ACTA POLITOLOGICA

Economic Growth and (Coalition) Governments in Central and Eastern European Countries

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Abstract:

The paper is oriented to the topic of the relationship between economy and coalition governments. The Economic Growth has been chosen for the purpose of this paper as the tested variable. There have been examined whether type of coalition governments or a position of the government in the left – right scale have any influence on the Economic Growth.

The methodology of the paper is based on empirical verification of the relationship between economic growth and political variables. It has been done by the panel regression for eight countries in the Central and Eastern European Countries during the 1993 – 2005 although those countries witnessed only 20 years of democratic development.

The paper concludes with no statistically significant influence of neither coalitions nor left-right positions of the governments on the economic growth. There have been confirmed some economic rules.

Key words: *Coalition governments, Central and Eastern European Countries, Economic policy, Economic growth*

Introduction

The relationship between the political system and economic growth is one of the most examined areas by public choice theory researchers. Lane and Ersson [2003: 53] compared 14 studies carried out during the 1990s concluding that there is no clear evidence on a relationship between democracy and economic growth.[2] Even with no clear result it shows the attention paid by researches to this topic. Economic growth may be seen from several points of view (e.g. as a problem of poverty, welfare economics or redistribution).

Economic growth may reduce poverty in absolute terms. Poverty forms the background for political instability or even dictatorship. Dissatisfied people support those leaders that are strong enough. Such a situation is probable in poor countries, where poverty is higher in both relative and absolute terms. Thus, the impact of democracy is low in poor countries as those countries are too poor. People in such countries are too afraid of losing their current conditions. Societies with democratic regimes with a high level of welfare only witness a relative scope of poverty. Democracy is not in danger in those countries at all. According to MacCulloch [2004] a higher level of GDP per capita is associated with a lower level of support for revolutions in the World.

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[2] Studies cover period of 1960-1992.

Thus, a positive correlation between democracy and economic growth might be expected. What about different types of democratic regimes? Do they influence economic growth? Can governments influence it?

Lane and Ersson [2003] refer to a trend for empirical support of the positive impact of democracy on the non-economic dimensions of development. Thus welfare is not seen as pure economic growth, but as an interaction of many aspects including economic growth, health, schooling, environment and other aspects. This approach is the same as discussed for several policies (e.g. GDP and beyond) or Sen [1999], who pointed out that democracy prevents famine.

This paper solely focuses on economic growth in its pure sense. It is too complex to involve all factors influencing wealth and such a complex approach would cause methodological difficulties (see the methodology of this paper).

The paper tries to answer the two following research questions:

- Does the type of (coalition) government have any influence on economic growth?
- Does the position of the (coalition) government, on a left – right scale, have any influence on economic growth?

The paper has the following order. First, the relationship between the economic policy and ideology of the incumbent government is discussed. Then the issue of economic growth in relation to the political parties is discussed followed by a discussion on coalition governments and economic performance. The main part is dedicated to data collection and methods of processing it.

Role of the government and ideology in fostering economic growth

Governments use fiscal policy as the main tool for influencing the economy. Governments may choose from several theoretical economic approaches to this main tool of economic policy according to their political orientation [Lane and Ersson 2003]:

- Fiscal directiveness with a strong emphasis on fiscal policy instruments. There is relative indifference to the money supply. Public spending is manipulated to influence the level of the aggregate demand.
- Fiscal caution with the long-term aim to reduce public spending and taxes and to increase individual and production incentives. Public deficits are tolerated in the short run.
- Fiscal withdrawal, influenced by a need to relate the amount of money in a system to the rate of economic growth. Money supply is controlled.
- Fiscal minimalism enables free market to produce solutions without the state.

In fact, the majority of governments react to the actual situation. They combine several approaches to influence the economy. Thus, governments don't behave purely ideologically.

The role of the public sector in economic policy supporting economic growth isn't clear either. The conclusions of Gwartney, Holcombe and Lawson [1998] indicate a relationship between the size of government expenditure and GPD growth. Their estimates indicate an approximately 1 percentage point reduction in GDP growth caused by each 10 % increase in government expenditures as a share of GDP. On the contrary, Lane and Ersson [2003] found that in the 1990s large public sectors have been positively correlated with economic growth. Persson [2002] adds that the average size of government sectors grew by about 8 % of GDP from the 1960s to the mid of 1990s. Scully [2002] confirmed the existence of a trade-off between income inequality and economic growth. A rather small increase in income inequality is associated with economic growth. The assumption of Scully's [2002] work was that a higher level of economic freedom tends to lower the level of inequality. Estimations of that model applied to the quintile income shares indicates that economic freedom reduces income inequality by increasing the share of market income going to the two lowest income quintiles and lowering the share going to the highest income quintile.

