

IMPACT OF ECONOMIC, POLITICAL, AND SOCIO-DEMOGRAPHIC FACTORS
ON THE PARLIAMENTARY ELECTION OUTCOMES
IN CENTRAL AND EASTERN EUROPEAN COUNTRIES

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Inessa Zhelo

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The impact of the economic, political, and socio-demographic

factors on the parliamentary election outcomes in Central and

Eastern European countries

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Inessa Zhelo

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ABSTRACT

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This study determines how economic, political, and socio-demographic factors impact the parliamentary election outcomes in central and eastern European countries in transition period. A one-way fixed-effect method has been applied to analyze two main economic models. The dependent variables are share of the Western-oriented and traditional-oriented parties. Data of sixteen countries have been used in the thesis.

According to the results of this study, it is possible to conclude that outcomes of parliamentary elections in central and eastern European countries depended on political and socio-demographic factors from 1990-2001. Factors such as loans, received from the United States, per capita in the pre-election year, as a measure of external pressure, and share of agriculture in GDP, as a measure of country's level of development, demonstrate consistent significance in both variations of the model.

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CHAPTER I. PROBLEM STATEMENT

Introduction

In the 1980s, socialist countries in eastern Europe experienced an economic crisis with diminished production, high unemployment, and inflation. Scientific advancements had not been applied to production systems to increase either the quantitative or the qualitative characteristics of the economies. Therefore, the economic development of the countries in central and eastern Europe was based on extensive factors instead of intensive factors. The quantitative characteristics of production led to a low cost efficiency in these countries.

After the Soviet Union and Yugoslavia broke up in the 1990s, the new states in central and eastern Europe began their transition towards open market economic systems. Under the previous planned economic systems, governments owned all the property, fixed prices for goods, and determined production plans, whereas the new western-orientated systems created market economies characterized by private property for citizens, prices determined by forces of demand and supply, and limited government control over production.

The reforms included both economic and political changes. During the transition period, the countries of central and eastern Europe rebuilt their political and legal systems by moving from authoritarian management systems to parliamentary democracies. Instead of one communist party, a variety of parties appeared in each country, and people welcomed the opportunity to elect their own party members for their parliaments. The large number of parties reflected the development of democracy in these countries.

These new democracies hoped to gain access to international markets and funds that were necessary for instituting economic reforms. Therefore, economic development became dependent on the implementation of reforms as well as the technical and financial help developing countries could gain from developed countries. However, implementing reforms hastily actually increased the political and economic crisis. In the article, “The ‘Free Market’ Social Catastrophe,” Nick Beams determined that the average level of Gross Domestic Product (GDP) in central and eastern Europe in 1997 was almost 12 percent less than in 1990. Thus, the economic situations of many of the countries were far below the average. In 1997, the GDPs of Latvia and Lithuania equaled only 59 percent of their 1990 GDPs. Russia and Ukraine were in the worst situation; their 1997 GDP accounted for only 55 percent of the 1990 GDPs (Beams, 1999). This was a very hard period of time for the post-socialist countries. According to Beams, the transition period in the countries of central and eastern Europe was similar to the Great Depression in the United State.

Description of the Study

All parties were divided into two significant groups based on their preferred economic systems: those who supported the new market economy (i.e., Western) and those who supported the old centrally planned economy (i.e., traditional).

The percentage of votes for Western-oriented parties and traditional-oriented parties characterized the outcome of the elections in central and eastern European countries. It is assumed that four factors play major roles in determining the outcomes of the elections: (1) loans, received from the United State(loans) per capita in the pre-election year, as a measure of external pressure before election; (2) GDP per capita during

the election year, as a measure of the size of the economy; (3) share of the agriculture in GDP, as a measure of country development; (4) and fertility in the pre-election year, as a measure of socio-demographics in population.

In this study, we focused on the outcomes of parliamentary elections in the central and eastern Europe countries during the transition period (1990-2001). The voting data in the assembly elections of sixteen post-socialist countries were obtained from Bugajski (2002) and from the University of Essex (2001). The parties in the election process were divided into "Western" and "traditional" parties according to their economic platforms. The data for loans per capita were collected from the US Agency for International Development (USAID)(2006) document known as the "Greenbook" report. Nominal GDP per capita was calculated in current US dollars from nominal GDP and population data received from DDP Quick Query database of the World Bank Group (2006). Agriculture and fertility information were gained from the same World Bank Group database. The purpose of the study was to analyze the impact of economic and socio-demographic factors on the parliamentary elections during the transition period (1990-2001) in sixteen central and eastern Europe countries because the resulting parliaments determined the policies for economic development.

The methodology in this study used two fixed-effect models to estimate how each of the exogenous factors impacted the election outcomes. Because a collinearity problem could occur between independent variables, GDP per capita and share of agriculture were applied in the two different models.

Problem Statement and Hypothesis

To enable economists to successfully predict election outcomes in the future, this study has been designed to investigate the extent to which economic, political, and socio-demographic factors impact election outcomes. Data has been gathered from GDP per capita, agriculture, loans per capita, and the fertility rate of sixteen central and eastern European countries during the period of transition to democracy. The goals of this research include the following:

1. To investigate the economic, political, and socio-demographic factors that impact election outcomes in economies in transition in central and eastern European countries.
2. To identify how such factors affect the success of Western-oriented and traditional-oriented parties in parliamentary elections.

This research investigated existing literature related to the importance of the factors of voting, rate of fertility, IMF loans, personal income, and percentage of employment in agriculture. At the same time, we examined the importance of external pressure on the election outcomes and the factors of share of agriculture in GDP and GDP per capita. Results from this study suggested a new approach to the economic and political variables that influence voting in countries (economies in transition) in central and eastern Europe. Four assumptions underly this study: (1) in countries with higher levels of GDP per capita (wealthier), more people vote for Western parties, and in countries with lower levels of GDP per capita, more people choose traditional parties; (2) higher rates of fertility have a positive impact on the voting percentage for traditional parties and lower fertility rates positively affect the voting percentage for Western parties; (3) developed countries give fewer loans per capita to developing countries before an

election to influence the outcome of the election to favor Western candidates (4) countries with more private farmers tend to elect Western candidates.

Outline

This thesis includes three additional sections. Chapter II describes the literature related to voting outcomes as well as the influence of the economic, political, and socio-demographic factors on the election results. Chapter III presents the models and the methodology of the study. Chapter IV describes the results of the estimated empirical models.

CHAPTER II. LITERATURE REVIEW

Introduction

The transition period for central and eastern European countries included the appearance of many different political parties, which fought for the largest number of seats in the legislative bodies. After the previous monopoly of one communist party, people welcomed the new opportunity to choose among a variety of candidates as they considered which one represented their preferred policies for social and economic development. Most of the nations of central and eastern Europe decided to build market economies based on specific socio-demographic, economic, and political reasons. Therefore, this section examines research attempts to identify the factors that contributed to the election outcomes.

Literature Review

Many researchers have analyzed voting in developed countries, especially in the US (e.g., Kramer 1971, Lepper 1974, Tufte 1975, Fiorina 1978, Hibbs 1982, Erikson 1988, Fair 1990, Alesina et al. 1993, Chappell et al. 1993, Akarca and Andrianacos, 2006). However, that literature does not apply to developing countries because of the differences between the political systems; central and eastern European countries have multiparty political systems, whereas the United States has a two-party system for elections. Therefore, we concentrated our attention on the literature that analyzed countries in central and eastern Europe.

Literature examining the voting in developing countries is sparse. The first one hundred and one articles about the voting behavior in post-communist countries (from

1990-2000) were reviewed by Tucker (2002). Almost half of the articles focused on election outcomes in Russia. Forty-nine of the articles used a quantitative method of database analysis. The majority of the literature (eighty eight articles) concentrated on the election consequences. The author divided the literature into three groups according to the factors contributing to the voting outcomes: (1) "definite elections," (2) "political parties," and (3) "thematic question," which includes the influence of economic conditions on the voting.

