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**FORMALIZATION OF ORGANIZATIONAL STRUCTURE AS A SUBJECT OF  
PATH DEPENDENCY:  
AN EXAMPLE FROM ESTONIA**

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**Abstract**

This study examines the characteristics of organizational structures in Estonian companies, in particular the formalization level of the structures as a subject of path dependent developments. The authors show that the Communist past affects the creation of organizational life until today. The path this past created affects the organizational structures in the present in two ways: firstly, a kind of structural inertia can be observed, where the Soviet style of management with its high formalization level lasts until today and limits employers in their freedom to deal with their tasks. Secondly, looking at other actors of the same game, the managers, an opposite trend can be revealed: another kind of path dependency exists – a reactive process where the past has caused a powerful response, forcing the actors to contrast itself to the Soviet management style. We address this inconsistency by turning to the notion of stakeholder theory, or more exactly, stakeholder-related path-dependency. This shows the difference in the subjective perception of speed and relation of power by different stakeholders of an organisation which is an important factor to be considered in Eastern European organizations.

**1. Introduction**

Quarter of century has passed since the fall of the Berlin wall and dissolution of the Soviet Union. The rapid processes of transition from communist ideology and command economic system to democracy and market economy resulted in a radical change of managerial qualities and activities. In the course of the transformation, the command-style management practice also lost its effect. For today, the process of transition, in the sense of a changeover from one political and economic regime to another, has been

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completed for quite some time. Nevertheless, the process of societal formation continues and affects the organizational formation and functioning of the organizations still today. This paper studies these processes using the case of the smallest former Soviet Bloc countries, Estonia. The country was occupied by the Soviet Union for 50 years and restored its national and political independence in 1991. Estonia's liberation from the occupational yoke that year marked the beginning of wide-scale transformation at cultural, individual, institutional and societal levels.

The starting point of this study is the question what determines the characteristics of the structures of Estonian organizations and will be answered with the help of the theoretical concept of path dependency. More precisely, we study the formalization level of organizational structure (as one of the three basic elements of organizational structure according to the seminal approaches) and prove its path dependency. Beside this we also demonstrate that this path dependency can be perceived differently by different stakeholders of an organization and show that the macro-level path dependency is a complex issue with many nuances inside. For the empirical evidence we use data from three different data sources, which comprise different types of stakeholders, and combine them.

This paper is structured as follows: The following section outlines the theoretical background underlying the research. Third section then shows the empirical evidence and the last section discusses the results.

## **2. Theoretical frame of the study**

### **2.1. Organizational path dependency**

The rationale of the concept of *path dependency* comes from the fact that usually development follows a certain sequence. This idea can be traced back to research by Nelson and Winter (1982), who expressed that activities and decisions made in the past influence subsequent choices. Later works of many other authors followed, which further developed the concept of path dependency (e.g. David 1985; Arthur 1994; North 1990; Pierson 2000; Sydow et al. 2009).

The path dependency became a focal idea for evolutionary theories in economics. Dosi

and Nelson emphasize that ‘rational choice’ theory does not explain how the particular local context which frames the choices came to be the point of rest, and they argue that path dependency may open these issues using one example as follows: “in all of the models, the particular entities that survive in the long run are influenced by events, to considerable extent random, that happen early in a model’s run” (1994: 166). This approach explains well technological trajectories and therefore it is exploited for this purpose (for example, Dosi and Nelson 2013; Hobday 2003), but also for other factors of economic development too.

The approach to path dependency which we will draw on in our argumentation traces back to David (1985) and Arthur (1994), who studied path dependency in economics. For these authors, path dependency shows a process started by a random decision or event. Through inertia, this process can lock-in a technology on a particular path of subsequent development. As such, this path is not necessarily the most advantageous one from an aggregate standpoint (Britton 2004: 2). If so, the process exhibits the so-called ‘increasing returns’, where the once adopted technology or action mode cannot be displaced because of the increasing conversion costs.

However, in the study of organizations such a perception is often too narrow and it is important to consider the other possible forms of path dependency, such as reactive processes, where the “initial disturbances are crucial not because they generate positive feedback, but because they trigger a powerful response” (Mahoney 2000: 518). In our study we follow Mahoney’s distinction between ‘self-reinforcing sequences’ and ‘reactive sequences’. The first is characterized by processes of reproduction and the second is characterized by processes that transform or even reverse early events (Mahoney 2000: 526).

To date the starting point of this path, we draw on Sydow et al. (2009), who offer a framework for better explaining path dependency, since the concept of path dependency in the theoretical literature has been until now “used mostly as a broad label indicating all kinds of imprinting effects of the past on organizational behavior” (Sydow et al. 2009: 689). They show different stages of the formation of such a path: the Preformation Phase “is characterized by a broad scope of action. The effect of a choice of options cannot be

predicted” (2009: 691). This is followed by the Formation Phase: “a dominant action pattern is likely to emerge, which renders the whole process more and more irreversible. By implication, the range of options narrows, and it becomes progressively difficult to reverse the initial choice or the initial pattern of action— that is, a path is evolving” (2009: 691). Finally, there is the Lock-in Phase – “characterized by a further constriction, which eventually leads to a lock in – that is, the dominant decision pattern becomes fixed and gains a deterministic character” (2009: 692). In our study of Estonian enterprises, the first phase – Preformation Phase – starts around 1991, when Estonia gained its independence and theoretically all paths for the development and design of organizations were possible. Yet, the Preformation Phase of course does not stand in a history-free context – “history matters in the Preformation Phase too” (Sydow et al. 2009: 692), which in the case of Estonia is its Soviet past. A high formalization level of organizations was a characteristic attribute of the whole Soviet regime and also its organizations. It is therefore a suitable phenomenon proving the path dependent character of organizational structures in the present.

## **2.2. Historical and cultural context of the region as a builder of path dependency: the example of the former Soviet Block**

Dynamics in the political and social life frame a situation where economic activities are totally influenced by some significant developments. This perspective was the underlying idea when Alexander Gerschenkron (1962) analyzed economic backwardness in various regions, including Soviet Russia. He ends his book with six propositions which reflect how the backward country’s economy has influenced its industrialization, whereby Gerschenkron (1962: 354) also places attention on the institutional factors.

