

The Theoretical Analysis of Factors Stimulating Cross-Border Cooperation between Regions

Abstract

Cross-border cooperation can bring benefits from the economic point of view and lead to the Pareto-like improvement. The theoretical analysis shows that regional institutions will not establish cross-border cooperation in each case. The lack of such cooperation can also take place even if it allowed reducing disadvantages stemming from peripherality or achieving benefits from public servicing. There are three main reasons for that: difficulties in partners' cooperation (prisoner's dilemma), political problems in the participating regions and an excessive centralisation with the provision of regional services with one or several partners.

The conducted analysis allows identifying factors which will influence cross-border cooperation in a positive way. These factors are presented in the form of hypotheses. However, it should be noted that these factors can but not necessarily have to contribute to the success of the venture. Hence, the recognition of the factor alone tells nothing whether and to what extent it affects the success of the cooperation project. What really matters is that the identification of the factor affects the fact that the problem does not occur nor has any negative influence on the project realisation.

Introduction

The aim of this article is to present the theoretical foundations for empirical verification of factors that stimulate cross-border cooperation between regions. The analysis takes consideration for different economics theories, such as game theory, new institutionalism, political economics and fiscal federalism.

It is very essential for the analysis to make an assumption that the cross-border cooperation is not a goal per se, and the rationale for the cooperating regions is to make an advantage out of it. From the economic point of view, these advantages consist mainly in overcoming barriers stemming from their peripherality or in an increase in labour productivity for public services. Other goals encompass, among others, an improvement of good relations, the reinforcement of European integration etc. In this sense cross-border cooperation can lead to the Pareto-like improvement (Kux et al. 1997). However, not every single project of cross-border cooperation that is expected to bring positive effects for the parties involved can be carried out smoothly. Both the theory of economics and experience of recent decades provide the evidence for that.

For this reason the remaining part of the chapter deals with two questions. Firstly, based on the theory of economics it attempts to explain why cross-border cooperation is not undertaken although it brings benefits to all parties involved. Secondly, based on this analysis the conditions affecting the result and stability of the cooperation process will be identified and thereby provide the hypotheses for further research.

In order to make the topic more understandable it is essential to distinguish between three layers within which it is possible to trace the impact on benefits flowing from cross-border cooperation. These include:

- 1) **Relations between the cooperating partners:** the mutual influence within the cooperation process between the participating regions or their representatives;
- 2) **Processes inside the regions:** the influence from political processes taking place in the participating regions;
- 3) **The division of competences and financial resources inside the country:** the influence exerted by regional or local institutions and offices which participate in a particular cross-border project and do not possess necessary competences and finance to carry out cross-border projects alone. Hence, high-level institutions or offices should be involved in the project.

1. The relations between the cooperating partners

This chapter deals with the factors that stimulate cross-border cooperation between participating regions. We begin with the reasons why the project of cooperation fails to be initiated, though it would bring benefits for participating regions. The project's failure can be then attributed to the features of the project. Making the project of cooperation go can be mainly problematic when it

displays the features of the public good or when specific investments from one of the participants are required. In all the remaining cases the failure of the project of cooperation from the viewpoint of the theory of economics can be only explained by means of another approach (eg. intraregional processes).

The subchapter below explains both reasons which can lead to the failure of the project of regional cross-border cooperation by means of the game theory model called the **prisoner's dilemma**. This approach was selected as it provides a standard model for a presentation of similar situations because of its precise formulations concerning possible results of the problem of cooperation. Based on this model, factors decisive of the cooperation initiation will be determined. Should these factors occur, then a positive fulfilment of the project of cross-border cooperation should be taken into account.

1.1. The project of cooperation as a prisoner's dilemma

The debate in this chapter concerns two identical regions A and B, which belong to different countries, but share the same border. Both regions intend to implement the project of cross-border cooperation that brings benefits to both parties. In addition, in order to simplify the analysis two further assumptions are made:

- 1) Each region is represented in the negotiations with the partner region only by one representative, whereas the results of negotiations shall be implemented in each region.
- 2) On account of the project there is so called fiscal equivalence established in both countries. It consists in that in both countries the circle of the project beneficiaries coincides in the possibly largest extent with the population of the negotiating territorial unit, which additionally owns required qualifications and financial means.

The theoretical model of the prisoner's dilemma describes the situation in which two players¹ decide not to cooperate, although this cooperation would be profitable to both of them, and would mean the Pareto-like improvement. A very important assumption for the model is that indeed both players negotiate and come to agreements or sign contracts, whereas later they make independent decisions whether to stick to these agreements or not. In the game theory this assumption consists in a belief that it is impossible to take any binding commitments by means of communication alone when there is no superior authority to implement these agreements (Holler, Illing 1991).

¹ For the debate it is not important whether the game individuals (cf. Ostrom 1990), enterprises (Weder 1989), countries (Martin 1994) or – like in the case under debate – regions.

Similar argumentation is shared by the representatives of new institutionalism: since international relations cannot be given a guarantee by any world's superior authority, there is no institution that could ensure the implementation of treaties at the international level (Richter, Furubotn 1996, p. 464). This argumentation can also be used to make agreements between regions that belong to different countries. Contrary to the country's internal cooperation, regions cannot be forced by any superior institution to respect agreements.

The possible choices in the prisoner's dilemma situation for both regions A and B are presented in Table.

The payoff matrix in the prisoner's dilemma situation

		Region B	
		cooperation	lack of cooperation
Region A	cooperation	b ; b (1)	d ; a (2)
	lack of cooperation	a ; d (3)	c ; c (4)

where: $i = a, b, c, d$ – payoffs (benefits minus costs) for region A and region B
(on the right side) $a > b > c > d$.