Scholars chose different dependent and independent variables to understand the impact of various factors on the election outcomes and voting for countries in the transition period. Alexander Pacek (1994) conducted one of the first serious econometric studies about the post-communist European countries during the transition. His work views four elections in Poland, Bulgaria, and the Czechoslovak Republic, which includes one presidential and three legislative elections. As dependent variables, he employed the election turnout and the election result of either a party or a candidate. Pacek divided the parties into two groups, one that supported economic reforms and one that did not. The last group included left-wing and right-wing parties that were criticized for holding economic reforms. He investigated each party in both groups. Additionally, he found that the unemployment rates were salient indicators of the voting in these countries. He argued that worsening economic conditions lead to decreases in election turnouts. The author alleges that a high level of unemployment causes voters to change their preferences and begin to vote for traditional or extremist parties, instead of pro-reform parties.

Janice Bell (1997) employed results of the Polish presidential and parliamentary elections in 1990-1995 to argue a relationship exists between voting and the economy

(unemployment, per capita income in regions). Bell separated the presidential and parliamentary candidates according to their positions, which revealed an opportunity to receive different signs for the independent variables based on the political platforms of these candidates. Using dependent variable as share of votes for each presidential candidate or parliamentary party that passed a five percent threshold, the author identified a visible influence from economic conditions in each of the four Polish elections, especially between voting and the rate of unemployment.

Gibson (1995) also examined the 1993 parliamentary elections in Poland with share of votes for each presidential candidate or parliamentary party. His regression analysis suggested that “stronger economic growth since the spring of 1992, lower unemployment, and greater proportion of the workforce in the private non-farm sector would all have increased the support of the pro-reform party,” but he clarified that each factor individually had not influenced the polls’ voting opinion. The model of Powers and Cox. (1997) consists of four equations for the same election that applied the following dependent variables: “blame communist system”, “blame first-wave reformers”, “changes in personal living situation”, and “economic reform’s satisfaction” They derived the opposite conclusion: an attenuate relationship exists between the factors of individual income and occupation and the results of the Polish National Election.

Fidrmuc (2000) separated parties into four groups based on their platforms (i.e., left wing, right wing, nationalist, and minority parties), but analyzed the voting share of each individual party. The author hypothesized that voting in Hungary, Slovakia, Poland, and the Czech Republic was affected by economic conditions during the election periods and by prospects of future development. For regression analysis, Fidrmuc used regional

economic factors (unemployment rate, size of wage, share of entrepreneurs in the population, and percentage of employment in the agriculture and industry) and found that the electorate voted according to their expectations about the future but were not affected by the current situation in the country. The unemployment impact, in most cases, was significant. Entrepreneurs affected the pro-Western parties positively, so a higher share of entrepreneurs in the population increased voting for the pro-reform parties. However, the regression results with the rates of employment in industry and agriculture were not consistent, nor was a clear relationship evident between wages and voting.

In addition to Pacek (1994), Harper (2000) also used a vote choice to analyze voting behaviors in the parliamentary elections in Lithuania, Hungary, and Bulgaria. He investigated the role of economic hardship in the victories of ex-communist parties and in the defeats of pro-reform incumbent parties in the elections. Results indicated that economic indices (unemployment, personal financial situation) did not significantly affect the results in these countries.

Doyle and Fidrmuc (2003) claimed that only constituencies in stable, developed countries can expect to define their party platforms according to past economic activity. This type of campaign strategy is not effective in developing countries. At the beginning of the transition period, the economic variables of socio-economic status (type of job), personal income, unemployment rate, and wage were insignificant. From 1993-1996, economic variables became important for voting behavior.

An analysis of the existing literature provides the opportunity to identify the most appropriate endogenous variables for models in this paper. To begin, we took Pacek's (1994) basic approach and applied it as a dependent variable, but we divided the parties

into different groups according to their economic platforms (i.e., Western or traditional). We then summarized the voting percentage for each party in one group, resulting in two voting summations for two groups. In addition, the existing literature does not clearly identify which economic variables had the greatest effect on voting results. Therefore, the first model in our current study included the explanatory variable of annual GDP growth per capita because we believe the macroeconomic factors, as a measure of economic strength, are more appropriately related to the parliamentary elections in post-communist countries.

The transition was characterized by farmer development based on privatization, instead of collective farms. The new class was interested in private property and further market transformation; therefore, a large body of literature links agriculture and economic development. Macours and Johan (2000) investigated the factors that affected the agricultural output in transition countries of central and eastern Europe. Laitner (2000) and Gollin et al. (2002) argued that declines in agriculture led to more development in the countries.

To investigate the influence of agriculture on voting, scholars use different variables, but most of them are socio-demographic parameters. Fidrmuc (2000) and Tucker (2004) applied the percentage of population employed in agriculture; Jackson et al. (1999) and Gibson and Cielecka (1995) used the same variable but in state and private farms. Doyle and Walsh (2007) included percentage of unemployment in agriculture to show its insignificant effect on the voting. Powers and Cox (1997) controlled farmers as a kind of occupation and believed that they need to be less interested in the reform implementation. The result of the analysis became insignificant in their model. In our

research models, we used the percentage of agriculture share in GDP for each country as explanatory variables because it reflects the privatization process and development in each country.

Scholars have debated the role played by loans in development during the transition period. Most of the research has focused on International Monetary Fund (IMF) aid as researchers investigated the impact of loans on the different aspects of development, such as economic, social, and political. However, very few studies have investigated possible links between political factors and loan allotment. This section reviews what has been done to date.

Drehel and Vaubel (2001) suggested that IMF lending to democratic countries is greater in pre-election and post-election years because the Fund decreases credit during election years to push governments into adopting new policies and programs. A comparison statistics of twenty-nine countries supported their claim.

Vreeland (1999) argued that “sovereignty penalties” were lower for countries with longer IMF credit histories, but the costs of penalties were the highest before the election. He showed that “debt service” and “lagged election” significantly influenced whether or not a country signed an agreement with the IMF, thus linking higher “debt service” to increased desire for a credit agreement. The optimal times for governments to make agreements are during the early election and post-election periods.

Bird and Rowlands (2003) believe that the size of the gap between the conditions of the Fund and policies of a country determined the cost of credit for various countries. In their opinion, governments with Western orientation had a higher probability of receiving credit. On the other hand, less-influential countries felt more pressure to accept

IMF conditions, than more influential ones. Andersen et al's work (2006) also demonstrated that countries with political positions similar to the US had greater opportunities to receive aid. Their research was based on data collected by Tracker (1999), which indicated that the political positions of post-socialist countries influenced the lending decisions of the IMF.

Miljkovic (2008) analyzed the impact of IMF loans as external pressure from developed countries on transitioning economies (countries). The author suggested that IMF loans negatively impacted the development of transitioning economies, even though the World Bank and the IMF did not intend to do so (according to the Washington Consensus). This conclusion was based on the organizational portfolio theory.

Because the existing literature investigated only the conditions of the loan agreements with the IMF as well as the importance of the size of IMF loans for the countries' budgets, we followed a new approach for interpretation of loans based on the work of Miljkovic (2008). In our model, we included quantity of the receiving loans as an independent variable to characterize the pressure from developed countries to encourage countries to choose Western-orientated reforms.

