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The evolution of post-communist countries: An interpretation from the perspective of cooperation

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Summary: How do we account for the difficulties that former socialist countries experienced in the beginning of transition? Why is it that some countries performed relatively better (the Baltic and Central European countries) than others (Bulgaria and Romania)? Why in the second half of 1990s, and especially immediately before the EU enlargement, almost all of the former Soviet bloc countries achieved better results? And how can we explain the problems facing the new member-states after they joined the EU and euro funds began to flow in? In short, the basic *hypothesis* we present is the following: both the transition phases and the diversity of trajectories of post-communist countries are the result of the difference in prevailing strategic behaviours. This difference determines the models of cooperation, namely the two main archetypes that of the *prisoner's dilemma* and the *stag hunter*, applied at the socioeconomic context of post-communist transition. These two archetypal societal models are on their part conditional on the existence of external and internal anchors. While with the *prisoner's dilemma*, that became a model of total exchange under the conditions of high social heterogeneity and broken informational channels, it is profitable not to cooperate, under the *stag hunter* model (a model involving a common goal, a common project) advantageous in general are cooperative strategies. The various countries in different phases can be approximated to either one or the other game – the prisoner's dilemma or the stag hunter. A shift to the cooperative game becomes possible as a result of the operation of internal or external anchors. For instance, in the beginning of the transition, with no clear vision in sight amid an outburst of large diversity of economic and social actors, and old system's information channels falling to pieces, the appropriate analytical model to apply would be the prisoner's dilemma. And vice versa, later on, especially when a decision was adopted to join the EU and with pre-accession chapters being opened and closed, i.e. an external anchor emerging, appropriate for analytical reasoning becomes the stag hunter game model.

JEL code: B52, P20, P30, P50
Key words: post communist transformation, cooperation, anchoring

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1

How could we explain the difficulties faced by the former socialist countries in the beginning of the transition? Why some of the countries had poorer results (Bulgaria and Romania), whereas others did relatively better (the Baltic and Central European countries)? How can we explain the higher performance of almost all former Soviet bloc countries in the second half of 1990s? And how do we account for the problems that emerged in the new member-states after they joined the EU and after euro funds started flowing in? What could be the reasons for the cyclic character of the evolution in Russia, Ukraine, Belarus and other former Soviet Republics? The past two decades after the disintegration of the socialist bloc have made it possible to find better answers to these questions and create a greater number and more in-depth analyses. Over these years, the trajectories of evolution these countries have followed, diverging at times, converging at others, have revealed some patterns and grouping, which, today, are actively analysed by both economic and social researchers (for example research on *variety of transition* as a part of the larger discussion of variety of capitalisms[2]).

Indeed, the evolution of transition, as well as its effectiveness, can be analysed within the scope of various approaches and theoretical models. The extensive literature treating the subject of transition[3] usually employs the familiar neoclassical model of analysis (also known as the cost-benefit model). In a number of cases, over the latest years mostly, the neoclassical model has been enlarged and enriched with analysis of institutions, political factors, initial factors, cultural factors, etc. There are also attempts at empirical and econometric analysis of "non-economic factors"; however, these are often quantified in an over simplistic (binary) or, in our view, unclear and misleading form. Of course, there have been publications that make attempt to overcome the neoclassical paradigm, which is in itself an extremely difficult task. Notwithstanding these difficulties, the growing range of approaches renders a multi-perspective view on transition, each of them bringing in some measure of truth and practical benefit. Diversity therefore is promising.[4].

[2] See for example Amable (2005).

[3] I will use the term “transition” as it is conventionally understood due to the fact that this perception has gained popularity, although this term is not the most appropriate one as it leads to an erroneous reading of post-communist evolution as an utmost *simplistic and clear-cut transition*, as a jump to an ultimate state, already *previously known*.

[4] We will mention, with no claim to exhaustiveness, the diverse ideas on post-communist transformation, put forward by Abdelal (2001), Aslund (2002), Beck and Laeven (2005), Colombatto (2002), Chavance (2008), Csaba (2007), Gaidar (2007), Bohle and Greskovits (2007), Marangos (2002), Olson (2000), Pejovich (2003), Polishchuk (2008), Sandholtz and Taagepera (2005), Bundjoulov and Tchakalov, eds. (2008), Winiecki (2004) and others.

