

# ceea JOURNAL of economics.....



ISSN 1857-5269  
UDK 33

Price: 300 MKD (5 EUR)

**Volume 2**  
Issue 2  
1-46 pages

Skopje, Macedonia  
November 2007



# CEA Journal of Economics

ISSN 1857-5269

UDK 33

Volume 2, Issue 2

Skopje, November 2007

## Editorial Board and Reviewers:

Marjan Nikolov, M.Sc., Editor-in-Chief

Bryan Roberts, Ph.D.

Dimitar Bogov,

Vesna Garvanlieva, MBA

Borko Handziski,

Aleksandar Stojkov, M.Sc.

## DISCLAIMER:

The opinions put forth in this publication represent  
the views of their authors.

# Contents

Call for Papers .....	3
<b>Motivating Language - ML as a tool in superior-subordinate relations during organisational change: A Case study in Macedonia</b>	
Irina Piperkova Majovski .....	5
<b>Macroabc-MK-2007, a macroeconomic model of Macedonia</b>	
Marein van Schaaijk .....	19
<b>Are the institutions important for the economic growth?</b>	
Shenaj Hadzimustafa .....	33

CEA Journal of Economics  
Volume 2, Issue 2  
1-46 pages  
Skopje, Macedonia  
November 2007

## Call for Papers

CEA announces a call for papers for publication in the fifth edition of the CEA Journal of Economics (Volume 3, Issue 1). The papers can come from any area of economics.

Although not strictly limited to them, please observe the following guidelines. In case of submitting theoretical papers, please include: abstract, introduction, extensive literature review, theoretical ramifications, conclusion and bibliography. In case of submitting empirical papers, please include: abstract, introduction, short literature review, methodology, empirical findings, conclusion with policy implications and bibliography.

Format: electronic version, A4, Arial, no indentation, single space, one space between paragraphs, APA style, maximum 20 pages.

Deadline: 31 May 2008

Submit to: [info@cea.org.mk](mailto:info@cea.org.mk)

.....

# UDK 005.96:005.57(497.7) MOTIVATING LANGUAGE - ML AS A TOOL IN SUPERIOR-SUBORDINATE RELATIONS DURING ORGANISATIONAL CHANGE: A CASE STUDY IN MACEDONIA

Irina Piperkova Majovski, MSc

Integrated Business Faculty

---

## Abstract

*The topic of employee motivation has become increasingly important with the transition from command to market economy and the dramatic changes that have been undertaken in almost all organisations in Macedonia in recent years. Hence, the current research seeks to examine the specific role that leader's language plays in relationship and communication with employees, as critical aspect of employee motivation. The primary aim of this paper is to assess the level of a supervisor's Motivating Language use in communication with employees and to measure the extent of employees' communication satisfaction with their immediate superior. Moreover, a comparison will be drawn of superior-subordinate communication relations before and after organisational changes. For the aforementioned purpose, primary research was conducted in a company in Macedonia which is experiencing dramatic changes after its recent privatisation and restructuring. The results are expected to reveal an overall average level of leader's Motivating Language use and differences in the level of Motivating Language use by different supervisors, as well as moderate employee communication satisfaction with their immediate superior. Finally, the findings are expected to reveal a need for supervisor's training in strategic use and deliberate variance of Motivating Language in the process of motivation of employees, especially during organisational changes.*

*Key words: motivating language, organizational change, motivation, communication, statistics.*

---

## Introduction

Increased globalisation, strong competition and rapid improvement of technology, liberalization of markets, and deregulation have generated a need for a continuous change within organisations and business in general. Moreover, in order to stay competitive, to increase productivity and efficiency in working, as well as to rapidly respond to fast-changing sophisticated customer demands, organisations seek to become more flexible and innovative, and to provide high quality services to their customers. This has encouraged business parties and companies to adopt changes faster and to adjust to or lead the new trends. In addition, the opening of ex-socialist countries' markets in Southeast Europe including Macedonia, the privatization of state assets, and the growing number of new entrepreneurial businesses, have introduced radical changes at all levels within organizations in these regions.

The dissolution of Yugoslavia and the transition from command to market economy gave rise to a period of dramatic economic change. Losing their traditional markets, the Macedonian companies were forced to search for new ways to improve their competitiveness and succeed in more demanding markets. In that respect, the human resource management was seen as one of the most important sources of competitive advantage. The above has raised a need for major improvement in this area aiming at integrating human resource strategy into the corporate strategy, and at incorporating human resource practices at all levels within an organisation. However, the acceptance and application of these practices by all employees in their everyday work is a separate process. Moreover, achieving competitiveness through people requires a highly capable workforce, high level of motivation and a supportive work environment (Dmitrovic & Zupan, 2001).

Studies of Slovenian companies (Petrin, 1995; Vrsec, 1992, cited in Dmitrovic and Zupan, 2001) identified the lack of managerial knowledge to enable rapid restructuring as a reason for low competitiveness of Slovenian companies in international markets. Among others, the managerial knowledge was weak in the use of human resource management practices. In addition, Zinnes et al. (2001, cited in Szamosi et al., 2004) ranked Macedonia's management and labor competitiveness as 24th out of 25 countries in Central, Eastern, and South-Eastern Europe. On the other hand, more than a decade of transition, privatisation and complete restructuring of state-owned companies, thousands of redundancies, and the rapid pace of introducing sophisticated technology made the employees reluctant to change, distrustful and uncertain about their future. Therefore, the main issue is how to encourage employees to accept changes and increase performance in this situation. In such turbulent times, effective leadership, motivation and communication as deliberate processes become indispensable.

Indisputably, human resources, as a field, is playing an increasingly important role in the success of companies. However, the understanding of its full dimension leaves much to be desired. Nowadays, the companies in Macedonia are ready to accept HRM policies but not to implement them. The centralized authority and autocratic style of management is still practiced in Southeast Europe (Tixier, 1994), including Macedonia. Communication, leadership and motivation of employees are quite underdeveloped. During the past decade, consultants and lecturers, supported by organisations as EU and USAID, disseminated western HR management practices and techniques through corporate trainings. However, this remained within the constraints of a limited number of companies. In addition, Jankowicz (1998) suggests that it takes at least 10 years for the knowledge acquired from human resource training to be implemented in all its ramifications.

The companies with foreign capital play a leading role in the introduction of HR issues in the country. These companies conduct employee training and invest in their human assets. However, the majority of the companies in Macedonia still do not go beyond recruitment and payroll issues. Taylor and Walley (2002) in their 21 company case studies conducted in Croatia found that foreign-owned organisations are leading the way towards HRM. Namely, their findings showed that many Croatian companies have introduced new HR practices but only in some of the cases the implementation of such practices was perceived to be successful, usually the foreign-owned ones. Contrary, there were lots of examples of resistance to, and poor implementation of, new practices mainly due to middle managers' retention to old cultural values and practices.

In a recent study involving 21 small and medium enterprises in Macedonia, Szamosi et al. (2004) found that SMEs are not giving their employees what they want from their job, such as career development, participation in decision making and alike. SME managers in Macedonia are supportive of planning and communicating the work that needs to be done, but they need to improve issues as sharing information and listening to workers concerns. On the other hand, the study showed that Macedonian employees report neutral job and organisational satisfaction and moderate support from their managers.

Hence, the need for successful leadership and increased communication and motivation in Macedonian companies is apparent. Some attempts have been made to raise the awareness of the companies on the importance of HR, however the HR field remains insufficiently developed and implemented.

## Importance of superior-subordinate relations during organisational change

The literature, in general, has emphasized leadership, motivation and communication as key factors crucial for successful change (Appelbaum et al., 1998; Nadler, 1998; Kanter, 1997; Schweiger and DeNisi, 1991; Sayles, 1989).

Covin and Kilmann (1990) (cited in Richardson and Denton, 1996) underline that not only communication and participation is of significant importance for successful change, but also management's consistent and transparent support for change expressed by actions. The amount of information shared with the employees and the channels of communication vary among organisations, and depend mostly on the type of the organisation. However, it has been found that the most successful and richest medium is face-to-face communication, which is preferred by employees (Lewis, 1999). This is critical not only for both downward and upward flow of information, but also because it gives people a feeling that they are more integrated in the organisation and that they are a crucial part of the change process.

Supervisors are closer to employees than senior management due to their everyday communication and interaction and, subsequently, they should communicate the changes related to the work of the employees. Hence, the greatest responsibility for communicating the change is on immediate supervisors who are the key link between the senior management and the employees. Gonring (1991) stresses the importance of educating, training and assisting supervisors in their responsibility to communicate the change.

Moreover, the literature reveals the importance of oral and face-to-face communication in leader-member relationships. Brewster et al. (1994) found that employees in 9 out of 10 organisations in Europe specify their immediate superior as a key channel of communication. It was also found that employees want to be informed of changes by their immediate superior (Larkin and Larkin, 1996) through the most successful and richest medium, preferred by employees, face-to-face communication (Lewis, 1999).

Nevertheless, a research of four Brazilian and four British companies (Belmiro et al., 2000) reported that the communication process was happening contrary to the theory. In other words, only top management was involved in planning the vision and mission, and there was a lack of communication at lower levels. The lack of communication and respect from the supervisors can create resistance and even more cynicism among employees. The feelings of uncertainty and anxiety, characteristic in times of changes, mainly derive from low levels of communication and interaction between the superior and subordinate (Austin et al., 1997). The cynicism demeans the levels of motivation and creates resistance to change, decreasing the already poor communication, thus formulating a vicious cycle.

Communication is fundamental for successful leadership in developing both the relationship with the employees and among them and in motivating them to contribute to the organisational goals. Nadler (1998) suggests that leaders can influence the employee behaviour and increase support mainly by personal example. During the early stages of change employees closely monitor leader's behaviour in a search for more information and signals. Therefore, the way leaders employ language and symbols, rewards and punishments, and how they act in public can greatly increase or decrease employees' support for change. The most successful leaders deliberately and skilfully use language and symbols to gain employees support and commitment to change. The supportive language of leaders increases employees' belief in the reality and legitimacy of change.

The importance of superior-subordinate relationship in the process of motivation and communication is emphasized throughout literature. "The physical dimension of the give-and-take, the social interaction between superior and subordinate, has a significant effect on motivation" (Sayles, 1989, p.70). In a study of managerial effectiveness, Richardson (1965) (cited in Sayles, 1989) found that those ranked as effective superiors spend one-third of the working day interacting with other people, and even more they were the initiators of the contacts with subordinates. Increased interaction between the superior and subordinates will provide an atmosphere in which employees feel freer to provide more information to their superiors regard-

ing their fears, uncertainty, and expectations. Subsequently, an interaction based on trust may develop. The literature acknowledges the critical role of middle managers in the change process. Nadler (1998) argues that, for employees, leadership is embodied in the immediate supervisors who are representatives of the organisation. Thus, for change efforts to be successful middle managers must understand where the organisation is heading and what it wants to accomplish, and even more to accept and to be truly committed to the change.

Recent studies have shown that supervisors are less effective than others in different countries in leading and motivating their subordinates. Namely, the efficiency of superior-subordinate relationship is lowest in Portugal, Spain and Greece (Saias, 1989, cited in Sparrow and Hiltrop, 1994). Comparing the management styles in Europe and particularly in the countries of EU, Tixier (1994) found that the countries of Southern Europe (i.e., Italy, Spain, Portugal and Greece) have greater hierarchical distance in the organisations due to more centralized authority and autocratic management. This hierarchical distance influences the formality within the organisation and, even more it has negative impact on the internal corporate communication. The above implies that employee participation in the management of a company is at a lower level rather than the countries of Northern Europe where the management style is decentralized, democratic and participatory. The latter creates a system which recognizes that better informed and consulted employees are more motivated, more productive and better understand and support company goals.

Nevertheless, findings of a survey conducted in organisations throughout Europe revealed that there is a substantial increase in direct communication with employees, both oral and written, in the majority of organisations in almost all countries (Brewster et al., 1994). In addition, the survey indicated that the wave towards decentralization of the management style and the encouragement of employee participation has led to increased face-to-face communication as well as upward communication with the immediate superior as mostly used channel of communication.

Implementation of successful change efforts requires motivation, commitment, involvement and contribution of all employees within the organization. Arguing that supervisor's use of language greatly influences employee motivation, Sullivan (1988) describes three types of supervisor-subordinate communication, based on his Motivating Language Theory of linguistics: direction giving (perlocutionary), the one that reduces employees' uncertainty and increases their knowledge; meaning-making (locutionary), the one that facilitates employees' construction of cognitive schemas and scripts thus giving meaning to the work; and empathetic (illocutionary), the one that reaffirms employees' self-worth and trust. Sullivan's (1988) theory provides a comprehensive model for understanding how leadership language impacts workers. It predicts that strategic oral communication is an important motivational tool which has positive, measurable effects on employee performance and job satisfaction.

Supervisor's use of these three languages contributes to giving directions and increasing workers' knowledge on tasks, goals, rewards and policies, thus, reducing the uncertainty; it also assists in explaining organisational rules, values and structure giving meaning to their work and overall contribution. Finally, it helps in reaffirming employees' self-worth, thus, building relationships based on trust and bonding. The effectiveness of managerial influence on employees through communication depends largely on the variety of speech acts applied. Based on the expectancy and goal setting theory, employees seek information from their superiors in order to reduce uncertainty. Therefore, in order to motivate employees, the supervisors should facilitate the communication that results in giving meaning to their work. The previous would understand formal and informal talks and myth making. Sullivan (1988) indicates that superiors usually communicate the meaning making language unintentionally, acting as representatives of an organisation's beliefs, values and goals.