In a similar vein, Wren (2004) concludes that Taylor’s approach to management was not applicable in Soviet Russia by saying: “decisions regarding work standards and output were made on the basis of national priorities as determined by the Communist Party rather than by any notion of a systematically designed production-marketing system” (2004: 297). One rich example is Soviet Russia and the countries which were influenced or occupied by this ideology. Gerschenkron (1962) analyzes industrial growth in Soviet Russia and describes the basic problems of industrial enterprise in Soviet Russia at the

beginning of the 1960's. His (1962) assessment is paradoxical because on the one hand, he argues that industrial managers had plenty of possibilities to manoeuvre in order to lengthen or shorten, loose or tight lines of command in the organizational structure (1962: 279); on the other hand, the ideological means (shifting managers from factory to factory, locally maintaining a well-developed system of informers, increasing control by the local party organs) were used to push these managers toward greater obedience and shorten a manager's tether or at least to control its length (1962: 288). It has been argued that organizational culture in Russia is still influenced by collectivism. Vadi and Vereshagin (2006) have shown that HRM practices and organizational culture in Russia are influenced by collectivism and these impacts derive from the long- and short-term history. They also mention that in the Soviet Union HRM practices were militaristic in style. The term 'kadrovaja rabota' (operating with cadres) was adopted in the first years of socialism. It was based on instructions from the top; subjective criteria used to have an important role in personnel selection. In light of the abovementioned notions, it can be justified that the Soviet system experienced tight control over employees by setting rules for manpower deployment, training and procedures. Once these have been built in to the practices of organizations, specific features may stay for a long time. For example, Cook et al. (1998) found forty years later that people managing manufacturing industries in the former Soviet Union differ from their counterparts in Britain in many aspects of personality. They argue that these managers may find it difficult to function effectively as managers in the post-Soviet era and the authors call for the improvement of selection methods to identify the next generation managers and execute extensive training and development programs to enable these managers to cope. From the perspective of organizational structure these functions are known as part of the formalization. In the first section of this paper we gave a short overview how the specific societal context (the communist ideology) shaped the life of an organization.

Festing and Sahakiantas (2013) show that several factors from macro, organisational and individual level have contributed to the legacy of communist practices in compensation systems of post-communist countries, while they bring out also many factors that have contributed to the dissolution of this path-dependency, like foreign direct investments,

international management consulting companies etc. They analyse more advanced countries from CEE, Czech Republic, Poland and Hungary. The role of path dependence in management and organisation may be stronger in Russia. Schwartz & McCann (2007) argue that there have been “limited changes to management structures and systems of control of the enterprise, and very few changes to work organization” in Russia. Libman and Obydenkova (2013) show that Russian regions with high Communist Party membership rates during the Soviet era have higher corruption nowadays. They discuss that former members of the party transformed to bureaucratic, political and business elite, which kept close informal ties and established political institutions with “lower transparency, higher level of clientism and predominance of extractive institutions”.

For a better understanding of the role of culture in path dependent developments concerning organizational structure, a good approach has been developed by Geert Hofstede, who argues that some elements of formalization are culturally bounded, like uncertainty avoidance and power distance, and form the framework for setting rules and formalization in general (Hofstede 2001: 166, 375). Relying on Hofstede’s original approach (1980), which incorporates four cultural dimensions, Eastern Europe falls into the category of regions with high uncertainty avoidance – the degree to which people in a country feel threatened by uncertain or unknown situations, and prefer structured over unstructured situations. In the organizational context it means that organizations with high uncertainty avoidance tend to use more control practices and have less trust in the ability of the employees to take decisions on their own.

Stewart et al. (1994), but also Offermann and Hellmann (1997), show empirically that managers from societies with high uncertainty avoidance tend to be more controlling and less delegating. In these societies, specialization and task-related expertise is more important in the career management activities for young managers as flexibility, career mobility and generalization. Also, The GLOBE Project reports leadership and organizational attributes that are culturally contingent (Den Hartog et al. 1999). There are different characteristics and member behavior in organizations in different countries. All in all, we can argue that if the national culture is strongly uncertainty avoiding it results in a high formalization level of organizational structures and the other factor for high

formalization comes from the Soviet system.

### **2.3. Formalization of the organizational structure**

Formalization is, besides centralization and integration, one of three key elements of organizational structure. It shows the extent to which rules and procedures are existent and followed in an organization (Scott 1981). The amount of formal rules, policies and procedures in the organization indicates its level of formalization (Andrews and Kacmar 2001). If an organization is highly formalized the procedures in the organization are clearly defined, there are lots of rules in the organization and the jobs are explicitly described.

The level of formalization in an organization is generally dependent on the size and sectoral affiliation of the organization. Kalleberg et al. summarize in their National Organizations Study (1996: 326-329), amongst other things, that a larger organization size increases formalization; being a public-sector organization increases formalization. An increase in the number of departments is hypothesized to result in greater formalization. However, the level of formalization could also be a matter of the cultural and historical context this organization acts in (Hofstede, 2001), whereby in a rather authoritarian society also the organizations tend to more formalisation in their working processes.

Some scholars also differentiate between organizational and job formalization (Hempel et al. 2012; Griffin et al. 2007). The former refers to the extent to which formal rules and policies regulate behaviour and decision making within the organization. It provides the basis for interactions between organizational members (Khandawalla 1974; Pugh et al. 1968) and indicates, for example, in which extent the members of the organization can influence policy decisions about the activities of the organization. Job formalization, on the other hand, focuses on the formalization level of job descriptions or roles within the team, showing how much the management allows the employees to decide how their own daily work is organized.

### **2.4. Stakeholder perspective in path dependent developments in the organization**

Path dependency as a concept is characterized by its critics as a too broad and static approach, discovering unsurprisingly that “history matters” (Kay, 2005). One possibility



to overcome this is the combination of the stakeholder approach and the path dependency approach which enables us to show path dependency with its different nuances. One certain path can contain many different perspectives depending on the actor observing it. Until now this combination of approaches has been rather poorly examined.

The stakeholder approach has been used widely and its roots lie in the field of strategic management (see Freeman 1984). According to the review of academic stakeholder theory literature compiled by Laplume, Sonpar, Litz (2008) stakeholder approach in organization theory can be referred to Donaldson and Preston (1995). Especially their normative perspective to the stakeholder approach has been the predominant view in stakeholder theory. According to it stakeholders are individuals (or groups) who have legitimate interests in essential aspects of the organization. Further, this view examines also why its stakeholders are important to an organization.

Combining path dependent perspective and stakeholder approach gives both theories dynamism (Lamberg, Pajunen, Parvinen, Savage, 2008) and therefore it is a further mean to overcome its vagueness. Lamberg, Pajunen, Parvinen and Savage (2008) noticed that the inclusion of path dependency approach in the stakeholders study is new and demonstrated in their study how the initial conditions of stakeholder relationships largely explains why a transition turns to unexpected direction.