The negotiations between region A and region B concerning the realization of the project of cross-border cooperation specify the magnitude of benefits that the project will bring and inputs that both partners will have to bring into the project. After the completion of negotiations, the negotiators return to their own regions and decide whether they should stick to agreements that were made or not. In other words, the question is whether they should collaborate or not. They do not know either, if their negotiating counterpart is going to abide by concluded agreements. In four fields of the matrix are given payoffs (i.e. benefits minus costs) that regions A and B would obtain for different combinations of decisions.

Although the reciprocal cooperation (1) is for both partners more advantageous than the initial situation (4), simply because $b > c$, both partners will not decide to fulfil the agreement and therefore the project of cooperation will fail to succeed. The representatives of the regions do not know whether their counterparts will keep with resolutions that were undertaken. Irrespective of

that, though, for both partners the strategy that brings them greater benefits is the lack of cooperation, because it is connected with bigger payoffs. It is so because if one of the partners decides to cooperate, then the lack of cooperation has bigger payoffs – these are field 2 and 3 in the game. If region B takes the decision to cooperate, then region A gets payoff b , if it also cooperates, but payoff a if it does not cooperate. Since $a > b$ there arises an incentive to avoid cooperation. This is a classical free riding problem. If the partner does not decide to cooperate, then the lack of cooperation includes bigger payoff. If region B chooses not to cooperate, then cooperation will bring payoff d to region A, whereas the lack of cooperation – payoff c . Since $c > d$, region A will choose not to go into cooperation in this case. The similar reasoning can be applied for region B, which means that the Nash equilibrium will be reached in field (4), as both regions will choose not to cooperate independently from each other. The optimum Pareto-like solution that can be found in field (1) will not be then chosen.

The prisoner's dilemma occurs only in certain specific circumstances. Thus, it seems necessary to explore the underlying reasons for this dilemma in the situation of cross-border cooperation. In the first place one should mention here public goods and specific investments related with the project of cooperation.

1.2. The project of cooperation as a public good

The first explanation for the prisoner's dilemma situation is that a **public good** comes at stake once the project has started. This is such kind of good which while being consumed (used) by one person can be simultaneously consumed (used) by other people (Begg, Fischer, Dornbusch 1997, p. 465). The most important features of public goods include the facts that:

- one person can consume a given good and its amount accessible for others is not diminished;
- it is not possible to exclude anyone from the participation in its consumption without bearing prohibitive costs of such action.

In case of two neighbouring regions A and B that belong to different countries there comes a danger from the very beginning that each public good which will be provided by one region will also be used by another region. One should also bear in mind that there are specific public goods which can be only used by the inhabitants of the supplying region; any possible inclusion of the citizens of the neighbouring region is at least possible (eg. education).

With this regard, in the case of cross-border cooperation only such goods will be recognized as public goods if no inhabitant of both regions is excluded from the possibility of using them (eg. activities aimed at preserving clean air).

This feature also constitutes the reason for the appearance of the prisoner's dilemma. Since a public good can be used by citizens of one of the two regions when the region does not participate in its production there exists no incentive whatsoever so that this region gives any input in the production of public good. Region that denies cooperation has to be aware of the fact that public good in this case will not be produced in the amount adequate to the Pareto optimum (Olson 1985). As long as the benefits of free riding will outpace the benefits calculated after the costs have been subtracted in the case of mutual cooperation, there exists an incentive for a free riding situation. Since this situation looks alike from the viewpoints of both parties, there is no interest in supplies of public goods.

This case of the lack of cooperation on both sides can only take place when supplies of a public good do not depend on participation of both regions. A good example for that is an activity aimed to liquidate the air pollution that need to be undertaken independently by both regions, although both regions benefit from this activity². However, in the situation when cross-border road connection is planned, within the framework of which each region has to build a certain piece of the road on its territory, the fare-dodger behaviour will not constitute a rational strategy anymore, because the construction of the piece of road does not bring benefits.

1.3. The project of cooperation that requires specific investments

The project of cross-border cooperation cannot prove successful either, when it admittedly shows some characteristics of a private good (i.e. it is possible to exclude other people from the consumption of a given good), but the structure of payoffs suggests that the prisoner's dilemma is the case. The starting point for this type of debate is the work of the advocates of the neo-institutional school, and its leading representative Williamson (1990) in particular. He takes an assumption that a human being behaves not only opportunistic, but also his **rationality is bounded**.

Apart from opportunism, there comes another factor that limits an implementation of contracts, i.e. bounded rationality and related **incompleteness**

² Similar situation occurs when two regions want to provide two different public goods and make an agreement that each region supplies one of the public goods for both regions.

of contracts (Williamson 1989). The notion of bounded rationality means that as a rule people act rationally as they strive for the maximisation of their benefits. In reality, however, their rationality is bounded, because knowledge they need to acquire is too expensive for them or completely impossible in the face of future occurrences. In addition, people possess limited abilities to process the information (Williamson 1990, Richter and Furubotn 1996). Due to this, their bounded rationality leads to the incompleteness of contracts since not all occurrences, which can affect the provisions of the contract can be predicted, or taking all possibilities into consideration would involve high transaction costs.

If the project of cross-border cooperation that shows the features of a private good is to be carried out, then the human characteristics will be manifested in bounded rationality and opportunism, so that the future is uncertain (Williamson 1990, p. 64):

- Economic entities only have bounded rationality and do not possess knowledge about all future occurrences in the world (primal uncertainty). When today two regions decide to carry out the project of cross-border cooperation, their representatives do not often know what can happen in the future and affect the provisions of the contract eg. an unpredictable growth of costs.
- Opportunism of prospective collaborating entities cannot be excluded. Therefore, there exists the uncertainty about how the partner of cooperation will behave in the future. Uncertain is not only whether the partner of cooperation will keep with what has been agreed, but also whether given unforeseen occurrences that cannot be regulated in the contract he will collaborate (voluntarily) or will want to use the situation to his own advantage.