2

In this study, while sharing the idea of the benefit of theoretical and methodological diversity, we propose something new – a game interpretation of transition and of the variety of post-socialist trajectories. The question in hand is viewing *cooperation* as a social process. Although it is often noted, and quite obviously so, that the achievements of a given country depend on the level of cooperation of its economic agents (individuals)[5] and that the stronger the common goal of these agents (individuals), the stronger the cooperation, *the cooperation metaphor* is seldom used when analysing the achievements and failures of transition. Indeed, taken alone, the processes of cooperation have long been within the eyeshot of social sciences and the studies on cooperative behaviour are many. What we believe to be lacking is exactly the application of the cooperation models (within the scope of the "big" game models) on transition, or at any rate in the form suggested below. Besides, the relationship between the *social anchor* (external and internal) and the emergence and evolution of cooperation[6] has been rarely studied, although some concrete examples such as the role of the pegged exchange rate, the euro, or the EU itself are often mentioned as kind of anchor-like mechanisms, which "fix" the expectations and behaviour of economic agents in the former socialist countries[7].

In short, our main *hypothesis* is the following: the phases of transition and the variety of trajectories across countries are explained with the difference in prevailing strategies, with the potential for cooperative behaviour (in this particular case within the scope of the two main archetypal games: the prisoner's dilemma and the stag hunter). Cooperative behaviour itself is subject to the existence of external and internal anchors. An anchor emerges for various reasons, most often as a result of crisis. The crisis comes as a resolution of long-existing conflicting and largely non-cooperative actions. An anchor makes it possible to increase the actual value of the future, hence of cooperative strategies. It helps avoid the trap of "the present" and of non-cooperation – a situation well familiar to social researchers (e.g., Elster, 1993 [1989], p. 61).

[5] *Social capital*, etc. are often cited.
[6] See for instance the role of the European Union as an anchor of transition in Ialnazov (2003), and Roland (2000) within the scope of political economy of reforms. See also Tabellini (2007). Some of the literature on European conditionality also deals with the issues of anchoring.
[7] See for instance Ialnazov (2003), Nenovsky (2009).

Whereas the *prisoner's dilemma* applied in the situation of social heterogeneity and noisy environment is developed into the model of exchange and a lack of a common goal, and implies a situation where it is profitable not to cooperate, the *stag hunter* model involves a common goal, a common project, and state of interdependency (one actor need others with the purpose of common project realisation), the cooperative strategies as generally winning. In this particular case, the various countries in various phases approximate one or the other game, shifting to cooperative game as a result of the emergence and operation of anchors. For example, at the onset of transition, with no clear vision or common plan for the transition, when a great diversity of economic and social actors suddenly emerged and the information channels of the old systems collapsed, the prisoner's dilemma becomes the proper analytical model. And vice versa, over time and especially when after crises a decision was taken to join EU and pre-accession chapters started to get opened and closed, (i.e. an external anchor showed on the horizon), more appropriate in terms of analytical interpretation becomes the stag hunter model.

To sum up, the transition is a succession of "big" social games, either common or differing from country to country, or from period to period.

3

Let us start with analysis of the relation between *cooperation and achievements of reforms*. Both the theoretical models and the empirical studies point to a direct positive relationship between cooperation[8] ("social capital", "confidence", etc. are often cited) in a particular social community or nation and the achievements of that social community or nation – either in terms of economic growth, quality of life, or well-being, etc. Where, in a nation, cooperative, good strategies are called to life and prove to be constructive, these come to be accepted over time by the majority of economic actors and become accordingly part of the game, or, in other words, cooperation starts reproducing itself. Conversely, the more the conflicts, arising out of opportunistic and defecting strategies when "bad" practices get the upper hand, these spill as epidemic over to the entire society and also start reproducing themselves.

[8] Most generally, cooperation could be defined as "mobilization of resources by two or more individuals towards a common purpose" (Gurov, 2007).

The *prisoner's dilemma* is a situation where the normal egoism of economic actors, amidst a lack of moral restrictions and proper institutions, turns into opportunism running through the entire society, especially in periods of transformation (Elster, 1993 [1989], p. 77). Not by chance did Adam Smith, in a separate book and along with analysis of the efficiency of egoism offer an interpretation of his own, which is by far of no lesser significance, of the need of moral, i.e. of social restrictions. Where such restrictions do not exist, we fall into a kind of *institutional trap*, well familiar from both the studies in institutional economics and the theoretical and applied research papers of the Russian researcher Victor Polterovich (2008)[9]. Inevitably, the way out of such traps closely relates to the outburst of a crisis, which serves to "pull" or "push" a society out of its bad dynamics.

