THE MODELS OF COALITIONAL PROCESS IN THE FORMATION OF GOVERNMENTAL CABINETS: THEORETICAL CUT AND REVIEW OF LITERATURE

The article offers a review of literature on the theorization and systematization of models of coalitional process in the formation of governmental cabinets. It was demonstrated that all models of coalitional process can be divided into institutional and non-institutional, but most of them are characterized by game theories and theories of rational choice. At the same time, it was found that the models of coalitional process should be divided into formal and empirical as well as pragmatic and ideological. Nevertheless, it was stated that the isolated models of coalitional process in the formation of governmental cabinets are not exhaustive. Since the real coalitional process should be perceived as a gradation based on the ranking of various influence, which can be determined nationally and regionally.

Keywords: coalition, government, governmental cabinet, coalitional process, coalition bargaining, model of coalitional process.

MODELE PROCESU KOALICJYJNEGO POD CZAS TWORZENIA RZĄDÓW: TEORETYCZNY PRZEKRÓJ I PRZEGLĄD LITERATURY

W artykule przedstawiony został przegląd literatury na temat teorii i systematyzacji modeli koalicji podczas powoływania rządów. Ustalono, że wszystkie modele procesu koalicjyjnego można podzielić na instytucjonalne i pozainstytucjonalne, ale większość z nich określona została poprzez teorię gier i racjonalnego wyboru. Jednocześnie stwierdzono, że modele procesu koalicyjnego należy podzielić na formalne i empiryczne, a także pragmatyczne i ideologiczne. Niemniej jednak, w artykule zauważono, że pojedyncze modele procesu koalicyjnego podczas powoływania rządów nie są wyczerpujące, ponieważ wskazane jest postrzeganie realnego procesu koalicyjnego jako pewnej gradacji opartej na podstawie rankingów różnych wpływów określonych na szczeblu krajowym i regionalnym.

Słowa kluczowe: koalicja, rząd, proces koalicyjny, negocjacje koalicyjne, modele procesu koalicyjnego.

Coalitions and coalitional governmental cabinets have ceased to be perceived as political innovations or anomalies, having long become the norm of the political process in most countries of the world (especially when it comes to minority coalitional governments). For

some countries, coalitional governments are a necessary prerequisite, while in others they do not exist as such. Regardless of their type, sometimes coalitional governments tend to occur more frequently, occasionally they are not formed whatsoever. However, it is quite obvious that coalitional governments are stipulated by varied parameters. Therefore, coalitional governmental cabinets not only differ in typology, but can also be determined by diverse models of the coalitional process, resulting in the formation of the former. Moreover, in Political Science there exists a plethora of models, which in turn interpret features and stages of coalitional governments formation in a different manner. The present study is devoted to theoretical synthesis and review of the literature, dealing with the problems of various coalitional process models in forming governmental cabinets.

In theoretical advances on the theory of coalitions, it is a common belief that this scope of Political Science originated in the work «The Theory of Political Coalitions» by V. Riker. The scholar took advantage of abstract mathematical calculations based on the «Game theory» principle, which respectively disregarded social-political and ideological factors. Further on, they were significantly influenced by the theory of «rational choice», as they required thorough contemplation of various factors in conditions of maximum and minimum equilibrium by the main political actors, emphasised in the ideas of G. Tsebelis², M. Petracca³, L. Smorgunov⁴, etc. As a result, the issue of forming coalitional governmental cabinets has gained considerable scientific interest⁵, especially given that the issue under analysis reflects strenuous interrelation between theoretical and empirical levels. Also, up till present the most widely recognised theoretical calculations and connotations made use of various versions of the «game theory», serving as the background of the formal methodology of the coalitional process in the formation of governmental cabinets⁶. Later on, the theory of non-cooperative games found reflection in the theoretical insights by such renowned researchers as A. Merlot⁻, D. Baron⁶, D. Diermeierゥ, and many others.

Riker W., The Theory of Political Coalitions, Wyd. Yale University Press 1962.

² Tsebelis G., Nested Games: Rational Choice in Comparative Politics, Wyd. University of California Press 1991.

³ Petracca M., The Rational Choice Approach to Politics: A Challenge to Democratic Theory, "The Review of Politics" 1991, vol 53, s. 289-319.

⁴ Smorgunov L., Ratsionalnyy vybor v politike i upravlenii, Wyd. Izd. SPb. un-ta. 1998

^{5 .} Laver M., Schofield N., Multiparty Government: The Politics of Coalition in Europe, Wyd. University of Michigan Press 1998.; Laver M., Shepsle K., Making and breaking governments. Cabinets and legislatures in parliamentary democracies, Wyd. Cambridge University Press 1996.; Strom K., Minority Government and Majority Rule, Wyd. Cambridge University Press 1990.; Warwick P., Government Survival in Parliamentary Democracies, Wyd. Cambridge University Press 1994.

Laver M., Schofield N., Multiparty Government: The Politics of Coalition in Europe, Wyd. University of Michigan Press 1998.; Laver M., Shepsle K., Making and breaking governments. Cabinets and legislatures in parliamentary democracies, Wyd. Cambridge University Press 1996.; Muller W., Strom K., Coalition Governments in Western Europe, Wyd. Oxford University Press 2000.