In addition to economic and political factors, we investigated socio-demographic factors in election outcomes in central and eastern European countries during the transition period. Doyle and Fidrmuc (2003) investigated socio-demographic characteristics of the electorate in terms of age, gender, marital status, education, and number of children. They found that a consistent relationship between voting preference and ideology, education, and age. Chase (1996) found decreasing fertility rate in first three transition years in the Czech Republic and Slovakia. The article also reports that

women with higher earnings prefer to have less children in the transition period of countries. H. Kohler and I.Kohler (2002) investigated the decreasing fertility rates in Russia in 1990 from the macro- and micro- points of view. They indicated that a positive relationship existed between the “labor market crisis” and fertility on the individual level: “Women or couples who are themselves affected by labor market crisis often had a higher probability of having another child in the period 1994-1996 than women/couples who were less affected by such crisis” (p.233). This tendency suggested that people in more developed countries tend to have fewer children. This claim was also made by Dyson and Murphy (1985), Watkins (1987), Galor and Weil (1996), Bongaarts (1999), Blackburn and Cipriani (2002), Doepke (2004), and Galor (2006), which analyzed demographical factors in the United State beside some developing countries. Therefore, the conclusion can be drawn that families with many children support traditional parties more because traditional government aid large families. This current study uses fertility in the models as an independent variable to reflect the socio-demographic situation.

Review of existing literature suggests that the voting, party system, IMF loans, share of agriculture in GDP, personal income, and fertility rate in women are significantly important in economies of countries in transition. Our research separated voting outcomes into two categories: Western and traditional. We used new explanatory variables to explain the outcomes. For example, we used US loans per capita to measure the external pressure on the transition countries; we used share of agriculture in GDP to reflect a new process in the country’s economy; and we used GDP per capita to show the economic strength of each transition country.

CHAPTER III. METHODOLOGY

Introduction

This chapter contains three sections. The first section explains our approach to categorizing the existing parties within each country. The second section explains the two models used in our analysis. The third section describes the data applied in each model.

Categorization

All parties in the sixteen investigated countries were divided into two main groups according to their economic platforms: Western-oriented and traditional-oriented parties. The Western-oriented parties aimed to build a market economy. The traditional parties aimed to establish planned economies. Small parties earning one percent or less of the voting share were placed in a third category (Other). Additionally, this category included the voting against all candidates. The general summation of election voting also includes the voting share for the independent candidates, which are not involved in any mentioned groups. The information was taken from the web-sites of the parties in each country and Bugajski (2002). When the web-site of the parties did not provide information in English, we found the economic platforms of the parties through other sources such as media articles about the parties and political reviews.

We summarized the total voting shares of the parties in each group and used the summations as dependent variables in the equations. The results showed that Lithuania, Moldova, and Slovenia did not contain any traditional-oriented parties; the rest of the countries contained a few (1-4) traditional parties, specifically communist and socialist parties. All countries became more Western-oriented in 1990-2001 (Table 3.1).

Table 3.1. The number of Western-oriented and traditional-oriented parties
in the transition period

Name of country	General numbers of parties and coalitions	Number of parties	
		Western-oriented	Traditional-oriented
Albania	15	12	3
Bosnia-Herzegovina	20	19	1
Bulgaria	29	26	3
Croatia	24	21	3
Czech Republic	23	19	4
Estonia	27	24	3
Hungary	14	12	2
Latvia	20	18	2
Lithuania	26	26	0
Moldova	18	18	0
Poland	32	31	1
Romania	27	24	3
Russia	32	29	3
Slovakia	20	17	3
Slovenia	19	19	0
Ukraine	20	18	2

Appendix A presents the summarized shares of traditional and Western parties, indicating the biggest share of voting for the traditional parties appeared in Albania (i.e., 56.2 percent in 1991 and 55.2 percent in 1997). The countries exhibited different tendencies in voting for traditional parties; in some countries, the share of the traditional parties increased after 1995 (Estonia, Latvia, Poland, Ukraine, Russia, Bosnia-Herzegovina), but others demonstrated the opposite tendency: the share of traditional parties decreased after 1995 (the Czech Republic, Bulgaria).

There were two groups placed into a third category named "Other": independent candidates and people who voted against all candidates.. Independent candidates earned

significant percentages in the following countries: Estonia – 4.3 % (1992), Latvia – 10.3 % (1990), Romania – 3.1 % (1990), Moldova – 4 % (1998), Ukraine – 66.5 % (1994), Croatia – 11.8 % (1992). Voting against all appeared in Ukraine in 1998 (5.3%), and in Russia in 1993 (4.2%), 1995 (2.8%), and 1999 (3.3%).

For countries with two different election levels, we analyzed the federal elections, which involved parties reflecting the voting in the whole country, not in the separate parts. For instance, national elections were held for the Federal Assembly in Slovakia and the Czech Republic, and for the National Assembly in Bosnia-Herzegovina. For countries with two Chambers in the Assembly, we analyzed the Chamber that best represented the national: the Sejm in Poland; the Chamber of Nations (1990), the Federal Assembly (1992), and the Chamber of Deputies (1996, 1998) in the Czech Republic; the National Council (1990) and the Chamber of Nations of the Federal Assembly (1992) in Slovakia; the Grand National Assembly (1990) in Bulgaria; the Senate in Romania; and the House of Representatives in Croatia.

Models

The main goal of this study was to understand how economics affected political outcomes in central and eastern European countries from 1990-2001. Panel data was used in the study; Pindyck and Rubinfeld (1997) explained that panel data “includes a sample of individuals (households, firms, cities, etc.) over a period of time” (p.250). We used data from sixteen countries during the election or pre-election periods (from three to five). Pindyck and Rubinfeld explained three advantages of using panel data: (1) allows separate estimations of technological effects and scale economies effect, (2) provides a

large volume of data for analysis, and (3) decreases the likelihood of problems associated with omitted factors (p.250).

Typically, political and economic relationships are studied by using the Ordinary Least Square (OLS) method, which is also useful for panel data. For example, Fidrmuc (1999) used OLS to analyze the relationship between election outcomes and “voter’s support of economic reforms” (p.3). He also employed only data only from election years and analyzed every each country separately. His approach would not work in this study because all countries will be analyzed together. Appropriate models for panel data are fixed-effect and random-effect models. Fixed-effect models include dummy variables that allow constant intercepts “over time and over individuals” (Pindyck and Rubinfeld, 1997, p.253). The fixed-effect model has the following form:

$$Y_{it} = \alpha + \beta X_{it} + \gamma_2 D_{2t} + \gamma_3 D_{3t} + \dots + \gamma_N D_{Nt} + \varepsilon_{it},$$

where α – intercept,

$\beta, \gamma_2, \gamma_3, \gamma_N$ - slopes for the different variables,

X_{it} – independent variables in t period of time,

Y_{it} – dependent variables in t period of time,

D_{Nt} - dummy variables for i-the countries, $i= 2, 3, \dots, N$, otherwise $D_{Nt}= 0$,

ε_{it} – error term.

Pindyck and Rubinfeld (1997) explain two possible problems associated with this type of model. First, dummy variables do not explain the causes of regression changes through time and individuals. Second, the degree of freedom is decreased (p.253).

The random-effect model applies an additional error component, which provides additional information about the model. The model is presented by the following form:

$$Y_{it} = \alpha + \beta X_{it} + \varepsilon_{it}$$

$$\varepsilon_{it} = u_i + v_i + w_{it}$$

where α - intercept,

β - slope for the different independent variables,

X_{it} - independent variables in t period of time,

Y_{it} - dependent variables in t period of time,

ε_{it} - error term,

u_i - cross-section error component for i-individuals,

v_i - time-section error component for i-individuals,

w_{it} - combined error component for i-individuals in t period of time.

According to Kennedy (1996), fixed- and random-effect models are used when “the number of cross-sectional units is large and number of the time periods over which those units are observed is small” (p.222). In his opinion, the random fixed-effect model is employed when data include a large population. Our data were gathered from six variables in three to five elections in sixteen countries. Therefore, the fixed-effect model was more appropriate for the small population in our study.

We added (N-1) dummy variables in the model and omitted one of them to exclude the collinearity between exogenous factors. We used a one-way fixed-effect model with proxy variables only for countries without dummy variables for time. Time values are different for each country according to the various election years.

We investigated two basic models with two dependent variables: share of voting for Western-oriented and traditional parties. Each model was run twice with different sets

of the independent variables. The first set included loans, fertility, and GDP. The second set included loans, fertility, and agriculture. The models are given below.