Stakeholders approach makes it possible to bring to light the different shades of path dependence theory or let us go from the macro level to the micro level of this approach. Stakeholders we focus on in our study are the internal stakeholders of an organization i.e. stakeholders who can be considered as a part of an organization. In our case these are the employees and the managers of an organization and the question about stakeholders is interesting from point of view of different perceptions of organizational life and how it can influence the path dependent developments in the organization.

### **3. Linking theoretical considerations to empirical evidence**

For the empirical evidence in this study we use three different sources showing the formalization level of organizational structures, its path dependence and the significance of stakeholder views in this. In the first one – the European Social Survey 2002-2012 –

the freedom of employees dealing with their tasks was evaluated. The higher this freedom is, the lower the level of formalization in the organizational structure. The second data set – Management study of Estonian enterprises “Eesti juhtimisvaldkonna uuring 2011” – showed the level of formalization in the organization with the help of the explicitness of organizational procedures. The more explicitly the procedures are described, the higher the level of formalization. The last data set – interviews with the (top) managers of software companies – shows the overall attitude of the top managers toward organizational structure as a leadership instrument.

Kaasa et al. (2013) draw attention to the European Social Survey data set as a possibility to overcome several weaknesses of earlier data sets used for cross-cultural analysis, saying that “it provides unique opportunities for the analysis of differences between regions with nation states, and the data are representative of entire populations” (2013: 137). The second data set originates from an exhaustive study about management practices in almost 200 Estonian companies. As a whole, it gives a good overview about the state of the art of management in Estonian enterprises.

The third data set we use consists of 13 interviews conducted with the top managers of Estonian software companies and enables us to examine the characteristics of one industry in detail.

From all three we pick the information that allows us to draw conclusions about the formalization level of organizational structures and its path dependent character.

### **3.1. Different paths in Western and Central and Eastern Europe in working arrangements: employees’ perspective**

This section tests whether the developments in working arrangements in Central and Eastern Europe (CEE) have been different of those in Western Europe (WE) using European Social Survey (ESS) data in 2002-2012. European Social Survey collects data about perceived working arrangements in each sample country and over all six survey rounds, highlighting the path from the perspective of the employees of the organization as one group of internal stakeholders. ESS is an academically driven pan-European survey measuring attitudes, beliefs and behaviour patterns (see information about the survey at <http://www.europeansocialsurvey.org/about/>). The population and sample weights are

employed in the following analysis to make the surveys representative over countries and over time.

We analyze developments in formalization of organizational structure using two survey questions from ESS: first “How much the management at your work allows you to decide how your own daily work is/was organized?”; second “How much the management at your work allows you to influence policy decisions about the activities of the organization?”. The first round has the second question about the ability to influence policy of organization phrased differently and hence this year, 2002, is left out from the analysis for this variable. Respondents choose one value from the ordered scale from 0 - “I have/had no influence” to 10 - “I have/had complete control”. All the employed individuals or previously worked individuals are subject to these questions in the questionnaire.

The regression analysis is used to investigate whether respondents’ estimates about working arrangements have changed over time differently in the sample of CEE countries compared to all the countries investigated. Simple method with interaction terms is used to identify possible differences in developments in CEE and WE.

The following regression is estimated:

$$working\_arrangements_i = \alpha_0 + \alpha_1 CEE_i + \tau_i + \tau_i \times CEE_i + org\_size_i + sector_i + \gamma_c + \varepsilon_i \quad (1)$$

where  $working\_arrangements_i$  indicate one out of two analyzed variables about formalization, either ability to influence daily work organization or ability to influence policy decisions of the organization. Variable CEE notes Central and Eastern European countries and takes value “0” for WE countries and value “1” for CEE countries.<sup>4</sup> The notion of Western and Eastern Europe is here used to differentiate between countries without and with communist political past and do not necessarily correspond to geographical position of countries analysed. Coefficient  $\alpha_1$  captures how much the CEE

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4 Western European (WE) countries in the sample are: Austria, Belgium, Switzerland, Cyprus, Germany, Denmark, Spain, Finland, France, Great Britain, Greece, Ireland, Israel, Island, Italy, Luxembourg, Netherlands, Norway, Portugal and Sweden. Central and Eastern European (CEE) countries in the sample are: Bulgaria, Czech Republic, Estonia, Croatia, Hungary, Lithuania, Latvia, Poland, Romania, Russia, Slovenia, Slovakia and Ukraine.

countries' respondents estimates differ in average from that of the WE countries in terms of these questions. The third term on the right hand side notes time dummies for each survey round, which capture the sample average development of analyzed variables over time. The fourth term is the interaction term between CEE dummy and time dummies, which captures whether the developments in analyzed variables differ in CEE countries, compared to WE countries. In addition to these key variables we control also for country specific effects by adding country dummies of all analyzed 33 countries ( $\gamma_i$ ), size of organization ( $org\_size_i$ ) where respondent is or was employed and the field of activity of that organization ( $sector_i$ ).

The literature review enables us to raise and test two research hypotheses: first, CEE countries have in average higher level in formalization of organizational structure (given the scale how working arrangements variables are measured in ESS, we would expect coefficient  $\alpha_i$  to be negative and statistically significant); and second, CEE countries' formalization of organizational structure has diminished quicker compared to formalization in WE countries due to dissolution of communist past and catching up with WE (we would expect coefficients on  $\tau_i \times CEE_i$  to be positive and statistically significant). If we can find support for both of the research hypothesis we can claim that there is lengthy path dependence that has kept Central and Eastern European countries' organizational structure affected from Soviet past for decades and that the catching up process is still going on.

Appendixes 1 and 2 present the descriptive statistics of ESS data. Appendix 1 presents the cross-country average estimation about working arrangements in 2008 on European map. This year had the largest number of countries covered and is more or less from the middle of the time dimension we analyze. It is well visible that the ability to influence everyday work arrangements or organization policy is significantly lower in former Soviet countries compared to Western Europe. Appendix 2 presents the descriptive figures on these formalization variables over time and country by country. In average, East-West difference in working arrangements has diminished over time; however, there are some countries that have not followed these trends. Our sample country, Estonia, stands out as one of the countries where the catching up in working arrangements with

Western Europe has been one of the fastest.