Merlo A., Bargaining over governments in a stochastic environment, "Journal of Political Economy" 1997, vol 105, s. 101-131

⁸ Baron D., A Spatial Bargaining Theory of Government Formation in Parliamentary Systems, "American Political Science Review" 1998, vol 92, s. 593-609.; Baron D., Government Formation and Endogenous Parties, "American Political Science Review" 1993, vol 87, s. 34-47

Diermeier D., Merlo A., Government turnover in parliamentary democracies, "Journal of Economic Theory" 2000, vol 94, s. 46-79.; Diermeier D., Merlo A., Eraslan H., A Structural Model of Government Formation, "Econometrica" 2003, vol 71, s. 27-70.; Diermeier D., Stevenson R., Cabinet Terminations and Critical Events, "American Political Science Review" 2000, vol 94, s. 627-640.

However, the year 1990 became a turning point in the study of governmental coalitions. M. Laver and N. Schofield in the study «Multiparty Government: The Politics of Coalition in Europe»¹⁰, proposed a comprehensive and detailed overview of developments in this field of comparative Political Science up until the late 1980s. In addition, a wide range of new research articles brought to an end the established traditions of Political Science research that had developed over decades. Thus, D. Baron in the study «A Noncooperative Theory of Legislative Coalitions» 11 suggested application of «non-cooperative game theory» (later referred to as the «Baron-Ferejohn scheme»¹²) in the study of governmental coalitions. In their turn, M. Laver and K. Shepsle in the article «Coalitions and Cabinet Government»¹³ made use of the structural equilibrium model to investigate the formation of governmental cabinets. Ultimately, in his monograph «Minority Government and Majority Rule» 14, K. Strom suggested an exhaustive report on minority governments and the overall stability of coalitional governmental cabinets. As A. Lupia and K. Strom¹⁵ point out, this methodological approach laid foundations for its further use in the research of the coalitional governments duration. In this regard, it was argued that coalitional cabinets should be contemplated within the framework of institutional equilibrium over a specified period of time in case of potential destabilization of political and economic climate, and more specifically of the so-called critical events. Other scholars have also elucidated this idea, such as E. Brown, J. Frendreyse and D. Gleiber¹⁶, G. King, J. Alt, M. Laver¹⁷, P. Warwick¹⁸, and others.

On one hand, the new approach offered promising changes in the study of governmental cabinets. The main point was that specification of empirical models of inter-party / coalition bargaining largely focused on the role of the political environment institutional peculiarities, accounting for the formation of governmental cabinets as not only based on the list of governmental cabinets' attributes of certain party systems, highlighted in empirical literature on coalitional governments¹⁹. On the other hand, the given approach has evoked various stimulating methodological problems. In particular, D. Diermeier and R. Stevenson²⁰ proved

¹⁰ Laver M., Schofield N., Multiparty Government: The Politics of Coalition in Europe, Wyd. University of Michigan Press 1998.

¹¹ Baron D., A Noncooperative Theory of Legislative Coalitions, "American Journal of Political Science" 1989, vol 33, s. 1048-1084.

¹² Baron D., Ferejohn J., Bargaining in Legislatures, «American Political Science Review» 1989, vol 83, s. 1181-1206

Laver M., Shepsle K., Coalitions and Cabinet Government, "American Political Science Review" 1990, vol 84, s. 873-889.

¹³ Laver M., Shepsle K., Coalitions and Cabinet Government, "American Political Science Review" 1990, vol 84, s. 873-889.

¹⁴ Strom K., Minority Government and Majority Rule, Wyd. Cambridge University Press 1990.

Lupia A., Strom K., Coalition Termination and the Strategic Timing of Parliamentary Elections, "American Political Science Review" 1995, vol 89, s. 648-665.

Browne E., Frendreis J., Gleiber D., An "Events" Approach to the Problem of Cabinet Stability, "Comparative Political Studies" 1984, vol 17, s. 167-197.

King G., Alt J., Burns N., Laver M., A Unified Model of Cabinet Dissolution in Parliamentary Democracies, "American Journal of Political Science" 1990, vol 34, s. 846-871.

¹⁸ Warwick P., Government Survival in Parliamentary Democracies, Wyd. Cambridge University Press 1994.

¹⁹ King G., Alt J., Burns N., Laver M., A Unified Model of Cabinet Dissolution in Parliamentary Democracies, "American Journal of Political Science" 1990, vol 34, s. 846-871.; Warwick P., Government Survival in Parliamentary Democracies, Wyd. Cambridge University Press 1994.

²⁰ Diermeier D., Stevenson R., Cabinet Terminations and Critical Events, "American Political Science Review" 2000, vol 94, s. 627-640.

that validation of the model, suggested by A. Lupia and K. Strom requires careful elaborations of the stochastic model, which fended off methods of single cases research. Contrary to that, A. Merlot²¹ argued that changing expectations of governments' duration through exogenous events and factors could force party leaders to hinder the process of forming governments, to be seen as the outcome of the strategic choice of future governmental coalition members. Ultimately, D. Diermeier and A. Merlot²² theoretically confirmed that expectations about governmental duration could affect the type of government to be formed. The results of the governmental cabinets formation have illustrated that the type of governmental cabinet, the timeframe to form a governmental cabinet and its durability are simultaneously defined as equal. Thus, the attitude towards the concept of government through the prysm of equilibrium required a radical departure from the existing empirical approaches, traditionally applied to reduce the specification of governmental types in regressive models.