Leadership is a process that contains both organisational elements, such as organisational goals, mission, and rewards, and interpersonal elements, such as personality traits and beliefs (Kelly, 2000). Organisations use goal setting as part of their motivational techniques. It is an important element in motivating the employees in a way that it directs employees' efforts and attention, encourages commitment to pursuing the organisational goals, and facilitates planning of strategies and actions for achieving the already

set goals of the organisation. Appelbaum et al. (1998) emphasize that for implementation of effective change efforts employees should know their responsibilities and their performance in order to be evaluated against a predetermined set of goals. Law et al. (1998) (cited in Tjosvold and Wong, 2000), in a survey of 170 superior-subordinate relationships, found that strong cooperative goals generate positive relationships between leaders and employees, and subsequently high levels of performance and job satisfaction. In addition, leaders should use vivid language and symbols, express positive energy and personal convictions in order to transmit the change successfully, provoke enthusiasm, and encourage employees to commit to it (Kouzes & Posner, 1995; Berger & Luckmann, 1965, cited in Kelly, 2000).

The Motivating Language Theory proposes that strategic managerial application of all three speech acts will have a significant and positive effect on employee performance and process outcomes (Sullivan, 1988). The positive influence of superior's motivating language use on employees performance and job satisfaction was further on revealed by Mayfield et al. (1998) who found significant correlation between superior's ML use and subordinates' performance and job satisfaction. Through a deliberate use of the three languages, perlocutionary (direction giving and uncertainty reducing), locutionary (meaning-making), and illocutionary (expression of humanity), the supervisor can directly influence employees performance and job satisfaction simultaneously creating dyadic relations based on trust and support, crucial in times of organisational changes.

The primary aim of this paper is to assess the level of supervisors' motivating language use in their communication with employees and to measure the extent of employees' communication satisfaction with their immediate supervisors, as central aspects of employee motivation. This research will draw a comparison of superior-subordinate communication before and after organisational changes.

For the above-mentioned purpose, primary research was conducted in an organisation with foreign capital in Macedonia, which has experienced drastic organisational changes after its acquisition. In pursuit of business excellence and increasing the quality of its services, the new management team has undertaken structural, operational and cultural changes at all levels within the organisation. The technological improvements, the modernisation of operational activities, the structural changes, job enrichment, and job enlargement have substantially impacted employees' work, their responsibilities and the way they accomplish their tasks. This kind of environment within the organisation, with the complex changes at all levels and aspects, requires motivated employees as an essential prerequisite for successful change efforts.

Taking into consideration that employees' motivation is greatly impacted by supervisor-subordinate communication (i.e. by superiors' motivating language use, as proposed by Sullivan (1988) and examined by Mayfield et al. (1998)), this study will attempt to assess the extent to which managers use the motivating language and employees' communication satisfaction with their immediate superiors, before and after the organisational changes undertaken within the company. The findings are expected to reveal a modest use of the motivating language and a need for supervisor's training for strategic use of motivating language in the process of motivation of employees, especially during organisational changes.

## Methodology

The research addresses the critical issues on leader's general oral communication skills with subordinates and his/her strategic use of spoken language variance to motivate workers. The emphasis is put on the level of communication between superior and subordinates through the supervisor's motivating language use, and on employee communication satisfaction with their immediate superior, as central aspects of employee motivation.

The original questionnaires, based on the Motivating Language Model designed by Sullivan (1988) and developed and examined by Mayfield et al. (1995), were used with only minor modification. The outcomes from this survey were measured using the Likert rating scale. Namely, the motivating language scale rang-

ing from "Very little" (1) to "A whole lot" (5), employee communication satisfaction questionnaire from "Strongly disagree" (1) to "Strongly agree" (5), and the communicator competence questionnaire from "Strong disagreement" (1) to "Strong agreement" (5). In the original questionnaires developed by Mayfield et al. (1995), however, the communicator competence questionnaire had opposite scoring from the previous two, ranging from "Strong agreement" (1) to "Strong disagreement" (5). Nevertheless, for the purpose of this study and with an intention to avoid any misunderstanding in the analysis of the results, as well as to achieve clearer comparison, the scoring is equivalent to the previous two questionnaires.

The company had over 1000 employees, with about 50 percent working in the head office, and the remaining employees in several branches throughout the country. In order to be able to make comparison before and after the acquisition and due to the changes in middle management, the survey included only those departments where the managers kept the same post. The participants from each department included in the survey consisted of a manager and several of his/her subordinates. This was done to maintain the dyadic relations of supervisors and subordinates taking into consideration the nature of the correlated questionnaires. Moreover, in some divisions both managers and assistant managers were included in the survey with the intention to make comparison between two supervisors and their oral communication skills. The respondents were randomly chosen from different departments within the head office and from one branch office and they were given company time to fill out the questionnaires. Data were collected from supervisor and subordinate pairs. The subordinates rated their superior on the use of motivating language and their satisfaction with the superior's communication before and after the acquisition, and as a comparison, the superiors rated each of the subordinates-participants on their communication competence. Having participants from different departments allows comparison between departments, both before and after the organisational change.

The data from the questionnaires are presented with a mean value, before and after the organisational changes. The Motivating Language Scale questionnaire is analysed in three parts. Namely, the direction-giving/uncertainty reducing language, empathetic language, and the meaning-making language outcomes are separately analysed, for each department included in the survey, before and after the organisational changes. The data on the Communication Satisfaction and the Communicator competence are also analysed for each department, before and after the organisational changes.

## Findings

### *Sample characteristics*

From the randomly chosen 56 participants, 39 of them were working in three different departments within the head office, and 17 of them were working in the branch office.

Eight participants were managers of different departments and the remaining 48 respondents were subordinates of these 8 managers. From the total number of participants included in the survey, 3 managers and 14 of their immediate subordinates were working in the branch office and the remaining 5 managers and 34 of their subordinates were from the head office. All of the participants returned the questionnaires. However, because of incompleteness two survey questionnaires answered by two respondents-subordinates were discarded and a total of 46 survey questionnaires filled by the participants-subordinates were further analysed. In order to maintain the proportion between the superiors' and subordinates' questionnaires, two communicator competence questionnaires, referring to the participants-subordinates whose questionnaires were discarded, were not included in the analysis. The mean age of the participants was 40 years, that is 32.2% were in the age between 30 and 40 years, 35.5% of the participants were in the age between 40 and 50 years, and 32.2% in the age between 50 and 60 years. Moreover, 64.5% of the total number of participants were female, and 35.5% were male. From all participants in the survey, 58% had completed high school, and 42% held a university degree.

### Outcomes

In order to make clear comparison and evaluation, data from the survey are separately analysed according to different departments, different supervisors, both before and after the organisational changes that have taken place.

The initial data showed somewhat moderate use of ML and slightly higher communication satisfaction with the immediate supervisor. Overall, the data, before and after the organisational changes, suggest that supervisors do not give directions regarding workers' role and tasks sufficiently (2.65 and 3.25, respectively), and though they have shown improvement in their empathetic behaviour (2.84 and 3.54) there is a substantial lack in explaining the structure, rules and values of the organisation's culture to their subordinates (2 and 2.29). Nevertheless, the respondents-subordinates report modest increase in communication satisfaction with their immediate supervisor (3.75 and 4.24, respectively). As a comparison, the respondents-supervisors are "neutral" toward their subordinates' communication competence (3.55 and 3.67, respectively) (Table I).

**Table I**  
Mean values of ML,  
communication satisfaction and  
communication competence

	Before	After
Motivating Language Scale		
Direction-giving	2.65	3.25
Empathetic	2.84	3.54
Meaning-making	2	2.29
Total	2.5	3.03
Communication Satisfaction	3.75	4.24
Communicator Competence	3.55	3.67

The respondents-subordinates in the survey showed, overall, lowest results for certain communication issues in their relations with the superiors, both before and after the organizational changes. In particular, the respondents-subordinates reported a significant lack in receiving good definitions of what they must do to receive rewards (1.87 and 2.43), specific information on how they are evaluated (2.48 and 2.7), and news about organizational achievements and financial status (2.13 and 2.91) as part of direction-giving language. Moreover, the data suggest that supervisors do not support employees' professional development (2.52 and 3.22), show lack of interest in employees' professional well-being (2.48 and 3.04) as part of the empathetic language; and do not convey stories about people who have been rewarded by this organization (1.7 and 1.96), nor about people who have left this organization (1.87 and 2) as part of meaning-making language. The data on communication satisfaction with supervisors showed that respondents have "neutral" feelings toward superior's honesty in communication with them (3.26 and 3.87), and do not completely agree that their superior understands their job needs (3.43 and 3.83). However, the respondents-subordinates show to some extent better results on feeling free to disagree with their immediate superior (3.78 and 4.3). On the other hand, superiors reported rather modest employee communicator competence. They show lack of employee's sensitivity to other's needs (3.61 and 3.87, respectively) and not paying attention to what other people say to the employee (3.57 and 3.83). (Table II)

**Table II**

Summary of lowest mean values of ML and communication satisfaction measures

	Before	SD	After	SD
Motivating Language Scale				
Gives me good definition of what I must do in order to receive rewards	1.87	1.002	2.43	1.311
Offers me specific information on how I am evaluated	2.48	1.243	2.70	1.297
Shares news with me about organizational achievements and financial status	2.13	1.024	2.91	1.151
Expresses his/her support for my professional development	2.52	1.225	3.22	1.153
Asks me about my professional well-being	2.48	1.260	3.04	1.282
Tells me stories about people who have been rewarded by this organization	1.70	.986	1.96	1.053
Tells me stories about people who left this organization	1.87	1.087	2.0	1.116
Communication Satisfaction				
My immediate superior is honest with me	3.26	1.373	3.87	.909
I am free to disagree with my immediate superior	3.78	1.094	4.30	.726
My immediate superior understands my job needs	3.43	1.276	3.83	1.060
My immediate superior understands my job needs	3.43	1.276	3.83	1.060
Communicator Competence				
My subordinate is sensitive to other's needs of the moment	3.61	1.164	3.87	1.204
My subordinate pays attention to what other people say to him/her	3.57	.958	3.83	.902
My subordinate generally says the right thing at the right time	3.48	.983	3.74	1.063

The data according to different departments showed substantial differences in the ML use as well as the communication satisfaction. Namely, the respondents-subordinates from the third department, both before and after the organisational changes, report higher ML use by their supervisors (2.83 and 3.62, respectively) and show higher communication satisfaction with their supervisors (4.13 and 4.63). As a contrast, the data on the second department and the branch office show that the supervisors have lowest level of motivating language use and subsequently participants-subordinates report lowest communication satisfaction with their superiors. The survey data suggest modest use of direction-giving and empathetic language and insufficient use of the meaning-making language. Overall, there is only slight improvement in the ML use by supervisors before and after the organisational changes. (Table III)

**Table III**

Summary of measures according to departments

	First department		Second department		Third department		Branch office	
	before	after	before	after	before	after	before	after
Motivating Language Scale								
Direction-giving	2.64	3.12	2.26	3.0	3.0	3.92	2.72	2.96
Empathetic	2.73	3.66	2.6	3.35	3.25	4.2	2.78	2.97
Meaning-making	2.06	2.13	1.63	2.0	2.24	2.74	2.08	2.30
Total	2.48	2.97	2.16	2.83	2.83	3.62	2.53	2.74
Communication satisfaction	4.2	4.66	3.01	3.95	4.13	4.63	3.67	3.72
Communicator competence	3.24	3.27	3.54	3.78	3.57	3.69	3.84	3.93

The above data have led to the belief that there is a great difference in the use of ML and communication satisfaction with the supervisors not only in different departments but also among different supervisors within same department. The subordinates report a significant variance in the use of ML by supervisors. This is due to the lack of training in deliberate use of ML, thus leaving the supervisors' ML use to depend on their individual communication abilities. (Table IV).

**Table IV**

Summary of measures according to different supervisors

Motivating Language								Communication Satisfaction	
Direction-giving Empathetic Meaning-making									
First department	Supervisor 1	2.64	3.12	2.73	3.66	2.06	2.13	4.2	4.66
Second department	Supervisor 1	2.12	3.33	2.6	3.6	1.83	2.13	3.27	4.3
	Supervisor 2	2.41	2.7	2.6	3.1	1.43	2.06	2.75	3.6
Third department	Supervisor 1	2.45	3.45	2.75	3.91	1.66	1.83	3.66	4.61
	Supervisor 2	3.55	4.4	3.75	4.5	2.83	3.66	4.61	4.66
Branch Office	Supervisor 1	3.35	4.0	3.75	4.0	3.0	3.16	4.22	4.16
	Supervisor 2	3.0	2.65	3.25	3.0	1.66	1.66	4.38	3.83
	Supervisor 3	1.81	2.23	1.36	1.93	1.60	2.1	2.42	3.18

## Discussion of findings

Taking into consideration that superior-subordinate relations and communication greatly influence employee motivation, especially during organisational changes, the survey had two primary purposes. The first was to examine the extent to which the supervisors use the motivating language in their communication with employees after the acquisition and during change efforts, as well as to make comparison between the levels of usage of motivating language before and after organisational changes. The second purpose was to measure employees' satisfaction with the communication with their immediate superiors as a prerequisite for motivated workers. The findings of the survey report less than moderate use of motivating language, as well as individual differences in the motivating language use, and somewhat moderate levels of employee communication satisfaction with their immediate superior.

However, the data clearly point toward higher levels of direction-giving and empathetic language use than the meaning-making language use by supervisors. This implies that superior's communication with the employees is mainly focused on giving direction regarding workers' role and tasks, and reducing the uncertainty (i.e., increasing their knowledge regarding rewards, goals and tasks). Moreover, higher levels of empathetic language use imply that superiors show expressions of humanity; they behave in an empathetic manner with their workers thus, reaffirming employees' self-worth and establishing trust in their relations. The meaning-making language is significantly less used by superiors, which means that they do not explain well enough the structure, rules and values of the organisation's culture to their workers. Having in mind that the meaning making language is communicated primarily through small talks, informal interactions, narratives and myth making (Sullivan, 1988), the outcome shows that supervisors do not use frequently informal interactions to exchange ideas and attitudes with employees, to advocate organisation's values and goals, and to explain to employees the importance of individual's and unit's role in achieving organisation's goals.