The above logic also applies to transition, which could be viewed as a game of scale whose profit/loss matrix is a product of complex processes of economic and political interests of actors of different power. The existence or lack of cooperation is a basic element of the problematics of coordination and interaction among economic actors, which is key to any common economic action, and especially valid for reforms in the former socialist countries. The extent of emergence of cooperative or non-cooperative strategies, and the extent to which they would be winning or not, depends on the institutional environment, the matrix of rules (often referred to as profit/loss matrix), in which the actors are situated. This matrix is formed in a complex way; it is clearly not exogenously generated; yet for our analytical purposes we could assume that at the initial moment it is something given, *a thing-in-itself*. Assuming the existence of the matrix as a fact at a given point in time does not cancel out the need for analysing its formation and its diversity across countries (which ultimately accounts for the complexity of the analysis).

4

The next analytical step in our description is the link between the appearance of *cooperation and the existence of the two basic social models*. The issues of the emergence and resilience of cooperative behaviour can be analysed within the range of two basic models ("stag hunter" and "prisoner's dilemma"), two archetypal games, which have been repeatedly the object of research as situation-types of strategic interactions (see for details Gurov, 2007). The two

[9] The "institutional trap" (*institutionalnaya lovushka*) is a stable but inefficient equilibrium of the system where the agents choose a norm of behaviour (institution) among numerous possibilities (see Polterovich, 2008).

types of game models point to a strategic interdependence, which according to the main characteristics of the game – exits, interactions, etc., – leads to the prevalence of cooperative or non-cooperative strategies, as the case may be. As far as we know, these have not been used as "analytical metaphors" in analyzing reforms and transition. We have given here a short description of the two types of game models.

The stag hunter (the first to formulate this social situation was Jean-Jacques Rousseau in 1754) is a game, which contains a discrepancy between, on the one hand, a substantial yet uncertain profit, if you cooperate (catch a stag, yet stay at your designated hunting post), and on the other – a small yet sure profit if you do not cooperate (catch a hare by leaving your post). The game's matrix is defined in such a way so that the cooperative strategy proves winning (4,4), albeit Pareto-optimal (Chart 1). In Chart 1, the strategies of Player 1 are shown horizontally, and those of Player 2 – vertically; the cooperative strategy is designated with *K*, and the non-cooperative – with *NK*[10]. The stag hunter is a game with a common purpose, common project (stag hunting), in a situation of interdependence among participants. Under the binding agreement it allows for arriving at a cooperative situation. As we will see further below, we call this binding agreement anchor whose task it is exactly to create a state of interdependence.

Chart 1 Stag hunter: Payoff Matrix

		player 2	
		K	NK
player 1	K	4,4	0,2
	NK	2,0	2,2

The prisoner's dilemma, studied profoundly by John Nash for example, is an extremely popular archetype of strategic game, demonstrating the difficulties of generating a common action given the existing strategic interdependencies. The matrix is defined in such a way so as to demonstrate the failure of cooperative action and group effort, because what is

[10] The game is defined in a matrix form, called normal form, where players' moves are assumed to be concurrent. It is also possible to create the so-called extensive form, as trees, which would be closer to reality (players taking turns), although in this particular case it does not make a fundamental difference.

individually profitable leads to a common negative result. Regardless of the choice of the other participant, it is always profitable (advantageous) to defect, i.e. to escape from cooperation, to be an opportunist, situation (-4, -4), (Chart 2, the designations are as in the previous game). This game model is typical of the various types of exchange (monetary, economic, social, etc.) in an environment of risk and uncertainty[11]. Rewarding in such environment are "predatory and exploitive" strategies[12], in fact the predatory strategies coincide with survival strategies, to exploit and to be exploited in this case are identical behaviours.