According to Lane and Ersson [2003] the essential difference between the two ideal types of economic policies is the role of the government. The public sector tends to stay at around 30 % of GDP in the neo-liberal societies, whereas the comprehensive welfare state tends towards 50 % or even 60 %. Gwartney, Holcombe and Lawson [1998] conclude with a 15% limit to public expenditure of GDP where the core functions of the government are guaranteed. Other expenditures above the 15 % level are not necessary and decelerate economic growth.

Buchanan and Wagner [1977] predicted that public expenditure programmes in democratic countries would expand. They also pointed out the irresponsibility of democracies conducting budget deficits and debts. The effort to provide citizens with appropriate public services led to a situation where the public budgets are being redistributed by rent-seekers.

For the case of the Central and Eastern European Countries, Hallerberg, De Souza and Clark [2002] studied monetary policy and political-economic cycles. Generally, when capital was not mobile, both fiscal and monetary policies affected economic growth. Thus the governments tried to influence economic performance by fiscal expansion. On the other hand, when capital became mobile, the exchange rate became an important variable. Monetary policy doesn't influence economic performance in the case of fixed exchange rates. In such a case fiscal policy is the only tool to influence the economy. With flexible exchange rates the situation changes dramatically. Monetary policy becomes important and fiscal policy becomes ineffective. Nowadays capital is highly mobile and central banks are not able to sustain fixed exchange rates. Thus, the fiscal policy is ineffective. Hallerberg, De Souza and Clark [2002] conclude that the 10 new EU Member States are remarkably consistent with the other OECD countries. This might influence the results of this paper if the governments use the fiscal policy as the only or the main tool of their economic policy.

Bjørnskov [2005] tested the impact of political ideology on economic growth according to legal quality and the protection of property rights. In summary, he concluded that political ideology has an impact on economic growth. The transmission mechanism is the size of government and the quality of the legal system. Right-wing governments are used to pursuing economic policies that lead to a better legal system and protection of property rights. The difference was about one third of a percent of additional economic growth in the case of right-wing governments compared to the average situation. He also points out that the transmission mechanisms of growth and ideology are much more complex.

Nadeau and Blais [1993] tested the influence of macroeconomic development in Canada on the political behaviour of voters. They concluded that only unemployment is statistically significant, economic growth doesn't influence voters´ behaviour.

Mueller [2003: 560] concludes that state activity has a mixed influence on welfare and economic performance. Taxes distort individuals' choices and reduce the welfare of those individuals. Furthermore, Mueller [2003: 560] mentions that state activity is associated with a growth in the shadow or even black economy. Both the shadow economy and the state has been growing in developed and developing countries since 1960. Mueller's [2003] main conclusion on the state and economic growth is that the relationship between the size of the public sector and economic growth is an inverted "U". If the government does not cover the basic services, it can harm economic growth due to the lack of basic services and infrastructure. When the state is overly present, it constrains individuals' economic activities.

Coalitions and Economic Performance

The usual approach sees coalition governments from the political science view. The view from the economic perspective is not so obvious. Studies of Budge and Keman [1993] and Veiga and Chappell [2002] are rare exemptions focusing on this topic.

The paper doesn't discuss coalition bargaining in detail. It is based on six possible situations of which five are in the following table. The sixth possibility is a care-taker government.

		Number of parties in the government	
		One	**More than one**
Majority in the Parliament	**Minority**	1. Single-minority government	2. Multi-party minority coalition
	Majority	3. Single-party majority government	4. Minimal-winning coalition 5. Surplus coalition

The assumption of this paper is that the political parties in coalition governments behave ideologically or in a policy-oriented manner. In game theory, just single-party

governments with a majority or the minimal winning coalitions are reasonable. The six possible outcomes of establishing a government mentioned above are thus also the result of a policy-pursuit approach. For a comprehensive summary of the discussion of these two concepts see Budge and Keman [1993], Laver and Schofield [1992] or Gallagher, Laver and Mair [2006].