It is important to remember that all new research into coalition policy models and government formation after 1990 is characterized by one key element: they focus on the role of institutes in the study of governmental coalitions. Respectively, new institutionalism has become the basis of coalitional governmental cabinets investigation. Interestingly, political institutes (party systems and electoral rules, constitutional peculiarities and determinants) have always played a considerable role in the study of governments, yet a new requirement to enhance their significance was purely methodological: formal political models must have institutionally predictable attributes in order to be unequivocal and empirically accurate. This is overtly evident in the study «Institutionalism as a Methodology» by D. Diermeier and K. Krehbiel²³. In addition, this is obvious, given the peculiarities of governments in parliamentary democracies (providing the empirical basis for research), as heads of government earn mandates and are politically accountable to the legislature, resulting in at least two important issues. Firstly, unless one party wins a majority in parliament by a proportional representation election system, the government is not only formed on the basis of the election result, but is the consequence of a complex process of setting political prices among the parties, represented in the legislature. Secondly, governments in parliamentary democracies (irrespective of government forms and regimes) may at any time lose the confidence of parliament, leading to their termination.

Thus, the study of coalitional governments has historically been dominated by two questions: what governments are formed and how long they generally function. In this light, it is worth mentioning that institutionalism is identified on the basis of political institutions analysis. In this regard, R. McKelvey²⁴ believes it to be a methodological approach, whose

Merlo A., Bargaining over governments in a stochastic environment, "Journal of Political Economy" 1997, vol 105, s. 101-131.

²² Diermeier D., Merlo A., Government turnover in parliamentary democracies, "Journal of Economic Theory" 2000, vol 94, s. 46-79.

²³ Diermeier D., Krehbiel K., Institutionalism as a Methodology, "Journal of Theoretical Politics" 2003, vol 15, s. 123-144.

²⁴ McKelvey R., Covering, Dominance, and Institution-Free Properties of Social Choice, "American Journal of Political Science" 1986, vol 30, s. 283-314.

common element is a deviation from the selected research programme towards the discovery of properties beyond institutes. Additionally, apparent is the fact that institutionalism consists of different research programmes, originating within various methodological approaches. In the context of the present study, institutionalism (neoinstitutionalism) aims at reassessing the existing theoretical traditions, despite being implemented absolutely differently. One of the fundamental and initial variants of implementation of such a methodology in the governmental coalitions modelling was proposed by R. Axelrod²⁵ within the framework of the «theory of proto-coalitions». However, R. Axelrod's theory of proto-coalitions is not the only example of a «beyond the institute» approach to governmental coalitions. Other instances include the cooperative coalition bargaining theory and the theory of social choice²⁶, combining the social choice of coalitional models by the formula «beyond the institutes» with the formation of governmental cabinets, and equilibrium at the electoral level.

R. Axelrod's model illustrates how ideologically linked proto-coalitions are being phased out, attracting / adding new parties until political viability is reached. An important aspect of the model in question is how this explanation actually works. It should be noted that R. Axelrod's calculation is based only on the number of parties, their number of seats, as well as the location within the left-right ideological spectrum. Other aspects of the process of forming governmenal cabinets are irrelevant: for example, it is of no importance who proposes the government and how long the government institutionalization process takes. A problem of formal modelling neglects the existing structure. Therefore, the question arises whether such a model for forming coalitional governments can be empirically accounted for. The response to this question is purely intuitive and logical. Prior to the change in approaches in the early 1990s, a large amount of empirical research on governmental coalitions had focused solely on the issue of forming governments. Thus, supposing the number of parties, the share of their mandates, and the ideological position in the left-right political spectrum are known, the question which governments are formed is ambiguous. Although it lies in the interaction of theoretical and empirical components, the «beyond the institutes» model is by no means able to predict which governments will be formed.

Although this scope has undergone some refinement, in particular in the research papers on issues of minority government by K. Strom, and of the government stability by E. Browne. The former scholar, in his groundworks «Party Goals and Government Performance in Parliamentary Democracies»²⁷ and «Minority Government and Majority Rule»²⁸ focused on a specific case of coalition-forming, particularly minority governments, noting that their

²⁵ Axelrod R., Where the Votes Come From: An Analysis of Electoral Coalitions, "American Political Science Review" 1972, vol 66, s. 11-20.

²⁶ Schofield N., Sened I., Nixon D., Nash Equilibria in Multiparty Competition With "Stochastic" Voters, "Annals of Operations Research" 1998, vol 84, s. 3-27.

²⁷ Strom K., Party Goals and Government Performance in Parliamentary Democracies, "American Political Science Review" 1984, vol 79, s. 738-754.