Chart 2 Prisoner's dilemma: Payoff Matrix

		player 2	
		K	NK
player 1	K	-2,-2	-8,0
	NK	0,-8	-4,-4

In the computer simulations of the cooperative/non-cooperative behaviour types of strategies (carried out by Boris Gurov, 2007), the prisoner's dilemma proves to be a deep and unstable game, with several attraction pools, whereas the stag hunter is a much more stable game and its pools of attraction of individual strategies (either cooperative or opportunistic) are stable. With the *stag hunter* it is very likely that cooperation will emerge (we call this anchor). As for the stag hunter, the heterogeneity of participants does no have any significant impact on the efficiency of various strategies. Even in an environment of noise, cooperative strategies demonstrate good results (according to Gurov's simulations). *The prisoner's dilemma*, on the other hand, under specific conditions of heterogeneity and noise, proves extremely unstable in a heterogeneous environment and noise in communication. Overall, we can assume as empirically established that: (i) the existence of a common project (common goal); (ii) the

[11] Later on, Axelrod (1984) developed his theory of the appearance of cooperation among egoists within the prisoner's dilemma through iterated tit-for-tat strategies. A number of authors, also Gurov (2007), dispute both Axelrod's methodology and his results by demonstrating that the appearance of cooperation is a much more sophisticated and complex process.

[12] We could add that in the prisoner's dilemma the process of natural selection in the present is in operation, while in the stag hunter configuration the future is of greater importance and plays the role of an anchor.

lack of noise and availability of good communications, and (iii) a relatively more homogeneous structure make cooperation, i.e. better economic performance, much more likely to happen.

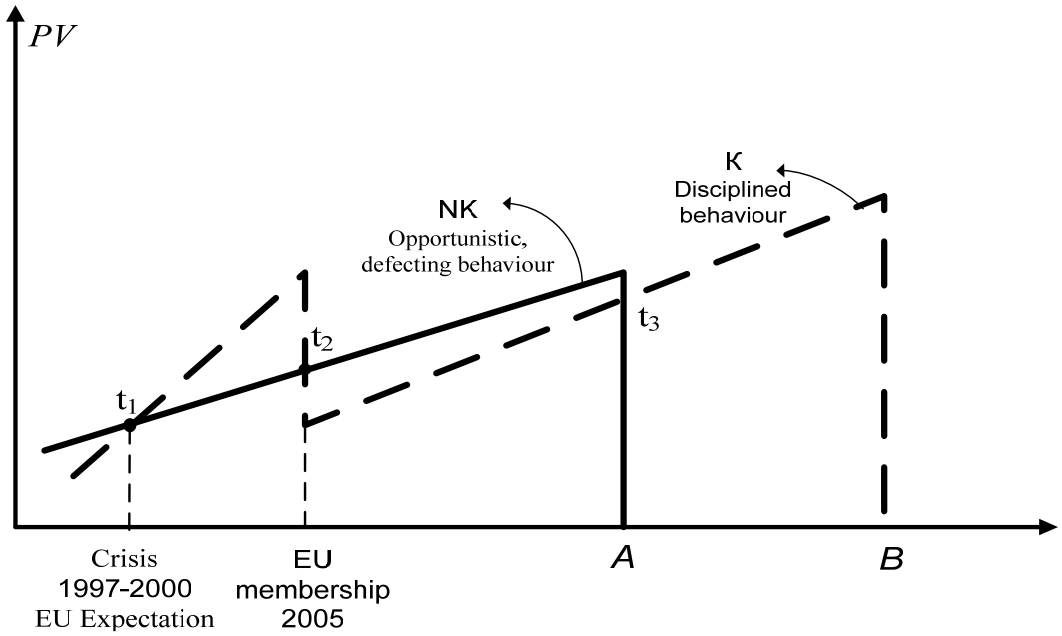
5

If we go back to the problematics of transition, we can notice that the *phases of transition* in general and the trajectories of individual countries could be approximated to the two types of game situations. Such approximation can be made only by taking into account the concrete historical situation. For instance, we can hold that the initial period of transition resembles the prisoner's dilemma situation with the collapse of a relatively homogeneous, socially uniform society – a society with an (imposed) common project (building socialism, a project which over time started to exhaust its potential). This society underwent a subsequent quick disintegration that triggered fast growing differentiation in both material and professional terms, a disintegration leading to a situation of total exchange (market or bureaucratic). The situation best fits the prisoner's dilemma. The first phase of transition is characterized by liberalisation, heterogeneity, emergence of new, unknown to socialism actors, model of large-scale exchange, lack of clear common project for the future (everyone having their own understanding of the society they were going to, especially in some of the countries) as are exactly the features typical of the prisoner's dilemma. To which we can add the breaking up of the old information structures, which were not replaced by any new ones, i.e. the existence of an extremely high noise environment. During this period the present (actual) value of the future is extremely low, and the present is valued most highly, i.e. "today" is preferred to "tomorrow", "now" to "then", and to a great extent too.