In addition, the findings from the survey reveal difference in the level of use of motivating language in different departments and different supervisors within same department. Some significant differences were found in the data on motivating language use among different supervisors from same department. According to the principles of MLT, differences in key outcomes shown by employees are the results of variance in how

well managers engage in three fundamental speech acts when communicating with subordinates (Mayfield et al., 1995). This implies that individual communication abilities are crucial in superior-subordinate relations, that is, the individual character, behaviour and communication abilities of the supervisor may have a strong impact on the success of dyadic relations. Moreover, the data on the employees' satisfaction with their superior's communication correspond to the level of motivating language use by their immediate superiors. Due to the correlation between the use of motivating language by superiors and employee communication satisfaction with their immediate supervisors, there is a difference in the level of employee satisfaction with different supervisors.

The organisational changes slightly improved superior-subordinate relations from the aspect of motivating language use, as well as subordinates' communication satisfaction with their immediate supervisor. In particular, the leader's motivating language has increased for approximately 21% compared to the leader's use of motivating language before the organisational changes, while the communication satisfaction of the employees has increased for only 13%. The above figures show that the slight improvement in the use of motivating language roused minor employee communication satisfaction. Due to the fact that there was no training programme on leader's use of motivating language in the company, the slight increase is not unexpected. Since this is a period of changes and that means decreased motivation, fear of the unknown and uncertainty regarding the future, decrease in loyalty and trust, and subsequently lower performance, the communication within the organisation should be continuous and intensive in order to gain employees' support, commitment and contribution to the change efforts.

## **Conclusion and Limitations**

Organisational changes, including different ways and levels of privatisation, changes in the economic and non-economic activities, and the transition from command to market economy changed the course of action. This has caused enormous turmoil, doubts and fear of the unknown. The restructuring from one system of working to another is expected to result in higher productivity and efficiency of working by continuous education and by following the contemporary trends in the adequate field. However, in order to achieve these goals some prerequisites must be satisfied:

1. Rapid and easy adjustment to the new system of working;
2. Elasticity and enthusiasm in acceptance of new and unknown;
3. Transparency of the new activities through continuous and intensive communication, and;
4. Introduction of adequate processes of employee motivation and their adjustment with the new organisational changes.

Nevertheless, in practice, the above mentioned is not easily achievable primarily because it suggests substituting the former system with a new one. Hence, the ability of supervisors to communicate with employees, and their skilfulness, in most simple and acceptable manner to organize, explain, motivate, and reward the new system of working are of utmost importance during organisational changes.

It is a responsibility of supervisors to give direction to employees and uncertainty-reducing information regarding tasks, performance, goals, policies and rules, to guide employees' work behaviour and share information that would help them better understand how their needs can be met and expectations lived up to, and finally by supporting employees to reaffirm their self-worth and develop mutual trust.

Therefore, the need for supervisor training in communication is inevitable and confirmed throughout literature. This should support supervisors in communication with their employees. It should not only help supervisors adequately supply information and feedback to the employees, but also assist them in becoming advocates of organisation's values and goals, and in creating a habit of frequent informal communications with

their workers. Supervisors' training in deliberate variance of motivating language use is a strong motivation tool to help employees accomplish desired personal and organisational goals. Graen and Scandura (1987, cited in Mayfield et al., 1998) found that leader conversational training was followed by improved subordinate ratings of productivity, job satisfaction, loyalty to immediate superior, and reduced stress levels. In addition, when there are high levels of leader-member exchange, subordinates see themselves as having good working relationships with their supervisors and know how satisfied their supervisors are with their performance (Graen et al., 1982, cited in Scandura and Schriesheim, 1994). High leader-member exchange has been associated with increased subordinate satisfaction and productivity, and with decreased rates of employee turnover.

In conclusion, for achieving business excellence, organisations must exploit the full potential from their resources, among which the human as well. As Steers and Porter (1991) underline, organisations started viewing their employees as a human asset from a long-term perspective. Thus, a lot of attention is given to developing employees to ensure a continuous reservoir of well-trained employees through development programmes, personnel planning, and by encouraging employees to increase their job skills. Each of the above has created additional need for highly motivated employees. Organisations are continuously seeking more effective motivation programmes to enhance employees' participation and contribution to organisational goals.

The study had several limitations. First, the lack of deliberate use of motivating language by supervisors was a great limitation to the study. Taking into consideration that there was no training programme for deliberate variance of direction-giving/uncertainty reducing, empathetic and meaning-making language, supervisors' communication with employees is mainly based on personal communication skills and abilities, and his/her personality and individual behaviour. Second, there was no possibility to make clear comparison between younger and older generations of both supervisors and employees. This was mainly due to the fact that the average age of the participants included in the study was 40 years. Finally, possible limitation to the study was the lack of tradition to conduct surveys, in organisations in this country, where employees are direct participants. This has caused feelings of anxiety and uncertainty among participants-employees regarding the questionnaires and the purpose of the study. Therefore, any future research on superior-subordinate relations in Macedonian companies should be more extensive, should cover larger percentage of participants, and it should examine more extensively the dyadic relations between supervisors and employees and the impact of leader's deliberate motivating language use on employees performance and job satisfaction.

Finally, any further research should focus on enhancing superior-subordinate communication relations and supervisors' use of motivation language as critical aspects of employee motivation. Moreover, future research should thoroughly examine employee's communication competence and how it affects the dyadic motivation and communication relations. The strategic use of direction-giving/uncertainty reducing language, empathetic language, and meaning-making language could be achieved through intensive training of supervisors for deliberate variance of motivation language in communication with employees. The above will strengthen the superior-subordinate relations by developing trust, security, recognition, and self-expression, by clarifying roles and expectations, and by giving meaningfulness of the individual and collective contribution to the organisational goals and change efforts.

## REFERENCES:

- Appelbaum, S.H. et al. (1998) Strategic organizational change: the role of leadership, learning, motivation and productivity. *Management Decisions*, 35(5), 289-301
- Austin, J.T. et al. (1997) Understanding and managing cynicism about organizational change. *Academy of Management Executive*, 11(1), 48-59
- Belmiro, T.R. et al. (2000) Corporate communication within a BPR context. *Business Process Management Journal*, 6(4), 286-303
- Berger, P. and Luckmann, T. (1965) *The social construction of reality*. New York, NY, Anchor Publishing. Cited in: Kelly, D. (2000) Using vision to improve organisational communication. *Leadership and Organization Development Journal*, 21(2), 92-101
- Brewster, C. et al. (1994) Employee communication and participation. In: Brewster, C. and Hegewisch, A. *Policy and practice in European human resource management*. Routledge. 154-167
- Covin, T.J. and Kilman, R.H. (1990) Participant perceptions of positive and negative influences on large scale change. *Group and Organizational Studies*, 15, 233-248. Cited in: Richardson, P. and Denton, D.K. (1996) Communicating Change. *Human Resource Management*, 35(2), 203-216, and cited in: Schalk, R. et al. (1998) Change and employee behaviour. *Leadership and Organization Development Journal*, 19(3), 157-163
- Dmitrovic, T. and Zupan, N. (2001) The consistency of human resource management and competitiveness policy in Slovenian companies. *South-East Europe Review*, 3, 19-38
- Gonring, M.P. (1991) Communication makes employee involvement work. *Public Relations Journal*, 47(40), 38-40
- Graen, G. and Scandura, T.A. (1987) Toward a psychology of dyadic organizing. *Research in Organizational Behavior*, 9, 175-208. Cited in: Mayfield, J. et al. (1995) Motivating language: exploring theory with scale development. *Journal of business communication*, 32(4), 329-344
- Graen, G. et al. (1982) The effects of leader-member exchange and job design on productivity and job satisfaction: testing a dual attachment model. *Organizational Behavior and Human Performance*, 30, 109-131. Cited in: Scandura, T.A. and Schriesheim, C.A. (1994) Leader-member exchange and supervisor career mentoring as complementary constructs in leadership research. *Academy of Management Journal*, 37(6), 1588-1602
- Jankowicz, A.D. (1998) Issues in human resource management in central Europe. *Personnel Review*, 27(3), 169-176
- Kanter, R.M. (1997) *On the frontiers of management*. Boston, Massachusetts: Harvard Business School Press
- Kelly, D. (2000) Using vision to improve organisational communication. *Leadership and Organization Development Journal*, 21(2), 92-101
- Kouzes, J.M. and Posner, B.Z. (1995) *The leadership challenge: how to keep getting extraordinary things done in organizations*. San Francisco, CA, Jossey-Bass. Cited in: Kelly, D. (2000) Using vision to improve organisational communication. *Leadership and Organization Development Journal*, 21(2), 92-101
- Larking, S. and Larking, T. J. (1996) Reaching and changing frontline employees. *Harvard Business Review*, 74(3), 95-104
- Law, S.A. et al. (1998) Relational approach to understanding conflict management: integrating the theory of cooperation and competition, leader-member relationship, an in-role and extra-role performance. Paper submitted for publication. Hong Kong, Hong Kong University of Science and Technology. Cited in: Tjosvold,

D. and Wong, A.S.H. (2000) The leader relationship: building teamwork with and among employees. *Leadership and Organization Development Journal*, 21(7), 350-354

Lewis, L.K. (1999) Disseminating information and soliciting input during planned organizational change: implementers' targets, sources, and channels for communicating. *Management Communication Quarterly*, 13(1), 43-75

Mayfield, J. et al. (1995) Motivating language: exploring theory with scale development. *Journal of Business Communication*, 32(4), 329-344

Mayfield, J. et al. (1998) The effects of leader motivating language on subordinate performance and satisfaction. *Human Resource Management*, 37(3 & 4), 235-248

Nadler, D.A. (1998) *Champions of change*. San Francisco, California: Jossey-Bass Publishers

Petrin, T. (1995) Industrial policy supporting economic transition in central-eastern Europe. Lessons from Slovenia. The World Bank EDI Working Paper, 95(07), Washington D.C: World Bank. Cited in: Dmitrovic, T. and Zupan, N. (2001) The consistency of human resource management and competitiveness policy in Slovenian companies. *South-East Europe Review*, 3, 19-38

Richardson, P. and Denton, D.K. (1996) Communicating change. *Human Resource Management*, 35(2), 203-216

Sayles, L.R. (1989) *Leadership: managing in real organisations*. 2nd edition. New York: McGraw-Hill, Inc.

Scandura, T.A. and Schriesheim, C.C. (1994) Leader-member exchange and supervisor career mentoring as complementary constructs in leadership research. *Academy of Management Journal*, 37(6), 1588-1602

Schweiger, D.M. and DeNisi, A.S. (1991) Communication with employees following a merger: a longitudinal field experiment. *Academy of Management Journal*, 34(1), 110-135

Sparrow, P. and Hiltrop, J.M. (1994) *European human resource management in transition*. Prentice Hall

Steers, R.M. and Porter, L.W. (1991) *Motivation and work behavior*. New York: McGraw-Hill

Sullivan, J.J. (1988) Three roles of language in motivation theory. *Academy of Management Review*, 13(1), 104-115

Szamosi, L.T. et al. (2004) Toward and understanding of people management issues in SMEs: a South-Eastern European perspective. *Education + Training*, 46(8/9), 444-453

Taylor, D. and Walley, E.E. (2002) Hijacking the Holy Grail? Emerging HR practices in Croatia. *European Business Review*, 14(4), 294-303

Tixier, M. (1994) Management and communication styles in Europe: can they be compared and matched? *Employee Relations*, 16(1), 8-26

Tjosvold, D. and Wong, A.S.H. (2000) The leader relationship: building teamwork with and among employees. *Leadership and Organization Development Journal*, 21(7), 350-354

Vrsec, E. (1992) Shifts in the intentions of Slovenian firms for internal organisation improvement. *Organizacija in kadri*, 25(5), 332-344. Cited in: Dmitrovic, T. and Zupan, N. (2001) The consistency of human resource management and competitiveness policy in Slovenian companies. *South-East Europe Review*, 3, 19-38

Zinnes, C., Eilat, Y. and Sachs, J. (2001) Benchmarking competitiveness in transition economies. *Economies of Transition*, 9(2), 315-353. Cited in: Szamosi, L.T. et al. (2004) Toward and understanding of people management issues in SMEs: a South-Eastern European perspective. *Education + Training*, 46(8/9), 444-453

.....

# UDK 330.43:330.101.541(497.7) UDK 519.862.2:330.101.541(497.7) MACROABC - MK - 2007, A MACROECONOMIC MODEL OF MACEDONIA

By Dr. Marein van Schaaik,  
Director Micromacro Consultants

[www.micromacroconsultants.com](http://www.micromacroconsultants.com)  
[mmc@bart.nl](mailto:mmc@bart.nl)

---

## Abstract

*Macroabc-MK is an empirical macroeconomic model of Macedonia. The August 2007 version is the fruit of the co-operation between Macedonian economists from Sector for Economic Policies and Regulatory Reform of the Secretariat General of the Government of Macedonia (GoM), Center for Economic Analyses (CEA), Department of Economics, Faculty of Law, University Ss Cyril and Methodius (Un C&M), and National Bank of Macedonia (NBRM), and Dutch economists from Micromacro Consultants (MMC), based on Macroabc models of other countries like the Netherlands, Poland, EU15, Indonesia, Ethiopia, Kenya, Namibia, Curacao, Aruba and Suriname. So small as well as big countries in four continents. In this article the background of the model is briefly explained: the organisation in several sheets, the consistency framework, the forecasting part and the main behavioural equations. An important role in this model played competitiveness: thanks to increase of productivity and decrease of taxes the domestic inflation is low and this stimulates exports, and then disposable income, followed by increase of consumption and investments. And thanks to the growth of exports, investments and consumption GDP goes up. The model can be used to make an Outlook and policy scenarios. For example it is used to calculate the impact of Government Programme 2006-2010 on the economy, and then the model automatically produces the output tables including real GDP growth, inflation, employment growth, effects on government revenues, expenditures and deficit, the Balance of Payments, foreign reserve stock, Government debt, number of unemployed.*

*The model is running till 2012, but many coefficients are still preliminary. So Macedonian economist can improve this model by analyzing the macroeconomic Macedonian time series that are in the model.*

*Key words: macroeconomic modelling, behavioural equations, simulations, scenario building.*

---

## Introduction

This article is the fruit of the workshops during 19-25 August 2007 at MMC's office in The Hague, The Netherlands of five economists from Macedonia and six MMC specialists. This visit builds also upon an earlier visit of 12 Macedonian economists to MMC during September 2003 and MMC's work before that visit in 2003 in which Macroabc-MK has been build, a start macro & fiscal model of the economy of Macedonia. The visit was financed by World Learning/USAID

The Macroabc-MK model is bi-lingual: all variable names are given as well in English as in Macedonian, and the model file contains a sheet Manual in English as well as in Macedonian. This article only gives brief

information to the Macroabc model Macedonia. The model file contains in sheet MANUAL with detailed description of this macroeconomic model. You can download the model (including manual) and Proceedings Papers of the visits to MMC from [www.micromacroconsultants.com](http://www.micromacroconsultants.com)

The model consists of a database, using data from [www.finance.gov.mk](http://www.finance.gov.mk), [www.imf.org](http://www.imf.org), [www.nbrm.gov.mk](http://www.nbrm.gov.mk) and National Accounts of State Statistical Office Macedonia. In August 2007 CEA and NBRM made a new sheet SOURCE. The model file itself uses the consistency framework of Macroabc. The coefficients in the behavioural equations initially were based on the Euralyse model (Macroabc for 15 EU countries), then calibrated, using the Macedonian data. Furthermore we borrowed some coefficients from the Makmodel of NBRM. Then, during the visits in 2003 and 2007 several coefficients have been improved in many workshop discussions. However, as the coefficients probably are not yet good enough based on the Macedonian reality, this version of Macroabc can only be used as demo-version how to use such a model as an auxiliary in policy preparation.