²⁸ Strom K., Minority Government and Majority Rule, Wyd. Cambridge University Press 1990.

existence is not a rarity (about one-third of all coalitional governments are minority cabinets), they not necessarily being a crisis phenomenon. However, the scholar has found that existence of minority governments has become a complication for the existing theories of coalitional governments forming. Concurrently, the impact of K. Strom's research went far beyond the simple definition of minority governments, making important methodological implications for the study of coalitional governments in general. Firstly, the research elucidated the issue of government formation, embracing numerous problems, ranging from «which government is formed» to «what type of government is being formed», which has become a factor, compelling some countries to elect minority governments on a regular basis, while other countries nearly permanently opt for bare-majority governmental coalitions, with some countries even giving preference to surplus governmental coalitions. Secondly, the research provided a report on minority governments using institutional explanations, specifically existence of the system of strong parliamentary committees²⁹.

The latter researcher in «The Events» Approach to the Problem of Cabinet Stability»³⁰, «The Process of Cabinet Dissolution: An Exponential Model of Duration and Stability in Western Democracies³¹» and «Contending Models of Cabinet Stability: A Rejoinder³²» addressed the empirical traditions, unravelling the issues of the governments stability, and viewed the survival of a governmental cabinet as a critical event, an accidental external shock that destabilizes the existing government. Such an accidental shock, S. Mershon³³ argued, follows a process of constant, level of danger for the completion of governmental cabinets forming. In contrast, K. Strom³⁴ identified a set of variations that determine inconsiderable duration of governmental offices, particularly appealing to types of government.

Lastly, G. King put forward a combined model of governmental cabinet dismissals, which combined the «peculiarity approach» by K. Strom and the «event approach», introduced by E. Brown. As opposed to that, P. Warwick in the explorations «Ideological Diversity and Government Survival in Western Democracies» Rising Hazards: An Underlying Dynamic of Parliamentary Government» (Economic Trends and Government Survival in West European

²⁹ Diermeier D, Merlo A., An Empirical Investigation of Coalitional Bargaining Procedures, "Journal of Public Economics" 2004, vol 88, s.783-797.

³⁰ Browne E., Frendreis J., Gleiber D., An "Events" Approach to the Problem of Cabinet Stability, "Comparative Political Studies" 1984, vol 17, s. 167-197.

³¹ Browne E., Frendreis J., Gleiber D., The Process of Cabinet Dissolution: An Exponential Model of Duration and Stability in Western Democracies, "American Journal of Political Science" 1986, vol 30, s. 628-650.

³² Browne E., Frendreis J., Gleiber D., Contending Models of Cabinet Stability: A Rejoinder, "American Political Science Review" 1988, vol 82, s. 923-930.

³³ Mershon C., The costs of coalition: coalition theories and Italian governments, "American Political Science Review" 1996, vol 90, s. 534-554.

³⁴ Strom K., Party Goals and Government Performance in Parliamentary Democracies, "American Political Science Review" 1984, vol 79, s. 738-754.; Strom K., Contending Models of Cabinet Stability, "American Political Science Review" 1988, vol 82, s. 923-941.

³⁵ Warwick P., Ideological Diversity and Government Survival in Western Democracies, "Comparative Political Studies" 1992, vol 25, s. 332-361.

³⁶ Warwick P., Rising Hazards: An Underlying Dynamic of Parliamentary Government, "American Journal of Political Science" 1992, vol 36, s. 857-876.

Parliamentary Democracies»³⁷, and «Government Survival in Parliamentary Democracies»³⁸ provided a sound proof that a combined model is just a special case of combining an entire class of government survival models, on the basis of which P. Warwick and S. Easton³⁹, D. Diermeier and R. Stevenson⁴⁰ proposed absolutely unique models.

In the study «Institutional Arrangements and Equilibrium in Multidimensional Voting Models»⁴¹, K. Shepsle formally identified the institutional structure as a model of the parliamentary committee system. The crucial idea is to impose additional restrictions in the domain of political decision making. K. Shepsle assumed that each legislator was appointed to settle exclusively one issue, hence such an appointment could be interpreted as an option within the parliamentary committee system. It is intuitively evident that a parliamentary committee has exclusive jurisdiction over the problem. On the grounds of J. Kremer's⁴² conclusions, it can be easily proved that equilibrium structures exist for each appointment in the parliamentary committee⁴³, and the basic idea is to have the committees consistently appointed for each individual problem. With each problem corresponding to one scope of the mandates composition, the median voter theorem guarantees that the nucleus exists in that dimension. The final result presents a combination of a sequence of parliamentary committees decisions. Thus, the key methodological idea of this theory is to transform the problem of social choice with no nucleus whatsoever into a more structured problem with the existence of a nucleus.

M. Laver and K. Shepsle⁴⁴ made use of this methodology in the exploration of governmental cabinets. In the light of a coalitional government, the crucial political decision-makers are not committees and individual parliamentarians, but cabinets and parties. M. Laver and K. Shepsle interpreted the outline of the problem (dating back to K. Shepsle's idea) as a model of portfolio allocation among political parties in a government cabinet. Therefore, portfolio owners can unilaterally determine the choice of policy in a certain policy dimension. Researchers attempted to ascertain what conditions of appointment and portfolio allocation are at the core of the majority in the voting «game» for the appointment of a governmental cabinet. In their template there are three political parties A, B and C with ideological positions along two dimensions of politics. Each combination of parties is a potential coalitional government cabinet. Supposing, all two-party coalitions are the majority, then each one-party government is

Warwick P., Economic Trends and Government Survival in West European Parliamentary Democracies, "American Political Science Review" 1992, vol 86 s. 875-887

³⁸ Warwick P., Government Survival in Parliamentary Democracies, Wyd. Cambridge University Press 1994.