Table 1 presents the estimation results about the ability to influence daily work organization or ability to influence policy decisions of the organization. We do observe that the coefficient on CEE is negative and statistically significant for both of the variables indicating that the formalization of organization have been in average higher in CEE countries compared to WE countries over the analyzed timespan. The ability to influence organization of daily work has improved in average in all the sample countries over time, however, the improvement in CEE countries has been statistically significantly faster in year 2004 and 2008 compared to year 2002. For the rest of the years the CEE countries growth rates do not differ statistically significantly from WE. The ability to influence policy decisions of organization has improved over time more sluggishly and the trend has been even negative in the beginning of the sample years. However, for this variable the CEE countries catching up with WE countries has been strong and statistically significant for all the sample years. We also observe that the formalisation of organisation is higher in larger organisations, especially in terms the ability to influence policy decisions of organization; and that the level of formalization is in average much lower in manufacturing than in other sectors. Interestingly, also public administration organizations are less formalized than manufacturing.

**Table 1.** Developments in working arrangements according to European Social Survey, 2002-2012.

	Dependent variable measured on scale from 0 - "I have/had no influence" and 10 - "I have/had complete control":	
	How much the management at your work allows you to decide how your own daily work is/was organized?	How much the management at your work allows you to influence policy decisions about the activities of the organization?
CEE (1 – CEE country, 0- otherwise)	-1.457*** (0.147)	-1.639*** (0.120)
Year 2004 (base 2002)	0.082 (0.054)	
Year 2006 (base 2002)	0.093*	-0.331***

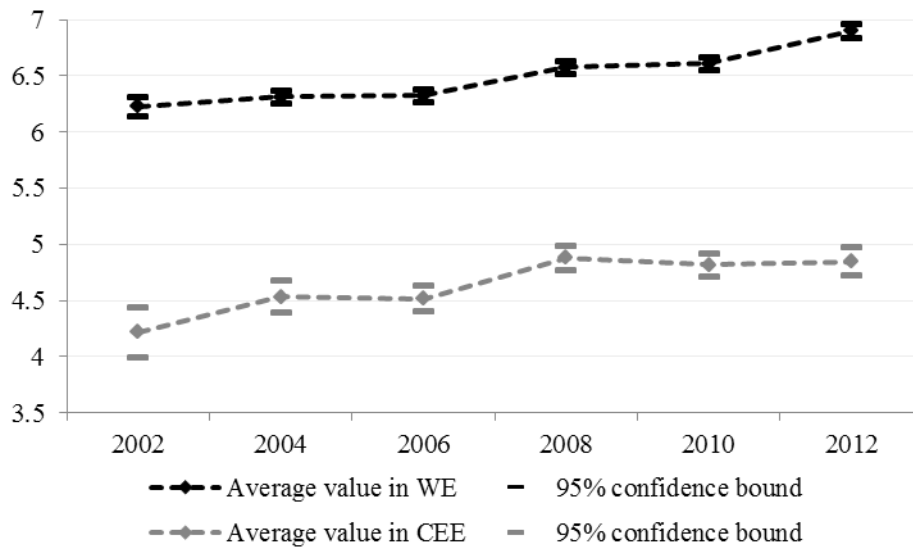
	(0.054)	(0.046)
Year 2008 (base 2002)	0.347***	-0.060
	(0.053)	(0.045)
Year 2010 (base 2002)	0.380***	-0.001
	(0.054)	(0.047)
Year 2012 (base 2002)	0.673***	0.505***
	(0.054)	(0.049)
Year 2004 × CEE (base 2002)	0.232*	
	(0.139)	
Year 2006 × CEE (base 2002)	0.205	0.369***
	(0.137)	(0.094)
Year 2008 × CEE (base 2002)	0.313**	0.505***
	(0.133)	(0.093)
Year 2010 × CEE (base 2002)	0.217	0.435***
	(0.133)	(0.093)
Year 2012 × CEE (base 2002)	-0.043	0.226**
	(0.136)	(0.100)
Establishment size2 (1 = 10-24 employees, 0 = otherwise)	-1.094***	-1.686***
	(0.038)	(0.040)
Establishment size3 (1 = 25-99 employees, 0 = otherwise)	-0.993***	-1.747***
	(0.036)	(0.038)
Establishment size4 (1 = 100-499 employees, 0 = otherwise)	-1.092***	-1.978***
	(0.039)	(0.041)
Establishment size5 (1 = 500 or more employees, 0 = otherwise)	-0.802***	-1.952***
	(0.043)	(0.044)
Agriculture (base industry and construction)	0.264***	0.768***
	(0.066)	(0.063)
Services (base industry and construction)	0.601***	0.379***
	(0.030)	(0.030)
Public administration, defence (base industry and construction)	0.935***	0.561***
	(0.051)	(0.055)
Constant	6.272***	4.874***
	(0.068)	(0.066)
Country dummies	yes	yes
Adj. R <sup>2</sup>	0.097	0.107
# of obs.	223794	202962

Notes: Italy and Luxembourg are not included in the analysis of ability to influence organisation culture. Robust standard errors in the parenthesis. \*, \*\*, \*\*\* indicate statistical significance at 10%, 5% and 1% level of significance, respectively.

Source: Authors' calculations from European Social Survey data of rounds one till six.

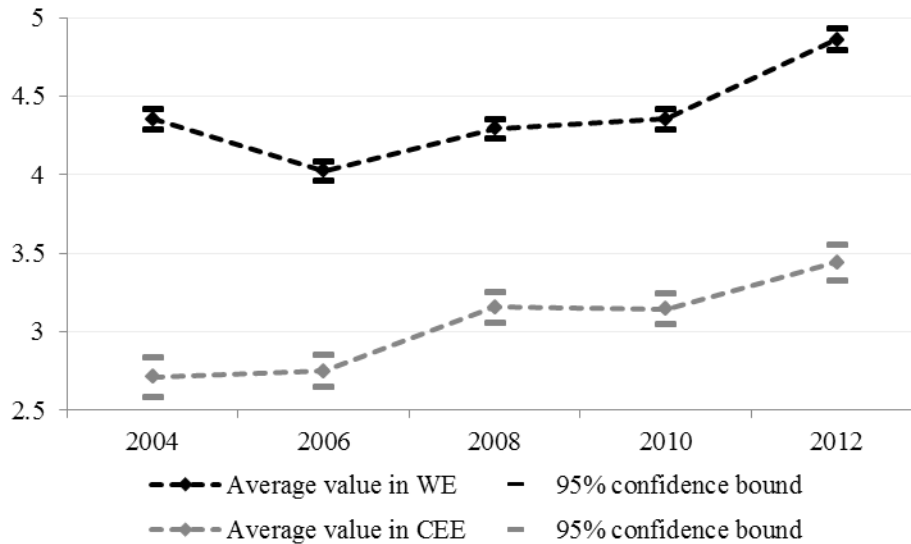
Figures 1 and 2 present the predicted values of country dummies for WE and CEE countries. It is presented that after controlling for country-specific effects, firm size and field of activity, there is a positive trend in both of the variables and in both of the

country groups. The formalization indicators have improved the most in terms of ability to influence working arrangements in WE and in the ability to influence organization policy in CEE. The catching up with West has been stronger in the ability to influence policy decisions of the organization compared to the ability to influence organization of daily work, whereas in the policy decisions variable the initial difference in formalisation has also been larger.