In this visit did participate: Todor Milcevski, Sector for Economic Policies and Regulatory Reform of the Secretariat General of the Government of Macedonia (GoM), Marjan Nikolov, Center for Economic Analyses (CEA), Aleksandar Stojkov, Department of Economics, Faculty of Law, University Ss Cyril and Methodius (Un C&M), Katerina Suleva, National Bank of Macedonia (NBRM), Filip Blazeski, the Business Environment Activity (BEA), USAID funded project that initiated the training. From the side of Micromacro Consultants (MMC) were involved Marein van Schaaik and Stephen Chong and four part time experts.

## Macroabc Methodology

The methodology of Macroabc consists of constructing a combined instrument: a macroeconomic database and an analytical framework that uses the data from the database. The construction of this combined instrument is in most projects achieved through close co-operation of local staff expertise of local institutions (Ministries, Statistical Office, and Central Bank) and international consultants' expertise of data and instruments for economic analyses in a market economy. The first, preliminary version of Macroabc Macedonia was made by MMC and then discussed and improved in many workshops with Macedonian economists.

The interdependency of institutional development and economic policy for achieving economic and social development is generally recognized. Many countries have adopted adjustment/transition programs that not only change the structure of the economy, but also the role of the institutions. However, a common misconception is that changing a country's economic focus necessarily translates into the elimination or marginalization of government and social structures. The experience of the Netherlands demonstrates that this is not the case. The Central Planning Bureau of the Netherlands (CPB) is an independent government agency established 60 years ago by Dr. Tinbergen. The CPB's charter is to formulate, analyze, monitor and forecast different policy scenarios in a well-developed market economy. It has played a central and rather unique role in the Dutch economic policy formation. In particular, it contributed to the building of a consensus about economic policy between the government and the main social institutions (e.g., labour unions and employers' organizations).

Macroabc is methodology to construct an integrated data, forecasting, and simulation model based on the core of the macro models of the CPB and the experience to combine that knowledge with the needs of other countries (like Curacao, Poland, Kenya, Ethiopia, Indonesia, Namibia, Aruba etc.). In this section we use the name for the methodology as well as for the resulting model. It is a so-called aggregate demand, aggregate supply model (AD-AS model) that combines modern macroeconomic theory with pragmatic modelling. It is easily adapted to fit the institutional and behavioural relationships in other countries. The macro models of Surinam 'Macmic', of Curacao 'Curalyse' of the European Union 'Euralyse', of Poland 'M98D', Kenya 'KTMM', Indonesia 'MODFI', Aruba 'MARUBA' and Namibia 'Macroabc-NA', have been based on this Macroabc methodology. These models run in Excel or in solution programs like MicroTSP, EVIEWS or

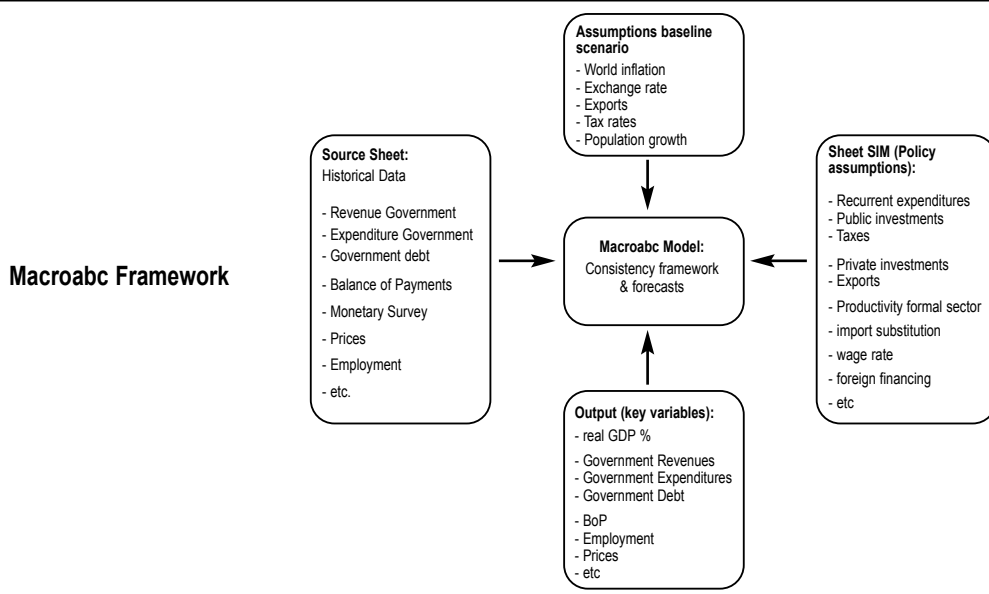
SIMPC. The ability to run a model in a standard spreadsheet increases a model's accessibility. In particular, because the spreadsheet models do not require multi-year specialized training in detailed computer programming languages, policy experts can participate more in model construction and execution.

The methodology of Macroabc is similar to the Financial Programming of IMF and more advanced than the Reduced Minimum Standard Model (RMSM-X) of the World Bank. From a theoretical point Macroabc Macedonia is close to the MAKMODEL of National Bank Macedonia (made in co-operation with the Dutch Central Bank that uses macro models that are members of the Dutch family of models like Saffier model of Dutch CPB and Macroabc-NL as shareware on homepage of MMC). However, the preliminary Macroabc-MK contains already more detailed fiscal variables than in Makmodel and Macroabc-NL.

### *The sheets of Macroabc-MK*

The file contains several sheets for which we will give some short explanations:

- **Logbook** - Documentation for the changes and the improvements to the model;
- **Manual** - Detail explanations for the model;
- **Source 03 and Source 07** - Contains all data. Currently the data contains only data from the IMF and Ministry of Finance for Macedonia was used. The plan is to be updated with the data from State Statistical Office. The data has been divided into the seven segments: National Accounts; Balance of Payments; MoF Budget; Labour Market; Monetary Overview; Stocks and Prices. These figures are incorporated into the forecasts of the model;
- **MonCPI** - In this sheet monthly statistics on CPI from State Statistical Office are used to get an idea about the inflation in the present year;



- **SIM** - The user can insert figures that are automatically incorporated into the model forecasts. In this way it is easy to run simulation in the model.

● **Start model** - In this sheet the actual test version of the Macroabc-Mk start model is presented. Data from sheet Source and behavioural equations are used to make a macro-economic forecast for Macedonia.

● **Colours and columns** - Throughout this model the variable names are given in column A. Other columns are used to give the unit and source of different variables. For the rest of the worksheets every column presents a different year as is shown in row 2. The different colours of the different cells in this model also have a role:

1. Grey: These figures are directly obtained from sheet Source.
2. Yellow: Estimates made using certain assumptions.
3. Green: Behavioural or exogenous equations.
4. White (no colour): Definition equation.

### *Features of Macroabc*

Macroabc is integrated data, forecasting, and simulation model designed to run also on Microsoft Excel. Macroabc data-model produces a comprehensive and consistent survey of the macro economy in the form of the National Accounts (SNA 1993) of a country, not only the National Accounts in a narrow sense, but and consistent with that, prices, an overview of the labour market, the monetary sector, and the public sector. Specifically the data model produces information on the following:

- macro economy;
- balance of payments transactions;
- government expenses and revenues and deficit;
- national income and expenditure;
- prices;
- monetary indicators;
- labour market indicators; and
- other key economic indicators.

The quality of the data is assured through a set internal definitions and parameters that compensate for data irregularities and therefore produce consistent results. This makes Macroabc a powerful and easy tool for the integration of data from different sources, for discussing the consistency requirements between these data sources, and for getting a quick overview of the current state of affairs in the overall economy. In addition to being a data model, Macroabc is also a forecasting and simulation model. As such, it can make simulations, forecasts and medium- and long-term scenarios. These calculations may serve as a base for forecasting the budget and for discussing macro economic policy issues.

Clearly, Macroabc has to be adapted for different countries because data, institutional development, and economic progress vary by country. This is also the reason we stress local staff participation (institutes like Ministry of Finance, Planning, National Bank, Statistical Office) in the construction of Macroabc because they have the best knowledge of the local conditions. Involving local staff also serves the overall goal of involving more people in the discussions about how the economy operates and how it may be directly or indirectly influenced by policy. Our experience suggests that this overall goal is achieved naturally in the Macroabc approach, because the use of a spreadsheet allows for an immediate and transparent relationship between the verbal discussions, the modelled equations and the modelling output.

### *Macroabc operations*

Macroabc runs in a spreadsheet. Every row has information about one variable, and every column concerns one year, except for the first column, which contains the names of the variables. Macroabc distinguishes between primary variables and secondary variables. Primary variables form the core set of variables: once these variables are given a value, the remaining variables (the secondary variables) can all be calculated through simple definitions. Primary variables may be exogenous or endogenous. Endogenous variables may be further subdivided into behavioural, institutional, and identity variables. Equations for behavioural variables are mostly based on a theoretical foundation, while institutional variables reflect the institutional context of the country. Secondary variables are all endogenous, as their equations are identity relationships linking these secondary variables to the primary variables.

To start the model, we first input historical data for the primary variables. The data-model of Macroabc then calculates the secondary variables according to the identities. For future years the values of the endogenous (behavioural and institutional) primary variables are calculated by formulas. The exogenous primary variables are given values based on external sources. Once the set of primary variables for the future is complete, the secondary variables for the future are again calculated through the identity equations.

As explained above, to initialize the model we need only values for the primary variables. In the standard version of Macroabc, there are 50 primary variables. An overview of the types of primary variables, the number of each type, and their data sources is given in the following table.

#### **Tentative primary variables types:**

Number of primary variables	data source	institution
4 value added, wage bill, investment, depreciation	statistical office	industries, farmers, trade unions
6 transactions with abroad	national bank	+ ministry fin.
14 government transactions	ministry of finance	government
6 monetary variables	central bank	government
4 prices	statistical office	market, government
16 labour market etc.	ministry of labour, household surveys	voters, workers

Based on these 50 primary input variables only Macroabc calculates hundreds of other variables automatically and consistently by definitional relationships. These secondary variables are generally grouped together according to familiar concepts, and arranged in the form of standard output tables. Some of the standard output tables produced by Macroabc are:

- National Accounts for the sectors Enterprises, Government, Households and Rest of the World
- Value added and factor distribution by sectors of economic activity
- National income and expenditures (constant prices)
- Monetary survey
- Balance of payments
- Government finance (with separate tables for revenues and expenditures)
- Labour market survey
- Overview of key variables

Of course, client specified tables may be added with little difficulty, and the tables may be altered to fit the needs of a particular project. In particular, the 'Overview of Key Variables' table will need special attention as each country's key variables differ.

Using figures from different sources and presenting the results according to the needs and customs of various institutions, Macroabc becomes an instrument that offers a complete and consistent survey of the macro economy, budget variables, monetary indicators, and labour market of a country. Because of its flexibility, it is easily tailored for each particular country.

To use Macroabc as a tool for forecasting, simulating policy options, and scenario building, we start with the 50 primary historical variables and projected variable. As mentioned above, there are three types of primary variables: exogenous, behavioural, and institutional. Variables concerning external factors (e.g. the increase in import prices) may be taken as exogenous, and we may simply use the forecasts published by international institutions like IMF and World Bank.

Behavioural variables are calculated on the basis of other variables in the spreadsheet and predetermined coefficients. For example, consumption may be calculated as a function of disposable income and the share of savings. The values of the behavioural coefficients are based on a combination of time series analysis, economic theory, overall plausibility of the total model results, and comparative studies. In particular for economies in developing, historical research alone is not adequate because the developing process affects behavioural relationships. Macroabc has, among others, behavioural equations for imports, employment, unemployment, wage formation, investments, consumption prices, money supply, net primary and secondary income transfers from abroad, depreciation, exports, exchange rate.

Institutional variables (also called semi-behavioural) comprise the last set of data. They include, for instance, government variables such as direct taxes, indirect taxes, government wages, investment, and consumption.

The Macroabc methodology was originally developed for the Netherlands, but has been implemented successfully for Suriname, Curacao, the European Union, Poland, Kenya, Indonesia and Ethiopia. It is our experience that the Macroabc methodology of combining core of the model components (of CPB model and other Macroabc models) with local expertise produces a practical and user friendly instrument that is very helpful in policy discussions. A standard version of Macroabc can be started almost immediately, based on recent values of only 50 primary variables. Later on, the model may easily be expanded as more information and expertise becomes available and as more specific needs are identified.