³⁹ Warwick P., Easton S., The Cabinet Stability Controversy: New Perspectives on a Classic Problem, "American Journal of Political Science" 1992, vol 36, s. 122-146.

⁴⁰ Diermeier D., Stevenson R., Cabinet Survival and Competing Risks, "American Journal of Political Science" 1999, vol 43, s. 1051-1098.; Diermeier D., Stevenson R., Cabinet Terminations and Critical Events, "American Political Science Review" 2000, vol 94, s. 627-640.

⁴¹ Shepsle K., Institutional Arrangements and Equilibrium in Multidimensional Voting Models, "American Journal of Political Science" 1979, vol 23, s. 27-60.

⁴² Kramer G., Sophisticated Voting over Multidimensional Choice Spaces, "Journal of Mathematical Sociology" 1972, vol 2, s. 165-180.

⁴³ Austen-Smith D., Banks J., Positive Political Theory II: Strategies and Structures, Wyd. University of Michigan Press 2005.

⁴⁴ Laver M., Shepsle K., Coalitions and Cabinet Government, "American Political Science Review" 1990, vol 84, s. 873-889.

a minority government. The idea behind the model is that it models a government as a portfolio allocation to describe the real process of forming a governmental cabinet. For instance, The BA model government is stable, since there is no alternative government in the institutional formation process, even though there is a policy, giving the priority to the policy of the BA government coalition. However, according to M. Laver and K. Shepsle model, this policy does not offer plausible alternatives to BA since it cannot be implemented by the government. Thus, M. Laver and K. Shepsle illustrate that not only portfolio appointments and allocations can be stable, but also stable appointments can be of the minority type. In addition, scholars in the «Events, Equilibria and Government Survival» hint at giving an explanation to the governmental cabinets stability. The researchers have succeeded in addressing all the renowned abovementioned empirical themes. In addition, the methodology of the authors shed light on the issues of agents, forming a specific governmental cabinet. The attraction of the model lies in the fact of supporting the basic characteristics of spatial models using the «beyond the institute» formula, simultaneously adding a sufficient number of structures to explain new theoretical and empirical claims.

However, D. Austen-Smith and J. Banks in the research "Stable Governments and the Allocation of Policy Portfolios"46 confirmed that in case of three parties, the advantages, stipulated by the structural equilibrium of the game, intended to gain portfoliosm, may not exist as such. The following example demonstrates such an exception. In the researchers' version, there is one large D party with 49 percent of seats in the legislature and three smaller parties with 17 percent of seats each. It should be noted that parties D and C prefer cabinet D to cabinets A, B, and AB, while parties A, B, and C, together forming the majority, prefer the BD version government. Concludingly, A and D favour D over C. Therefore, the nucleus of the problem of appointing members is empty. The methodological issues, disclosed by D. Austen-Smith and J. Banks lie in the ability to penetrate into the essence, which cannot be guaranteed by the Laver-Shepsle model. It is worth mentioning that in case of an empty nucleus, there is no empirical content in theory, since it does not imply anything. In this regard, Mr Plott believes that differently placed agenda constraints, outlined in the Laver-Shepsle model are not sufficient enough to avoid major "problems of non-existence" ⁴⁷. The root cause of these problems lies in the use of a nucleus as a political decision concept, whereas a non-cooperative game theory (with equilibrium as a political solution) does not solve similar problems. One might, for instance, re-formulate the structure of Laver-Shepsle model as a non-cooperative model of bargaining in party leadership, yet the literature on government formation does not follow this path, offering a number of alternative structures based on the non-cooperative game theory, instead⁴⁸.

⁴⁵ Laver M., Shepsle K., Events, Equilibria and Government Survival, "American Journal of Political Science" 1998, vol 42, s. 28-55.

⁴⁶ Austen-Smith D., Banks J., Stable Governments and the Allocation of Policy Portfolios, "American Political Science Review" 1990, vol 84, 881-906

⁴⁷ Plott C., A Notion of Equilibrium and Its Possibility Under Majority Rule, "American Economic Review" 1967, vol 57, s. 787-806.

⁴⁸ Diermeier D., Krehbiel K., Institutionalism as a Methodology, "Journal of Theoretical Politics" 2003, vol 15, s. 123-144.

Among those is the Baron-Ferejohn model⁴⁹ or the so-called "legislative bargaining scheme". It is one of the most widespread formal structures in legislative politics research. One of the first direct applications of this model in relation to a particular problem in Political Science is the issue of cabinet-forming, reflected in such studies by D. Baron as "A Noncooperative Theory of Legislative Coalitions"⁵⁰ and "A Spatial Theory of Government Formation in Parliamentary Systems⁵¹". In all variants of the Baron-Ferejohn model, projection is made in terms of the rule that it proposes a respective policy and "benefits allocation" to a group of voters. In accordance with this voting rule, a proposal is either accepted or rejected. In case it is accepted, at the end of the game, all actors receive "payment" according to the offer accepted. If other project is selected, the process will proceed until the proposal is accepted, or at the very end of the game. For instance, a simple version of this model is when there are three political parties without the party, having earned the majority in the parliament. The model presupposes that the bidding party will suggest a minimum-winning coalition, consisting of itself and one additional (additive) party, leaving the third party with zero winnings. The party, proposing a coalition provides the potential coalition partner with the number of portfolios, required to ensure political decision-making process. The number of portfolios will be equal to the expected winnings of the coalition partner in case of the the offer rejection and continuation of the bidding. Bids are always accepted in the first round. Therefore, the proposing party maximizes its payment by selecting one of the parties with the lowest value of the bidding continuation as a coalition partner to form a coalitional governmental cabinet.