**Figure 1.** Predicted values of the ability to influence daily work organization from estimation of equation 1.

Note: Respondents are asked “How much the management at your work allows you to decide how your own daily work is/was organized?” 0 - “I have/had no influence” and 10 - “I have/had complete control”.



**Figure 2.** Predicted values of the ability to influence organization policies from estimation of equation 1.

Note: Respondents are asked “How much the management at your work allows you to influence policy decisions about the activities of the organization?” 0 - “I have/had no influence” and 10 - “I have/had complete control”.

These calculations let us conclude that from the perspective of employees (one group of internal stakeholders) there is a large gap between Eastern and Western Europe in formalization of organization structure proving the path dependent character of it originating from the Soviet past. Given that already quarter of century has passed from the beginning of the transition process, it is an indication of a very strong inertia and important role of path dependence in organisation of work. Additionally, in average, the catching up with the West has been stronger in the ability to influence policy decisions of the organization compared to the ability to influence organization of daily work.

### **3.2. Formalization level of organizational structures in Estonia – managers' perspective**

The employees’ perception of the formalization level of organizational structure in the foregoing section presented a clear evidence that the influence of Soviet-style management lasts via self-reinforcing sequences until today. In this section the



perspective of another group of internal stakeholders – top managers – will be studied. The data set from which we draw our empirical evidence about this is an applied study conducted in 2011 by Enterprise Estonia called “Eesti juhtimisvaldkonna uuring 2011” (Estonian survey of managers 2011). The data about formalization there was gathered via a questionnaire filled out by the top managers of 193 Estonian companies.

The top managers were asked to mark how precisely the evaluation, training and development and recruiting of the employees in their organizations are described. The more exactly the processes in an organization are described, the more formalized the structure of this organization is. The results are presented in Table 2.

**Table 2:** How exactly are the processes of employee evaluation, training and development and recruiting described in respondent organizations? (N=193; %).

	<b>Evaluation</b>		<b>Training</b>		<b>Recruiting</b>	
<b>Not described</b>	66	34.20%	63	32.64%	86	44.56%
<b>Broadly described</b>	57	29.53%	80	41.45%	70	36.27%
<b>Very exactly described</b>	65	33.68%	44	22.80%	36	18.65%

Source: Management study of Estonian companies: 2011 and authors' calculations.

The results show, differing from the previous subchapter, no clear tendency to a high formalization level of the organizational structure. According to the ESS the ability of employees to decide about their daily work at year 2012 in Estonia was rated 6 on a scale of 0 to 10. On the same scale the average ability to influence policy decisions was rated 3.5. According to the Estonian survey of managers the employee evaluation is on an average formalization level, training and development are below the average formalization level and recruiting is significantly below the average formalization level. If we summarize these results, there seems to be a contradiction: According to ESS the formalization level of the organizations is rather above the average, according to the Estonian management study it is below the average.

To support the assumption that there is an inconsistency between the perception of different stakeholders – employees and managers – concerning the formalization level of

organizational structure really exists, we examine the opinions of the (top) managers in one certain industry. In 2008-2009 one of the authors of this article conducted interviews with the top managers of 13 Estonian software companies. The organizations in this sample were (mostly successful) software companies in Estonia whose net profit in 2006 amounted to 75% of the profit of the whole software sector.

There is no reason to believe that software companies' managers' opinions about the formalization of organization cannot be used in our study of path dependence. According to European Social Survey we can observe that employees of the industry of computer programming, consultancy and other similar activities have in average more flexibility in organization of daily work and more influence on the policy of organization, but the difference between countries with and without communist past are equally the same in the whole economy and in the IT sector.

These top managers were asked about the organizational structures in their companies – how the organization functions, to what extent the structure is a leadership instrument for these managers and to what extent the structure is formalized in these organizations. Table 3 summarizes the general tendencies and opinions about the structural aspects in these organizations.

**Table 3.** General characteristics of organizational structures and opinions of the managers concerning the structure in the respondent organizations.

<b>Company</b>	<b>Tendencies concerning structure and formalization according to the top manager</b>
C1	There is actually (2008) even too much individual freedom of employees. The top manager will again strive toward more standardization and control in the following years.
C2	Very little organization, low hierarchy and little formalization.
C3	The company uses Scrum-method – framework for management of software projects. It uses self-organizing teams, co-location of all team members and verbal communication among all team members and disciplines in the project. Little formalization and much direct

	communication.
C4	In the beginning of the organization they avoided dealing with the organizational structure as they considered it unnecessary. Now internal processes are developed.
C5	The clients expect very much flexibility, but the top manager see the necessity for more standardization. The challenge is to find the balance between them.
C6	Low hierarchy, much cooperation.
C7	Small organization, much flexibility, very little formalization.
C8	Change their structure and processes very often – every month. They think that their success is based on these quick changes.  Planning the work is not complicated because of the complex product or the size of the company but because of the very undeveloped industry (online casino) – the clients are very changeable, it is very difficult to anticipate their needs.
C9	They have no ‘clear’ jobs. The overall job-management is team-oriented, where also the fit of characters between employees is important, since the company is not very big, so every good employee covers a special field.
C10	The attempt to draw a structure has been very short-term. They are in constant movement and development. Tasks move between people quite flexibly. Important is that the things are getting done. They have decided that they will formalize a certain process if they realize that otherwise they cannot move forward.
C11	As they are a quite big organization, the roles are clear and they have a quite clear functional structure. They have been quite hierarchical, but want to move toward more individual freedom of employees in performing their tasks.
C12	The roles and functions are quite clear, since given from the foreign parent company.
C13	Quite hierarchical, as they are a quite big organization. Processes are

	described. Nevertheless they stress the importance of individual freedom of the employees in respect of their tasks.
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The interviews among other things show that the organizational structure and its optimization are not among the priorities of many top managers. Even more, the organizational structure was often seen as a merely formal rudiment, a rather rigid presentation of hierarchical levels which has no great meaning for everyday operations:

*„We assumed that the people have an intrinsic need to achieve something but it did not happen. Now we have partly described our processes“ (Interview, C4)<sup>5</sup>*

About the half of the respondents were proud of having a very flat organization with a low level of formalization. Organizational structure seemed in majority of cases to be a rather negatively loaded term which refers to ineffectiveness:

*„We have very little organization. Everyone says that we have no hierarchy. Everything is quite free. We use lean management. This doesn't always work very well, but this is inevitable. Our mode of operation is a project. We are oriented only towards the task and the outcome“ (Interview, C2).<sup>6</sup>*

Larger companies or companies with foreign owners had in tendency more formalized structures with clearer task allocation. There was also a difference between the documents and lived reality of the organizational structure. Although some of the companies had documents where the organizational structure was drawn up and processes were described, during the interviews it became clear that they were not put into practice.