## Macroabc in detail

With the framework outlined above, one can use Macroabc for:

- historical analysis
- forecasting/prognosis
- policy simulations
- constructing scenarios
- monitoring and updating

The following table gives an impression of Macroabc:

**DIAGRAM  
MACROABC.WKS  
as bookkeeping  
& prognosis model**

	PAST	FUTURE
1 PRIMARY VARIABLES:		
14 Enterprises	123	abc or 123
21 Rest of the world	123	abc
30 Government	123	abc or 123
47 For monetary survey	123	abc
59 Prices	123	abc or 123
68 Labour market etc.	123	abc or 123
96 SECTOR ACCOUNTS	abc	abc
519 MONETARY SURVEY	abc	abc
613 RESOURCES & EXPENDITURES	abc	abc
665 BALANCE OF PAYMENTS	abc	abc
714 GOVERNMENT FINANCE	abc	abc
765 LABOR MARKET SURVEY	abc	abc
786 BALANCE VARIABLES	abc	abc
806 HELP VARIABLES	abc	Abc
819 DEFINITIONS	abc	Abc
1020 SOCIAL ACCOUNTING MATRIX	abc	Abc
KEY FIGURES	abc	Abc

National accounts contain a large number of interdependent variables. Most of the macro data are printed twice, once as an asset and once as a liability and many are calculated from others. As a result, an enormous volume of data is generated from a select number of key variables. Macroabc methodology concentrates on the key variables.

Taking advantage of practical statistical experience in making National Accounts, a Model Team could construct a primary data set of 50 variables, which gives enough information for Macroabc to calculate the other variables needed for the output data and to estimate the behavioural relations. In principle one can make, starting with only 50 variables, 50 factorial other variables. That is nearly infinite. The current model Macroabc contains some 1000 rows, which is enough to support a 50 primary variable model.

The column with the heading "historical data" indicates the data model of Macroabc. The first 98 rows contain the 50 primary variables (plus comment lines). Historical data are collected outside of the model and are indicated as such with a 123 in the cell. All the other cells in the column are secondary variables, and their entries are calculated by definitional relationships from the primary variables (sometimes indirectly, through an intermediary secondary variable). All of these secondary cells contain formulae, as indicated by the entry abc.

There are three types of secondary variables. The first type, balance variables, indices, and help variables, are found in rows 92..149. (The row numbers here refer to Macroabc-NL, as shareware on [www.micromacroconsultants.com](http://www.micromacroconsultants.com)). These variables provide validity checks on the primary variables or are used as intermediary steps in the calculations of the formulae for the behavioural relationships later on. The second set of secondary variables is called key figures, or main indicators. Rows 152..199 give the outcomes for the key figures for the current year (the current column). Most of the time these outcomes are presented in percentage growth rates. Rows 190..226 give the same outcomes for a given base scenario, and rows 228..264 contain the differences between the current outcomes and the outcomes in the base scenario. The last sets of secondary variables are output tables of various kinds and are listed under the other grouping in the Diagram above.

The column with the heading "projected data" uses the same logic as the historical data column... The only difference is that for the cells of the primary variables, we now see either 123 or ABC, that is, some of

these rows now also contain formulas. For the future, we need forecasted values for the primary values. For the exogenous primary variables, these forecasts are taken from outside the model and we can simply enter the exogenous forecasts as numbers. Hence these cells are still of the '123' type. For the endogenous (behavioural or institutional) variables, a formula is used to calculate the forecasted values, so these cells are now of the 'abc' type. As input for these formulas only primary values are needed or variables of the first set of secondary variables (those in rows 92..149). That is, if we call rows 1..149 the core part of the model and rows 152..1010 the output part, there is never a feedback from the output part back to the core part. As a result, rows 1..149 can run independently of the rest of the model, and their functioning or outcomes would not be affected if we simply threw out all the other rows.

Once the primary variables in the column "Projected Data" are filled in or calculated, the remainder of the column is calculated by definition just as before. Of course, while for expositional reasons the figure contains only one historical data column and one projected data column, in practice there may be many of each.

### Theory behind the Behavioural equations in brief

As also noted above, behavioural variables are calculated on the basis of other variables in the spreadsheet and behavioural coefficients. The values of the behavioural coefficients are based on a combination of time series analysis, economic theory, feasibility of model results, and comparative studies. In the case of developing economies, historical research must be augmented with these latter components because the development process affects behavioural relationships, causing a structural change in the time series. Where possible evidence from other countries is used to calibrate local statistics.

Below is a discussion of the most important behavioural equations, and their significant explanatory variables. See the Flow Diagram for the relations between variables and the box with 12 main behavioural equations for an overview of the formulas and levels of the preliminary coefficients. See for a detailed discussion of economic theory for example in Van Schaaijk: 'A macro model for a small economy', The Hague, 1991 as shareware on [www.stuseco.org](http://www.stuseco.org) See at the bottom the section in English where you can download MACMIC EN.

- Consumer behaviour.

Consumption is determined by intertemporal optimization. In that case consumption is determined by the real disposable income, wealth and interest rate. Since data on wealth was not available, we left out wealth and interest rate from the equation, but we make a difference between the consumption rates of income from labour and remittances on the one hand and profit income from the other hand. The change in the value of consumption is a function of net disposable income of wage earners and profits.

- Investment behaviour.

Many investments theories are available (accelerator theory; neo-classical investment theory; vintage theory; adjustment cost models; Tobins q; the finance approach; Keynesian approach; supply factors). However in practice it is quite difficult to find a theory with high forecasting capacity. So for the time being we use a rather simple investment function: Investments in industries are a function of gross value added of industries (accelerator) and profit rate.

- The export function

Exports are the foreign demand for Macedonian products. If we assume that the rest of the world has a CES utility function, then the growth of Macedonian exports are determined by the growth rate of relevant trading partners and the difference in domestic and international inflation: The change in the quantity of exports is a function of the change in world trade, the difference between export and import

prices and production capacity. At this moment in Macroabc-MK test version we only brought a macro export equation, but we think that we need a special micro block of the export sector, in which we model each of the most important export products separately. (See e.g., Van Schaaijk: 'A macro model for a small economy', The Hague, 1991 as shareware on [www.stuseco.org](http://www.stuseco.org))

- The demand for imports function.

For the production of final output of the private sector (Consumption + Investments + Exports) domestic value added as well as imports is needed. The share of domestic value added to imports will change if domestic inflation differs from international inflation. The direct plus indirect import intensity of different final demand categories (C, I, E) can differ, but because a Cumulated Production Structure (CPS) Matrix of Macedonia is not available, we cannot take into account these differences. In empirical studies it is often found that the elasticity of imports to final output is higher than 1. This may be explained by a trend towards internationalization. This gives the next equation: The change in the quantity of imports is a function of real final output and the difference between internal and external inflation.

- Prices.

In a market economy with many competing firms the marginal prices will follow marginal costs (the combination of wage costs, import costs and capital costs). However if the capacity utilization rate changes, the profit margin will change and the marginal price might differ from the marginal cost price. On top of that will export prices be sensitive to foreign competitor's prices. Because we have yet no good figure for the utilization rate, we neglect that factor for the time being. Concerning the consumer price we take also the change in indirect taxes as one of the costs components: The change in the consumer price is a function of the change in costs and the change in the indirect tax rate.

- The export price

The export cost price is not only a function of import prices and wage costs. The export prices also will be affected a lot by international competitors prices.

- The investment price

The change in the price of investment goods is a function of the change in costs.

- Wage determination

The changes in the wage rate can be explained by a process of bargaining. In this process the employers are most interested in gross wage costs and employees (individuals and trade unions) in net real wages. The change in strength of employers versus employees is given by the change in the unemployment. (Phillips curve effect). So the components in the wage equation are the consumption price, the labour productivity and the change in unemployment and the change in direct tax pressure.

- Employment

If we assume that the production of the value added takes place in a CES production function with capital and labour, the employment will follow the production growth minus productivity increase minus the growth of wages cost compared to other costs (with for the time being the consumer price as indicator). Because the labour intensity of several components of final output differs, we have to include differences in labour intensity, but because a CPS matrix of Macedonia is not available, that is left out. But we made a start to also introduce production capacity. (For the time being 85% weight to production and the remaining 15% to production capacity. So the growth of employment in industries is a function of growth of the final output and real production capacity and the labour productivity and relative wage costs.

- Unemployment

The change in unemployment rate is the result of changes in supply and demand. However both supply and demand changes do not influence for 100% the unemployment. On the supply side the "dis-

couraged worker effect" has to be taken into account. Also on the demand side a change in demand will fully affect the unemployment figure because not all unemployed are registered, and if employment increases, new employed are also recruited from this labour reserve. So the change in unemployment rate is a function of some part of change in demand for labour and the increase in labour supply.

- The exchange rate is exogenous, given the policy of NBRM.
- Money Supply

For the time being we assume that NBRM will accommodate the need for additional money as far as it comes from real GDP growth (and we assume that NBRM takes last years real GD growth as indicator) and an inflation target. So money growth is set equal to real GDP growth and an inflation target.

During the workshops in September 2003 and August 2007 several experts of MMC have discussed the theory behind these and other equations. The flexible approach of Macroabc includes starting with a simple version, and ending in a sophisticated framework as in the case of the macro models for the Netherlands for example.

#### **Box: List main behavioural equations in Macroabc-Mk-2007**

Components of GDP: (lags not mentioned)

1. Consumption: changes with net disposable income (95% net household income including remittances from abroad, 70% profits) (lags)
2. Private investments volume growth:  $16\% * \text{gross value added of enterprises at market prices} + 0,3 * (\text{return on investment minus the real interest rate}) * \text{value of invested capital} + \text{?} \% \text{ of public investment}$
3. Export volume % change:  $0,5 * \text{relevant world trade growth} - 0,9 * (\text{export price minus world market price in denars})$
4. Import volume % growth:  $1,05 * \text{real final demand growth, reweighed for import intensity} + 0,1 * (\text{consumption price minus import price})$

Prices:

5. Consumption price % change:  $0,47 * \text{import price} + 0,34 * (\text{wage rate minus trend in Labour productivity}) + 0,19 * \text{consumer price (lagged) as indicator for capital costs} + 100\% \text{ change in indirect tax pressure.}$
6. Export price % change:  $(1-0,36) * (0,47 * \text{import price} + 0,34 * (\text{wage rate minus trend in Labour productivity}) + 0,19 * \text{consumer price last year}) + 0,36 * \text{world trade price in denars (lagged)}$
7. Investment price % change:  $0,47 * \text{import price} + 0,34 * \text{wage costs minus trend in Labour productivity} + 0,19 * \text{consumer price last year}$
8. Wage rate businesses:  $2,5 + 1 * \text{consumer price (half year lag)} + 0,3 * \text{Labour productivity trend} - 0,05 * \text{unemployment rate} - 0,5 * \text{increase in the unemployment rate} + 0,6 \text{ change in direct tax pressure}$

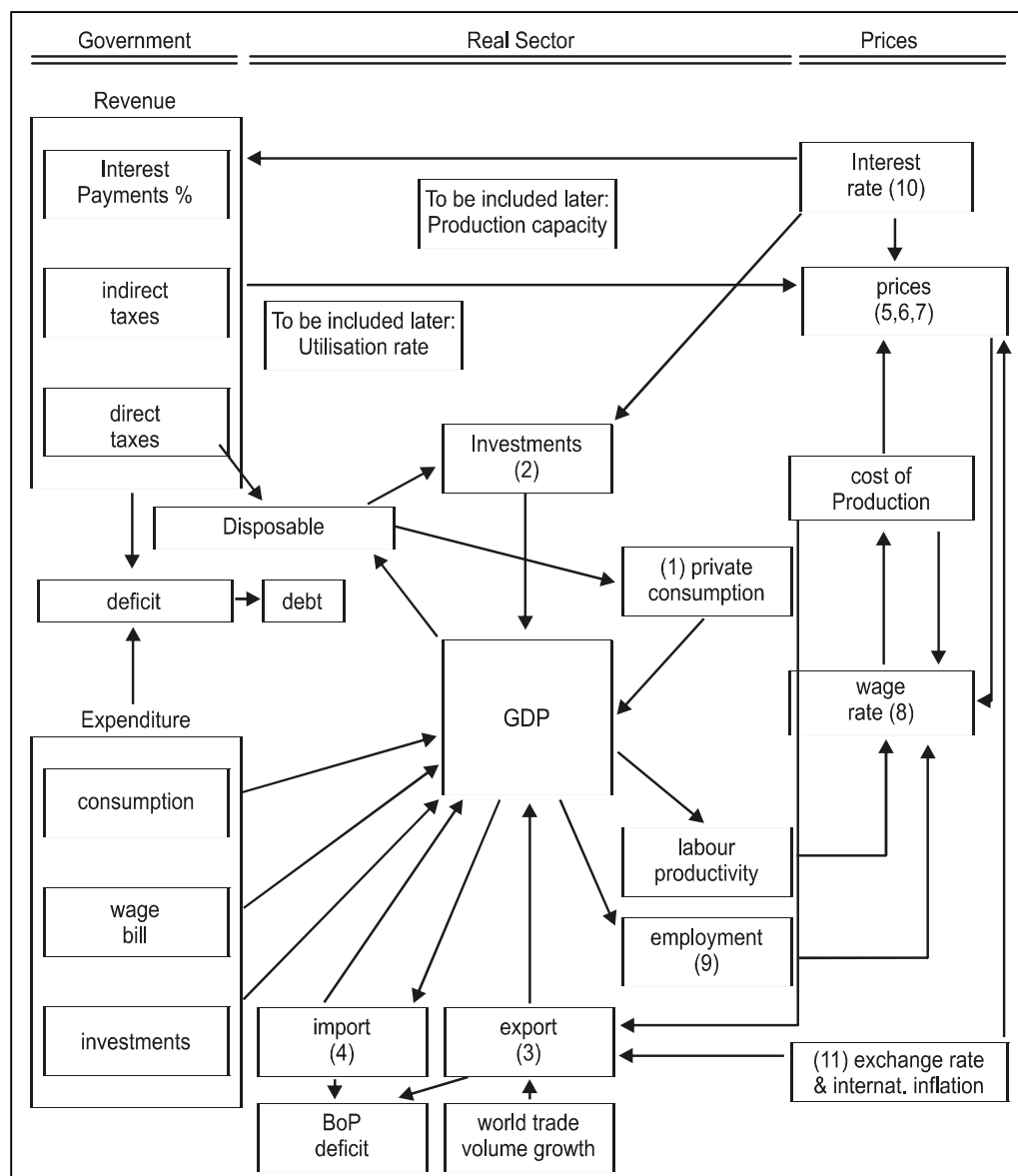
Employment

9. Employment businesses % change:  $-1 * \text{change in Labour productivity trend} + 0,85 \text{ real production growth} + 0,15 * \text{real growth in production capacity} - 0,1 * \text{real wages}$
10. Unemployment rate increases with 60% of growth supply minus demand

Monetary variables:

11. Exchange rate: fixed rate of Denar to Euro since 1998
12. Money supply: increases with real GDP growth +2%

### Flow diagram of Macroabc - MK



### Semi-Behavioural equations

The institutional or semi-behavioural equations reflect the current institutional setting of the country. Some of the most important equations of this type are:

- Import duties are a function of the value of imports and the average import duty rate.
- Taxes on consumption are a function of value of consumption and the VAT rate of the preceding year.
- Direct taxes on industries are a function of disposable profit income and the profit tax rate.
- Direct personal income tax is a function of disposable income and profits.