Initially, all this seems unproblematic with the projects of cross-border cooperation, which show the features of a private good. Since the region (or its inhabitants), which is not inclined to cooperation can be excluded from the use of this good, there exists no incentive to opportunistic behaviour, nor to fare-dodger situation. It is true until each cooperating region can stop the cooperation with the cross-border project at any time and at no big cost if the partner region puts the end to collaboration. Such a situation occurs when none of the regions undertook **specific investments** that were foreseen for the project of cooperation (Williamson 1990, p. 64.) As specific investments one assumes investments that are undertaken with relation to a specific project and in case the project fails to succeed they cannot be used in an alternative way, which means they will be wasted.

Specific investments usually cause problems when they are undertaken by only one partner (eg. region A). In this case region B can behave opportunistic, because region A has no possibility of the alternative use of the specific investment once the cooperation fails to succeed. Then region A finds itself under pressure as region B can withdraw from the arrangements and demand amendments in the contract or in the case of unforeseen changes in its environment transfer the costs of adjustment to region A instead of proportionate participation in the costs. If the costs are lower than the total loss related to a specific investment, then region A will have to accept these demands.

In the case of specific investments one of the participating regions can try a „free riding” strategy at the expense of another region. When the region, which undertakes a specific investment, anticipates the possibility of opportunistic behaviour of the partner region, there is a danger that the cooperation will fail to turn successful, although it would be beneficial to both parties. The reason for that is the incompleteness of contracts determined by bounded rationality that results in that human opportunism can be avoided at the price of increased risk or higher transaction costs. In the latter case the failure of the project of cooperation can be admittedly avoided, but then one cannot exclude that the transaction costs will be in excess of a potential increase in benefits from the cross-border cooperation (eg. from a growth of effectiveness of providing public services).

2. Factors affecting the cooperation in a positive way

Despite pessimistic expectations of the theory, in reality one can often be a witness to cooperation behaviour. Thus, a question arises why cooperation is eventually achieved or whether there are any factors that exert their positive influence on cooperation behaviour and thereby decrease the amount of transaction costs. From the economic point of view in the first place one should identify the factors, which will change the structure of payoffs given the prisoner’s dilemma situation so that the lack of cooperation does not correspond to the Nash equilibrium any longer (in this way it stops to be the prisoner’s dilemma) and, consequently, they will result in cooperation. In addition, these factors can play a certain role in cooperation, which can be hardly presented in economic terms, at least in terms of costs and benefits.

The “environment”, in which the project of cooperation is to be carried out, has a marked impact on cooperation behaviour. Previous debate was based (implicite) on the assumption that the cooperation is only limited to this single

project and therefore it is not considered in a broader context. In this sense, neither experience from previous projects nor interest in further projects would play any significant role. Also contacts between the participating regions and their representatives (eg. from the institutions of cross-border cooperation), impressions of cooperation and experience with persons who had nothing to do with projects of cross-border cooperation were not taken into account. In the following subchapter, greater attention will be paid to the environment. Also hypotheses concerning which factors in the relations between the participating regions and their representatives will have a positive impact on cooperation will be formulated.

2.1. The number of participants

The previous and following debate was based on the assumption that the project of cooperation will be carried out only by two regions. In the practice of cross-border cooperation a larger number of entities often participate, that is more than two regions or communes that engage in the financing and realisation of the project. Basically, the entire discussion conducted in this subchapter also applies to the situation when more than two parties are involved in the realisation of the cooperation project. It is believed that a growing number of project participants hinder the realisation of the project (Olson 1985). This reflects the relationship according to which the more participants the less important the input of each of them in success of the entire project and thereby in benefits that it brings. Such a situation arises when the investments made by each participant are not exactly specified as the decision about the realisation of the project is taken. Then, an incentive to bring in "an adequate share" is smaller and each of the participants hopes to get his share of benefits, no matter to what extent he contributed to the success of the whole undertaking. Additionally, an increasing number of partners could make the negotiations largely more difficult through arrangements what actions should each of the participant undertake or to what extent he will use the gains of cooperation. If the number of participants is growing, so does the number of ideas about an "appropriate" division of outlays and effects, which have to be reduced to the common denominator (Libecap 1989).

2.2 The possibility of future cooperation

The perspectives of success of an individual project also strongly depend on the fact whether the cooperation will be limited to one project or there are prospects for future cooperation that brings benefits to both parties. In this case

the short-term benefits from the fare-dodger strategy adopted within the actual project will be accompanied by possible losses in the future. These losses arise when the partner region is not ready for future cooperation (at least for a certain period) due to the actual lack of cooperation and thus potential profits to be gained from future cooperation cannot be achieved. If these losses are bigger than today's benefits gained from the no cooperation situation, then the „fare-dodger” strategy is not optimal.

In accordance with the game theory (Axelrod 1984; Gibbons 1992), an assumption that future cooperation is possible is insufficient. The number of cooperation possibilities has to be rather infinite or the partners cannot know when the last possibility of cooperation is available. This argument is important since given a known number of future cooperation possibilities for the last case of cooperation the fare-dodger strategy is rational. The partner regions anticipate such behaviour and will not cooperate also for the last but one project, as for the last project they cannot reciprocate the lack of cooperation to the partner region (because none of the regions cooperates for the last project). This way of thinking can be continued until the first cooperation possibility within the limited number of possibilities. For this reason, cooperation can only then be developed if it is unknown when the last cooperation possibility is available. However, experimental research show that a cooperation behaviour can also appear when the last cooperation possibility is known since the very beginning of the game (Ostrom, Gardner, Walker 1994). Thus, it should be assumed that the presence of further cooperation possibilities alone affects positively the chances of success of the current cooperation project irrespective of the fact whether they will be available endlessly or not.