Model 1

1. $SWP=f(\text{Lag}(\text{Loans}), \text{GDP}, \text{Lag}(\text{Fertility}), D1, D2, D3, D4, D5, D6, D8, D9, D10, D11, D12, D13, D14, D15, D16)$.
2. $SWP=f(\text{Lag}(\text{Loans}), \text{Lag}(\text{Agriculture}), \text{Lag}(\text{Fertility}), D1, D2, D3, D4, D5, D6, D8, D9, D10, D11, D12, D13, D14, D15, D16)$.

Model 2

1. $STP=f(\text{Lag}(\text{Loans}), \text{GDP}, \text{Lag}(\text{Fertility}), D1, D2, D3, D4, D5, D6, D8, D9, D10, D11, D12, D13, D14, D15, D16)$.
2. $STP=f(\text{Lag}(\text{Loans}), \text{Lag}(\text{Agriculture}), \text{Lag}(\text{Fertility}), D1, D2, D3, D4, D5, D6, D8, D9, D10, D11, D12, D13, D14, D15, D16)$.

The models include the following variables:

STP - share of the traditional oriented parties in the parliamentary election, %,

SWP -share of the Western oriented parties in the parliamentary election, %,

Lag(Agriculture) - share of agriculture in GDP in pre-election year, %,

Lag(Fertility) - birth per woman in pre-election year, units,

GDP - nominal GDP per capita in election year, current US \$,

Lag(Loans) - loans and grants, received from the US, per capita in pre-election year, current US \$,

D1 - dummy variable of Estonia,

D2 - dummy variable of Latvia,

D3 - dummy variable of Lithuania,

D4- dummy variable of Poland,

D5- dummy variable of the Czech Republic,

D6 - dummy variable of Slovakia,

D7 - dummy variable of Albania,

D8- dummy variable of Bulgaria,

D9- dummy variable of Romania,

D10 - dummy variable of Moldova,

D11- dummy variable of Ukraine,

D12- dummy variable of Russia,

D13- dummy variable of Hungary,

D14- dummy variable of Bosnia-Herzegovina,

D15- dummy variable of Croatia,

D16 – dummy variable of Slovenia. In both models, proxy variable D7 – Albania was omitted to avoid a multicollinearity problem in the equations. Albania was a basic to which other proxies will be compared.

Loans and fertility are included in each set of independent variables. Our study investigated four hypothesis. First, we assumed that higher ratings of fertility had a positive impact on the voting percentage for traditional parties because traditional parties provided more support for families with less income. Respectively, fertility is negatively related to the share of the Western-oriented voting because such parties offer fewer social programs for poor people.

Second, the economic variable, loans per capita, measured the external pressure that occurred before the election. Each country was given fewer loans per capita in the

pre-election year to encourage the government of the country to choose a Western-oriented policy. Fewer loans increased economic pressure and led to increases in Western-oriented voting. The opposite occurred with traditional voters: fewer loans and grants led to fewer votes for socialists and communists.

Third, the model included economic explanatory variables such as GDP per capita. We assumed that more people in richer countries (i.e., higher level of GDP per capita) vote for Western-oriented parties. We also assumed the opposite for traditional voting: poor people prefer to vote for traditional platforms that offer more social programs.

Fourth, the model included one additional variable: agriculture. We assumed that agriculture was positively related to Western-oriented voting because new farmers are interested in private property and privatization. Consequently, we assumed that increasing the share of agriculture in GDP leads to increases in Western-oriented voting, and vice versa.

During the process of investigating the models, we tried to apply additional variables: percentage of population with tertiary education, life expectancy, and external debt. However, a large number of missing values did not allow us to use external debt as an explanatory variable of external pressure. Education and life expectancy were not included in the models because they were not statistically significant.

Data

For the econometric analysis of this research, we used data from the transition period between 1990-2001. This period was the hardest time for the post-communist countries because they were rebuilding their economies and choosing methods for

development. In the model, we included the countries of central and eastern Europe: Estonia, Latvia, Lithuania, Poland, the Czech Republic, Slovakia, Albania, Bulgaria, Romania, Moldova, Ukraine, Russia, Hungary, Bosnia-Herzegovina, Croatia, and Slovenia.

In a one-way fixed-effect model, as a dependent variable, we applied a summation of the share of voting in the parliamentary elections for the Western-oriented parties and traditional ones. The voting percentage of the parliamentary elections in the election years for Estonia, Latvia, Lithuania, Poland, the Czech Republic, Slovakia, Bulgaria, Romania, Moldova, Ukraine, Russia, and Hungary was obtained from the website of the University of Essex, Project on Political Transformation and the Electoral Process in Post-Communist Europe. The share of voting for the rest of countries (Albania, Croatia, and Bosnia-Herzegovina) was obtained from Bugajski (2002).

The parties were divided into two categories according to their future economic goals. Parties supporting the transition to the market economy were identified as Western-oriented. Parties were identified as traditional if they supported socialist and communist policies of communal ownership of property and means of production. Socialists believe that communism is the last stage of the process of implementing socialism because communism provides social welfare. However, we encountered problems during the separating process because most of the parties had changed their positions during the ten years between the transition period and our study. For example, some parties had joined a coalition, and some had left one coalition to join another. Therefore, some inaccuracies may appear due to variations in the platforms of some parties.

In the study, two models with different explanatory variables were analyzed. The first model consisted of nominal GDP per capita, fertility rate, and loans per capita. The second one included agriculture, loans per capita, and fertility rate. Both models were run twice with different endogenous variables: share of voting for Western parties and share of voting for traditional parties. Loans per capita, in current US dollars, were obtained from a report, known as The Greenbook, from the US Agency for International Development (USAID). The Greenbook provides information about US aid to foreign countries for a fiscal year. The other independent variables were the nominal GDP per capita calculated from nominal GDP in current US dollars and the population obtained from the DDP Quick Query database of the World Bank Group (2006). According to the notes of the World Bank Group, “GDP at purchaser’s prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation” (2006). Additionally, the variable total population “is based on the facto definition of population, which counts all residents of legal status or citizenship – except for refugees not permanently in the country of asylum, who are generally considered part of the population” (2006).

Agriculture and fertility were used from the same database of the World Bank (2006). Fertility rate “represents the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates” (World Bank, 2006). In the other model, instead of GDP per capita, we included agriculture as defined as a share of GDP: “Agriculture corresponds to ISIC divisions 1-5 and includes forestry, hunting, and fishing, as well as

cultivation of crops and livestock production. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs” (World Bank, 2006).

Missing data for fertility, agriculture, nominal GDP per capita was calculated as an average value for the each country. Respectively, missing values of loans per capita equals zero. The simple statistics calculated from the data are presented in Table 3.2.

Table 3.2. Simple statistics of the analyzed variables

Variables	Mean	Standard Deviation	Sum	Minimum	Maximum
Agriculture	14.02	10.27	813.00	3.00	52.00
Fertility	1.58	0.57	91.40	1.00	3.00
GDP	2822.00	2187.00	163649.00	216.93	10280.00
Loans	14.73	35.52	854.12	0.00	203.49
STP	10.0	13.8	581.7	0.0	56.2
SWP	82.3	16.5	4773.0	15.9	100.0

The analysis of the mean, maximum, and minimum of the value of the variables presents a sensible fluctuation between the minimum and maximum values of most of the variables, including such variables as agriculture, GDP per capita, STP, SWP, and loans per capita.

CHAPTER IV. RESULTS

Introduction

This chapter contains the results of the econometric analysis of the models described in the previous chapter. First, we demonstrate that multicollinearity is not a problem with the data. Second, we present the results from both models, the Western-oriented parties and the traditional-oriented parties, based on the econometric analysis in the SAS program.