A political party can influence the politics through its participation in the governments. The official coalition bargaining is more difficult if the party wants to influence other portfolios than those where it have its ministries. That is the reason political parties try to get ministries closest to the interests of their voters. The difference among "the value" of each ministry for a particular party is important and causes coalition bargaining to stop being a zero-sum game. It makes it possible to apply a game theory approach as a special case with several preconditions of the general theory of coalition bargaining.

Budge and Keman [1993] show that the conservative parties usually gave up their political ideologies in the coalitions more easily than the socialist parties in Western Europe. So do the religious parties. Liberal parties joining the coalitions with social democratic parties left their ideology too. It is consistent with Hibbs´ [1977] definition of political parties' preferences in economic policy. The socialist and labour political parties have full employment and equal distribution of income positioning as the top two goals respectively. Conservative parties rank price stability the highest and even centrist parties do not have specific goals at the same level. It enables centrist and conservative parties to manoeuvre in negotiations on economic policy and to make compromises. This is consistent with the conclusions of Huber and Stephens [2001]. Allan and Scruggs [2004] add that the right-wing parties are more likely to cut benefits, not just raise them less, or cut them more than other political parties during the 1970s. Although, being in a coalition, no party could afford to apply very low welfare. This is explained by the economic mainstream (Keynesianism) in the West European countries in 1970s. Budge and Keman [1993] argue that social- parties' governments are more stable than bourgeois governments. The explanation lies in the ideological divisions among bourgeois parties in comparison with the divisions among left-wing parties. Gallagher, Laver and Mair [2006: 222] mention that the right-wing parties are fragmented by religious, secular, agrarian, nationalist and other themes.

The fact that political parties don't behave purely ideologically may cause a methodological problem in the statistical methods in this paper. Taking Hibbs´ [1977] approach the positioning of political parties and their economic policies is static. The Klingemann et al. [2006] methodology is used for that purpose to make the analysis more dynamic (for the details see data collection in the paper). It enables a more flexible approach, as parties tend to choose economic policy according to the actual situation and positions of other parties on the political market. They return to their long-term positions when the problem is solved.

According to Budge and Keman [1993], the probability of the government dissolving due to political reasons increased in the case of those governments inclined to inappropriate ideological policies. The probability of a government dissolving due to these reasons is much higher than due to regular elections.

Data for the Analysis

The paper dealing with the dependence of economic growth on the political features of the governments is based on the data set for the Central and Eastern European countries. The countries in the sample witnessed a transition period and market oriented economies afterwards. A data sample including political and the economic data for those countries has been collected. The data sample covers the period between 1993 and 2005 (13 years). The countries in the sample are the following (in alphabetical order): Bulgaria, the Czech Republic, Estonia, Hungary, Lithuania, Poland, Slovakia and Slovenia. In the case of other CEE countries there has been missing data for some variables or for the whole periods. Thus, those countries were excluded from the sample. The sample is representative enough. The data starts with the year 1993 due to methodological problems with the plausibility of data. Those observations when there was a care-taker government have been excluded though this type of government is mentioned as one variable in the following text. Short-lived governments (less than 2 months) were not included in the sample either. There were few of such cases and excluding them from the sample didn´t decrease the validity of the sample.

The comparability of the data concerning economic development was ensured by using the International Monetary Fund (IMF) databases. When there was missing information for a particular country, the OECD data was used. To enable sufficient statistical variability, the economic data was on a quarterly basis. The quarterly basis is appropriate as it enabled to avoid time lag between political decision and implementation of the decision. Longer period would fail in adjusting the time of incumbency of the governments. There have not been serious problems with collecting the data in this case. The main problem of quarterly economic data is that some observations for many countries in the CEE are missing for the period before 1993 as well as for some countries after that period.

The political-economic works are also based on quarterly data in the case of Nordhaus [1975], Frey and Schneider [1978] and Alesina and Roubini [1992]. The main purpose for choosing the quarterly data is the delay between the time when the political decision was made and the time when it is active. It is between a quarter of a year and one year. It is rarely a shorter period.

There are some methodological problems with political data. Data from several sources concerning the political coalitions in the countries in question was used. In this paper two main sources of political data have been used. The first data sample is based on the Müller-Rommel, Fettelschoss and Harfst [2004] analysis of the governments in Central and Eastern European democracies. It has been used due to the left-right positioning of the governments. This data sample was supplemented by missing data, especially for the years 2003 – 2005. The political character of coalition governments was based on several sources.[3]

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[3] www.parties-and-elections.de; http://elections.online.fr and web sites of national parliaments and governments.