Whether the possibilities of cooperation really exist remains uncertain. Therefore, as a rule the partners will value lower the prospective profits from cooperation projects than the current profits (eg. today's profits can be invested and bring additional earnings). The lower an interest rate the bigger importance attached to future cooperation. As a result, an incentive for cooperation will grow stronger with an increasing importance of prospective possibility of cooperation. If the future is of greater importance, then future losses in relation to gains available today are bigger compared with the situation when the future is of lesser importance.

The importance of the future can be increased with a gradual realisation of projects. The point is to divide the whole project of cooperation into a few phases that will be completed one by one. This allows the partners to take minor steps instead of one major step, and thereby increase an incentive for cooperation in particular phases (Axelrod 1984, p. 132). In addition, a good point in a gradual realisation of the project is that a loss for a cooperation partner

in case of the cooperation collapse will be smaller than if the whole project has been carried out from the very beginning³.

2.3. The possibility to use sanctions

Within the framework of the earlier conducted discussion there appeared an issue of the possibility to use sanctions upon the lack of cooperation from the partner. The possibility to 'punish' the partner region in this case consists in not undertaking any cooperation in further projects. If the partner anticipates sanctions which lower the possible benefits of the no cooperation situation, then the structure of payoffs can change in the way that the lack of cooperation will not bring higher payoffs than cooperation and therefore it won't be the dominant strategy any longer.

In this place a question can arise whether there are any forms of partner's punishment which can be found irrespective of the perspectives of future cooperation and which are also effective when first the project of cooperation is only planned. One can imagine some ways of achieving that. A form of the partner's punishment can be bringing disgrace on the region that breaks the contract or its representatives through a public announcement of its reprehensible behaviour. This way the region loses its prestige or reputation in the eyes of representatives of other regions or even voters in this region. Such a loss of reputation can be connected with high personal costs, eg. worse cooperation with politicians from other regions who perceive it as an 'unreliable partner'.

Another method to use sanctions against the partner can be an agreement made preventively between the partners before signing the contract (Ostrom 1990). This can be, for example, an exchange of forfeits which in case of a failure in fulfilment of arrangements become the possession of the partner, thereby raising the costs of breaking the contract (Richter, Furubotn 1996).

³ Similar debate was conducted on the grounds of the investments theory (Dixit, Pindyck 1994, p. 319–330). Any investment (eg. a development of a new type of airplane) is of a long-term nature. Due to the changing market situation it cannot be foreseen whether it will be profitable on the time of its completion or not. The solution to this problem consists in undertaking only a part of the investment and after its completion it is examined whether there are any premises to continue the investment (eg. when the airplane has been designed, it is examined again whether it can be sold on the market with profit).

2.4. Avoidance of excessive expectations from the partner

In the previous debate it was assumed that cooperative and non-cooperative behaviour can be easily distinguished from each other. The possibility of differentiation of behaviour is very important as the regions will react to the partner behaviour and use sanctions only if the two types of behaviour are clearly separated.

In fact it is not that simple to distinguish between those types of behaviour. In addition, this differentiation depends on the idea of cooperation that the partner has in mind. As earlier mentioned, at the beginning of the cooperation project it is often not possible to specify precisely what needs to be made by each partner. It happens so, because of bounded rationality typical for human beings. Therefore, it is neither possible to specify whether the service provided by the partner should be considered as a cooperative behaviour, nor which one should be regarded as a refusal of cooperation. The issue seems to be problematic especially when some action, which has not been arranged in the contract and which will need an involvement of both partners, is necessary to be undertaken in order to carry out the project.

In addition, a separation of cooperative from non-cooperative behaviour is strongly dependent on the attitude of the cooperating partners. If one of the partners is committed to the joint project, then he will automatically demand a bigger input from the partner, even if the project does not require such a strong commitment from him. If the partner is reluctant or unable to increase his involvement, this can be perceived as a non-cooperative behaviour and contribute to the failure of the project of cooperation, although it could be carried out given a small involvement of the other partner. When differentiating between cooperative and non-cooperative behaviours it is also important to take into account a readiness to fulfil the commitment, and particularly the possibilities of their fulfilment (Weder 1989, Ostrom 1990). The partners of cooperation should not be burdened with mutual expectations.

2.5. Trust building and social norms

As proved previously, a possible failure of the cross-border cooperation project results from the fact that the game payoffs show the structure of the prisoner's dilemma and therefore the regions decide not to cooperate. There is an assumption made that the participating regions take their decisions independently. In real life, however, people often act in the conditions of personal and social ties and for this reason they do not act independently.

If we take these ties into consideration, then again the mutual lack of cooperation will not provide an optimal solution. Now, a distinction should be made between private ties and social ties which determine some specific behaviour norms.

Within the private relationships between the cooperation partners it can be noticed that more frequent interactions between equal partners can lead to a familiarisation process (Axelrod 1984, p. 80). The longer both partners maintain relationships with each other, the faster cooperative behaviour will appear with the current project. This is explained by the fact that a long cooperation leads to an emergence of some trust among the partners: they expect cooperative behaviour and therefore they are inclined to cooperate themselves (Weder 1989). On the other hand, trust that has been produced on the basis of long cooperation contains a certain degree of commitment as the partner expects – on the ground of previous cooperation – that the cooperation will take place because earlier it took place, too. Such experience implies a partner's engagement in cooperation even if expected benefits are small or none⁴. In this way one can fulfil his commitment from the previous cooperation project or some new commitment for the partner is made implying his cooperation with the project which could be not quite beneficial for him (Lange, von Kulessa 1997). Thus, the matter of cooperation with a given project depends on previous experience with cooperation (David 1985).

For the establishment of such a degree of trust the existence of friendly relationships between the regions or their representatives is not a must. However, it cannot be excluded that the representatives of the region get to know each other better during the realisation of the project or through a joint work in cross-border committees and owing to this establish relationships or even friendships that go beyond official relations. In this case mutual trust becomes even bigger and thereby stimulates cooperative behaviours.