Results

Several factors can affect the econometric analysis, so we must first test for multicollinearity, which is a correlation between independent variables. Multicollinearity creates the situation in which a change in one explanatory variable causes changes in another independent variable; together, these problems can change a dependent variable. One of the methods to observe multicollinearity is to analyze the collinearity matrix of the predicted values. A coefficient equal to 0.7 or greater reflects a collinearity problem in the equation. According to the correlation coefficients in Table 4.1, the two variables, GDP per capita and agriculture, correlate with each other.

Table 4.1. Multicollinearity diagnostic of variables

Variables	Agriculture	Fertility	GDP	Loans
Agriculture	1.0000	0.5891	-0.6252	0.2383
Fertility	0.5891	1.0000	-0.4229	0.0745
GDP	-0.6252	-0.4229	1.0000	-0.2621
Loans	0.2383	0.0745	-0.2621	1.0000

Their correlation coefficient equals -0.6252, so a negative and a moderate multicollinearity exists between these variables. Such a relationship is predicted because agriculture is a percentage of GDP. These two explanatory variables are applied separately in the first and the second models, so this correlation is not a problem for the analysis. This section describes the results from running the fixed-effect models. The first model used Western-oriented voting share as dependent variable (Table 4.2).

Table 4.2. Estimated results of the first fixed-effect model with Western-oriented parties (loans, GDP, and fertility)

Variables	Parameter coefficient	Standard Error	t Value	Pr > t
Intercept	60.1027	9.4338	6.37	<.0001
Lag(Loans)	-0.2079	0.0892	-2.33	0.0250
GDP	0.0017	0.0017	0.95	0.3472
Lag(Fertility)	-0.8885	3.0569	-0.29	0.7728
D1	24.4823	8.7070	2.81	0.0077
D2	24.6969	7.8406	3.15	0.0031
D3	29.4025	8.0455	3.65	0.0008
D4	22.1767	8.1341	2.73	0.0095
D5	15.2437	9.6883	1.57	0.1237
D6	16.5593	8.1197	2.04	0.0482
D8	33.1667	6.8598	4.83	<.0001
D9	29.8557	7.5952	3.93	0.0003
D10	33.7975	7.2630	4.65	<.0001
D11	-26.3790	8.6794	-3.04	0.0042
D12	7.9133	8.1377	0.97	0.3368
D13	27.9407	9.2564	3.02	0.0045
D14	47.5618	9.7191	4.89	<.0001
D15	26.9425	8.3674	3.22	0.0026
D16	22.5152	15.0198	1.50	0.1419

The exogenous variable, loans in the pre-election year, had a strong negative significance at the 0.05 statistically significant level (t-value equals -2.33). The negative

sign supported our assumption about the external pressure in the year before the election, which means that less the US aid led to increasing the pressure before the election and pushed the governments to choose Western-oriented policies for development. Such government strategies led to increases in the voting for Western-oriented parties in the election. Other explanatory variables, GDP and fertility in the pre-election year, were not significant. Almost all of the dummy variables were significant at the 0.05 statistically significant level, except for the dummy variables of Russia (t statistic equals 0.97), the Czech Republic (t statistic equals 1.57), and Slovenia (t statistic equals 1.5), and positively related to intercept. Only Ukraine had a negative estimated coefficient, meaning that it negatively accounted for the intercept. Instead of GDP per capita, the first model included agriculture in the year before the election in addition to fertility and loans in the pre-election year. All three variables influenced the dependent one (Table 4.3). Loans per capita were negatively related to election outcomes at the 0.05 statistically significant level. Therefore, fewer loans led to increasing pressure on governments, and, ultimately, Western-oriented voting. Agriculture before the election had a positive influence on the voting (significance at the 0.05 statistically significant level). The increase of agriculture in GDP raised the Western-oriented voting share, because the new class of farmers was interested in the private property on the land. Fertility in the pre-election year and voting negatively related to each other with 0.05 statistically significant level. Western-oriented election outcomes fell with higher fertility ratings. Almost all dummies were strongly significant, except Ukraine. All proxies had a positive sign, which demonstrated that all countries positively accounting to the base country-Albania.

The second model is an equation with the share of traditional parties as a

dependent variable (Tables 4.4 and 4.5).

Table 4.3. Estimated results of the first fixed-effect model with Western-oriented parties (loans, agriculture, and fertility)

Variables	Parameter coefficient	Standard Error	t Value	Pr > t
Intercept	37.0623	11.6579	3.18	0.0029
Lag(Loans)	-0.1714	0.0752	-2.28	0.0282
Lag(Agriculture)	1.0813	0.3497	3.09	0.0037
Lag(Fertility)	-7.7819	3.2545	-2.39	0.0217
D1	49.2395	10.0032	4.92	<.0001
D2	50.0354	10.2687	4.87	<.0001
D3	55.0772	10.1162	5.44	<.0001
D4	55.0992	11.3001	4.88	<.0001
D5	49.0348	11.4462	4.28	0.0001
D6	49.2941	11.5771	4.26	0.0001
D8	50.4105	8.2250	6.13	<.0001
D9	44.8020	8.3418	5.37	<.0001
D10	37.5925	6.6971	5.61	<.0001
D11	-11.0973	9.3361	-1.19	0.2418
D12	36.4413	11.2614	3.24	0.0025
D13	60.0275	11.3697	5.28	<.0001
D14	62.3071	10.1619	6.13	<.0001
D15	53.5996	9.8710	5.43	<.0001
D16	60.6983	11.1083	5.46	<.0001

Firstly, we analyzed the second model with fertility, loans, and GDP (Table 4.4).

Loans in the year before the election is significant at the 0.1 statistically significant level.

The loans before the election year positively impacts the voting behavior for the traditional parties. Thus, fewer loans per capita led to less support for traditional platforms. Neither GDP nor fertility showed significance in this model, so those factors did not impact the election outcomes. All dummy variables illustrated a negative significance, so, in this equation, all countries negatively related to the base country.

Table 4.4. Estimated results of second fixed-effect model with traditional-oriented parties (loans, GDP, and fertility)

Variables	Parameter coefficient	Standard Error	t Value	Pr > t
Intercept	44.5205	8.1091	5.49	<.0001
Lag(Loans)	0.1505	0.0767	1.96	0.0569
GDP	0.0003	0.0015	0.18	0.8595
Lag(Fertility)	-2.2102	2.6277	-0.84	0.4054
D1	-36.8870	7.4844	-4.93	<.0001
D2	-38.5899	6.7397	-5.73	<.0001
D3	-42.4841	6.9158	-6.14	<.0001
D4	-32.2284	6.9919	-4.61	<.0001
D5	-29.4463	8.3279	-3.54	0.0011
D6	-28.2253	6.9796	-4.04	0.0002
D8	-41.9112	5.8966	-7.11	<.0001
D9	-40.7879	6.5287	-6.25	<.0001
D10	-42.2652	6.2432	-6.77	<.0001
D11	-19.1597	7.4607	-2.57	0.0142
D12	-21.5002	6.9950	-3.07	0.0038
D13	-39.4244	7.9566	-4.95	<.0001
D14	-48.7129	8.3544	-5.83	<.0001
D15	-39.7269	7.1925	-5.52	<.0001
D16	-46.0558	12.9107	-3.57	0.0010

With a different set of independent variables (i.e., loans, fertility and agriculture), the second model demonstrated following results (Table 4.5). Two explanatory factors became significant at the 0.05 statistically significant level: loans and agriculture in the pre-election year. Loans had a positive sign, so less aid caused people to vote for traditional parties. Agriculture had a negative estimated coefficient, which means that a lower percent of agriculture in GDP led to increasing traditional voting. Fertility did not impact the results in this model. All dummies showed strong significance and a negative

influence on the outcomes, indicating that the dummy variables were negatively related to the basic country.

