,2	141,2	143,4	143,1
Average - public administration and defence	100,0	100,0	100,0	100,0
< secondary education	62,0	63,0	59,2	57,9
secondary education	79,6	79,7	75,0	77,1
Tertiary education	119,2	120,5	121,6	119,5

Source: Statistical Reports - *Employment and Wages*, different issues, National Statistical Office.

Table 5 shows that average monthly paid net wages according to all educational levels (ISCED classification) are much lower in public administration sector compared to all other NACE sectors. Considering average paid net wages, higher educational level of employees is less appreciated in public administration than elsewhere.

6. EFFICIENCY MEASUREMENT RESULTS

In the end, we investigate whether there is a link between efficient public administrations and their employment and wages in selected transition countries. We try to examine the correlation between bureaucracy quality, government effectiveness, regulation of entry and corruption both with employment and average paid wages in public administration. Because of a rather poor time series data of all indicators, we made correlation analysis only for 2001 so our results are quite tentative (see table 6 and 7). They only suggest that wages are a more explanatory variable (compared to employment) in terms of government effectiveness and public administration corruption and employment is a more explanatory variable in terms of bureaucracy quality. Of course, they do not show the direction of causality. Number of employees seems to be more strongly linked with the regulation of entry than wages.

Table 6: Correlations for all variables with public administration employment in 2001 in selected transition countries

		BQ	GE	NP	Time	Costs	Time+costs	CPI	EMP
BQ	Pearson Correlation	1,000	,873**	-,790*	-,432	,618	,501	,794*	,673
	Sig. (2-tailed)	,	,005	,020	,285	,103	,206	,019	,143
GE	Pearson Correlation	,873**	1,000	-,788*	-,290	,327	,238	,814*	,445
	Sig. (2-tailed)	,005	,	,020	,487	,429	,570	,014	,376
NP	Pearson Correlation	-,790*	-,788*	1,000	,721*	-,424	-,158	-,897*	-,344
	Sig. (2-tailed)	,020	,020	,	,044	,295	,709	,002	,504
Time	Pearson Correlation	-,432	-,290	,721*	1,000	-,445	-,058	-,628	-,573
	Sig. (2-tailed)	,285	,487	,044	,	,269	,891	,096	,235
Costs	Pearson Correlation	,618	,327	-,424	-,445	1,000	,920**	,598	,818*
	Sig. (2-tailed)	,103	,429	,295	,269	,	,001	,118	,047
Time+costs	Pearson Correlation	,501	,238	-,158	-,058	,920**	1,000	,393	,370
	Sig. (2-tailed)	,206	,570	,709	,891	,001	,	,336	,471
CPI	Pearson Correlation	,794*	,814*	-,897**	-,628	,598	,393	1,000	,485
	Sig. (2-tailed)	,019	,014	,002	,096	,118	,336	,	,330
EMP	Pearson Correlation	,673	,445	-,344	-,573	,818*	,370	,485	1,000
	Sig. (2-tailed)	,143	,376	,504	,235	,047	,471	,330	,

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The results of correlation matrix show that strongest relation is between bureaucracy quality and government effectiveness (0,873), because government effectiveness already includes bureaucracy quality. Furthermore, government effectiveness seems to be strongly negatively correlated with number of procedures (-0,788), as expected. Our results also confirm that higher number of regulations is connected with higher corruption (-0,897)¹⁵. Such result is optimistic, suggesting that in all selected countries the degree of corruption might decrease with increasing bureaucracy quality and decreasing the number of procedures.

¹⁵ The degree of corruption might decrease with lowering the number of regulatory procedure, as higher corruption index suggests country with lower corruption.