Trust that the partner region will also adhere to arrangements and will cooperate can depend on the existence of social norms. Norms are made by common rules of behaviour shared by certain people (family, society). They form expectations about own and the partner's behaviour and specify which human behaviour is correct and which one is not. From the economic point of view they can be considered as the framework conditions within which various decisions are taken (Coleman 1987). Norms influence the effects of particular activities because if ignored they increase the costs for persons who ignore them (psychic costs) and provoke repercussions from the remaining part of society (that observes the rules). Sometimes it can happen that observance

⁴ In theory it can happen that partner's trust will be abused by lack of cooperation in search for bigger payoffs in the present game.

of a norm stands in way to an achievement of personal interest. In this case the norm will be observed if the costs related to its violation exceed the costs related to the realisation of private interests.

The main reason for the failure of cross-border cooperation consists in that arrangements concluded can be used in an opportunistic manner or failed to be kept because they cannot be implemented by any superior authority. The existence of norms can change this situation for better. If norms provide for sanctions for such behaviour that plays a part in the project failure, then the structure of game payoffs changes as possible benefits from the lack of cooperation are reduced by the costs incurred on account of sanctions imposed on failure to observe norms. As a result, the structure of payoffs can change to such a degree that cooperative behaviour will have a higher payoff. Norms that influence the success of cross-border cooperation projects encompass, for instance, keeping agreements, promises and contracts or condemnation of opportunistic behaviour.

In cross-border cooperation the trouble is that partners come from different countries and that is why they do not necessarily have the same norms. These cultural variations can affect the degree of confidence played in the partner and cooperation with him (Lange, von Kulessa 1997). If norms contribute to an increased confidence in the partner's readiness to collaboration, then both partners will observe comparable norms that concern keeping with agreements or opportunism, and additionally inform each other that such norms are exist and what are the costs of failure to observe them. Next to cultural homogeneity, common language or common history can be an expression of comparable norms.

2.6. Reputation

Trust in the partner can be built not only on the basis of successfully realised cooperation projects or norms. Trust can be also based on the partner's reputation. The partner can be believed to always keep agreements. In this case it can be assumed that with the current project the partner will observe agreements and will cooperate as he used to do previously. However, if he did not keep agreements, then he would lose his reputation. In this case the benefits of free riding would be reduced by possible losses connected with the deterioration of reputation (lower investments, higher transaction costs with future agreements). Good reputation can also replace norms which are not in place in the partner region.

3. The processes inside the regions

3.1. The scope of possibilities of undertaking action for regional representatives

The project of cross-border cooperation can turn unsuccessful not only due to free riding of the participating regions, but also right at the stage of negotiations when the regions fail to come to an agreement about the scope to which each participant will provide services and how he will participate in the division of benefits. Hence, it is of utmost importance whether there is any room for negotiations at all within which an agreement is possible to be achieved, or which factors determine the size of this room.

In order to determine the size of the room for negotiations it is necessary to abandon the assumption that any result of negotiations will be accepted in the participating regions. Instead, it should be rather assumed that an acceptance of the results of negotiations is dependent on political conditions inside the regions as they would need to be ratified by regional parliaments, for example. Such limitations play a very important role during negotiations with the partner region. The negotiating parties accept these limitations as the framework of their activities (Dupont 1994) or try to achieve a balance between intra- and interregional interests by means of simultaneous negotiations in both areas (Putnam 1988).

For simplification reasons the article assumes that regional negotiators accept intraregional political limitations as framework conditions. As concerns the project of cooperation, there is a solution win-set for each region encompassing all possible negotiation results acceptable by the region. The likelihood of concluding an agreement with the partner depends on a convergence of these sets.

3.2. The regional structure of interests

When investigating factors which influence a success or failure of the cooperation project it is also important to analyse what structure of interests will affect the realisation of the project. The interest in the project will be manifested by regional politicians, representatives of regional authorities and citizens of the given region – voters, entrepreneurs, employees and members of regional groups of interest. Each of these groups can have different preferences concerning the planned project. They can be positive, neutral or negative in relation to the project and that is why they find their expression in activities directed towards the realisation of or abandonment from the project.

Whether the interested groups speak for or against the realisation of the project is dependent on specific features. Depending on the project these features will be assessed in the same or in a different way by particular groups. Even if the preferences of particular groups towards the planned project are known, it is not possible – with a different assessment of the project features – to say in a definite way whether the project will be forced through or not. Hence, the chances for the success of the project depend on the fact whether particular groups will become engaged in the realisation of the project.

The explanation of behaviour of different participants in the political process is based on theories of representatives of New Political Economy. In these theories two assumptions are of utmost importance. The first assumption is **bounded rationality** and a related maximisation of benefits which does not merely concern the behaviour of entrepreneurs and consumers, but also the behaviour of politicians and representatives of administration. The second assumption concerns **incomplete information** for the actors involved. As a matter of fact, information is available, but its acquisition is related with costs.

The viewpoint of regional politicians towards the project of cooperation

Leaving aside the cases when the projects of cross-border cooperation are decided by means of a referendum, the attitude of politicians of the regional level is one of the most important factors that exert their influence on whether the region decides to cooperate with the cross-border project or not.

The regional politicians are elected to authorities of different levels (district, city, region) whose term of office is short and that is why these politicians have to compete for re-election. In theory, when taking the decision about the region's possible participation in the project, the politicians should be driven by the rule of „common good”. However, in reality it appears that a „common good” argument plays only a minor role among other arguments. The foundations of theoretical explanation of this behaviour were created by Downs (1957).

In accordance with this theory the politicians elected in a democratic way do not strive to favour the „common good”, but instead they attempt to maximise personal gains, that is to achieve and retain benefits connected with a political office – revenues, prestige or power. However, in democratic systems they find themselves under pressure of re-election. Therefore the main aim of politicians is to maximise the number of votes cast in their favour. Thus, the decisions that contribute to an increase in the number of votes will be more readily accepted than those related to a loss of votes (Downs 1957).