Table 4.5. Estimated results for the second model with traditional-oriented parties (loans, agriculture, and fertility)

Variables	Parameter coefficient	Standard Error	t Value	Pr > t
Intercept	66.4227	9.9953	6.65	<.0001
Lag(Loans)	0.1513	0.0645	2.35	0.0241
Lag(Agriculture)	-0.8865	0.2999	-2.96	0.0053
Lag(Fertility)	2.5212	2.7904	0.90	0.3718
D1	-53.8984	8.5766	-6.28	<.0001
D2	-57.5856	8.8042	-6.54	<.0001
D3	-60.9392	8.6735	-7.03	<.0001
D4	-55.3200	9.6885	-5.71	<.0001
D5	-51.6077	9.8138	-5.26	<.0001
D6	-51.7524	9.9261	-5.21	<.0001
D8	-55.5302	7.0520	-7.87	<.0001
D9	-52.6979	7.1521	-7.37	<.0001
D10	-46.3552	5.7420	-8.07	<.0001
D11	-31.9590	8.0046	-3.99	0.0003
D12	-43.1896	9.6554	-4.47	<.0001
D13	-61.1504	9.7482	-6.27	<.0001
D14	-62.9832	8.7126	-7.23	<.0001
D15	-57.7165	8.4632	-6.82	<.0001
D16	-65.4814	9.5241	-6.88	<.0001

To evaluate the impact of significant factors on the election outcomes, we calculated the elasticity measures. Elasticity of the independent variables (except the dummy variables) was computed based on the means of the independent and dependent variables. The calculation of the elasticity can be represented as:

$$\varepsilon = \text{parameter} * \left(\frac{\text{Dependent Variable}}{\text{Independent Variable}} \right)$$

When the explanatory variables were significant, the above formula was used to compute the elasticity of loans, fertility, and share of agriculture for the SWP and STP equations (Tables 4.6 and 4.7). We applied the formula to the two models with the second set of independent variables.

Table. 4.6. The elasticity calculation for the significant independent variables (loans, agriculture, and fertility) in the first model

Variables	Parameter coefficient	Mean of X	Mean of Y (SWP)	Elasticity
Loans	-2.28	14.73	82.3	-0.41
Agriculture	3.09	14.02	82.3	0.53
Fertility	-2.39	1.58	82.3	-0.05

The elasticity of loans demonstrated that decreasing the loans per capita by 1 percent in the pre-election year led to the increasing of the western oriented voting by 0.41 percent. The elasticity of agriculture showed that a 1 percent increase in the share of agriculture in GDP in the pre-election year led to a 0.53 percent increase in, the share of western parties in the election. Additionally, a 1 percent increase in the fertility rate before the election led to a 0.05 percent decrease in the western share of voting. The second model gave us the following elasticity' values (Table 4.7).

Table. 4.7. The elasticity calculation for the significant independent variables (loans and agriculture) in the second model

Variables	Parameter coefficient	Mean of X	Mean of Y (STP)	Elasticity
Loans	2.35	14.73	10.0	3.46
Agriculture	-2.96	14.02	10.0	-4.15

According to Table 4.7, a 1 percent reduction in the number of loans per capita led to a 3.46 percent reduction in the share of traditional parties. When the share of agriculture increased by 1 percent, the traditional voting declined by 4.15 percent.

CHAPTER V. SUMMARY AND CONCLUSION

Introduction

This chapter summarizes the problem and objectives, the methodology, and the econometrical results of the analyzed models. Additionally, the limitations and recommendations for further research are discussed.

Summary

For central and eastern European countries, the years from 1990-2001 became a transition period in their development, bringing major reforms in their economic and political systems. This period was characterized by the appearance of many different political parties that can be divided into two categories according to their political ideologies: Western and traditional. The purpose of this study was to analyze the relationships between parliamentary election outcomes and economic, political and socio-demographic factors. Our assumption was that the outcomes of the parliamentary elections depended on four independent variables: GDP per capita, agriculture, loans per capita, and fertility.

The general objective was to determine how the four economic, political, and socio-demographic factors impacted the election outcomes. The two specific objectives of the study included the following: (1) to investigate the economic, political, and socio-demographic factors that impact election outcomes in economies in transition in central and eastern European countries; (2) to identify how such factors affect the success of Western-oriented and traditional-oriented parties in parliamentary elections.

We began by creating two fixed-effect models (Kennedy, 1996). Two different models investigated the effect of the exogenous variables of GDP per capita, loans per capita, fertility and agriculture on the voting shares of Western and traditional parties. Data from sixteen countries from 1990-2001 were analyzed in the models. The database was created from Bugajski (2002) and the University of Essex for shares of the Western and traditional oriented parties, from the USAID for loans per capita, from the World Bank for GDP, population, agriculture, and fertility.

The investigation of the first model showed that only loans were consistently significant in both equations and impacted the outcomes of the parliamentary election for both parties. We concluded that fewer US aid led to increases in Western-oriented voting, and to decreases in traditional-oriented voting. Additionally, the share of agriculture in GDP demonstrated a positive influence on the voting for Western parties and a negative influence on the voting for traditional parties. Fertility illustrated a stable significance only in the second model with the second set of independent variables (loans, agriculture, fertility), which supported our hypothesis that people with fewer children prefer to vote for Western parties. Dummy variables demonstrated strong impacts on election outcomes in the traditional and Western party voting models. According to this study, it is possible to conclude that parliamentary elections in central and eastern European countries depended on the political and socio-demographic factors from 1990-2001.

The elasticity calculation measured the impact of factors on the voting, so decreasing the loans per capita by 1 percent in the pre-election year led to an increase in Western-oriented voting by 0.41 percent. When the share of agriculture in GDP in the pre-election year increased by 1 percent, the share of Western parties in the election was

larger by 0.53 percent. Additionally, increased fertility rates before the election led to decreased shares in Western voting by 0.05 percent.

According to the results of the second model, the reduced number of loans per capita (by 1 percent) led to decreasing shares of traditional parties by 3.46 percent. When the share of agriculture increased by 1 percent, the traditional voting decreased by 4.15 percent.

Limitations and Recommendations for Further Research

The data collection process was subject to several limitations. Dividing all parties into categories required identifying their economic platforms. That information was usually found on the websites of the parties, but some sites did not use the English language, which made translation difficult. Consequently, we needed to find additional information about them in books and journal articles. In addition, we identified a large number of small parties (e.g., with voting shares of one percent) that did not have their own sites; therefore, we excluded those parties from our analysis and placed them in a third category titled, "Other." However, since those groups had received votes, the total voting shares in our results for Western-oriented parties and traditional parties did not equal 100 percent.

Additional difficulties emerged because most of the parties had changed their 1990-2001 political platforms and status one or more times during the seven-year period (e.g., some joined to new coalitions or left one coalition to join another one). Therefore, our results might have been affected by inaccuracies in our estimations of party platforms. Also, our data was missing some values in the level of fertility, agriculture, nominal GDP per capita, and loans per capita. Therefore, we calculated the missing observations for

fertility, agriculture, and nominal GDP as an average value for the specific country for the analyzed period. The missing values of loans per capita were equaled to zero.

Finally, a limited degree of freedom and difference in the period of elections for each country caused us to use one-way fixed-effect models instead of two-way fixed-effect models. We recommend that this study be expanded by analyzing the outcomes of presidential elections compared to parliamentary elections because the policies of the countries depended on both types. Further research is also needed to fully understand the factors that impacted the outcomes of presidential elections in relation to their effect on the voting for parties in power compared to their opponents.