Another vivid example of a two-period model is the one with three parties sharing one hypothetical pie in the form of a governmental cabinet. If the pie is not divided after two negotiation periods, neither party receives anything. Provided each party holds an equal number of seats and in the course of each negotiation period for the government formation the probability of any of both to be selected as an initiator of a governmental coalition is proportional in order to increase its share, that is, each party is selected with an approximate probability of 1/3. In the final negotiation period, each of the recognized formators will offer to get the entire cake, without allocating anything to the remaining two parties. This offer will be accepted by other parties. Consider a case when each party approves the decision during one negotiation period. If the offer is rejected, the probability of each party to be selected as a formator in the second negotiation period equals to 1/3. However, we have illustrated that in this case a formator gets the entire cake. The expected benefit of rejecting the offer is one-third for each party. Such an expected payment is called the "value of continuing negotiations" on forming a coalitional governmental cabinet. Therefore, the Baron-Ferejohn model has numerous methodological advantages over the Laver-Shepsle model. Due to the non-cooperative equilibrium of the game

⁴⁹ Baron D., Ferejohn J., Bargaining in Legislatures, "American Political Science Review" 1989, vol 83, s. 1181-1206.

⁵⁰ Baron D., A Noncooperative Theory of Legislative Coalitions, "American Journal of Political Science" 1989, vol 33, s. 1048-1084.

⁵¹ Baron D., A Spatial Theory of Government Formation in Parliamentary Systems, "American Political Science Review" 1991, vol 85, s. 137-165

theory, competition exists even in an environment with an empty nucleus. These peculiarities make the model suitable for political analysis. However, compared to the Laver-Shepsle model, this model is much more complicated, especially if we overlook the allocation of the environment and focus on political advantages. In this respect, only the simplest environment with three symmetric parties can be reasonably controlled. Besides, this model concerns solely coalitional governments formation, not the government stability.

These methodological shortcomings of the Laver-Shepsle model along with technical claims to the Baron-Ferejohn model determined the search for alternative models, concerning the coalitional government agreement. The demand for a change in the approach to coalitional government research originated in the model by M. Morelli ("Demand Competition and Policy Compromise in Legislative Bargaining^{52"}). In terms of the given approach, agents do not make consistent offers (like in the Baron-Ferejohn model), yet require compensation for their participation in a certain coalition. It is apparent that it is the President to choose the first formator. However, if no coalition variant emerges after all the players have put forward their variants, the new formator definitely satisfies his own political needs. Instead, the previous requirements become invalid until a common set of political demands is supported by the majority governmental coalition. The rules of the game are randomly determined by those who have not yet demanded a proportional likelihood of recognition of a future governmental coalition. So, unlike the Baron-Ferejohn model, in case of this model, formators do not receive any benefits. Intuitively, each party has the same market power of its demands to change the game, and this is reflected in the equilibrium results.

An alternative approach was suggested by A. Merlot⁵³, being based on the work "A Stochastic Model of Sequential Bargaining with Complete Information⁵⁴". Similarly to the Baron-Ferejohn model, in the model by A. Merlot, a number of players make an agreement on absolutely divisive payments, making offers only after being recognized. If the offer is accepted by all the parties or government groups, the bargaining is ceased. However, there are two differences. Firstly, all players must agree on the offered allocation. Secondly, the value of the prize (or allocation) is altering over time. M. Merlot treats such a variable as a change in general expectations in regard of the elected governmental coalition duration. M. Merlot and C. Wilson in the exploration "Efficient Delays in a Stochastic Model of Bargaining" demonstrate that such a game has a constant unique level of equilibrium that meets the allocation principle: every equilibrium pay vector must be efficient; the set of cases with all the parties agreeing must be irrespective of the formator. With respect to changing payments, the model implies that in some countries parties are more secured against disruptions, concerning the coalitional agreement. Therefore,

Morelli M., Demand Competition and Policy Compromise in Legislative Bargaining, "American Political Science Review" 1999, vol 93, s. 809-820.

⁵³ Merlo A., Bargaining over governments in a stochastic environment, "Journal of Political Economy" 1997, vol 105, s. 101-131.

⁵⁴ Merlo A., Wilson C., A Stochastic Model of Sequential Bargaining with Complete Information, "Econometrica" 1995, vol 63, s. 371-399.