This is the explanation of the fact that non-cooperative, opportunistic strategies prevail in the period until t_1, as illustrated in Chart 3. But before that, some brief explanation of the meaning of Chart 3, which shows the evolution of the present (discounted) value *PV* of two future projects *A* and *B*. The model is a complicated version of Jon Elster's *PV* model (1993 [1989]), p. 60-62 on the post communist transformation period, for instance in Bulgaria. It is about choosing between *A* – a short-term, close-at-hand project, which by definition pays off less, and *B* – a remote in time, long-term project, which is highly profitable. Our assumption is that the short-term project *A* stands for non-cooperative (*NK*), opportunistic strategies,

while *B* stands for cooperative strategies (*K*) (see the basic logic of the model presented in box 1).

Chart 3 Evolution of the present value (discounted value) in Bulgaria



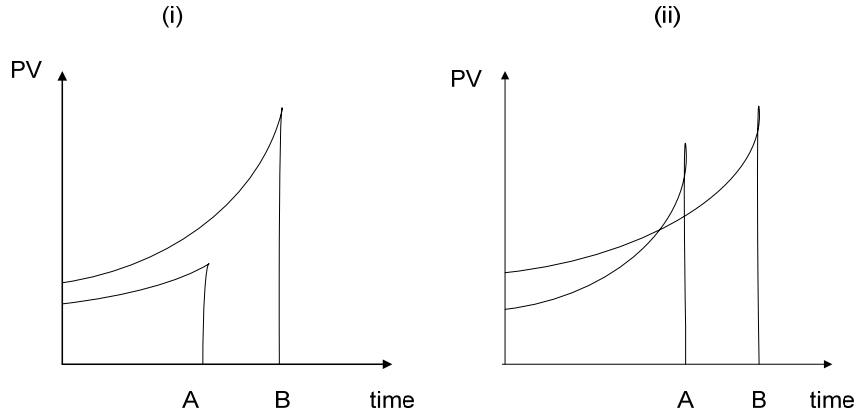
In the dynamic environment of transition, as a result of certain events or expectations for events a preference's' change is observed[13] (especially the discounting factor), a change in *PV* of the two projects and indentation of the line of either cooperative or non-cooperative behaviour. In this particular case, we have illustrated a change in cooperative behaviour leading to its zigzag trajectory. Points t_1, t_2, and t_3 indicate the moments of change in the expectations of economic actors regarding the present value of the results from their cooperative or non-cooperative behaviour. As we have already noted, from the beginning of transition up to t_1 opportunistic behaviour prevails ($NK > K$)[14]. Subsequently, as a result of the financial crisis and the expectations for EU membership (section t_1t_2), the trajectory of the cooperative present value is above the trajectory of the non-cooperative present value ($K > NK$). The third section, which is several years of EU membership (after t_2), and which we are

[13] In fact the analytical framework could be more complicated. For instance the actors could change their behavior toward cooperation, without changing their deep archetypical preferences toward opportunism. This analytical theoretical differentiation could be explored further.

[14] In this type of environment (the prisoner's dilemma matrix), non-cooperative, defecting and opportunistic strategies are highly profitable, which is proven by the numerous examples in practice (for instance Oleynik, 1998, 2000 (pp. 155-228), Yakovlev, 2005). Actually, the individual countries, to a various degree and length, experienced this initial state of the prisoner's dilemma.

going to discuss further below, contains an indication that defecting and opportunistic strategies are taking the upper hand once again.

Box 1
Jon Elster's Model (Elster (1993 [1989]), pp. 60-62))