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APPENDIX A

Name of the country	Year of election	Share of the western parties, %	Share of the traditional parties, %
Estonia	1992	87.5	0
	1995	90	5.9
	1999	85.1	13.4
Latvia	1990	89.7	0
	1993	91.9	0
	1995	82.5	5.6
	1998	81.6	12.9
Lithuania	1992	93.5	0
	1996	85.9	0
	2000	93.8	0
Poland	1991	89.8	0
	1993	96.1	0
	1997	62.4	33.8
	2001	93.7	5.6
Czech Republic	1990	75.2	18
	1992	78.6	14.5
	1996	84.9	11.7
	1998	87.2	11
Slovakia	1990	79.1	13.3
	1992	78.6	14
	1994	83.1	10.1
	1998	79.5	18.8
Albania	1991	40.1	56.2
	1992	68.1	30.1
	1996	77.2	21.9
	1997	40.1	55.2
	2001	49.7	45.1
Bulgaria	1990	97.4	0
	1991	86.3	3.9
	1994	90.1	2.9
	1997	92.6	1.3

Name of the country	Year of election	Share of the western parties, %	Share of the traditional parties, %
Bulgaria	2001	92.6	0
Romania	1990	92.6	0
	1992	87.9	3.2
	1996	85.4	5.8
	2000	93.3	0.9
Moldova	1994	91.8	0
	1998	90.5	0
	2001	87.4	0
Ukraine	1994	15.9	12.7
	1998	50	33.3
Russia	1993	82	12.4
	1995	61.4	26.8
	1999	62.8	27.1
Hungary	1990	89.7	3.7
	1994	92.4	3.2
	1998	95.1	4
Bosnia-Herzegovina	1996	100	0
	1998	85	12
	2000	81.4	4.9
Croatia	1990	66.1	26.5
	1992	85.2	0
	1995	98.9	0
	2000	96.7	0
Slovenia	1990	100	0
	1992	87.1	0
	1996	93.9	0
	2000	96.3	0

Name of country	Name of parties	% vote											Two groups of parties				
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	western	traditional		
	Future's Estonia Party						2.6									1	
	Greens			2.6												1	
	Left Alternative			1.6												1	
	Farmers' Union			2.9												1	
	Farmers' Union												0.5			1	
	Development Party												0.4			1	
	Justice										2.3					1	
	Independent candidates			4.3							0.3			1.5			
	Others			8.2							3.8						
	<i>Sum of the voting western</i>			87.5							90						
	<i>Sum of the voting traditional</i>			0							5.9						
	<i>Total</i>			100.0							100.0						
Latvia	turnout	81.3			91.18						72.65					71	
	Latvian Communist Party and Interfront	21.5															
	Alliance "Latvia's Way"				32.4						14.7					18.2	1
	Latvian National Conservative Party and Latvian Green Party																
	Latvian Farmers' Union				13.4						6.4						1
	Equal Rights Movement				10.6						1.4					2.5	1
	Alliance "For Homeland and Freedom"				5.8												1
	Christian Democratic Union				5.3						12					14.7	1
	Democratic Party "Saimnieks"				5												1
	People's Movement for Latvia (Siegerist party)										15.2					1.6	1
	Socialist Party										15					1.7	1
	National Harmony Party										5.6						1
											5.6					14.2	1

Name of country	Name of parties	% vote										Two groups of parties					
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	western	traditional		
Poland	List of Lithuanian Nationalist Union and the National Progress Party			2											1		
	Coalition of Liberal Democratic Party and Nationalist Party							2.2							1		
	Others			6.5				14.1				6.2					
	<i>Sum of the voting western</i>			93.5				83.7				93.8					
	<i>Sum of the voting traditional</i>			0				0				0					
	<i>Total</i>			100.0				100.0				100.0					
	<i>turnout for Sejm</i>		43.2		52.1				47.93				46.2				
	Alliance of the Democratic Left-Labour Union												41		1		
	Fatheland				6.4										1		
	Civic Platform												12.7		1		
	Self-Defense				2.8								10.2		1		
	Law and Justice												9.5		1		
	Polish Peasant Party		8.7		15.4								8.9		1		
	League of Polish Families												7.9		1		
	Solidarity Electoral Action of the Right											33.8					1
	Alliance of the Democratic Left		12		20.4							27.1			1		
	Freedom Union											13.4			1		
Polish People's Party											7.3			1			
Labor Union				7.3										1			
Democratic Union		12.3		10.6										1			
Centre Alliance				4.4										1			
Non-Party Reform Bloc				5.4										1			
Center Civic Alliance		8.7												1			

Name of country	Name of parties	% vote											Two groups of parties		
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	western	traditional
	Movement of Rebuilding Poland						5.6							1	
	Confederation for Independent Poland		7.5		5.8									1	
	Center Civic Alliance		8.7											1	
	Liberal Democratic Congress		7.5		4									1	
	German Minority of Opole Silesia		1.2		0.4			0.4				0.4		1	
	Peasant Alliance		5.5		2.4									1	
	Union of Political Realism		2.3		3.2									1	
	National Party of Pensioners and Retired Persons of the Polish Republic							2.2						1	
	Union of the Right of the Republic of Poland							2						1	
	Solidarity Trade Union		5.1											1	
	Polish Friends of Beer		3.3											1	
	Catholic Election Action		8.7											1	
	Party X				2.7									1	
	Party of Christian Democrats		1.1											1	
	Democratic Party		1.4											1	
	Christian Democracy		2.4											1	
	Solidarity Trade Union		2.1		4.9									1	
	Others		10.2		3.9							3.8			0.7
	<i>Sum of the voting western</i>		89.8		96.1							62.4			93.7
	<i>Sum of the voting traditional</i>		0		0							33.8			5.6
	<i>Total</i>		100.0		100.0							100.0			100.0

Name of country	Name of parties	% vote										Two groups of parties					
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	western	traditional		
	<i>Sum of the voting western</i>		89.8		96.1							62.4				93.7	
	<i>Sum of the voting traditional</i>		0		0							33.8				5.6	
	<i>Total</i>		100.0		100.0							100.0				100.0	
Czech Republic	<i>turnout for Federal Assembly, Chamber of Nations (1996, 1998-Chamber of Deputies)</i>	96.8		85.1								76.3		73.86			
	Civic Forum	50														1	
	Communist Party of Czechoslovakia	13.8															1
	Christian and Democratic Union	8.8		6.1												1	
	Christian Democratic Union - Czechoslovak People's Party										8.1			9		1	
	Civic Democratic Party										29.6					1	
	Civic Democratic Party - Christian Democratic Party			33.4										27.7		1	
	Left Bloc			14.5							1.4						1
	Czech Social Democratic Party			6.8							26.4				32.3		1
	Liberal Social Union			6.1													1
	Communist Party of Bohemia and Moravia										10.3			11			1
	Civic Democratic Alliance			4.1							6.4						1
	Freedom Union													1.1			1
Social Democracy	4.2																
Green Party	3.4												1.1			1	
Rally for the Republic - Republican Party of Czechoslovakia	1		6.4								8			3.9			

Name of country	Name of parties	% vote											Two groups of parties			
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	western	traditional	
	Movement for a Democratic Slovakia and Peasants' Party of Slovakia					35									1	
	Movement for a Democratic Slovakia			33.9											1	
	Slovak Democratic Coalition														1	
	Christian Democratic Movement	19.2		8.8		10.1									1	
	Party of Civic Understanding														1	
	Common Choice					10.4									1	
	Slovak Christian Democratic Movement			3.2											1	
	Democratic Union					8.6									1	
	Association of Workers of Slovakia					7.4							1.3			1
	Coexistence and the Hungarian Christian-Democratic Movement	8.7													1	
	Coexistence and the Hungarian Christian-Democratic Movement and the Hungarian People's Party			7.4											1	
	Democratic Party - Civil Democratic Party			3.7											1	
	Public Against Violence	29.4													1	
	Party of Greens	3.5		2.4											1	
	Communist Party of Slovakia	13.3				2.7							2.8			
	Democratic Party	4.4		3.7		3.4									1	
	Others	7.6		7.4		6.8							1.7			