The behavioural and institutional equations allow to perform bookkeeping and more economic analysis. The set of these equations in Macroabc is normally purposefully limited. Of course, one may expand this set in any direction based on the questions to be addressed by the model, such as a more detailed breakdown of medium term budgetary projections. This we have done already in the case of Macroabc-MK.

## Simulations

The test version of Macroabc-MK already contains a sheet SIM. If you bring a number there, for example wages in 2004 5 % higher then in the base line, after pushing F9 (recalculation) you can see immediately in sheet model (look in rows part Key Variables, columns in part Deviation of Baseline) the effects in deviation of the base line for all main variables for the years 2004-2007. This is a way to analyze the effects of:

- Exogenous on the economy (as higher international trade, higher international inflation)
- Internal shocks (like wage impulse)
- Effects of policy measures (as lower tax rates, lower government employment)

One can also use the model to construct scenarios (packages of partial changes).

However, take care: so far Macroabc-MK is only a test version. It can be used to get an idea how to use such a model in practice in policy preparation. But because the model has not been tested yet (actually several coefficients in behavioural equations are preliminary) it does not give yet output that can be used already in real live.

## Conclusion

Macroeconomic models appear to have high uncertainties: the actual values may differ from the model forecasts. Research of CPB Netherlands (See the chapter by Dr. Free Huizinga in the Macroabc-MK Proceedings Paper of September 2003) shows four reasons for uncertainty:

- As starting values for the forecast preliminary data of statistical office are used, that differ from the actual values (5%)
- Model coefficients are inaccurate (15%)
- Exogenous variables like world trade growth and world inflation (calculated by IMF, OECD, WB etc.) appear wrong. 50% of the uncertainty comes from this factor.
- Shocks in individual equations (30%).

So an important part of the uncertainty cannot be improved by improving the model. This means that we have to take into account explicitly this uncertainty. For this reason the importance of macroeconomic models lies more in the use as instrument for policy simulation and scenario building then forecasting.

Besides the empirical macroeconomic models two other approaches exist: ARIMA and AGE models. In case of an Arima model the forecast of a variable is based on its path, it is an extrapolation. The disadvantages are that forecasts of several variables made by ARIMA models have no connection, so there is no internal consistency. No economic linkages are included, so the models cannot be used for economic analysis. Furthermore these models have the same kind of inaccuracy as macroeconomic models

Applied General Equilibrium (AGE) models can be used for long term analysis, but they are very complex> And they have no dynamics: they give you an end result but give no

Information about the way how to realise that. It is like a night train that brings you from A to B but you can not have a look where you travel.

Macroabc-MK is like a helicopter. It starts from a consistent data base taken into account figures from several institutes (like Statistical Office, National Bank, Ministry of Finance). It gives a consistent set of figures for key variables for the next as well as the following years. It can help to do alternative policy simulations to see what is the effect of measures on a complete set of key variables. It can be used for scenario building as well as historical analysis. It can be complemented with expert opinion, that can be inserted by add factors in a consistent way. So it is a helpful tool for macroeconomic and fiscal analysis, if one takes into account that the baseline always will be inaccurate. However the accuracy of this version of Macroabc-MK can be improved by historical analysis like regression analysis and then running of variants and discussing the results with experts in all kind of fields (fiscal, sectors of industry, wage experts, monetary experts).

.....

# UDK 338:658(100-773)

## ARE THE INSTITUTIONS IMPORTANT FOR THE ECONOMIC GROWTH?

MSc Shenaj Hadzimustafa

---

### Abstract

*In recent years, comparative economics experienced a revival, with a new focus on comparing capitalist economies. The theme of the new research is that institutions exert a profound influence on economic development.*

*This literature tries to explain what institutions are, how they arise, what purposes they serve, how they change and how they may be reformed. Special attention is paid on the role that institutions have on the economic growth and the key institutions for that, at the same time giving answer to the one of the frequently asked question, and that is: Why some countries are rich and others poor.*

*Key words: institutions, organizations, transition economies, economic development*

---

### Institution Development

An institutional story of long run economic change begins by examining the changing initial conditions confronting diverse groups of individuals.

*"As tribes evolved in different physical environments they developed different languages and, with different experiences, different mental models to explain the world around them. To the extent that experiences were common to different tribes the mental models provided common explanations. The language and mental models formed the informal constraints that defined the institutional framework of the tribe and were passed down intergenerationally as customs, taboos, myths that provided the continuity that we call culture and forms part of the key to path dependence." (North 1993a, 3)*

With growing specialization and division of labor the tribes evolved into polities and economies; the diversity of experiences and learning produced increasingly different societies and civilizations with very different degrees of success in solving the fundamental economic problems of scarcity. The reason for differing success is straightforward. The complexity of the environment increased as human beings became increasingly interdependent, and more complex institutional structures were necessary to capture the potential gains from trade. Such evolution required that the society develop institutions that will permit anonymous, impersonal exchange across time and space. But to the extent that "local experience" had produced diverse mental models and institutions with respect to the gains from such cooperation, the likelihood of creating the necessary institutions to capture the gains from trade of more complex contracting varied. The key to this story is the kind of learning that organizations acquired to survive.

*"If the institutional framework made the highest pay-offs for organizations piracy, then organizational success and survival dictated that learning would take the form of being better pirates. If on the other hand productivity raising activities had the highest pay-off then the economy would grow." (North 1993a, 4)*

### Institutions vis à vis organizations

When analyzing the economic development, the dynamic of the economic changes has to be taken into account, in order to have the desired consequences. And a dynamic model of economic change entails as an integral part of that model analysis of the polity since it is the polity that specifies and enforces the formal rules.

*"Development economists have typically treated the state as either exogenous or as a benign actor in the development process. Neo-classical economists have implicitly assumed that institutions (economic as well as political) don't matter and that the static analysis embodied in allocative-efficiency models should be the guide to policy; that is "getting the prices right" by eliminating exchange and price controls." (North 1993a, 5)*

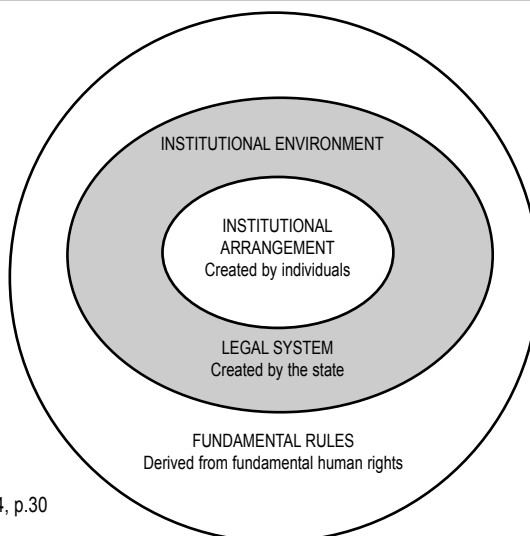
In fact the state can never be treated as an exogenous actor in development policy and getting the prices right only has the desired consequences when you already have in place a set of property rights and enforcement that will then produce the competitive market conditions.

*Before going further it is essential to distinguish clearly institutions from organizations.*

Institutions are the rules of the game of a society or more formally are the humanly-devised constraints that structure human interaction. They are composed of formal rules (statute law, common law, regulations), informal constraints (conventions, norms of behavior, and self imposed codes of conduct), and the enforcement characteristics of both.

**Figure 1.**

The Three Levels of Institutions



Source:

Borner, Silvio, Bordner Frank and Kobler Markus,  
"Institutional efficiency and its determinants", OECD 2004, p.30

Formal institutions exist on three levels. First, fundamental rules, derived from basic human rights, are normally laid down in a country's constitution. Second, based on the fundamental rules, the legal system contains property and contract laws as well as rules about the structure of the state and the political decision-making process. Among other things, these political institutions define the degree to which a state is democratic or autocratic. The fundamental rules and the legal system together constitute the institutional environment. Third, within this constitutional environment, individuals and organizations enter into contracts

or institutional arrangements to coordinate their activities. The three levels of institutions are strongly inter-dependent. Crucially, the value of an arrangement between two or more individuals or organizations depend decisively on the quality of the institutional environment. "Talk is cheap", but so is a paper contract - unless the quality of the institutional environment renders it "dear". (Borner, Bordner and Kobler 2004, 29)

Informal constraints derive from the culture, they are disseminated from generation to generation by learning and imitation of the knowledge, norms and other things that affect the behavior. They are conventions that solve the everyday problems of coordination: expansion, explanation and modification of the formal rules, social sanctioned norms of behavior and the behavioral standards that have to be obeyed. Because of the slow change, the informal rules do not react on the formal rule change immediately. As a result: the same formal rules and/or the constitution determined in different societies will give quite different results.

**Organizations** are the players: groups of individuals bound by a common purpose to achieve objectives. They include political bodies (political parties, the senate, a city council, a regulatory agency); economic bodies (firms, trade unions, family farms, cooperatives); social bodies (churches, clubs, athletic associations); and educational bodies (schools, colleges, vocational training centers). The institutional framework affects the appearance and the development of the organizations. The organizational activities that are directed to the goal accomplishment of those organizations change the institutions (formal and informal) and affect their development path.

The essential characteristics of institutional change are:

1. The continuous interaction of institutions and organizations in the economic setting of scarcity and hence competition is the key to institutional change.
2. Competition forces organizations to continually invest in skills and knowledge to survive. The kinds of skills and knowledge individuals and their organizations acquire will shape evolving perceptions about opportunities and hence choices that will incrementally alter institutions.
3. The institutional framework dictates the kinds of skills and knowledge perceived to have the maximum pay-off.
4. Perceptions are derived from the mental constructs of the players.
5. The economies of scope, complementarities, and network externalities of an institutional matrix make institutional change overwhelmingly incremental and path dependent.

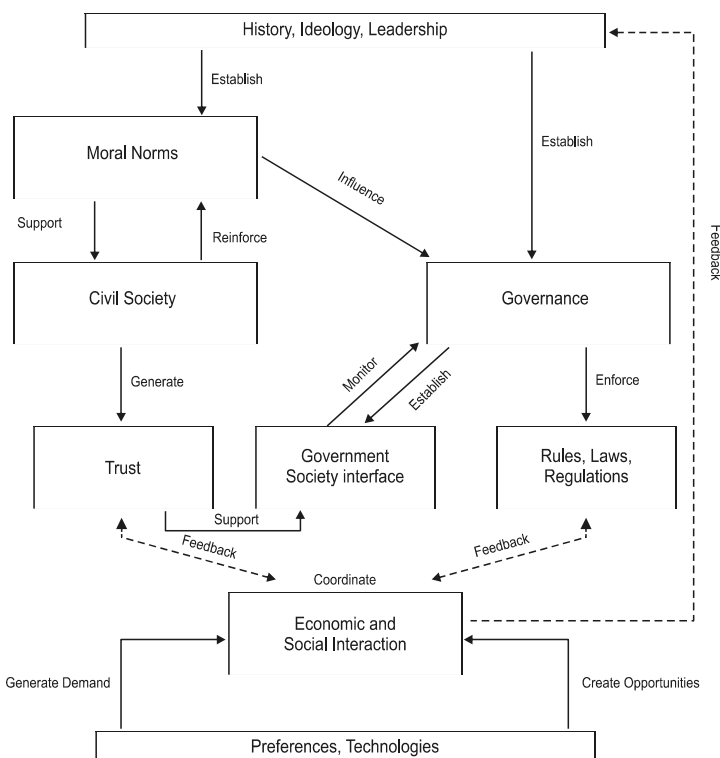
### Formal and informal institutions and institutional reforms

In Figure 2, the various formal and informal institutions are presented in boxes, the formal ones on the right and the informal ones on the left, and their functional interrelationships are represented by arrows. The top and bottom of the figure are taken as largely exogenous. On the top are the history, ideology and leadership as exogenous conditions that determine what particular set of institutions is present in a given society at any one point in time. At the bottom of the figure are the preferences and technologies. These are factors typically considered to be exogenous by economists. Technologies and preferences also influence the institutional framework, because they determine the costs and benefits of compliance with a set of formal and informal rules. In the figure preferences and technologies influence institutions only indirectly through the process of social and economic interaction. Note that the feedback arrows to formal and informal institutions are broken, to express the idea of path dependence.

**Figure 2.**

Formal and informal institutions

Source:  
Raiser, Martin, "Informal  
institutions, social capital and  
economic transition: reflections  
on a neglected dimension",  
EBRD Working Paper 0025,  
August 1997



The main body of the figure 2. is filled up with six boxes, standing for the broad sets of formal and informal institutions that are to some extent present in all societies. The box at the top left is the set of moral norms. The morality is influenced by ideology and leadership as much as by historical convention. The presence of a specific type of moral norms feeds into the emergence of a civil society, understood as comprising all non-governmental organizations, such as the press, leisure clubs, churches, neighborhood associations and so on. The existence of a working civil society in turn tends to reinforce the moral predispositions of individuals. It also creates "trust" among economic actors, thereby facilitating economic exchange under imperfect information. The sequence of boxes on the left side of Figure 2. represents a stylized model of how "social capital" is accumulated.