Table 7: Correlations for all variables with gross monthly average wage in public administration in 2001 in selected transition countries

		BQ	GE	NP	time	costs	Time+costs	CPI	Wages
BQ	Pearson Correlation	1,000	,873**	-,790*	-,432	,618	,501	,794*	,627
	Sig. (2-tailed)	,	,005	,020	,285	,103	,206	,019	,096
GE	Pearson Correlation	,873**	1,000	-,788*	-,290	,327	,238	,814*	,649
	Sig. (2-tailed)	,005	,	,020	,487	,429	,570	,014	,082
NP	Pearson Correlation	-,790*	-,788*	1,000	,721*	-,424	-,158	-,897**	-,408
	Sig. (2-tailed)	,020	,020	,	,044	,295	,709	,002	,316
Time	Pearson Correlation	-,432	-,290	,721*	1,000	-,445	-,058	-,628	-,399
	Sig. (2-tailed)	,285	,487	,044	,	,269	,891	,096	,327
costs	Pearson Correlation	,618	,327	-,424	-,445	1,000	,920**	,598	,333
	Sig. (2-tailed)	,103	,429	,295	,269	,	,001	,118	,421
Time+costs	Pearson Correlation	,501	,238	-,158	-,058	,920**	1,000	,393	,200
	Sig. (2-tailed)	,206	,570	,709	,891	,001	,	,336	,635
CPI	Pearson Correlation	,794*	,814*	-,897**	-,628	,598	,393	1,000	,580
	Sig. (2-tailed)	,019	,014	,002	,096	,118	,336	,	,132
Wages	Pearson Correlation	,627	,649	-,408	-,399	,333	,200	,580	1,000
	Sig. (2-tailed)	,096	,082	,316	,327	,421	,635	,132	,

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Earlier research (Van Rijckeghem and Weder, 1997: 4) has shown that quasi-eradication of corruption requires a relative wage of 3-7 times the manufacturing wage. Results could be more promising if the quality of the judiciary would be improved at the same time. Furthermore, without improvement in accountability, well-paid public administration need not be much less corrupt. External accountability is essential for becoming more responsive to the public; it can be increased through for example public opinion polls, user surveys or wearing name-tags.

It should be stressed once again that wages and number of employees are not the sole variables related to public administration performance. Our paper merely indicates the

complexity of assessing public administration efficiency and its determinants. Future research should concentrate on other country-specific, economic, political and cultural variables.

7. POLICY IMPLICATION

During 1980-97, only one-third of the World Bank's civil service reform interventions had successful outcomes (Manning et al., 2000). However, no matter how imperfect, painful and expensive the methods of democratic way of dealing with public administration crisis are, they are not more ruthless nor expensive than the methods used in the market game (Pusić, 1999: 241). It is important for all the reforms to have a long-term goal, with quantitative targets, specific timetables, indicators of performance and explicit criteria. If they cannot be carried out properly, it is better not even to start them. In many ways, public administration reform cannot be separated as a single process without reforming the state, its role and functions.

As public administration reforms based on decreasing the number of employees and increasing their wages at the same time did not have much success - best qualified employees left the public administration and later the number of employees again increased (World Bank, 1997: 95-96), we suggest several other ways of improving public administration efficiency:

- **INNOVATIONS** - in the public sector they are traditionally viewed as coming from the top. Politicians are those who make the most appointments in the public services and then implement them by permanent public servants (Borins, 2001: 312). Case studies presented by Hamel¹⁶ show that the situation in private companies (for example, in IBM or Shell) is completely different: ideas for new innovation come from middle managers. The finding - that innovative ideas emerge from all levels of an organization - has important implication. If innovative ideas can come from anywhere in an organization, rather than from senior élite, then organizations will be most innovative if they can stimulate innovation throughout. Surveys in western countries show that the most frequent impetus for innovation by far was internal problems (such as inability to meet demand for a program, resources constraints, or an inability to coordinate policies), political influence and new opportunities created either by technology or other factors (Borins, 2001: 313). A public sector innovation occurs primarily in response to a major crisis although crises are not a necessary condition for public sector innovation (Levin, Sanger, 1994). Employees also have to be induced to work effectively, because only in that way they can be innovative. One way of supporting innovation is by rewarding developers of successful innovations. The public sector traditionally has not given large financial rewards to its innovative employees, which makes it easier for them to leave the public sector for the private sector. Even if innovation is not rewarded with merit pay, it could be recognized, for example through awards (Borins, 2001: 315).
- **MERITOCRATIC RECRUITMENT** - Weber argued for the fundamental value of bureaucracy (defined as a particular kind of organizational structure based on meritocratic recruitment and predictable, rewarding long-term careers) as one of the institutional foundations for capitalist growth (Evans and Rauch, 1999). According to