⁵⁵ Merlo A., Wilson C., Efficient Delays in a Stochastic Model of Bargaining, "Economic Theory" 1998, vol 11, s. 39-55.

bargaining due to disruptions may occur even in equilibrium. Unlike earlier calculations, which have long interpreted the formation of a new governmental cabinet as evidence of a coalitional crisis⁵⁶, M. Merlot and C. Wilson have shown that disruptions may be optimal in terms of coalitional parties. In addition, there is one common feature of the models by M. Morelli, A. Merlot and C. Wilson, bringing them closer to the empirical data. For instance, M. Morelli's approach is stipulated by V. Hamson's law, which presupposes that cabinet portfolios among members of the governing coalition should be allocated in proportion to their normalized percentage of seats. Contrary to that, the Baron-Ferejohn model fails to explain this regularity, since it implies a formator's benefit, even regardless of the portfolio allocation⁵⁷. M. Morelli's model does indeed imply the Hamson law, because the choice of a formator is fulfilled proportionally in order to increase the percentage and chances of parties. A. Merlot and C. Wilson also presuppose a portfolio allocation, resembling the Hamson law in case of patient parties. Provided parties are impatient, the formators are capable of earning higher rewards.

Another variant of rather an efficacious model of coalition bargaining was suggested by D. Baron and D. Diermeier in the work "Elections, governments, and parliaments in proportional representation systems"58. Their model focuses on an environment, where parties come to an agreement not only on allocation rewards, but also on multidimensional implementation of the political process. The formator party is selected on the basis of the proportional distribution of mandates. It chooses a governmental "proto coalition" 59, i.e., a list of parties that agree to negotiate under the unanimity rule. If the proposed coalition agreement fails to win a majority in the parliament, the interim government pursues the status quo. Bargaining within a proto coalition is effective, leading to a unique outcome of the political process, in its turn guaranteeing that no matter how structured the coalitional bargaining process is, parties must agree on effective policies. Herein, unlike previous models of coalitional bargaining, the policy position is independent of the details of the bargain formation process, particularly the likelihood of acceptance and devaluation of political factors. In fact, it depends on ideal positions of the proto coalition members. This fact enabled D. Baron and D. Diermeier to incorporate their model of governmental coalition formation into a more complex and complete equilibrium, a model that includes elections on a proportional representation basis and analysis of the dynamics of the political process in legislative periods.

Generally, on the grounds of coalition models research, it is worth stating that there are several basic approaches to classifying coalition policy models. From the perspective of A. Antoshevsky, two main directions should be distinguished from the overall array of theories, namely formal and empirical. Formal theories assume that coalition policy is a form of game,

⁵⁶ Strom K., Contending Models of Cabinet Stability, "American Political Science Review" 1988, vol 82, s. 923-941.

⁵⁷ Gamson W., A Theory of Coalition Formation, "American Sociological Review" 1961, vol 26, s. 373-382.

⁵⁸ Baron D., Diermeier D., Elections, governments, and parliaments in proportional representation systems, "Quarterly Journal of Economics" 2001, vol 116, s. 933-967.

⁵⁹ Axelrod R., Conflict of Interest: A Theory of Divergent Goals with Applications to Politics, Wyd. Markham Pub. Co. 1970.

whose participants apply appropriate strategies, aimed at maximizing benefits and minimizing "costs". Opposed to that, empirical theories take into account not only arithmetic (mathematical) variables, but also a number of other factors: political traditions; long-term strategies of parties, assessed as potential participants in possible governmental coalitions; the system of relations in parties and intra-party conflicts; their leaders' ambitions and relationships among party elites; the nature of the political regime; internal (endogenous) and external (exogenous) factors, and the like⁶⁰. T. Shmachkova, for her part, believes that all theories of government coalitions should be regarded as formal and should be divided into two groups, depending on: the impact parameters or importance of the actors, joining efforts to form coalitions in diverse configurations; a degree of political closeness of actors in a situation, favorable to coalitional interaction⁶¹. These approaches are quite similar in practice. Moreover, they refer to the same models, differing only in the interpretation of coalition indicators in governmental activity. As A. Romanyuk argued, it is worth asserting that the existing models of the governmental coalition theories are classified into two groups: pragmatic, taking into account the number of mandates, held by potential coalition party-members in the first place, the formation of governmental coalitions; ideological, giving priority to the degree of ideological closeness (compatibility) factor and competition of potential partners in a governmental coalition.

The basic model in the former group is a minimum-winning coalition, which stipulates that a government can be formed on the minimum-number-of-participants basis, the main prerequisite being the fact that their joined efforts will provide at least a minimum, yet a majority in the parliament. For this reason the minimum-winning coalitions "do not take passengers aboard," consisting solely of parties whose parliamentary votes are essential for the majority instead⁶². In the present model, governmental control is understood as a kind of reward for those entitled to form it. Respectively, the minimum membership is explained by the desire to reduce the number of participants to divide the reward. Therefore, the resignation of the entire governmental cabinet occurs with even one party with the lowest number of votes leaving the coalition. Simultaneously, it is noteworthy that parties in the minimum-winning coalition model view joining the cabinet as a self-sufficient goal. It means that having joined the government, the party thus fulfilled its political task and its further role in the government should be restricted to purely instrumental, being a condition of retaining a seat in the government the next time. Pertaining to such a pragmatic conduct, programmatic provisions and previous political declarations do influence the party behaviour, however, their role is secondary. Hence, the formation of a minimum-winning governmental coalition requires from its members: to seek natural allies to form a parliamentary majority; to understand essential directions and

⁶⁰ Antoszewski A., Koalicje gabinetove w Europie, [w:] Bokajla W. (ed.), Politologia XX. Studia z teoriji polityki, kulturzy politycznej i myśli politycznej, Wrocław, 1996, s. 59-60.

