Institutions and Transition – Possible Policy Implications of the New Institutional Economics*

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> *"Politicians of all parties are great believers in institutional change as a source of economic improvement – not surprisingly, because that is the sort of change they are well placed to bring about" (Matthews 1986, 917).*

1. Introduction

There is a simple conjecture uniting quite diverse strands of thinking in institutional economics: *institutions matter*. If that conjecture is taken as the core, transaction cost economics, property rights economics, and principal agent theory are part of institutional economics, just as are such approaches as public choice and constitutional economics.

That institutions matter seems to be almost self-evident, yet, in economic theory it is not: established growth theory as well as its so-called "new" variant basically do without institutions. Advocates of the New Institutional Economics (NIE) would, of course, daim that economic growth and development would have to be explained primarily by drawing on institutions (Olson 1996; North 1998).

Hitherto, advocates of the New Institutional Economics have not been at the forefront in giving policy advice. A decade into transition in Central and Eastern Europe, the Washington consensus (Williamson, 1994) seems to have lost much of its attraction. It has been observed (World Bank 1998) that growth and development

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in countries that have implemented macroeconomic policies in line with the Washington consensus display considerable variation in their economic performance. It has been hypothesized (ibid.) that this variation can be explained by differences in the institutional quality of the countries. Policy advice might thus soon be sought from institutional economists. It would have to deal with questions such as what institutions are most likely to induce additional investment and growth, how governments can credibly commit themselves to the promises that modified institutions entail, in what sequence institutional reform should be brought about, etc.

To sketch some possible answers to these questions, we will proceed as follows: in the next part of this paper, a short overview of the New Institutional Economics is given. It is not intended to be a complete survey of the field (Eggertsson 1990 and Furubotn/Richter 1997 are book-length surveys) but an extract that concentrates on the specific arguments made here that are in contrast with the assumptions commonly made in mainstream theory. Since the aim of this paper is to come up with policy implications, specific assumptions will be emphasized only if they might become crucial for policy implications.

Theoretical insights concerning the relevance of institutions are important and interesting, but empirical evidence supporting the theory is more convincing and will presumably increase chances that policy advice will lead to changes in actual policy. In the third part of the paper, the results of some empirical studies are presented after having dealt with some of the methodological problems. Section four focuses on the NIE in the context of the transition economies of Central and Eastern Europe. Part five deals with data needs that must be met to get to more empirical evidence, part six with possible policy implications, and part seven concludes the study.

2. Theory

2.1 Development of the NIE

The temporal adjective in NIE implies that there must have been some other form of institutional economics from which the advocates of the NIE want to distinguish themselves explicitly. This is indeed the case. The institutionalism of this kind was important in the first half of the 20th century and its best-known representatives are Thorstein Veblen, John Commons, and Wesley Mitchell. The old Institutionalism has been dismissed as atheoretical and descriptive. Whereas the mainstream developed more and more towards deductive reasoning, old institutionalists preferred inductive theorizing, thus demonstrating similarities to the German Historical Schools. Having been largely forgotten, the old Institutionalism celebrated a modest renaissance over the last couple of years (Hodgson 1998 and Rutherford 1994 are comparisons of the old and the NIE).

Within the NIE, two broad avenues can be distinguished: the first focuses on the choice of governance structures of private actors under an institutional environment that is assumed to be given. At a very basic level, it is thus asked under what conditions exchange will be secured at least cost via the market and under what conditions it will be secured within organizations, i.e. firms (Coase 1937). In the meantime, this simple dichotomy of firms vs. the market has been transformed into a continuum and the choice of more fine-grained governance structures (e.g. long-term contracts) that are usually called *hybrids* has been analyzed (Williamson 1985). The second avenue does not take the institutional environment as given any more. It is interested in ascertaining the effects that various institutional environments have on economic performance and development, as well as in explaining the change of the institutional environment over time. The study of governance – in particular, the theory of the firm – is arguably more developed than the study of the institutional environment (Klein 1999). Nevertheless, this second avenue of the NIE will be the main subject of this paper, the first playing a more prominent role in the module on competition and regulation.

Among the representatives of this second avenue, it remains an open question whether the NIE basically remains within the neoclassical paradigm and simply deals with a number of questions hitherto neglected by mainstream theory or if the NIE is indeed an entirely new paradigm that is incompatible with neoclassical economics. The first view would be shared by those who want to broaden the scope of inquiry: instead of assuming institutions to be given and analyzing the choices that take place within them, they want to make the choice of institutions the subject of economic analysis. Representatives of the second view believe that this will not be sufficient and that one should abandon the neoclassical paradigm entirely. Modifying an assumption here and there would lead to a "neoclassical repair shop"[1] and the danger of inconsistent models would always loom large (Furubotn and Richter 1997, chapter X). One of the fathers of the NIE, Douglass C. North, has moved towards this second view over the last couple of years. His conjectures concerning the relevance of shared mental models and ideologies for the development of institutions (Denzau and North 1994) are hard to reconcile with neoclassical economics.