¹⁶ More detailed see in Hamel, G. (2000) *Leading the revolution*, Harvard Business School Press, Boston.

empirical results, meritocratic recruitment is the key ingredient of efficient public administration; internal promotion, career stability and competitive salaries (comparable to those for private positions requiring similar skills and responsibility) are of secondary importance for improving bureaucratic performance (Rauch and Evans, 2000). Making entry to the bureaucracy conditional on passing a civil service exam or attainment of a university degree should produce a capable pool of officials and lead to an politically neutral and professional public administration. This measure is especially valuable for public administration reform if vigorous enforcement of anticorruption laws is not available. It is interesting to point out that among selected countries patronage (defined as public officials hiring their friends and relatives into official positions) is the highest in Croatia (Hellman et al., 2000).

- **SIMPLIFYING REGULATION OF ENTRY** - measures simplifying administrative procedures can both improve governance and reduce corruption. Regulations should be transparent, simple and limit the discretionary power of officials. Rigidities that exist in a society are not exogenous and unmovable (Tanzi, 1998: 582).
- **INSTITUTIONAL FRAMEWORK** - it should be stressed that public officials' performance depends upon the institutional framework in which they find themselves. Reforms will not succeed if they do not take into account the existing "rules of the game" in society. Evidence shows that public affairs are more successfully ordered in the more civic communities because "citizens expect better government and (in part through their own efforts) they get it – they demand more effective public service, and they are prepared to act collectively to achieve their shared goals" (Putnam, 1993: 182). Preliminary results show that the level of Croatian social capital is much lower than in the West-European countries (Štulhofer, 1998: 164). Although institutional framework changes slowly in the developed countries and is considered to be path-dependant, feasibility space for policy choices in transition countries might be much wider than often assumed (Campos, 2000). Lost confidence in all institutions during transition could be an obstacle.
- **ESTABLISHMENT OF NEW VALUES AMONG PUBLIC OFFICIALS** – a new type of bureaucrat is needed, one who would have the following characteristics (Jenei and Zupkó, 2001: 89-90): "productive and efficient, empathic, tolerant, responsible, loyal (but not subservient), positive toward people and problems, creative and resourceful, constructively critical, respectful, helpful and courteous, flexible and cooperative". Of course, such an ideal cannot be reached, but at least their performance could be improved by being open to change, by (re-) training and education and by refocusing themselves to be more customer and results-oriented, which could be enhanced through nonmonetary incentives such as public recognition or professional rewards.
- **ANTI-CORRUPTION** – increase in the wage level is likely to fight corruption, but a very large increase would be necessary to increase it to the minimal levels. In other words, "the fight against corruption, pursued exclusively on the basis of wage increases, can be very costly to the budget of a country and can achieve only part of the objective. Furthermore, even at high wages some individuals may continue to engage in corrupt practices", because greed is difficult to eliminate (Tanzi, 1998: 572). High penalties may reduce the number of acts of corruption but not their amount. Also, even with the existence of laws, relatively few acts of corruption are punished because of the high costs to the accusers in terms of social capital (Tanzi, 1998: 574).

Empirical research shows that stronger internal and external controls are associated with lower corruption across countries (Van Rijckeghem and Weder, 1997: 49). The first line of defense should be control inside institutions: "honest and effective supervisors, good auditing offices, and clear rules on ethical behaviour should be able to discourage or discover corrupt practices" (Tanzi, 1998: 575). Also, if the top political leaders do not set the right example, it cannot be expected that the employees in the public administration will behave in a different manner.

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