Almost all stressed that the formalization was not possible in software industry at this time, because of the rapid changes in the environment of these companies. By default little formalization and much individual freedom was seen as good.

#### **4. Discussion**

Exploring the path dependent character and its nuances of the organizational structures in post-communist countries, we estimated the level of formalization of the organizational

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<sup>5</sup> Approximate translation from Estonian

<sup>6</sup> Approximate translation from Estonian

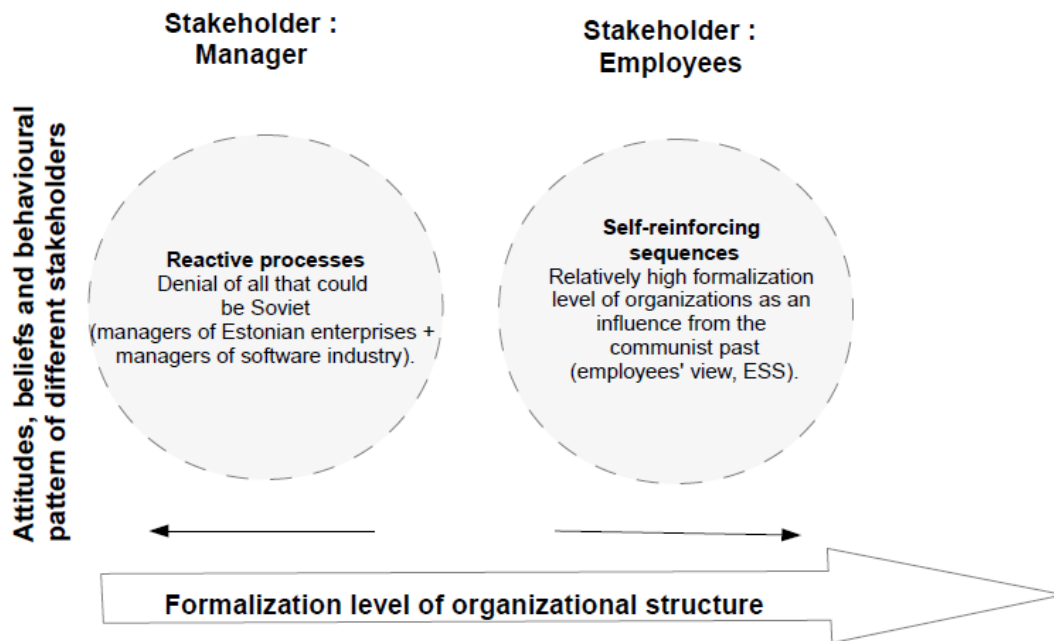
structures in Estonia. For this we used different data sets and combined the information we extracted from them. We first looked at the data gathered from the European Social Survey about the formalization level of organizations to find out how Estonia compares among other European countries. A similarity to other post-Soviet countries is clearly visible. The employees in Eastern European countries have relatively few possibilities to influence the organization of their everyday work. This refers to a rather highly formalized organizational structure and work process. In this context there is a large gap between Eastern and Western Europe in formalization of organizational structure. Additionally, the catching up with West has been stronger in the ability to influence policy decisions of the organization compared to the ability to influence organization of daily work. This lets us conclude that there should be an “east-specific” path dependent development affecting the formation of organizational structures today. The connecting link between different Eastern European countries is their Soviet or Communist past with its command economy, where organizations were highly centralized and highly formalized. Cultural dimensions, created by Hofstede (1980) help us to motivate this finding. According to Hofstede, Eastern European countries fall into the category of states with high uncertainty avoidance, characterized by more control practices and less trust in the ability of the employees to take decisions on their own. A structural inertia could be observed as the Soviet style of management carried itself into the management reality of the present.

To test these results we used a second data set – data gathered from top managers of Estonian companies. We took the responses to the question about the level of formalization of recruitment, training and development and employee evaluation processes and evaluated them. The results do not show a clearly high formalization level of these organizations. This level lies somewhat in the middle of the range, showing that the processes are broadly described or partially not described. Since the first data set reflects the opinion of the employees and the second data set the views of managers about the organizational structure, the different perceptions of different stakeholders can be relevant explaining the difference between these outcomes. To support this, we used a third data set - the interviews with top managers of software companies. The analysis of

these interviews show that the organizations tried to show themselves as being flat entities with a high level of freedom for the individuals to make the best out of their work. The opposite development to the structural inertia mentioned above could be observed if we look at the top managers' opinion about the organizational structure. The managers do not want to be related to the management style prevalent during the time of command economies, moreover, they want to present themselves as managers with a 'cool' management style.

This variance in the results indicates that the path dependency in an organization can also be dependent on the concrete actor or stakeholder. Furthermore, these different stakeholders can differently influence the development of the path in this organization.

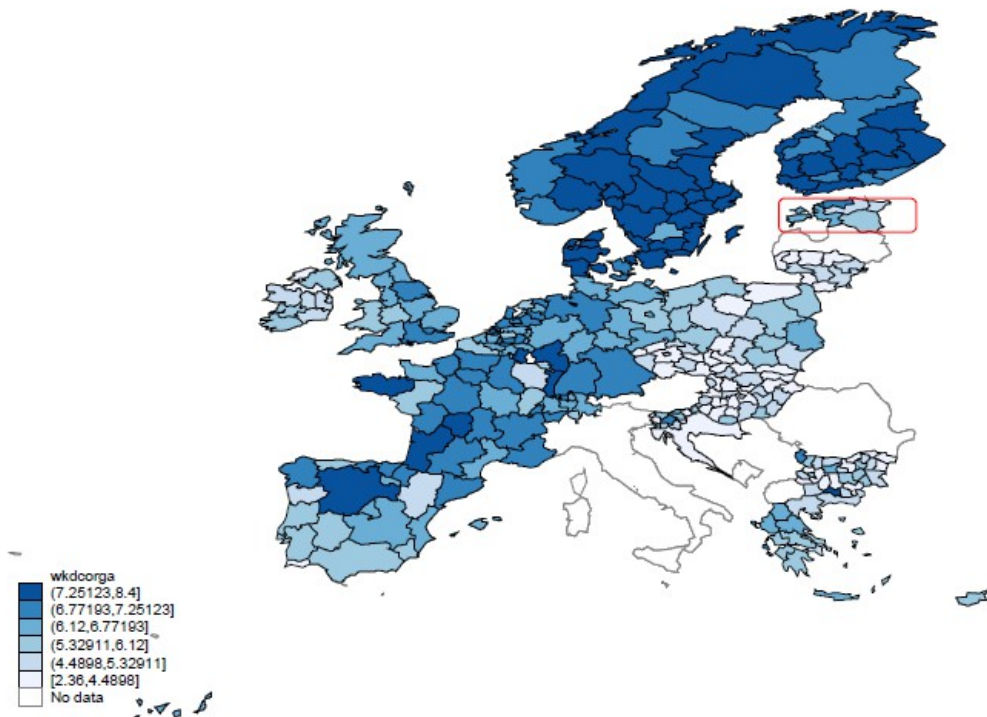
Figure 3 summarizes the findings of our study and shows the different path dependent processes and their interaction. These processes apply selectively, not uniformly in all organizations.