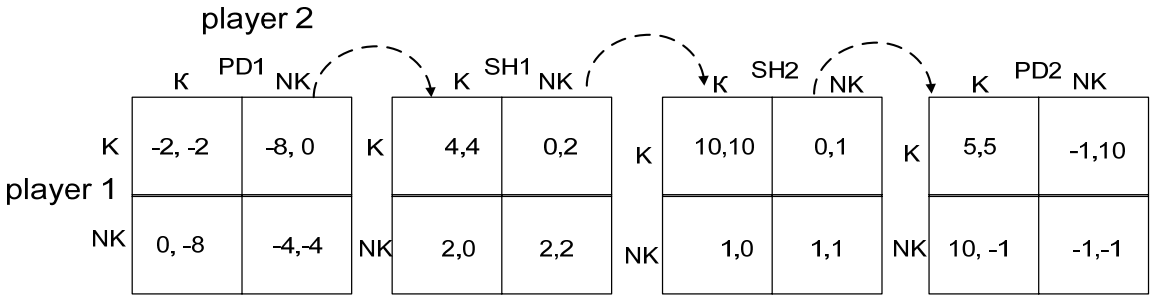


The choice between the two projects: Project *A* (short-term) and Project *B* (long-term) is made at a moment when A is available. *Configuration (i)* shows that the more distant in time a Project is the higher its present value. An actor's preferences at a given point in time are the result of his choosing between PV_B and PV_A. In configuration (i) the present value of the future diminishes at an even (invariable) pace, i.e. the relationship between the value of the future and of the present are equal at any point in time. The choice and preferences are stable at any time. However, things are different with *configuration (ii):* the present value first declining quickly, then slowly, with a reversal of preferences taking place near point *A*. Although logic and rationality would dictate choosing the more interesting of the two projects – i.e., Project *B* – in the last moment, just before reaching point *A*, the actor changes his preferences by choosing Project *A*. This reversal of choice occurs as a result of a weakness of will and inability to control one's choice.

6

The above story could also be illustrated in a different way. Its meaning is representing transition as a chain of the matrices of the two archetype games – the prisoner's dilemma and the stag hunter, Chart 4.

Chart 4 Transition seen as evolution of the payoff matrix



As we have already mentioned, the initial years of transition could be described with the matrix of the "prisoner's dilemma" (PD1): in Chart 4. this is shown in the first matrix of the string. The matrix is defined so as to indicate the overall decline in incomes and wealth after planned economy collapsed: it represents the prisoner's dilemma with negative results of the game (-). This was inevitably followed by a *crisis*, because no value was generated and what was redistributed drastically diminished. In general, the periods of crises started in mid 1990s[15]. The financial crisis in Bulgaria in 1996/1997[16] and the opportunity of EU membership led to shifting the overall matrix in a positive direction (+), or "upwards". A possibility was created for a radical change in the game's character: it was transformed into the "stag hunter" (SH1) – a new project emerged and the present value of the future increased. The EU membership was increasingly regarded as an opportunity of more even distribution of benefits among individuals (at least such were the majority's expectations). A net profit was expected to go to everyone, rather than transferring of losses to the majority of citizens as was observed in the initial phase of transition. These expected gains were looked upon not only as material incentives, but as potential possibilities for travel, jobs and in general as an overall rising of the standard of living. In other words, a common and clear

[15] See Nenovsky (2009), and on bank crises in particular see Barisitz (2008).
[16] See Berlemann and Nenovsky (2004).

project, or goal, emerged for the actors, as well as a situation and a sense of interdependence. The EU as a project gathered as a focus the expectations and actions of the majority of the population. As we know, *expectations* are the key driver of social actors' behaviour.

In Chart 4. the cooperative decision (4,4) became attractive, completely taking the form of (SH2) after the profit matrix was transformed to an extent making the decision to cooperate even more attractive (10,10) by: imposing restrictions on non-cooperative behaviours, either through increasing the benefits, if you cooperate or keep to fair practices (rising the euro funds) on the one hand, or, on the other – by increasing losses if you stick to opportunistic behaviour or if you cheat (sanctions such as stopping the funds). This had an impact on the parameters of the configurations (0,1), (1,0), as well as on the profit guaranteed with opportunism (1,1).

And, as we know it, the history never ends. Later on, right after joining the EU, the power of attraction of the common project declined (even disappeared), and the euro funds created conditions for a new social differentiation (uneven distribution of profits) and formation of groups for their appropriation. That went contrary to the egalitarian attitudes from socialism and the disappointments form the first years of transition, when a small group of people illegally amassed and embezzled wealth. This explains the new cycle of problems that appeared right after the EU accession (for illustration, the problems of the Hungarian economy), and the overall slowdown of the pace of economic growth. The economy of the new member-states once again entered (bifurcated) into the matrix (a new one, indeed) of the prisoner's dilemma. Chart 4 illustrates this with the last matrix (PD2), where the attractiveness of the cooperative decision has diminished (5,5), and cheating is becoming much more attractive (-1,10), (-10,1).

The global crisis creates conditions for either a new project, i.e. getting out of the crisis, or a disruption altogether, if opportunistic behaviour comes to prevail. *A priori*, it is not possible to define the direction of EU trajectory. The need for a new project, a *new anchor,* is more than clear.