Name of country	Name of parties	% vote										Two groups of parties					
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	western	traditional		
Albania	<i>Sum of the voting western</i>	79.1		78.6		83.1								79.5			
	<i>Sum of the voting traditional</i>	13.3		14		10.1								18.8			
	<i>Total</i>	100.0		100.0		100.0								100.0			
	<i>turnout</i>		98.9	90.35						89.08	72.96					54.95	
	Socialist Party			25.7						20.4	52.7					41.5	1
	Union for Victory															36.8	1
	New Democratic Party															5.1	1
	Democratic Party		38.7	62.1						55.5	25.8						1
	Unity for Human Rights Party			2.9						5.7	2.7					2.6	1
	Albanian Republican Party									5							1
	Party of Labor			56.2													1
	National Front									4.1	2.3						1
	Social Democratic Party			4.4						1.5	2.5					3.6	1
	National Front									4.1	2.3						1
	Movement of Legality Party									2.1	3.2						1
	Republican Party		1.4	3.1							2.4						1
Christian Democratic Party									1.3	1						1	
Agrarian Party																1	
Democratic Alliance Party									1.5	2.7						1	
Liberal Democratic Union									2							1	
Others			3.7	1.8					0.9	4.7							
<i>Sum of the voting western</i>			40.1	68.1					77.2	40.1						49.7	
<i>Sum of the voting traditional</i>			56.2	30.1					21.9	55.2						45.1	
<i>Total</i>			100.0	100.0					100.0	100.0						94.8*	

Name of country	Name of parties	% vote										Two groups of parties			
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	western	traditional
	National Union of the Centre											1		1	
	Romanian Democratic Convention 2000														1
	Alliance of Romanian Unity - Party of Romanian Nationality from Transilvania and the Republican Party	2.2													1
	Democratic Agrarian Party of Romania	1.6		3.3											1
	Romanian Ecological Party	1.4										1			1
	Romanian Socialist Democratic Party	1.1													1
	Republican Party			1.9											1
	Party National Alliance											2.3			1
	Socialist Party														1
	Democratic National Salvation Front			28.3											1
	National Salvation Front	67		10.4											1
	Party of Romanian National Unity			8.1							4.2				1
	Socialist Party of Labor			3.2							2.2			0.9	1
	National Liberal Party Campeanu													1.4	1
	Independents	3.1		0.5							0.8				
	Others	4.3		8.4							8			5.8	
	<i>Sum of the voting western</i>	92.6		87.9							85.4			93.3	
	<i>Sum of the voting traditional</i>	0		3.2							5.8			0.9	
	<i>Total</i>	100.0		100.0							100.0			100.0	
Moldova	<i>turnout</i>					79.31							69.12		67.52

Name of country	Name of parties	% vote											Two groups of parties					
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	western	traditional			
	"Speranta" Social Democratic Electoral Bloc					2.5										1		
	Alliance of Popular Christian Democratic Front					7.5											1	
	Independents													4			2.3	
	Others					8.2								5.5			10.3	
	<i>Sum of the voting western</i>					91.8								90.5			87.4	
	<i>Sum of the voting traditional</i>					0								0			0	
	<i>Total</i>					100.0								100.0			100.0	
Ukraine	<i>turnout</i>					75.81								70.78				
	Communist Party of Ukraine					12.7								24.7			1	
	Popular Movement of Ukraine (Rukh)					5.2								9.4			1	
	Socialist/Peasant Bloc													8.6			1	
	Party Greens of Ukraine													5.4			1	
	Popular Democratic Party of Ukraine													5			1	
	Hromada													4.7			1	
	United Social Democratic Party of Ukraine																	
	Progressive Socialist Party														4			1
	Agrarian Party of Ukraine														4.1			1
	Party of Reforms and Order														3.7			1
	Working Ukraine Bloc														3.1			1
	National Front Bloc														3.1			1
														2.7			1	

Name of country	Name of parties	% vote											Two groups of parties				
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	western	traditional		
	Inter-Regional Movement Unity "Medved"															1	
	Union of Right Forces															23.3	
	Bloc of Zhirinovskiy															8.5	
	Pensioners Party															6	
	Congress of Russian Communities (KRO) and Movement of Yuri Boldyrev															2	
	Bloc of general Andreii Nikolayev & Academician Svyatoslav Fyodorov															0.6	
	Fatherland-All Russia															13.3	
	My Fatherland								0.7								1
	Voting against all				4.2				2.8							3.3	
	Independents																
	Others				1.4				9							6.8	
	<i>Sum of the voting western</i>				82				2056							62.8	
	<i>Sum of the voting traditional</i>				12.4				26.8							27.1	
	<i>Total</i>				100.0				100.0							100.0	
Hungary	<i>turnout</i>	65.09				68.92										n/a	
	Hungarian Democratic Forum	24.7				11.7										2.8	1
	Alliance of Free Democrats	21.4				19.7										7.6	1
	Independent Small Holders Party	11.7				8.8										13.2	1
	Hungarian Socialist Party	10.9				33.0										32.9	1

Name of country	Name of parties	% vote											Two groups of parties			
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	western	traditional	
	Federation of Young Democrats	9				7.0									1	
	Christian Democratic People's Party	6.5				7.0			2.3						1	
	Hungarian Socialist Workers' Party	3.7														1
	(ex - MSZMP)-Workers' Party					3.2			4.0							1
	Republican Party					2.6									1	
	Social Democratic Party of Hungary	3.6				1.0									1	
	Party of Hungarian Justice and Life					1.6			5.5						1	
	Entrepreneurs' Party	1.9													1	
	Fidesz-Hungarian Civic Party								29.5						1	
	Hungarian Democratic People's Party								1.3						1	
	Others	6.6				4.4			0.9							
	<i>Sum of the voting western</i>	89.7				92.4			95.1							
	<i>Sum of the voting traditional</i>	3.7				3.2			4							
	<i>Total</i>	100.0				100.0			100.0							
Bosnia-Herzegovina	<i>turnout National Assembly Elections</i>								73					63.7		
	Social Democratic Party of Bosnia and Herzegovina													5.1		1
	Party for Democratic Action								16.3					7.6		1
	Serbian Democratic Party								52.3					36		1
	Croatian Democratic Union															1
										1						

Name of country	Name of parties	% vote											Two groups of parties					
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	western	traditional			
	Party of Democratic Progress														12.2			1
	Party of Bosnia and Herzegovina										2.3					5.2		1
	Independent Social Democratic Party												7			13		1
	Coalition for a Whole and Democratic Bosnia												19					1
	Social Democratic Party												2					1
	New Croatian Initiative and Christian Democrats												1					1
	Serbian Party of Krajina										1.6							1
	Joint List for Bosnia										2							1
	Socialist Party of the Serb Republic												12		4.9			1
	Radical Party of Serb Republic												4					1
	Alliance of Reform Forces																	1
	Serbian People's Union												14		2.3			1
	Democratic Patriotic Bloc										3							1
	Serbian Radical Party										6.7		13					1
	Alliance for Peace and Changes										11.5							1
	Serbian Patriotic Party										4.3							1
	Others												3					13.7
	Sum of the voting western										100		85					81.4
	Sum of the voting traditional										0		12					4.9
	Total										100.0		100.0					100.0

Name of country	Name of parties	% vote											Two groups of parties			
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	western	traditional	
	Alliance of Socialists	12													1	
	Greens of Slovenia			3.7											1	
	Green Party of Slovenia							1.8							1	
	Socialist Party			2.8											1	
	Democratic Party			5				2.7							1	
	Party of Youth People											4.3			1	
	Liberal Party			2				0.8							1	
	Social Democratic party			3.3				16.1				15.8			1	
	DEMOS Coalition	55													1	
	Party of Democratic Renewal	17													1	
	Christian Democratic Party			14.5											1	
	Slovenian Christian Democrats							9.6							1	
	Slovenian National Party			10				3.2				4.4			1	
	New Slovenia/People's Christian Party											8.7			1	
	Democratic Party of Pensioners							4.3				5.2			1	
	Slovenian People's Party			8.7				19.4							1	
	Independents			1												
	Others			6.5				5.4								
	<i>Sum of the voting western</i>	100		87.1				93.9				96.3				
	<i>Sum of the voting traditional</i>	0		0				0				0				
	<i>Total</i>	100.0		94.6*				99.3*				96.3*				

* Summation of the voting is not equal 100 percent in the information sources.