**Figure 3.** Path dependent processes affecting the formation of organizational structures in Estonia. Source: Compiled by the authors.

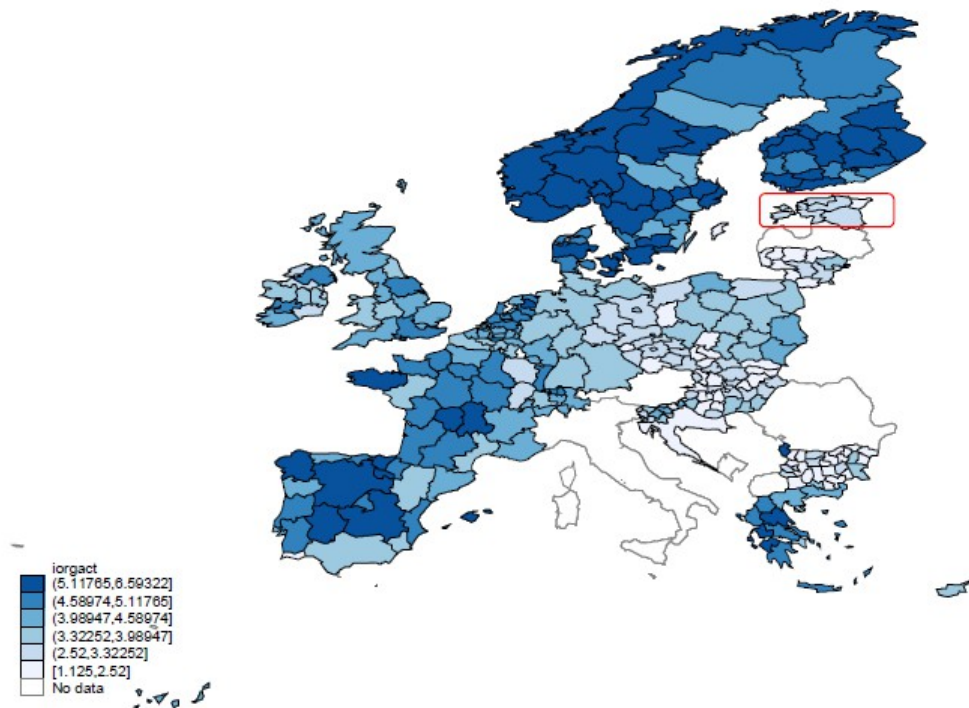
As a result, looking at the formalization level of Estonian companies today we see that this is influenced by two types of path dependency. Firstly, a self-reinforcing process, carrying ahead the rather high formalization level of the organizations, and secondly a strong reaction to this past – the wish to oppose this former practice at any price, even if it is not always the best way. The fact that the employees perceive the formalization level of the organizations differently from the top managers – they find the organizations more formalized than the managers do – shows that the path dependent developments are also a matter of stakeholders view and perception. This aspect is until now not thoroughly studied in the context of organizational path dependency and poses new questions certainly worth studying more closely.

**Appendix 1.** Cross-country average estimation about working arrangements in 2008.



**Figure 2008\_1:** How much the management at your work allows you to decide how your own daily work is/was organized? 0 - “I have/had no influence” and 10 - “I have/had complete control”.

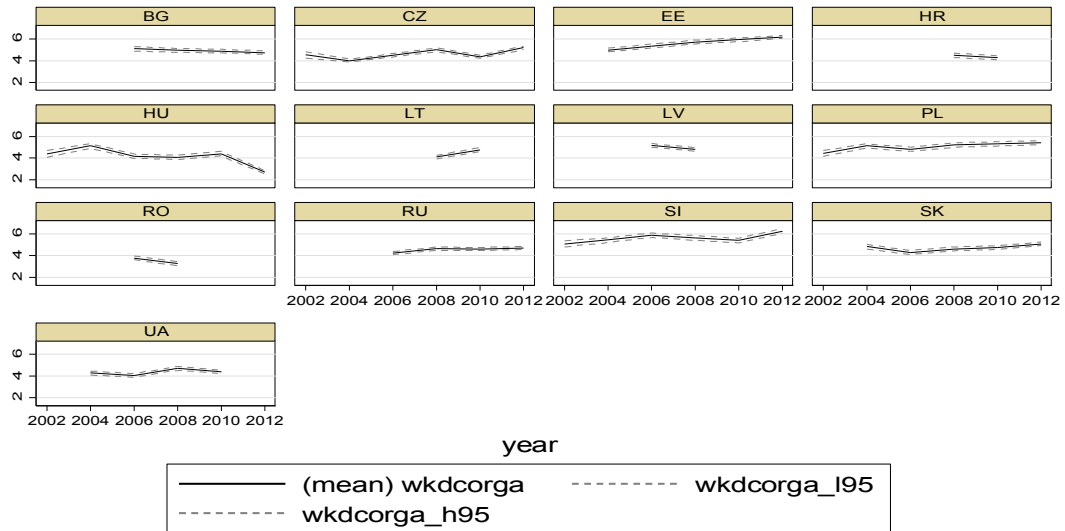




**Figure 2008\_2.** How much the management at your work allows you to influence policy decisions about the activities of the organization? 0 - “I have/had no influence” and 10 -“I have/had complete control”.