The behaviour driven by the maximisation of votes during elections also concerns regional and local politicians. Thus, it should be assumed that regional politicians will vote for the projects of cross-border cooperation if they expect this contributes to their re-election. The representatives of the political economy school come to the conclusion that the project will be accepted if (Frey, Kirchgässner 1994):

- it brings visible or tangible benefits;
- the realisation date is relatively short (it falls on the present tenure);
- the costs are low or do not become visible until the present tenure has finished.

Therefore the projects of cooperation have to be characterized by a positive relation of outlays to effects so that they can be supported by regional politicians. For a positive assessment of the cooperation project by regional politicians it is not enough that the relation of outlays to effects is on average advantageous for all participating regions. This relation has to be advantageous for each participating region, as the politicians assume that the citizens in their region assess positively only such initiatives, which bring benefits to own region, whereas the initiatives, which cause mainly costs, are assessed as negative.

A positive relation of effects to outlays from the viewpoint of regional politicians can also take place when the costs of financing are not borne at all or borne only partially by the region, for instance, because due to the division of competences the project is financed by higher-level authorities or it gained support from the Community programmes (eg. INTERREG Initiative). Therefore, the regional politicians will prefer such projects that will be financed entirely or partially by other levels of authority. If the money is available merely within a restricted time period, as it is the case of the INTERREG initiative, then there is an incentive to work out and implement quickly the cooperation project together with the partners so that the time frame is maintained and the available subvention is not distributed among other projects.

The project of cooperation from the viewpoint of regional administration

The assumptions made by new political economy, which explains interests and behaviour of administration, concern so called top bureaucrats, i.e. persons ranked at the top of a particular public administration hierarchy. According to them, bureaucrats maximise their own benefits consisting of:

- own income;
- indirect revenues in the form of an apartment, car for a private use, office furnishings etc.;

- power, prestige and social recognition;
- a free of conflicts, quiet and pleasant life.

If we agree to accept that the interests of administration can be at least partially characterized by means of the above elements, then some conjectures about what determines the behaviour of administration and its top bureaucrats can be put forward:

- **The size of the administration budget.** Benefits obtained by higher-level officials depend on the size of the budget at disposal (Niskanen 1975). Therefore, they will attempt to maximise the size of this budget. As a result, we obtain too high supply of public services (ineffectiveness of allocation). A premise to increase the budget is the information asymmetry between administration and politicians who decide upon projects submitted by administration (Wintrobe 1997). Whereas administration knows the readiness of politicians to finance the planned venture, the politicians do not have information on technical nor economic conditions of its realisation. Thus, they are not familiar with the cost function. In addition, administration stands in a monopolistic position towards the government, which means it is the only tenderer of the planned initiative and therefore has a possibility to influence the size and the price of goods demanded by politicians.
- **The size of the discretionary administration budget.** With this approach, benefits gained by authorities do not depend on the size of the administration budget, but instead on the size of the discretionary budget (Migué, Bélanger 1974). Under this notion, one understands financial means which are not allocated for the appropriate functioning of administration and that is why they can be intended for „pleasures”, which in the Niskanen model were growing along with the size of the budget. The premises that administration will attempt to increase its discretionary budget are the same as in the Niskanen model. However, whereas in the Niskanen model, with production minimising costs production and thereby budget are maximised, in this case it is about the maximisation of a „surplus”, i.e. the difference between the officially announced costs and the minimum costs (ineffectiveness of production).
- **Avoidance of behaviour mistakes.** Administration attempts to observe the rules of behaviour, as the risk of failure to observe the rules is too high. The form of sanctions for the failure to observe the rules ranges from the lack of professional promotion in lighter cases to a dismissal from work in heavier ones. On the other hand, the risk involved in taking no decision is small (Frey, Kirchgässner 1994).

Such behaviour of administration is also evident when the cooperation project is to be treated as a priority from the point of view of administration

or it arouses little interest or even an opposition. The effects of the project implementation for administration can be various. On the one hand, it is quite likely that projects of cooperation will lead to an enlargement of the scope of work done by administration, eg. due to the necessary coordination between the regions and their authorities. On the other hand, it is possible to imagine that the cooperation project will result in reduced work done by regional administration. This is mainly dependent on whether:

- (1) it is a project that would be carried out independently if no other regions had joined it, or
- (2) it is a project that could not be carried out without partners' participation.

In the first case there is a possibility that the outlays of administration will be bigger as compared with the situation when more partners participate in the project realisation. In addition, there is a need of coordination of activities between the regional authorities which means further administrative expenditures. However, if two or more regions participate in the project realisation, this means, as a rule, that necessary outlays are split between the administration bodies of the participating regions. What results from the above is that necessary expenditures of administration for the realisation of a cross-border cooperation project can admittedly increase, but for the administration of the participating regions they are still lower as compared with the situation when the region carries out a given project alone. In the second case, when the project could not be carried out without cross-border cooperation, additional tasks for administration should be expected in any case.

Given the administration budget or the possibility of discretionary behaviour are positively correlated with the number of new tasks, the following regularity concerning the interest of the regional administration in a cross-border cooperation project can be formulated: If the regional administration expects an increase in the number of tasks from the cross-border cooperation project, it will be interested in the project and will support it. In the reverse case, one should expect the lack of interest and even a boycott of the project in some extreme cases.

Administration attempts to observe the existing regulations in order to avoid the risk connected with the failure to observe them. It is the field of cross-border cooperation where one cannot exclude that certain regulations are too general or must be avoided, especially when they concern the law of superior authorities. Thus, it should be assumed that in such cases when the project of cooperation requires broad interpretation or avoidance of the existing regulations by the regional administration, the project realisation will be uncertain.