The general methodology of collecting political data is the same as used in Woldendorp, Keman and Budge [2000].

The second type of methodology for positioning governments in the left-right scale is based on Klingemann et al. [2006: 25], which is based on the assumption that political parties change their position. Such a situation is also known from Western countries. It shows flexible changes of a particular party's position in the left-right scale in comparison to Müller-Rommel, Fettelschoss and Harfst [2004]. The methodology of positioning the parties consists not only of economic variables, but also another, far from purely economic, understanding of left and right. The dates of the beginning and termination of governments were cross checked according to several sources of information.

It was necessary to do a relation of variables to a base to make it possible to compare the data across the countries involved and eliminate selection bias.

Statistical Methods

There has been used a regression model for testing the relationship between economic growth and other variables. The regression analysis enables test statistically relationship and ability to explain the variance of the variables. To avoid inappropriate conclusions, it was necessary to adjust the model to the seasonal component of the economic data. The method of dummy variables was used (see the S variables in the results). Then panel regression was used to estimate the relationship between economic growth and the independent variables. The main aim of the regression analysis is to estimate whether the independent variables are able to estimate economic growth in the following model (in simplified form):

GRO= f (A, CAR1, CAR2, CAR3, CAR4, EXP, FOR, INF, NUM, POW, PREM, S, TIM, TOG, UNP), where

Variable **A** is used for splitting the sample into two parts. It is 0 for the transition and 1 for post-transition periods. It has been arbitrarily decided that 1 January 2000 is the cut off line. The reason for doing this is based on Klingemann et al. [2006: 4] Dahrendorf hypothesis that parties in the CEEC would demonstrate two major changes in their approach to liberalization and than social democratization in the first decade after the change of the regime.

CAR1 is the left-right character of the incumbent government. It is a weighted rate based on the Müller-Rommel, Fettelschoss and Harfst [2004] classification of the parties' positioning. This describes the situation after the elections. It is necessary to adjust the variable to the actual situation as some coalitions were created or were split up during the incumbency.

$$CAR1 = \sum_{i=1}^{n} \frac{Pi}{\sum Pi} PFi \,,$$

where i indicates i[th] – party of n coalition government's parties, PFi indicates the political group closest to the ith party. The value varies from 1 (Communist parties) to 12 (Right-wing and nationalist parties).

CAR2 is derived from the CAR1 variable according to the following formula and includes the dynamics caused by the previous government to adjust the CAR1.

$$CAR2 = CAR1(t) - CAR1(t-1),$$

This variable is negative when the previous government was more left-oriented. This variable has zero value in case of the same government.

CAR3 is again the left-right character of the government. It is measured as a weighted rate based on the Klingemann et al. [2006] classification. Otherwise the process of counting the value is the same as in the case of CAR1. The value of this variable varies generally from –61.40 (the extreme left in the sample) to +50.00 the extreme right in sample. This methodology uses government's policy position as the weighted mean score of parties in government on each of the CMP's six policy scales. Weights are calculated as the proportion of party seats to all government seats in the Parliament.

CAR4 is based on the CAR3 variable. The variable is defined in the same way as CAR2 using CAR3 as a baseline. Thus, this variable decreases in a situation when the previous government was more to the right on the left-right scale in comparison to the incumbent government.

GRO defines the economic growth. It is measured by the difference between two consecutive quarters. It is the percentage change of the difference of the GDP per capita in relation to the previous quarter. It enables the dynamics of the development to be seen.

INF is the inflation rate in a particular country on a quarterly base. It is measured by the consumer price index. The variable is calculated to measure the changes between two quarters.

UNP explains the unemployment rate in a particular country and a quarter of the year. This variable is measured by the proportion of unemployed people to the whole workforce in the particular country. Again, it is measured as a change between two consecutive quarters.

FOR measures the foreign trade by the quarterly balance of payments. Again, it is measured as a change between two consecutive quarters.

POW denotes the majority of the incumbent coalition in the Parliament. It is measured as a percentage of the seats of the incumbent government to the whole legislature in the parliament. A value above 50% indicates a majority, below 50% indicates a minority government.

NUM indicates the number of political parties being members of the ruling government.

EXP classifies the share of government expenditure to GDP in a particular country and a quarter of a year. It is measured as a percentage.