7

Although not in a strictly chronological order, the third step of the analysis is clarifying the relationship between *crisis, anchor and cooperation*. The idea about the need of a common project is very close to the idea of *anchor*[17] *or anchoring*, which by rule emerges after a crisis. Let us discuss in detail the above relations. What is an anchor, its functions and ways of coming into existence?

An anchor can be viewed as a social institute or rule, which plays the role of coordination mechanism of expectations, interests and behaviour of actors[18]. It decreases the noise and improves the flow and processing of information. An anchor makes it possible to get out of the bad dynamics of the prisoner's dilemma matrix, which is a product of non-cooperative behaviour, and stimulates a shift to a state of cooperation (stag hunter). The anchor is a mechanism, which changes the terms and options of the game (its matrix) and creates an incentive to a change in the preferences and wishes of actors, thereby creating the basic elements for action, a new type of behaviour. In this sense, it corresponds to the overall reason for a change of action, well described in Jon Elster's model (Elster, 1993 [1989]; p. 27)[19]. Society thus gets pulled out of the old "optimal" situation and the "local maximum" trap is overcome, which *otherwise* could not be, because small steps can not take us across the downturn section. As we pointed out, the role of the anchor is to increase the present value of the future by means of changing restrictions and re-readings, and extend the time horizon of economic actors. This extension of horizon goes hand-in-hand with the emergence of cooperative strategies and increasing their profitability or expected profitability.

[17]The definition of anchor makes a number of analogies possible; I will allow myself to cite this definition: "An anchor (sea anchor) is a heavy object, nowadays often made out of metal, which is used to temporarily attach a vessel to the bottom of a sea or a river by using a rope or anchor chain at a specific point. There are two primary classes of anchors – temporary and permanent. The purpose of an anchor is to resist the forces that are striving to move the ship, which is attached to it. There are two ways to do this – via sheer mass, and by "hooking" into the seabed. Although it seems logical to believe that the primary forces aiming to move the ship (the anchor respectively) are the wind and the currents, practice shows that the major problem for anchors is the vertical movement of the ship caused by the sea motion. Increasing the mass of an anchor is not an acceptable solution, especially for cargo-boats (that is an extra cargo); besides, the increased mass of the anchor requires larger equipment for its hoisting and lowering, more complex operations, etc. Therefore designers of modern anchors focus their attention on streamlining the form, while for sailors it is important that they use a maximum combination of anchor lowering technique and form for optimal efficiency." *http://en.wikipedia.org/wiki/Anchor*.

[18] The analytical reasoning on anchor and anchoring could also be carried out within the social psychology approach: Social Judgment Theory (Muzafer Sherif, Daniel Taub and Carl Hovlend), See, http://www.brocku.ca/MeadProject/Sherif/Sherif_1958b.html

[19]Similar reasoning could be carried out by using the traditional macroeconomic model of optimisation, whereby the common cause (the anchor) is seen as a change in both budget constraints, and/or the utility preference curve. In this instance, the anchor, i.e. the cause, "pulls out" the whole model, the whole optimisation scheme, either simultaneously – constraint and preferences, or through internal cause-and-effect links between them.

A major characteristic of the anchor is its role of *tying hands*, *burning bridges*, and overcoming the "weakness of will" phenomenon – a state typical of unstable societies such as those in transition. Jon Ester calls this „second best rationality", when the actor is able to take account about his weakness of will and to construct in advance constraints on his own future behavior (Elster, 1993 [1989]; p. 46). There are numerous examples, as for instance from the monetary practice of transition economies: introducing a regime of legally fixed exchange rate, such as when a Central Bank is legally restricted to lend to the budget or refinance commercial banks. A similar type, though less common (since it is not adopted directly by all agents), is IMF stabilisation programs or the Maastricht criteria for Euro zone membership, etc. Similar bridge-cutting mechanisms are the single currencies, such as the euro, etc.[20].

Following the same train of thoughts, anchors can be differentiated into *internal and external*, endogenous and exogenous, although here this is done provisionally and a much more in-depth analysis is needed. Further on, and similar to the above, the mechanism of appearance of anchors is of great significance, or roughly speaking, whether they are a spontaneous result of the interaction of numerous actors or whether these are planned in advance by key leading actors. Overall, however, truth is midway, and practice proves that in most cases a crisis is needed for an anchor to emerge, which serves to pull a society out of a state of non-cooperation and conflicts. A crisis changes the matrix of the old game by rendering it negative and pulling it downwards (-). The new anchor in turn creates expectations for a new and positive matrix (+), whereby the majority, if not all, could benefit. Thus, both crisis and anchor create possibilities for a change of game, in our case from the prisoner's dilemma to the stag hunter, or in other words, from opportunism to cooperation[21].