The influence of public interest and regional groups of interest

The previous subchapters dealt with the question of circumstances which stimulate the support or opposition to the project of cross-border cooperation from politicians and administration. However, one important factor which can influence the size of benefits from the viewpoint of politicians and administration was omitted, namely public interest and specifically an attitude of regional groups of interest in relation to the project. As regional groups of interest one should understand such groups of interest, which operate only on the regional level, or regional groupings, which deal with political initiatives such as: business organisations (chambers of trade and commerce, etc.), trade unions, social organisations, environmental organisations, etc.

The previous debate was based on the assumption that benefits from the cooperation project from the viewpoint of regional politicians were strongly felt due to their visibility and tangibility. With such an assumption, public interest has a big influence on effects of the cooperation project for politicians, as visibility and tangibility of the cooperation project is largely dependent on the frequency with which newspapers or radio and television broadcasters will inform about the project of cooperation. As a result of this, critical reports on the lack of advancement in the project of cooperation supported by politicians can be unpleasant for them.

How the project of cross-border cooperation will be perceived by local community depends on the attitude presented by regional groups of interest, eg. with regard to the effects of a withdrawal from its realisation. In addition, the regional groups of interest can exert an additional influence, because politicians and administration are afraid of conflicts with them. For this reason, these groups have some extra possibilities to articulate their interests in relation to regional politicians and administration (Bernhold, Breyer 1994). The groups of interests:

- Are partners in negotiations for politicians and administration and they often take up public functions in regional institutions.
- Possess important information, which in many cases forms conditions for activities of politicians and administration. Although politicians and representatives of authorities can obtain this information themselves, but the cost of its acquisition would be high. The groups of interest are inclined to share their knowledge, however only in return for other benefits. Alternatively, they will transmit the information when it does not prevent them from the attainment of intended goals.

- Can support parties or candidates in elections to regional authorities or other offices or can propose own representatives.

The influence of different social groups on politics and authorities is certainly varied, because the interests of particular groups are organised differently and therefore better or worse articulated and forced. Olson noticed that common interests is admittedly a necessary, but insufficient condition to form a group of interest, as the benefits from activities of the group of interests are gained not only by its members, but also those who do not belong to the group (Olson 1985). Thus, the activity of groups of interest constitutes a common good and therefore not associated persons are stimulated to „free riding”.

However, the groups of interest are formed because there are factors, which exert a positive influence on the organisation of interest. (Bernholz, Breyer 1994). First of all, they include the size of the group that shares common interest. Small groups are better organised, since a refusal of contribution expressed by one person is felt by other members of the group and therefore it is possible to exert an influence on „free riders”, so that they participate in a given undertaking. Moreover, a formation of groups of interest can be facilitated by other factors such as: an obligation of membership (in Germany enterprises have to be associated in chambers of trade and commerce) or negative effects of a political initiative (an introduction of biological fuels in Poland).

These criteria meet mainly the interests of entrepreneurs and employees. The remaining interests of the society (eg. youth problems, the environmental protection) are met to a lesser extent by these criteria. They are more difficult to be organised, also because of the fact that their benefits are distributed among a large number of persons. It is most likely to organise a group of interest where any initiative gives rise to a strong negative reaction (eg. an elimination of social benefits, a construction of a new road).

On the grounds of regional policy and cross-border cooperation this means that the project will encourage a big interest of politicians and authorities and therefore will have a chance of realisation provided it serves the interests of regional economy and employees. On the other hand, the projects which contribute to the realisation of other goals will have smaller chances to be forced in political games.

3.3. The interlinkages between cooperation projects

If it is likely that the cooperation project fails due to the fact that political interests in both regions do not overlap with each other, then a connection of the two cooperation projects can provide a certain solution (Martin 1994).

Let's assume that region A shows a big interest in the realisation of project 1, whereas region B – in the realisation of project 2. If the negotiations are run separately for both projects, then an agreement achievement is not possible, as for instance, for the realisation of project 1 region B would bear high costs which could prevent the re-election of regional politicians. A similar situation takes place in case of region A and project 2. If both projects were negotiated simultaneously, then there is a possibility that the regions make concessions towards each other that would not be possible with negotiations of single contracts. These concessions can lead to the realisation of both projects, although no agreement could have been achieved with separate negotiations. If region B agrees to carry out project 1, the losses on this account will be compensated by gains connected with an approval of region A for the realisation of project 2.

- **The division of competences and financial resources inside the country**

In the previous discussion it was assumed that there is so called fiscal equivalence in the project cooperation which means that in both countries the circle of the project beneficiaries coincides with the population of the particular territorial unit, whereas these units own required qualifications and financial means on the grounds of legally binding regulations. The second part of this assumption will be removed now and the effects for cross-border cooperation will be explored. Hence, the discussion will focus on the consequences for cross-border cooperation of the situation when the regional territorial unit, whose population gains benefits from the cooperation project, possesses alone neither competences nor financial resources and that is why it is necessary to involve a superior entity to carry out the project.

The starting point for the discussion is the region, whose borders overlap to a large extent with those who gain benefits from the cooperation project. The regional decision-makers expect so high benefits from the cooperation project that they would complete it provided they had required competences and financial resources⁵. These competences and resources are possessed by a higher-level authority whose area is several times as large as the area of the

⁵ This assumption makes it impossible that the regional decision-makers demand from the higher-level authorities that the latter carry out the project only because they cannot bear these costs themselves.

region. Hence, an excessive centralisation of the provision of regional public services takes place here, as the circle of the project beneficiaries is substantially smaller than the circle of decision-makers and financing entities. Under such circumstances the region cannot carry out the project in accordance with own preferences. It can carry the project out with a foreign partner only if it can convince the superior authority to agree upon the realisation of the project and the provision of financial means.