TOG is the crucial variable in the model. It indicates the type of a particular government according to Müller-Rommel, Fettelschoss and Harfst [2004]:

(1) Single-party government (one party constituting government with a majority in the parliament).

(2) Minimal winning coalition (more than one party constitutes government, all of them are necessary to form a majority in the parliament).

(3) Surplus coalition (more than one party constitutes government, the number of parties is higher then needed – one coalition partner could leave the government without losing the majority in the parliament).

(4) Single-party minority government (only one party constitutes the government it doesn't have the majority in the parliament).

(5) Multi-party minority government (more than one party constitutes the government, but they don't have the majority of seats in the parliament).

(6) Caretaker government (these governments are temporary or with the support across the parliament).

This variable was used as a dummy variable to avoid using a discrete variable in the model and a clear answer to the research question to be obtained. There are six variables TOG1 – TOG6 according to the type of government (e.g. if the government was a single-party majority government, the TOG1=1, TOG2 to TOG6 are equal 0).

TIM indicates the time length during which the government rules. It is measured by quarters. It starts when the prime minister gets the nomination (e.g. for the first quarter (0 – 2nd months) is 0, for the second quarter (3rd – 5th months) it is equal to 1, etc).

PREM says whether the strongest political party in the incumbent coalition has the prime minister (0 indicates that the prime minister is a member of a different political party to the strongest one in the coalition government, 1 indicates that the strongest party occupies the seat of prime minister).

S denotes the seasonal component. It is adjusted to the first quarter of the year. S2 means the second quarter, S3 the third quarter and S4 the last quarter of a year.

The regression model is used as a reality approximation. The test of multicolinearity in multiple regressions solved the correlation between the independent variables included. The potential insufficiency in the data sample of the chosen countries and cultural aspects differing across countries can reduce the reliability of the model. The ambition of the proposed model is not to explain all the complex economic and political circumstances in each country. Thus, there are fixed effects for each country to adjust the model.

The autocorrelation of residuals and multicolinearity of independent variables was solved. It could be the fundamental failure of meeting the Gauss-Markov conditions. The autocorrelation of residuals was tested using Durbin-Watson statistics. The group of independent variables was adjusted by pair correlation coefficients in the case of multicolinearity. It does not seem to be necessary to extend the study to additional variables

to avoid insufficient dispersion of independent variables. The stationarity was tested to verify if the data set is suitable for plausible statistical analysis.

The first step in analysis was all-variables regression. It showed the influence of all particular independent variables. Elimination of the statistically insignificant variables followed. The elimination of some variables was necessary for these statistically insignificant variables. The illogical signs of estimates of regression coefficients were also discussed. Panel regression was used to eliminate insignificant variables.

The panel regression analysis helps to consider selection bias (influences beyond the observable variables). Sometimes dependent variables are not explained by independent variables relating to the same time period, but some of the previous period. The forward stepwise regression enables such situations to be resolved.

Results and discussion

Cross-sectional data regression analysis was used. Specifically, the statistical method of pooled least square was used. The seasonal component of the data was adjusted by using seasonal dummy variables (see the coefficients of variables S2, S3 and S4 in the tables in the annex). A total panel of 264 observations (quarterly data for governments) was used. Convergence was achieved after 14 iterations (see the table 1 in the annex for details), after which 51 observations, after adjusting the endpoints, were used (see the methodological part of the paper for the reason why the number of observations decreased). There are also the fixed effects of national economies enabling comparison among all countries included.

The estimations of the model with the CAR1 variable (see table 1 in the annex) seems to be more important in comparison with the model including the CAR3 variable. A model with a CAR3 variable was also tested (not shown in this paper), but the statistical significance was much lower, even the significance of CAR1 is quite low. Both models are beyond statistical significance.

Moreover, the orientation of the CAR1 estimate is in the opposite direction than expected. The results concerning the political type of the government are statistically insignificant too.

Then, the model was modified. The statistically insignificant variables were taken away. Then the model was tested on the influence of the political variables economic growth. The combinations of variables were tested too.

Cross-sectional data analysis was used; the statistical method of pooled least square was used again. A total panel of 231 observations was used. Convergence was achieved after 6 iterations, after which 51 observations, after adjusting the endpoints, were used (see table 2 in the annex for details).

The estimates concerning the variable POW are described in table 3 in the annex. They are more statistically significant in comparison with the previous model, even though they are still statistically insignificant.