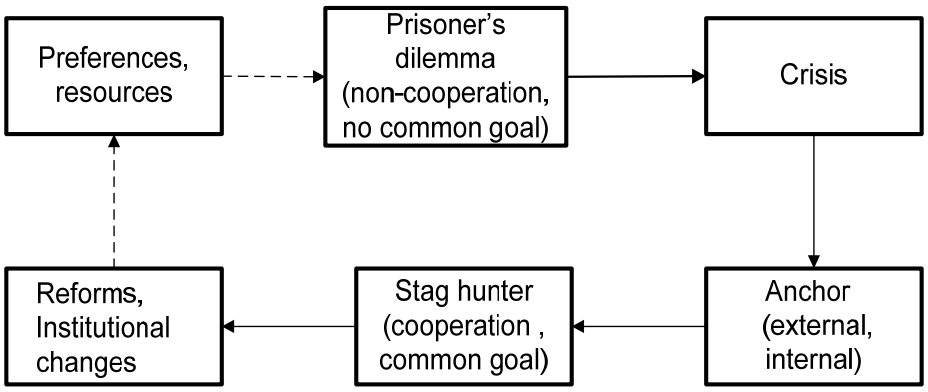
[20] However, anchors have rarely been analysed as such, and there is no analytical apparatus for anchor analysis. External anchors have been rarely studied (Ialnazov, 2003, Abdelal, 2000), although they have been mentioned (Roland and Verdier, 1999, Berglöf and Roland, 1997) and in general do not stir surprise.

[21] A similar analytical scheme, however within the scope of the analysis of change of monetary regime, is proposed by Nenovsky and Rizopoulos, 2003, 2004. Broadly speaking the theory of anchor should be further developed. For example in the case of big country, like Russia, the anchor could be viewed differently. Yakovlev (2004) maintain that the "the demand for institutions generated by the market players themselves" (p. 401), that "the end of the post –privatization distribution of ownership and control has led to a lengthening of the time horizons of Russian corporate actors" and that the new owners of the privatized enterprises changed form opportunistic, predatory, short term type to a more responsible, long term type at the end of 1990s – early 2000s (pp. 396-397). Obviously in the case of Russia the financial crisis and the coming of Vladimir Putin could be considered also a decisive stimulus for changing actors' behaviour.

8

So, *in most general terms, the model* we propose, its cause-and-effect relations, and the transition seen as a hypothetical change of game types, could be summarised with the following Chart 5.

Chart 5 Cause-and-effect relations in a transition evolution model



At the onset of transition, the preferences and resource possibilities (a large-scale decline and fast social differentiation) brought economy to the state of generalised prisoner's dilemma, where non-cooperative strategies prospered. This led to a crisis, which, along with the political decision for EU enlargement, played the role of anchors (hands tying, overcoming the weakness of will) transforming the game into "the stag hunter". A number of institutional reforms were carried out. This, on its part, changed both the preferences of economic actors, as well as their present and potential resource possibilities (the euro funds being a major component). After a certain adjustment period, the state of the prisoner's dilemma is once again reproduced, with the power of the anchor declining and the fight for new resources heightening, eventually making non-cooperative strategies relatively more attractive.

This is, roughly speaking, the dialectics of evolution of economy from the perspective of the two game archetypes.

What remains now, is, of course, *many unresolved and debatable issues*. First, it is clear that the game matrix, and the illustrations that we offer in this particular case, are designated by us: this is a simplified example, while in real life the matrix structure is endogenous and a product of evolution itself. Second, the issue of whether a crisis brings about a better or worse state of economy remains open, i.e. whether its effect is in all instances beneficial and stimulating. Third, it is still unclear whether cooperation is always a positive phenomenon *per se*. Fourth, while the logical chain from the prisoner's dilemma to the stag hunter seems better clarified, the mechanisms of turning the pendulum from the stag hunter to the prisoner's dilemma are not so clear. And finally, it is not clear what possibilities for quantification and empirical verification the proposed scheme offers, and how much this is needed.

These problems are only part of possible future analyses. We are totally aware of the restrictions of the proposed theoretical model. Our purpose is to show that *the cooperation metaphor* gives good analytical possibilities for analysis of transforming economies and its application should therefore be deepened and expanded.

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