⁶¹ Shmachkova T., Teorii koalitsii i stanovleniye russkoy mnogopartiynosti. Metodiki ratsionalizatsii politicheskogo protsessa, "Polis" 1996, vol 5, s. 32-33.

Gallaher M., Laver M., Mair P., Representative Government in Western Europe, Wyd. McGraw-Hill Education 1992, s. 186

goals of their future activities; to allocate positions in the coalition government and coordinate its agenda of activities⁶³. An additional model for the first group is the model of surplus coalitions. A government is regarded as a surplus coalition in case it is formed of two or more political parties that, in total of their parliamentary seats constitute a parliamentary majority, provided that the exit of a separate party (-ies) with a surplus (additive) status in the coalition from the majority does not lead to the governmental coalition majority collapse. Among the main reasons for the formation of surplus coalitions the following are to be mentioned: a desire to guarantee the security of twinning cabinets status with some parties being considered unreliable⁶⁴; a desire of a particular party to take a position within a governmental cabinet, hence strengthening its own position by means of government weight; other specific conditions.

Underlying the second group of theories is the understanding that forming a coalitional government implies that ideological proximity (a kind of "range") of future partners in a government coalition should serve as a criterion whether to join a coalition. The "range" means the ideological proximity of parties within the "left-right" spectrum. As a result, such coalitions are ideologically more powerful in the sense that they consist of parties, having the closest position on ideology, possible in the party spectrum. In this model, the party's joining a government coalition is seen as a mechanism, allowing the party to achieve the declared political goals, and the coalitional interaction within the government will not contradict it. Although, it should be emphasized that this situation is extremely rare and governmental coalitions often shift from the minimum range of activities to the desire to gain portfolios in a cabinet. Accordingly, it is possible to form governmental coalitions from diverse in the left-right spectrum parties.

Such a contraposition of the two fundamental models of governmental coalitions is, undoubtedly, only hypothetical in its "pure form". In practice, both models are more frequenty manifested in their mixed version, differing only in the dominant, either pragmatic or ideological. Herein, the minimum-winning government coalitions are above all formed from the perspective of gaining power, being simultaneously ideologically compact. A. De Swaan drew attention to this, pointing out a minimally coincidental winning coalition. The scholar emphasized that the activities of parties in the parliament are conditioned by the desire to determine the directions of the governmental cabinet policy, regarding the party priorities and obligations to voters. Therefore, the party is making an attempt to become the cause of the victorious coalition, to which it belongs and due to which it hopes to pursue a policy as close as possible to its own⁶⁵.

Herein, the smaller the ideological distance between potential coalition partners, the greater the chances of forming a government coalition. The given model is characterized by the union of a minimum yet sufficient number of parties as close as possible to each other in the left-right

⁶³ Laver M., Budge I., *Party Policy and the Government Coalitions*, Wyd. Palgrave Macmillan 1992.

⁶⁴ Remy D., The Pivotal Party. Definition and Measurement, "European Journal of Political Research" 1975, vol 3, s. 295-298.

⁶⁵ Swaan A., Coalition Theories and Cabinet Formations: a study of formal theories of coalition formation applied to nine European parliaments after 1918, Wyd. Elsevier Scientific Publishing Company 1973, s. 25.

spectrum, provided the ideological criterion is decisive in the process of its forming a coalition government. B. Grofman, being a proponent of such an idea, argues that the number of dimensions, typical of a particular party is irrelevant. The process of government formation, governed by the party's desire to create a coalition with a minimal ideological differences, is implemented in successive steps⁶⁶. The process proceeds until a government coalition is formed. Theoretically, the scholar recognizes that the coalition government is in no need of control over the legislative majority, yet in practice he concurrently makes a reference to the criterion of the majority, made of MPs from parties, being members of governmental coalitions in the parliament. On this assumption, J. Budge and M. Laver concluded that the centrist party, or an "effective political dictator,"67 is the most likely to form a governmental coalition of ideologically close parties, since it possesses better better opportunities to involve ideologically close partners. Additional factors include a size of a potential government coalition, as well as a size of a centrist party⁶⁸. Ultimately, this presupposes that an ideological model of governmental coalition formation is possible where inter-party ideological differences are not as striking as to block governmental coalition formation. Ideological determinants are therefore able to influence arithmetic speculations and calculations of potential coalition partners and, accordingly, generate political leverage by compelling politicians to form government coalitions, or otherwise by allowing them to rationalize the party positions. In addition, the factors identified in the research on government coalitions modelling are far from exhaustive, and therefore our suggested order of presentation is arbitrary and should not be perceived as a certain gradation, based on the influence ranking. Especially, given that these or the other factors may operate as a whole, or or in arbitrary combination, determining the specificity of the coalitional process development within each country.

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⁶⁷ Budge I, Laver M., The Policy Basis of Government Coalitions: A Comparative Investigation, "British Journal of Political Science" 1993, vol 23, s. 501.

⁶⁸ Warwick P., Coalition Government Membership in West European Parliamentary Democracies, "British Journal of Political Science" 1996, vol 26, s. 475-476.

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