This recent trend promises to be of particular relevance: the importance of institutions that arise in an unplanned, spontaneous fashion has been stressed by a number of economists for quite a while (e.g. Hayek 1973). Shared mental models and ideologies might be one factor explaining the wide variety of such institutions in different societies, because they determine how actors perceive the respective interaction situation. Although research is at its very beginning, some very interesting studies are already available (see, e.g., Greif 1997 who shows the relevance of cultural and behavioral beliefs both (game-) theoretically and empirically).

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[1] This is an expression used by Güth (1995, 342) to refer to game theorists who observe a certain phenomenon and try to rationalize observed behavior *ex post* by modifying the respective models.

2.2 Basic assumptions

The NIE is based on methodological individualism. It shares this assumption with mainstream economics. This assumption distinguishes it from the old institutionalists. Methodological individualism means that all outcomes must finally be explained by individual action. This, of course, is not to say that all outcomes observable on a social level are the intended result of some individual action expressly trying to bring them about. As Ferguson (1988/1767) stressed, many outcomes on the social level are the result of human action but not of human design. It is then the central task of the social scientist to uncover the regularities that lead to certain patterns (Hayek 1964). The NIE has largely been dominated by positive theorizing. That part of the NIE that deals with a very basic rule set of society – its constitution – has, however, been dominated by normative theorizing. Most advocates of normative constitutional economics would maintain not only that all outcomes need to be explained on the basis of individual action, but also that institutions need to be legitimized by recourse to the (hypothetical) consent of those whose interactions they are to structure. This assumption is called normative individualism (see, e.g., Buchanan 1954).

Methodological individualism is an assumption that the NIE shares with mainstream economics. We now turn to two assumptions that differentiate these approaches, namely the assumption of (a) bounded rationality and (b) positive transaction costs. These assumptions are closely related to each other.

Conventionally, it is assumed that individuals try to maximize utility in a perfectly rational way. They can preview every possible state of the world, thus know all the options they can choose from, and are able to evaluate all their possible consequences instantaneously and costlessly. In the words of Kreps (1990, 745): "A completely rational individual has the ability to foresee everything that might happen and to evaluate and optimally choose among available courses of action, all in the blink of an eye and at no cost." Frank Knight (1992) introduced uncertainty into economics: a state of affairs in which actors are not able to calculate expected values because they are not able to foresee all states the world can possibly take on. He distinguishes uncertainty from risk, in which probabilities can be attached to the finite number of states the world can take on. In situations of risk, it is thus possible to calculate expected values and to apply conventional decision theory.

Herbert Simon (1955) recognized that the assumption of perfect rationality made little sense in situations of uncertainty and introduced the concept of bounded rationality. He also departed from the notion of utility-maximization and put satisficing in its place. It has been shown that, under conditions of uncertainty, it can be rational to use rules as guidelines on how to behave in certain situations (Heiner 1983). This sort of rationality is often coined "rule rationality". In a world without uncertainty, there is no rationale for rules and institutions, because the actors can predict every possible state of the world at no cost.

Dennis Mueller (1986) has focused on an aspect of rationality that differs from the common view that actors are only forward-looking and that action depends solely on the rewards the various possible actions promise to have. Mueller argues that actors should also be modeled as backward-looking. Over a number of years, certain behaviors are reinforced by rewards and other behaviors made less attractive by sanctions. Mueller calls this kind of rationality "adaptive rationality". Predictions derived from *homo oeconomicus* models as traditionally applied do not take restrictions of this type into account. Therefore, predictions are often utterly wrong. Section 2.3 deals more systematically with how restrictions channeling human behavior can be incorporated into economic models.

Transaction costs were originally introduced into economics by Ronald Coase (1937), who defined them as the costs of using the market. They were introduced to give a rationale for the existence of firms. If the market functions as efficiently (and costlessly) as often assumed, there is no reason for firms to exist at all. Dahlman (1979) later described transaction costs as "search and information costs, bargaining and decision costs, policing and enforcement costs". They are closely correlated with the assumption of bounded rationality, because they will only be larger than zero if we depart from the notion of perfect rationality as usually defined. In the meantime, it has been understood how important transaction costs are for the development of an economy: the higher they are, the fewer exchanges will take place. This applies not only to exchanging consumption goods but also to many investment decisions. Furthermore, the notion of transaction costs has been introduced into the analysis of exchange in political markets (North 1990b and 1993). It is argued that political markets are even more prone to inefficiency than ordinary goods markets because it is more difficult to measure what is exchanged as it is to make credible commitments concerning one's promises.[1]

2.3 Institutions

As soon as two persons interact, strategic uncertainty is present. If the interacting subjects are unable to form expectations concerning the action of the other person, they will have a short time horizon, exchange will largely be confined to spot transactions, specialization and the division of labor will remain low, and a low standard of living will be the result. All this can be changed if strategic uncertainty can be reduced via constraints on individual behavior. It is the function of institutions to reduce uncertainty, extend time horizons, induce people to specialize and to try a greater division of labor, and in short, make everyone better off.