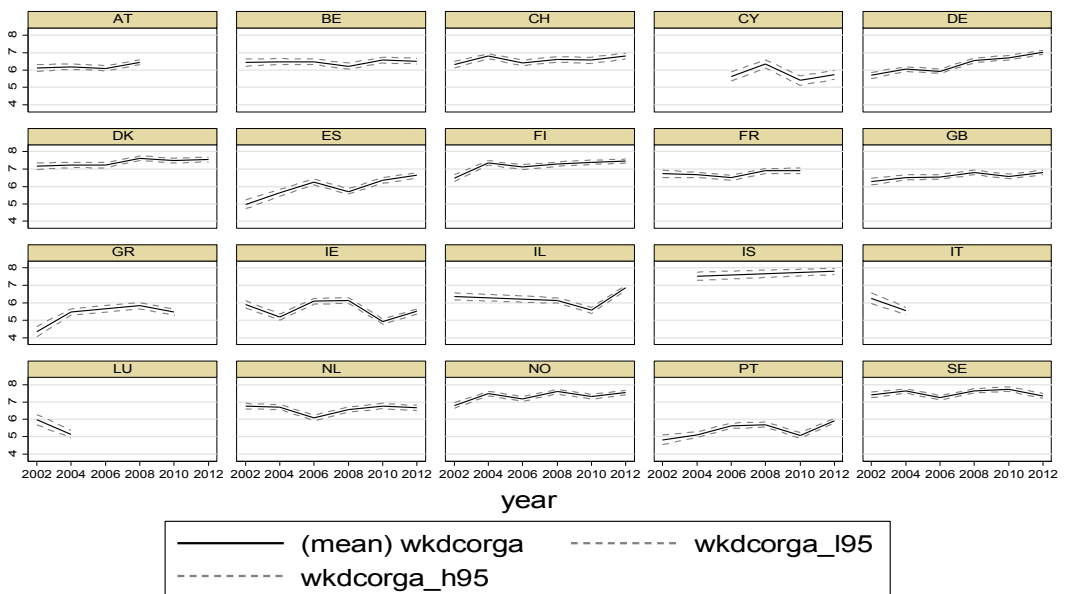
**Appendix 2.** Formalization variables over time and country by country.  
 Development of variable: How much the management at your work allows you to decide how your own daily work is/was organized? Mean value and 95% confidence bounds

App 2, Figure 1: Central and Eastern European countries



Graphs by group(cntry)

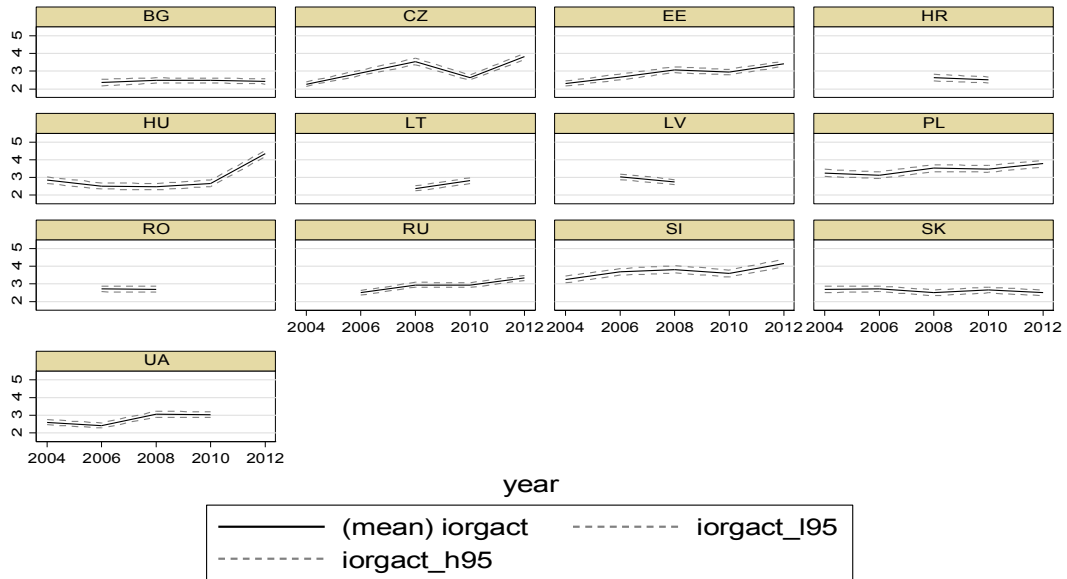
App. 2, Figure 2: Western European countries



Graphs by group(cntry)

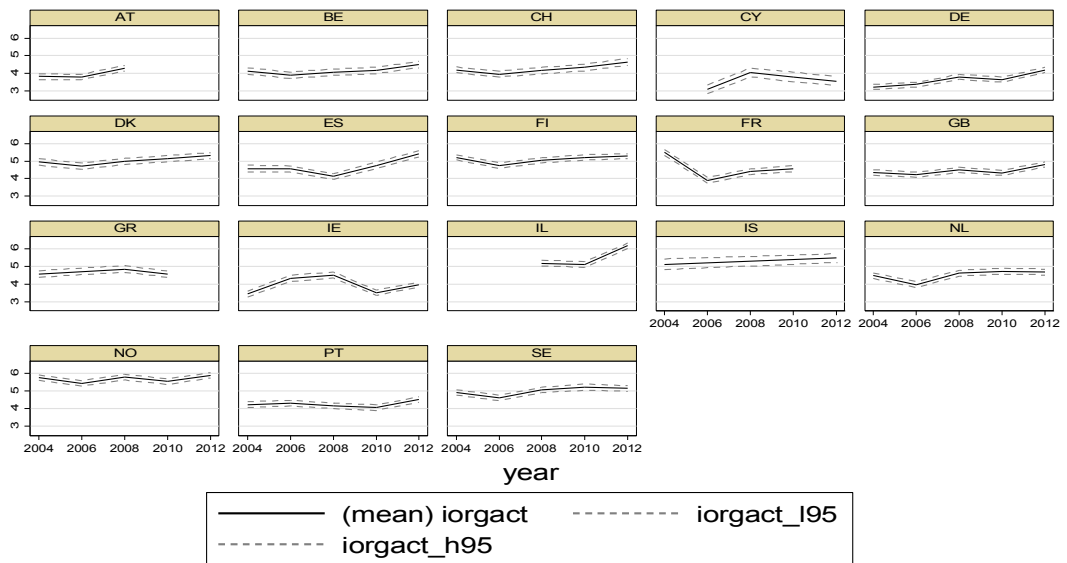
Development of variable: How much the management at your work allows you to influence policy decisions about the activities of the organization? Mean value and 95% confidence bounds, year 2002 has been skipped due to the different phrasing of the question

App. 2, Figure 3: Central and Eastern European countries



Graphs by group(cntry)

App. 2, Figure 4: Western European countries



Graphs by group(cntry)

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