On the right hand side of the figure is presented the sequence that leads to an efficient set of formal institutions and a particular form of governance. Again, the form of governance that evolves is partly a result of exogenous factors, as noted above, but it is also influenced by the existing set of moral norms. A society that values honesty, solidarity, modesty, etc. is less likely to end up with a dishonest, predatory and wasteful government than one in which cheating does not meet sanctions, individualism prevails and social prestige is connected with an exuberant display of wealth. The form of governance impacts on the enforcement of a system of laws and regulations that formally structure social interaction and economic exchange. The sixth box is placed in the middle and represents the interface between government and society. What role is accorded to this interface is partly a function of the government's willingness to engage in policy dialogue, but also crucially contingent on the existing level of trust in government institutions. However, it could also take more informal forms, for instance when politicians become active members of social clubs and thus exposed to monitoring by their constituencies. There are strong complementarities between the existing level of trust (or social capital) and the effectiveness of government. When trust in government institutions is low, the pressures on public officials to deliver better governance are weak. Bad governance in turn undermines trust because it generally leads to inferior economic outcomes. As a result the social capital of a society depreciates.

The above model identifies several levels of action in bringing about institutional change. First of all, institutional change is brought about by exogenous shocks, either from the polity (i.e. a change in ideology or political leadership) or from the economic sphere (a change in technologies or preferences). Second, institutional change may occur from inside the institutional framework. Governments can change the formal rules, either in response to an exogenous shock, or in anticipation of future changes, or, less benevolently, in maximizing their own returns from a position of power. Governments can also improve incentives for better governance by public officials, through reducing the scope for policy discretion, increasing job competition and raising public sector pay. Third, governments can attempt to influence positively the interaction between formal and informal institutions by engaging civil society in a policy dialogue. However, this will depend on the given level of trust in government and its formal institutions. When social capital is low, the government's best chance is to enhance its credibility through signaling reform commitment and hoping that real economic improvements will in time feed back into a higher level of social trust (Raiser 1997).

What does this suggest for the challenge of systemic reform faced by the transition economies? There are three possible reform strategies that form the basis for the typology of patterns of institutional change in transition economies to be developed in this paper. One strategy is to emphasize the importance of stability of the formal institutional framework and to change laws and regulations only gradually. The attempt in this strategy is to reform the formal institutional framework in step with changes in informal institutions so as to minimize the potential for friction. However, when exogenous shocks are large, the inefficiencies resulting from failing to rapidly adapt the set of formal rules may outweigh the costs of friction with a more slowly changing set of informal institutions. Institutional stability, which is the aim of this strategy, could be undermined from within, as compliance with formal rules becomes too costly and attempts to budge the law increase. The second strategy, diametrically opposed to the first, is to change the formal institutional framework at one stroke to conform to the fundamental requirements of a new economic system. This strategy wagers that enforcement costs of the new rules will be substantial for quite some time, because they are not matched by a set of self-enforcing informal rules. Both the first and second strategies presuppose the existence of an effective government able either to maintain institutional stability or to implement rapid institutional change. The third strategy accepts the limitations of government, particularly in most transition economies. Institutional design in this strategy is oriented towards political feasibility. This implies that institutional reforms will be more rapid in areas where the costs of adapting to new rules is lower, because of their simplicity, ease of implementation and lower demands on changes in people's behavior. Political economy considerations often force the adoption of the third strategy. However, it runs the danger that institutional reforms remain blocked by powerful insiders or become bogged down in interest group conflict. Arguably, focusing attention on the sociopolitical interface is of particular importance in this third case and varying degrees of success may be attributed to varying degrees of existing social capital.

### **Institutional changes (transitions) in the last 30 years**

Despite the tendency for institutional persistence, the evidence of the past 30 years suggests that rapid institutional change is possible, helping raise living standards more than was previously thought possible. Several profound changes since the 1950s appear to have significantly improved the potential for institutional improvements. First, the collapse of colonial empires altered an institutional system geared toward the systematic extraction of rents and removed one major beneficiary of that system. Second, rapid technological improvements increased the opportunities for industrialization across a range of sectors and away from rentintensive sectors. Third, globalization afforded hitherto-unavailable economic opportunities against the backdrop of declining transportation and communication costs. Finally, the fall of communism in the late 1980s and early 1990s radically altered the governance structures in many formerly communist nations, taking away another major source of institutional persistence (Table 1.).

The institutional transition can be economic or political. The analysis of recent transitions suggests that economic transitions were often, but not always, preceded by political transitions (Figure 3.). The transition periods are different in different regions. If we analyze the CEE region we can conclude that the political transitions are more concentrated in the 1990-95 periods, which are basis for the economic transitions in the next period. Big reason for the transitional initiatives is the possibility for the EU entrance, which acquires political and economic transformation of the countries.

**Table 1.**

Frequency of  
Institutional  
Transitions

Political Transitions by Region and Decade <sup>2</sup>								
Decades	Africa	Central and Eastern Europe	CIS and Mongolia	Developing Asia	Middle East	Latin America	Newly Industrialized Asian Economies	Total
1960s	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
1970s	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.54)	0 (0.00)	3 (1.30)	0 (0.00)	4 (0.38)
1980s	0 (0.00)	1 (0.63)	0 (0.00)	1 (0.52)	0 (0.00)	8 (3.48)	2 (5.00)	12 (0.89)
1990s	18 (3.77)	12 (7.74)	4 (3.08)	2 (1.00)	1 (0.78)	8 (3.48)	0 (0.00)	45 (3.23)
2000s	1 (0.53)	2 (3.33)	1 (1.92)	1 (1.25)	0 (0.00)	0 (0.00)	1 (5.56)	6 (1.11)
All years	19 (1.00)	15 (2.16)	5 (0.87)	5 (0.61)	1 (0.18)	19 (1.89)	3 (1.70)	67 (1.17)
Economic Transitions by Region and Decade <sup>2</sup>								
Decades	Africa	Central and Eastern Europe	CIS and Mongolia	Developing Asia	Middle East	Latin America	Newly Industrialized Asian Economies	Total
1970s	0 (0.00)	0 (0.00)	0 (0.00)	1 (1.23)	0 (0.00)	0 (0.87)	0 (0.00)	2 (0.45)
1980s	3 (0.97)	0 (0.00)	0 (0.00)	2 (1.48)	3 (4.00)	1 (0.40)	1 (2.50)	10 (1.13)
1990s	10 (3.03)	8 (6.35)	1 (5.00)	3 (2.14)	2 (2.50)	12 (4.80)	1 (2.50)	37 (3.75)
2000s	2 (1.01)	8 (8.33)	2 (11.11)	0 (0.00)	0 (0.00)	4 (2.67)	0 (0.00)	16 (2.59)
All years	15 (1.53)	16 (4.75)	3 (4.41)	6 (1.33)	5 (2.15)	18 (2.35)	2 (1.39)	65 (2.18)

Sources:  
Marshall and Jagers  
(2003); Gwartney and  
Lawson (2004); and  
IMF staff calculations.

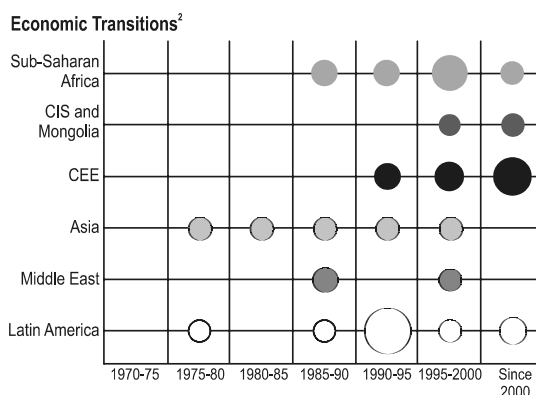
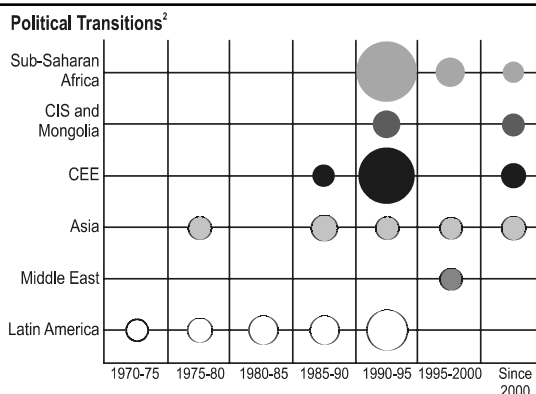
Most countries of the Commonwealth of Independent States (CIS) were generally slower to transition in terms of economic institutions, even when large changes in political institutions took place relatively early. Transitions to more representative political systems across many countries in Africa after the end of the Cold War also led to significant changes in economic institutions in some countries. In Latin America, too, political transitions generally preceded economic transitions, but they often followed major economic crises.

From the perspective of what policies can do to improve institutions, it is of interest to analyze those developing countries that have experienced rapid institutional transitions.

**Figure 3.**

Number of Institutional  
Transitions by Region

(Size of bubble represents the  
number of transitions over five-year  
intervals)



Sources:  
Gwartney and Lawson (2004); Marshall and  
Jagers (2003); and IMF staff calculations.

1 Only developing economies are included except for Asia, which also includes any transitions in the newly industrialized economies.

2 In some countries, transitions cannot be identified owing to the limited availability of data.

### *Are institutional transitions frequent or rare?*

The exercise identified political transitions in 67 countries, and economic transitions in 65 countries (Table 1.). At a broad level, a country would have had about a 20 percent chance of experiencing an institutional transition in any given decade. To undertake a more in-depth analysis, a probit model was estimated linking the probability of an institutional transition to the country's level of openness, accountability, education, natural resources, developments in neighboring countries, foreign aid, and other potential explanatory factors. Several conclusions are relatively robust to various specifications (World Economic Outlook 2005, 138) :

◆ *Trade openness is significantly associated with a greater likelihood of institutional transitions.* Indeed, a move from complete autarky to full liberalization is associated with about a 15 percentage point increase in the probability of transition. This is consistent with the hypothesis that greater openness allows for a greater role of export sectors that are rent-proof and require innovation, and creates momentum for positive institutional changes. In addition, increased import penetration reduces the ability of domestic producers to sustain monopolistic rents, which impede institutional improvement.

◆ *Transitions are also more likely in countries with high levels of press freedom, which is a broad indicator of the accountability of political institutions in a country.* Greater accountability of political institutions is associated with policies and institutional reforms that are beneficial for the broader economy, with the political leadership answerable to a broad cross-section of the population, which favorably aligns the incentives of the leadership with that of the whole economy.

◆ *Countries are also more likely to experience institutional improvements if their neighbors have higher institutional quality.* This is consistent with the view that a strong regional effect is present for institutional transitions-economic transitions are more likely to happen in clusters of countries within a region around the same time. This is reflective of both the direct impact on institutional improvements in countries that are close competitors and the demonstration effects of regional success stories.

◆ *The probability of economic transitions is also higher for higher levels of education.* This is consistent with the notion that more educated populations are more effective participants in broader decision making.

◆ *In contrast, aid levels in the probit estimates appear to have a negative impact on the probability of transition to a higher institutional level.* This may, of course, reflect the fact that countries receiving higher aid flows are those that suffer from a broader set of disadvantageous initial conditions, impeding their likelihood of experiencing an institutional transition. A more detailed discussion of the impact of aid is contained in the section of this chapter on "Institutions and the External Environment." In addition, higher initial per capita income has a negative impact on the probability of transitions, consistent with the observation that countries with a higher per capita income in the sample typically already had a high level of institutions at the beginning of the sample period. Somewhat surprisingly, the impact of fuel exports is not found to be statistically significant in affecting the probability of transition in economic institutions.

### Debates about the role of the institutions on the economic growth

A great deal of economic research in recent years suggests that institutions are vital for economic development and growth. Typically, economists have looked at the level of economic development, as measured by per capita GDP, and have found that differences in per capita incomes are closely related to differences in the quality of institutions.

*How strong is the relation between the institutional quality and the economic performances?*

Hali Edison gives an answer to this question by studying the relation between the institutions and the level of economic development, growth, and volatility of growth. Studies show that the institutions have an important influence on the economic performances, substantially increasing the level of the per capita GDP. Empirical evidence can be seen from figure 4.

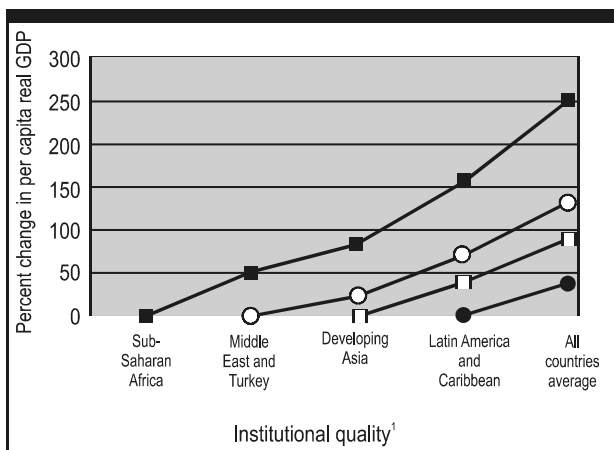
**Figure 4.**

Impact on income

Source:

Edison, Hali, "Testing the Links-How strong are the links between institutional quality and economic performance?",

Finance and development, IMF, Washington DC, June 2003, p. 35



The studies show that the economic results can improve significantly if the developing countries strengthen the quality of their institutions. For an example, the potential benefits to sub-Saharan Africa continue to rise markedly as its institutions improve. There is a 2½-fold increase in regional income if sub-Saharan Africa's institutions are strengthened to the all-country average; the income gain is much larger if institutional quality rises to the level of advanced economies (Edison 2003, 35).