The model estimates for economic variables – expenditure in the public sector, unemployment and foreign trade are statistically significant. The expected interpretation was also achieved. The test of residuals explained that the model is without autocorrelation for residuals.

The political influences of TOGs' estimates (type of the incumbent government) only seem to have some influence in the case of the surplus coalitions (TOG3). Unfortunately, it again has low statistical significance. The significance of the minimal winning coalitions (TOG2) is much higher than the standard level of statistical significance (see table 4 for the details). No significant estimates for other types of governments were found. The estimates of other variables are in the same direction as in the previous models.
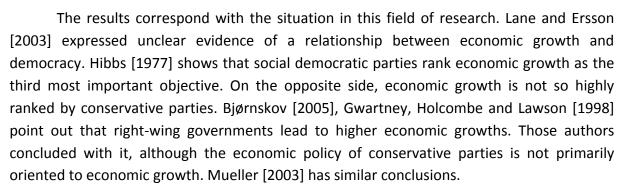
There is variable A, which had statistically significant estimates in the initial model, but it is missing in the final set of results. It corresponds with the conclusions made in the part of the paper concerning the share of the types of coalition governments across both West and Central and Eastern European countries. If the shares across different types of coalition governments (variation of TOG variable from majority single-party government to multi-party minority government) are the same in both Central and Eastern European Countries and the Western countries, than economic transition has no influence on it.

All the models are able to explain the modelled situation quite well. The adjusted R-squared in the final model is about 0.57. It enables plausible conclusions to be made. Economic growth is highly influenced by the seasonal component. Generally, all models demonstrated that economic variables explained economic growth more than political variables. The estimates for the number of political parties in the government were not statistically significant. The pertinence of the prime minister to the strongest political party in the coalition government wasn't significant.

Conclusions

The paper is dedicated to a neglected topic- the political-economic relationships of coalition governments generally and especially in the Central and Eastern Europe. No statistically significant influence of political variables on economic growth in the Central and Eastern European Countries was found. Neither the composition nor the ideology of the government had statistical influence on economic growth. A statistically significant relationship was found among the economic variables themselves. The estimates show a relationship between economic growth on the one side and public expenditure, foreign trade and unemployment on the other side.

The economic rules have been more or less confirmed, but the influence of a coalition governments´ character on economic growth was not. Hallerberg, De Souza and Clark [2002] concluded that there is ineffective fiscal policy in the countries with flexible exchange rate regimes. Those were also the Central and Eastern European Countries in the second half of the sample. This might influence the results of this paper if the governments use the fiscal policy as the only or the main tool of their economic policy.

The results correspond with the situation in this field of research. Lane and Ersson [2003] expressed unclear evidence of a relationship between economic growth and democracy. Hibbs [1977] shows that social democratic parties rank economic growth as the third most important objective. On the opposite side, economic growth is not so highly ranked by conservative parties. Bjørnskov [2005], Gwartney, Holcombe and Lawson [1998] point out that right-wing governments lead to higher economic growths. Those authors concluded with it, although the economic policy of conservative parties is not primarily oriented to economic growth. Mueller [2003] has similar conclusions.

As the results are based on a model, it is necessary to continue in the research and improve the specification of the model (for example variable concerning the independency of the central bank, time-lag variable, etc.). To conclude and answer the second research question stated in the introduction, neither the left-right political character of coalitions nor the type of the incumbent coalition have been found to influence economic growth in the Central and Eastern European Countries.

RERERENCES:

ALESINA, A.; ROUBINI, N. (1992). Political Cycles in OECD Economies, *Review of Economic Studies*, 59, pp. 663-88.

ALLAN P., J.; SCRUGGS, L. (2004). Political Partisanship and Welfare State Reform in Advanced Industrial Societies, *American Journal of Political Science*, Vol. 48, No. 3. (Jul.), pp. 496-512.

BJØRNSKOV, C. (2005). Does political ideology affect economic growth? *Public Choice*, Vol. 123, pp. 133-146.

BUCHANAN, J.; WAGNER, R. (1977). *Democracy in deficit: the political legacy of Lord Keynes*. Academic Press. ISBN 0121388506.

BUDGE, I.; KEMAN, H. (1993). *Parties and Democracy: Coalition formation and government functioning in twenty states*. Oxford University Press. ISBN 0-19-827925-6.