Apart from the main problem connected with a centralised provision of public services (R.L. Frey 1977), there is another important problem. The decision about participation in the cross-border project does not belong to competences of the region that gains benefits out of it. Instead, the decision is made by higher-level authorities whose decision-makers usually work a long way from the region and are not familiar with local problems. Here we come to the question of circumstances under which the superior authority will decide to finance the project and when it abandons its realisation. By analogy with the regional level one should speculate that the superior authority will allow the project realisation and will provide financial means only when its politicians expect a positive impact with respect to future elections. The positive impact will include an increase in the number of votes cast by voters from the region where the cooperation project will be carried out. The positive impact on a re-election depends on some factors:

- Whether the voters from the region ascribe the project to their regional politicians or whether they take into account the activities of higher-level politicians;
- Alternatives at hand; if the superior authority has quite a limited budget for cross-border projects of regional units, then the money will be invested in those areas where the highest increase of votes is expected;
- An ability to convince the regional politicians which can be a decisive factor considering that there is an information asymmetry between higher-level politicians and representatives of the region (Akerlof 1970), which implies that the representatives of the region are able to assess better to what degree the regional project will serve a re-election of higher-level politicians. Thus, the representatives of the region need to convince the higher-level politicians that their support to the project of cooperation will have a positive impact on their re-election. First of all, they need to convince them that this project will have a much greater impact on their re-election than other projects, which will not be initiated due to the limited budget;
- The share of the costs of the cooperation project in the budget of the superior authority: if the costs are quite small in relation to the overall budget, then

the superior authority will be more inclined to support the project compared with the situation when the project eats up a substantial part of the budget. Therefore, smaller and cheaper projects are more preferred to big and expensive ones;

- Opposition of particular groups possessing a big influence or effectively affecting the society.

A clear answer to the question, under what circumstances the politicians of the superior authority will support the regional project, is not possible. As results from the above discussion, the project realisation is dependent on political and economic processes at higher levels and the ability of regions to influence these processes.

Bibliography

- Akerlof G.A. (1970), *The Market for „Lemons“: Quality Uncertainty and the Market Mechanism*, „Quarterly Journal of Economics“, No 84, p. 488–500.
- Axelrod R. (1984), *The Evolution of Cooperation*, Basic Books, New York.
- Begg D., Fischer S., Dornbusch R. (1997), *Ekonomia. Mikroekonomia* [Macroeconomics], PWE, Warszawa.
- Bernholz P., Breyer F. (1994), *Grundlagen der Politischen Ökonomie*, J.C.B. Mohr, Tübingen.
- Coleman J.S. (1987), *Norms as Social Capital* [in:] G. Ritzky, P. Bernholz (eds.) *Economic Imperialism*, Paragon House Publishers, New York.
- David P.A. (1985), *Clio and the Economics of QWERTY*, „American Economic Review“ No 75.
- Downs A. (1957), *An Economic Theory of Democracy*, Harper & Brothers, New York.
- Dupont C. (1994), *Domestic politics and international negotiations: a sequential bargaining model* [in:] P. Allan, Ch. Schmidt (eds.) *Game Theory and International Relations. Preferences, Information and Empirical Evidence*, Edward Elgar, Aldershot.
- Dixit A.K., Pindyck R.S. (1994), *Investment under Uncertainty*, Princeton University Press, Princeton.
- Frey B., Kirchgäßer G. (1994), *Theorie demokratischer Wirtschaftspolitik*, Vahlen, München.
- Frey R.L. (1977), *Zwischen Zentralismus und Föderalismus. Ein volkswirtschaftliches Konzept des schweizerischen Bundesstaats*, Herbert Lang, Bern, Frankfurt am Main.
- Gibbons R. (1992), *Game Theory for Applied Economists*, Princeton University Press, Princeton.
- Holler M., Illing G. (1991), *Einführung in die Spieltheorie*, Springer, Berlin, Heidelberg, New York.
- Kux S., Haeffliger Ch., Bossaert D. (1997), *Aufbruch der Kantone nach Europa*, Helbing & Lichtenhahn, Basel – Frankfurt am Main.
- Lange - von Kulesa J. (1997), *The Meaning of Social Capital. Classifying Individual and Collective Effects of Interaction* (manuskrypt niepublikowany).

- Libecap G.D. (1989), *Distributional Issues in Contracting for Property Rights*, "Journal of Institutional and Theoretical Economics" No 145.
- Martin L. (1994), *Heterogeneity, Linkage and Common Problems*, "Journal of Theoretical Politics" No 6.
- Niskanen W.A. (1975), *Bureaucrats and Politicians*, "The Journal of Law and Economics", No 45.
- Olson M. (1995), *Die Logik des kollektiven Handelns. Kollektivgüter und die Theorie der Gruppen*, J.C.B. Mohr, Tübingen.
- Ostrom E. (1990), *Governing the Commons. The evolution of institutions for collective action*, Cambridge University Press, Cambridge.
- Putnam R. D. (1988), *Diplomacy and domestics: The logic of two level games*, "International Organization" No 42.
- Richter R., Furubotn E. (1996), *Neue Institutionenökonomik. Eine Einführung und kritische Würdigung*, J.C.B. Mohr, Tübingen.
- Weder R. (1989), *Joint Venture. Theoretische und empirische Analyse unter besonderer Berücksichtigung der chemischer Industrie der Schweiz*, Roegger, Gruesch.
- Williamson O.E. (1989), *Transaction Cost Economics*, [in]: R.D.Willi, *Handbook of industrial organisation*, Elsevier Science Publishers, Amsterdam.
- Williamson O.E. (1990), *Die ökonomischen Institutionen des Kapitalismus. Unternehmen, Märkte, Kooperationen*, J.C.B. Mohr, Tübingen.
- Wintrobe R. (1997), *Modern Bureaucratic Theory* [in]: D.C. Mueller (ed.), *Perspectives on Public Choice. A Handbook*, Cambridge University Press, Cambridge.