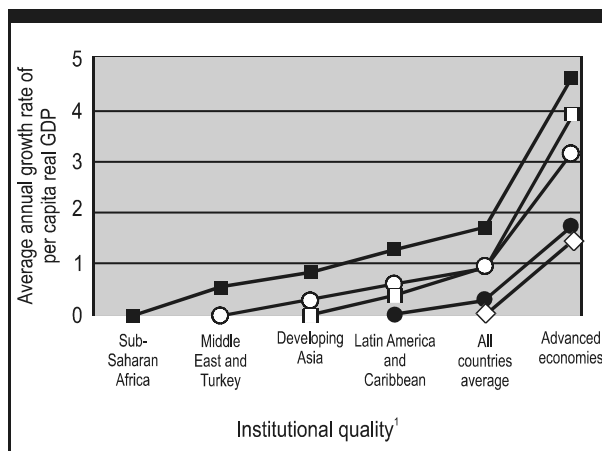
**Figure 5.**

Impact on growth

Source:

Edison, Hali, "Testing the Links-How strong are the links between institutional quality and economic performance?",

Finance and development, IMF,  
Washington DC, June 2003, p. 36



The institutions also have a strong and significant impact on per capita GDP growth. This impact may partly reflect the role of institutions in enhancing the sustainability of policies. The implications of institutional improvements for growth across different regions are illustrated in Figure 5. Again, the empirical results suggest substantial gains. For instance, annual growth in per capita GDP in sub-Saharan Africa would increase by 1.7 percentage points if countries there had institutions as good as the average quality for the entire sample. Countries from other regions would also gain from adopting higher-quality institutions, as shown in the figure.

The results also indicate that institutions have a strong effect on volatility (measured as the standard deviation of the growth rate of per capita GDP): the better the institutions, the lower the volatility of growth. In addition, the impact of institutions appears to be significant even when policy measures such as differences in inflation, exchange rate overvaluation, openness, and government deficits are controlled for.

Tremendous differences in incomes and standards of living exist today between the rich and the poor countries of the world. The two main candidates to explain the fundamental causes of differences in prosperity between countries are geography and institutions. The geography hypothesis, which has a large following both in the popular imagination and in academia, maintains that the geography, climate, and ecology of a society shape both its technology and the incentives of its inhabitants. It emphasizes forces of nature as a primary factor in the poverty of nations. The alternative, the institutions hypothesis, is about human influences. According to this view, some societies have good institutions that encourage investment in machinery, human capital, and better technologies, and, consequently, these countries achieve economic prosperity (Acemoglu 2003, 27). There is also a third hypothesis, integration view, that emphasizes the role of international trade as a driver of productivity change and income growth (Rodrik and Subramanian 2003, 31).

If geography is the key factor determining the economic potential of an area or a country, the places that were rich before the arrival of the Europeans should have remained rich after the colonization experience and, in fact, should still be rich today. In other words, since the key determinant of prosperity remains the same, we should see a high degree of persistence in economic outcomes. If, on the other hand, it is institutions that are central, then those places where good institutions were introduced or developed should be richer than those in which Europeans introduced or maintained extractive institutions to plunder resources or exploit the non-European population (Acemoglu 2003, 30). If institutions are so important for economic

prosperity, why do some societies choose or end up with bad institutions? Moreover, why do these bad institutions persist long after their disastrous consequences are apparent? Is it an accident of history or the result of misconceptions or mistakes by societies or their policymakers? Recent empirical and theoretical research suggests that the answer is no: there are no compelling reasons to think that societies will naturally gravitate toward good institutions. Institutions not only affect the economic prospects of nations but are also central to the distribution of income among individuals and groups in society- in other words, institutions not only affect the size of the social pie, but also how it is distributed.

Meltzer believes that certain conditions encourage stability and growth. "Not all market economies prosper," he says. "The difference between countries or periods depends greatly on the presence or absence of internal and external institutions that produce stability and the willingness of countries to join the international system and make the internal reforms that permit the market to function well. Accepting the rule of law, fiscal discipline, openness to trade, and private property are key elements." (Meltzer 2003, 8)

*"What fosters growth, is no longer a secret because we have run the experiment and we've seen what happens. Why was it true that Cantonese who moved to Hong Kong-then a British colony-were, by the mid-1990s, 30 times richer than the people in China that they left behind? The answer has very little to do with the people who moved and a lot to do with the institutions that they came to. In Hong Kong, they came under British institutions that had protection of property rights, the rule of law, and all that. Even though they did not have democratic accountability, they had a very effective, humane government operating under British rules and institutions. And growth occurred without very many resources, including the fact that they had to buy their water from the land that they had left. It is a tremendously dramatic story of how institutions make so much difference in world development." (Meltzer 2003, 8)*

### The key institutions for economic growth

As it was shown there exist a number of debates and hypothesis about the primacy and the role of the institutions for the economic development in one country, and why some countries are rich, and others poor.

Most of the recent work on institutions and economic growth has focused on the importance of a particular set of institutions, namely, those that protect property rights and ensure that contracts are enforced. We might call them market-creating institutions since, in their absence, markets either do not exist or perform very poorly. But long-run economic development requires more than just a boost to investment and entrepreneurship. It also requires effort to build three other types of institutions to sustain the growth momentum, build resilience to shocks, and facilitate socially acceptable burden sharing in response to such shocks. The market-creating institutions are important because they deal with the property rights which boost the investments in machines, human capital and technology.

◆ *market regulating* - namely, those that deal with externalities, economies of scale, and imperfect information. Examples include regulatory agencies in telecommunications, transport, and financial services. The market imperfection allows existence of the natural and commercial monopolies, positive and negative externalities, asymmetric information etc, so the state regulating (interference) is needed, so that the negative impact of these will be eliminated.

◆ *market stabilizing*-namely, those that ensure low inflation, minimize macroeconomic volatility, and avert financial crises. Examples include central banks, exchange rate regimes, and budgetary and fiscal rules. These institutions allow the economy to function on the potential GDP, because only that is the path to the economic growth without the negative consequences of the inflation or the recession to be felt. Part of this group of institutions are those that have to deal with the financial crises, that should extract the country from the crises with as much as possible lower costs and negative impact on the economy.

◆ *market legitimizing*-namely, those that provide social protection and insurance, involve redistribution, and manage conflict. Examples include pension systems, unemployment insurance schemes, and other

social funds. In order to achieve social welfare and reduce the border between the rich and poor, fair distribution of the income should be made with the instruments of the tax policy, also with the social transfers. The social funds, pension and health funds, in a great dimension affect the living quality of the people, which from the other hand affects the economic growth of the country, because healthier population and the one that has assured future existence in the older years is in a great deal more productive then the one that is not healthy and has no insurance in its future.

### Republic of Macedonia's Reality

Let us focus a little bit on the reality of the Macedonian economy. How is the situation in Macedonia when speaking about the institutions? This can be seen and felt through the conditions that exist in our business environment. The business environment is a mirror of the good functioning of the institutions. The quality of the institutions reflect the business environment, so by analyzing it we can give a little resume on the institution quality in our economy.

The latest Doing Business 2008 report of the World Bank gives detailed information on the situation in Republic of Macedonia. As can be seen from the Table 2. our economy is listed on the 75 place out of 178 countries. The situation related to different topics is as shown below.

**Table 2.** Doing Business: Republic of Macedonia

Ease of...	Doing Business 2008 rank	Doing Business 2007 rank	Change in rank
Doing Business	75	..	..
Starting a Business	21	82	+61
Dealing with Licenses	76	102	+26
Employing Workers	128	127	-1
Registering Property	91	88	-3
Getting Credit	48	45	-3
Protecting Investors	83	81	-2
Paying Taxes	99	104	+5
Trading Across Borders	72	98	+26
Enforcing Contracts	84	83	-1
Closing a Business	127	127	0

Source: The World Bank, Doing Business 2008 report, Washington D.C., 2007

As we can see we have great improvements in doing business in the Macedonian environment. Out of 175 countries in the year of 2006 Macedonia was ranked on the 92 place and the latest information show that now Macedonia is ranked on the 75 place out of 178 countries. Great improvements are made in the sphere of starting business, dealing with licenses and trading across borders. We still have negative results on the field of registering property, enforcing contracts and closing business. Why do I stress these ones? It is because the good functioning of the institutions is strongly related with good protected property rights and contract enforcement.

Republic of Macedonia is ranked among the top reformers in 2006/2007. Economies are ranked on the number and impact of reforms. First, Doing Business selects the economies that reformed in 3 or more of the Doing Business topics. Second, it ranks these economies on the increase in rank on the ease of doing business from the previous year. The larger the improvement, the higher the ranking as a reformer.

**Figure 6.** The top 10 reformers in 2006/07

Economy	Starting a business	Dealing with licenses	Employing workers	Registering property	Getting credit	Protecting investors	Paying taxes	Trading across borders	Enforcing contracts	Closing a business
Egypt	✓	✓		✓	✓			✓		
Croatia	✓			✓	✓					✓
Ghana	✓			✓	✓			✓	✓	
Macedonia, FYR	✓	✓					✓			
Georgia	✓	✓		✓	✓	✓				✓
Colombia						✓	✓	✓		
Saudi Arabia	✓	✓			✓			✓		
Kanya	✓	✓		✓	✓					
China		✓			✓					✓
Bulgaria		✓					✓		✓	

Source: The World Bank, Doing Business 2008 report, Washington D.C., 2007

Republic of Macedonia has made 3 reforms out of 10 in the Doing Business area. The number of steps that the entrepreneur has to undertake to start a business is reduced from 10 to 9 compared with last year's results. Also the number of days needed for this procedure is reduced from 18 to 15 days. Also the minimum capital required to start a business is grounded to zero compared with 112% of GNI per capita in the year 2006 (GNI per capita in 2007 is 3,060.00 \$). There are significant improvements made in the sphere of dealing with licenses where the number of days needed for obtaining necessary licenses and permits, completing required notifications and inspections, and obtaining utility connections to build a warehouse are significantly reduced from 222 in the year 2006 to 192 in the year 2007. Macedonian economy has also positive results in reducing the number of documents and the time for trading across borders, it is export and import. Comparing with the data from the previous analyzes where the number of documents was 10, with a time for export and import, 32 and 35 (respectively), this year's data show that the exporters or importers now need to fulfill no more than 7 procedures and no more than 19 and 17 days time for ending the delivery of the shipment.

A lot of reforms still have to be done, but if Macedonia continues on this path of reforms we can expect a better economic performance and higher economic development in the days to come.

And at the end let us make a little resume on how the institutions have an impact on the economic development of a country. If you reduce the transaction costs in the economy, then more money can be used for other goals, starting from additional economic activity or if you want and savings. These lead to a higher economic activity in the economy as a whole, also higher investments although usage of the unemployed resources in the economy, and turning the actual GDP toward the potential GDP, a state that is most preferable for each economy. On the other hand if you have an environment where the contracts are fulfilled and where the property rights are respected, then that environment is a good basis for investments (domestic or foreign), which on the other hand have also a positive impact on the economic growth and development of a country too.

As it can be seen the institutions really do matter and are important, and that's why building of a good and quality institutional environment can be of a great importance for one country's successful future.

## References:

- Acemoglu, Daron, "Root Causes- A historical approach to assessing the role of institutions in economic development", Finance and development, IMF, Washington DC, June 2003
- Borner, Silvio, Bordner Frank and Kobler Markus, "Institutional efficiency and its determinants", OECD 2004
- Edison, Hali, "Testing the Links-How strong are the links between institutional quality and economic performance?", Finance and development, IMF, Washington DC, June 2003
- Eigen - Zucchi, Christian, Eskeland S.Gunnar, and Shalizi Zmarak, "Institutions Needed for More than Growth", Finance and development, IMF, Washington DC, June 2003
- Meltzer, H.Allan, "Concentrating the Mind", Finance and development, IMF, Washington DC, June 2003
- North, Douglass C., "New Institutional Economics and Development." 1993 working paper (PDF file).
- North, Douglass C., "The Paradox of the West," Economic History 9309005, Economics Working Paper Archive EconWPA, 1993
- North, Douglass C., "Economic Performance through Time", American Economic Review, Alfred Nobel Memorial Prize Lecture in Economic Science, 1994
- North, Douglass C., "Where Have We Been And Where Are We Going?", Economic History 9612001, EconWPA 1996
- North, Douglass C., "Understanding Economic Change," in Transforming Post-Communist Political Economies, Joan M. Nelson, Charles Tilly and Lee Walker, eds., Washington D. C.: National Academy Press, 1997
- North, Douglass C., "Economic Performance through Time", Nobel Lectures, Economics 1991-1995, Editor Torsten Persson, World Scientific Publishing Co., Singapore, 1997
- Raiser, Martin, "Informal institutions, social capital and economic transition: reflections on a neglected dimension", EBRD Working Paper 0025, August 1997
- Rodrik, Dani and Subramanian Arvind, "The primacy of institutions", Finance and development, IMF, Washington DC, June 2003
- The World Bank, Doing Business 2008 report, Washington D.C., 2007
- World Economic Outlook, "Building Institutions", IMF, Washington D.C., September 2005



<b>Publisher</b>	Center for Economic Analyses - CEA
<b>For the publisher</b>	Marjan Nikolov
<b>Title</b>	CEA JOURNAL OF ECONOMICS
<b>Editorial board</b>	Marjan Nikolov, M.Sc., Editor-in-Chief Bryan Roberts, Ph.D. Dimitar Bogov, Vesna Garvanlieva, MBA Borko Handziski, Aleksandar Stojkov, M.Sc.
<b>Cover, pre-press &amp; print</b>	GLOBAL Communications, Skopje
<b>Number of copies</b>	500 copies

Skopje, November 2007

### Major Sponsors:

Stopanska Banka AD Skopje and USAID BEA Project



**USAID**  
FROM THE AMERICAN PEOPLE

**MACEDONIA**

### Supporters:

Ministry of Finance  
AD Ohridska Banka  
Ministry of Foreign Affairs  
University of SEE - Tetovo