FREY, B., S., SCHNEIDER, F. (1978). An Empirical Study of Politico – economic interaction in the United States, *Review of Economics and Statistics*, LX (2), pp. 174-183.

GALLAGHER, M.; LAVER, M.; MAIR, P. (2006). *Representative Government in Modern Europe*, Fourth Edition, McGraw-Hill. ISBN 0-07-297706-X.

GWARTNEY, J.; HOLCOMBE, R.; LAWSON, R. (1998). The Scope of Government and the Wealth of Nations, *Cato Journal*, Vol. 18, No 2 (Fall), pp. 163-190.

HALLERBERG, M.; DE SOUZA, L., V.; CLARK W., R. (2002). European Union Politics: Political Business Cycles in EU Accession Countries, *European Union Politics*, Vol. 3, pp. 231-250.

HIBBS, D., A. (1977). Political Parties and Macroeconomic Policy, *The American Political Science Review*, Vol. 71, No. 4 (Dec.), pp. 1467-1487.

HUBER, E., STEPHENS, J., D. (2001). *Development and Crisis of the Welfare State: Parties and Policies in Global Markets*. Chicago and London: The University of Chicago Press. ISBN 0-226-35647-7.

KLINGEMANN, H.-D.; VOLKENS, A.; BARA, J.; BUDGE, I.; McDONALD, M. (2006). *Mapping Policy Preferences II: Estimates for Parties, Electors, and Governments in Eastern Europe, European Union and OECD 1990-2003*. Oxford University Press. ISBN 0-19-929631-6.

LANE, J.-E.; ERSSON, S. (2003). *Democracy: a comparative approach*. Routledge. ISBN 0-415-26588-6.

LAVER, M.; SCHOFIELD, N. (1992). *Multiparty Government: the politics of coalition in Europe*. Oxford University Press. ISBN 0-19-827293-6.

MUELLER, D. C. (2003). *Public Choice III*. Cambridge University Press. ISBN 0 521 89475 1.

MÜLLER – ROMMEL; F.; FETTELSCHOSS, K.; HARFST, P. (2004). Party government in Central Eastern European democracies: A data collection (1990-2003), *European Journal of Political Research*, 43, pp. 869-893.

NADEAU, R.; BLAIS, A. (1993). Explaining election outcomes in Canada: Economy and politics, *Canadian Journal of Political Science*, Vol. 26, Iss. 4, pp. 775-790.

NORDHAUS, W. D. (1975). The Political Business Cycle, *Review of Economic Studies*, XLII (2), pp. 169-190.

PERSSON, T. (2002). Do Political Institutions Shape Economic Policy? *Econometrica*, Vol. 70, No. 3 (May), pp. 883-905.

SCULLY, W., G. (2002). Economic freedom, government policy and the trade-off between equity and economic growth, *Public Choice*, Vol. 113, pp. 77-96.

SEN, A., K. (1999). *Development as Freedom*. Oxford University Press. ISBN 0198297580.

VEIGA, G., L.; CHAPPELL, H., W. (2002). Politics and unemployment in industrialized democracies, *Public Choice*, Vol. 110, pp. 261-282.

WOLDENDORP, J.; KEMAN, H.; BUDGE, I. (2000). *Party Government in 48 Democracies (1945-1998), Composition – Duration – Personnel.* Kluwer Academic Publishers. ISBN 0-7923-6727-8.

Annex 1

Table 1: Results of estimating the influence of coalition governments on economic growth

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S2	19.32436	1.403435	13.76934	0.0000
S3	13.43546	1.435518	9.359311	0.0000
S4	11.87887	1.471405	8.073150	0.0000
A	-2.181579	1.439888	-1.515103	0.1311
TOG1	11.04995	9.514992	1.161320	0.2467
TOG2	11.58068	9.047559	1.279979	0.2018
TOG3	13.39500	10.13234	1.322005	0.1874
TOG4	9.220324	8.263368	1.115807	0.2656
TOG5	10.06011	8.482027	1.186050	0.2368
TOG6	1.858648	9.871830	0.188278	0.8508
CAR1	-0.512129	0.338715	-1.511975	0.1319
TIM	-0.204462	0.131080	-1.559822	0.1201
EXP	-0.171421	0.085109	-2.014126	0.0451
FOR	0.001491	0.001567	0.951300	0.3424
INF	0.532764	0.028865	18.45679	0.0000
NUM	-0.279072	0.571978	-0.487908	0.6261
POW	-0.043100	0.173440	-0.248498	0.8040
PREM	-2.122008	2.482012	-0.854955	0.3934
AR(1)	0.062669	0.066348	0.944551	0.3459
Fixed Effects				
_BUL--C	2.123917			
_CZ--C	-3.640452			
_EST--C	-2.473678			
_HUN--C	-2.852378			
_LIT--C	-4.105503			
_POL--C	-1.978596			
_SLO--C	0.526950			
_SLE--C	-3.541469			

R-squared	0.789652	Mean dependent var	5.000568	
Adjusted R-squared	0.766575	S.D. dependent var	16.42843	
S.E. of regression	7.937236	Sum squared resid	14930.93	
Log likelihood	-907.2516	F-statistic	34.21933	
Durbin-Watson stat	1.921011	Prob(F-statistic)	0.000000	

Table 2: Regression analysis for the economic growth after eliminating insignificant variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S2	16.16008	1.034560	15.62024	0.0000
S3	8.676791	0.951379	9.120222	0.0000
S4	10.00926	1.075641	9.305385	0.0000
EXP	-0.158903	0.060106	-2.643721	0.0088
FOR	0.001697	0.000915	1.853177	0.0652
UNP	-0.563908	0.165256	-3.412337	0.0008
POW	0.047814	0.047959	0.996975	0.3199
AR(1)	-0.128525	0.067618	-1.900742	0.0587
Fixed Effects				
_BUL--C	7.650517			
_CZ--C	1.471135			
_EST--C	0.841654			
_HUN--C	3.356698			
_LIT--C	2.450057			
_POL--C	8.828623			
_SLO--C	8.543921			
_SLE--C	3.415482			

R-squared	0.599362	Mean dependent var	3.111429
Adjusted R-squared	0.571411	S.D. dependent var	7.620747
S.E. of regression	4.989055	Sum squared resid	5351.494
Log likelihood	-690.7582	F-statistic	21.44294
Durbin-Watson stat	2.172329	Prob(F-statistic)	0.000000

Table 3: Results for economic growth and the type of government: surplus majority

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S2	16.13560	1.029189	15.67797	0.0000
S3	8.644169	0.948743	9.111185	0.0000
S4	10.03002	1.070333	9.370938	0.0000
EXP	-0.160002	0.059928	-2.669889	0.0082
FOR	0.001687	0.000914	1.846366	0.0662
TOG3	1.444530	0.903876	1.598149	0.1115
UNP	-0.600373	0.163852	-3.664109	0.0003
AR(1)	-0.125801	0.067316	-1.868794	0.0630
Fixed Effects				
_BUL--C	11.00737			
_CZ--C	3.989016			
_EST--C	3.770964			
_HUN--C	5.458058			
_LIT--C	5.343024			
_POL--C	11.82689			
_SLO--C	11.42029			
_SLE--C	6.075309			
R-squared	0.602239	Mean dependent var	3.111429	
Adjusted R-squared	0.574488	S.D. dependent var	7.620747	
S.E. of regression	4.971109	Sum squared resid	5313.063	
Log likelihood	-689.9258	F-statistic	21.70172	
Durbin-Watson stat	2.174872	Prob(F-statistic)	0.000000	

Table 4: Final regression analysis results for economic growth with the highest significance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S2	16.17889	1.032677	15.66694	0.0000
S3	8.673422	0.952563	9.105351	0.0000
S4	9.988807	1.074138	9.299374	0.0000
EXP	-0.155579	0.060199	-2.584422	0.0104
FOR	0.001776	0.000919	1.933304	0.0545
TOG2	-0.547129	0.643661	-0.850026	0.3963
UNP	-0.614778	0.168064	-3.657993	0.0003
AR(1)	-0.125183	0.067552	-1.853139	0.0652
Fixed Effects				
_BUL--C	11.57507			
_CZ--C	4.290015			
_EST--C	4.131089			
_HUN--C	6.498708			
_LIT--C	6.011249			
_POL--C	12.25344			
_SLO--C	12.35928			
_SLE--C	6.924862			

R-squared	0.598865	Mean dependent var	3.111429
Adjusted R-squared	0.570879	S.D. dependent var	7.620747
S.E. of regression	4.992150	Sum squared resid	5358.135
Log likelihood	-690.9014	F-statistic	21.39860
Durbin-Watson stat	2.170256	Prob(F-statistic)	0.000000