We have thus approached institutions functionally. But if we are interested in explaining their emergence, we must beware of committing the functionalist fallacy of considering the emergence of institutions adequately explained by pointing to their beneficial effects. Instead, according to methodological individualism, it is necessary to reconceptualize the incentives of the individuals that have brought institutions about by their individual actions.

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1 Twight (1992) claims that a substantial part of political transaction costs would be endogenous and that they are explicitly manipulated by politicians to reduce political opposition against diminishing the set of rights. Posner (1987) writes that the separation of powers increases the transaction costs of governing. This would hold for welfare-enhancing as well as for redistributive or even exploitative measures.

The New Institutional Economics is still a young research program. So it is hardly astonishing that no commonly agreed definition of institutions has yet emerged. Two approaches can be distinguished: an institution can either be viewed as an outcome of a game, or as the rule(s) of a game.[1]

Schotter's (1981) approach can be interpreted as belonging to the outcome-approach. He (ibid., 11) defines an institution as "a regularity in social behavior that is agreed to by all members of society, specifies behavior in specific recurrent situations, and is either self-policed or policed by some external authority". Douglass North (1990a) is the champion of the second approach. According to him (ibid., 3), "Institutions are the rules of the game in a society or, more fundamentally, are the humanly devised constraints that shape human interaction. In consequence they structure incentives in human exchange, whether political, social, or economic."

We follow the rules-of-the-game approach here, but propose a modified definition that builds on Ostrom's (1986) definition. In our view, it is important to distinguish two components of institutions: the rule-component on the one hand, and the enforcement- (or sanctioning-)component on the other. Taking this distinction into account, institutions can then be defined as commonly known rules to structure repetitive interaction situations plus an enforcement mechanism that ensures that non compliance with the rule-component is sanctioned. Because we deem the kind of enforcement mechanism to be crucial, we propose a taxonomy that builds on the various kinds of enforcement mechanisms. If one distinguishes between "state" and "society", as has been done in the West since the rise of the nation-state, one can distinguish between rules whose non compliance is sanctioned by representatives of the state and rules whose non compliance is sanctioned by members of society. Since the state is perceived as being conceptually distinct from society, the first kind of institutions are called "external institutions", whereas the second kind are called "internal institutions" because sanctioning is secured from within society.

Among five types of institutions, four types of internal institutions can be distinguished according to the enforcement mechanism used (see table 4-1). Examples for external institutions are laws, decrees, ordinances, ukases and the like.

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[1] Aoki (1998) adds the view of players of the game.

Table 4-1: Types of Institutions

Kind of Rule	Kind of Enforcement	Type of Institution
1. Convention	Self-enforcing	Type-1 internal
2. Ethical rule	Self-commitment of the actor	Type-2 internal
3. Customs	Via informal societal control	Type-3 internal
4. Private rule	Organized private enforcement	Type-4 internal
5. State law	Organized state enforcement	External

Let us start with conventions. In pure coordination games, all participants are better off if they coordinate their behavior. There is no conflictual element, so no participant has a preference for any particular Nash-equilibrium if there is more than one. Once a particular equilibrium, a convention, has emerged, nobody is able to make herself better off by deviating unilaterally from it. It is thus self-enforcing. Some authors (e.g. Sugden, 1986) have extended the convention concept to games that do involve a certain amount of conflict and are thus mixed-motive games. Since unilateral defection still does not make any player better off, they remain self-enforcing. Conventions are called type-1 institutions here.

Ethical rules are the second kind of internal institution. Prisoners' Dilemma (PD) games have only one Nash equilibrium. In one-shot games, it is always instrumentally rational to defect. If participants in games that seem to be of the PD-type are observed to be reaching the cooperative solution, they must have been able to transform the PD into a different game. Individuals might have internalized the strategy to cooperate as "the right thing to do". In other words: due to the internalization, the payoff for defecting has been substantially decreased or the payoff for cooperating substantially increased. Participants thus internalize specific institutions in such a way that they want to comply with them intrinsically, even if they conflict with narrowly defined self-interest. Internally enforced institutions are called type-2 institutions here.

Whereas the first two ways of enforcement are rooted within the structure of the game or the actor himself, there are other means of enforcement which rely on other actors. Enforcement via societal control is one of them. An unspecified variety of persons surveys compliance by way of spontaneous control. This is the third type of enforcement, one possible example being to sanction non-compliance by informing others about this behavior in order to damage the reputation of the person who did not comply. Customs that are enforced via non-organized societal control are called type-3 institutions here.

We call the fourth type of internal institutions private rules. Enforcement that makes use of other actors, i.e. third-party enforcement, can also be based on some kind of organization. Organized private enforcement may, for example, rely on private courts of arbitration that monitor compliance with private rules. The enforcement of rules by private organizations is called type-4 institution here.

Predictions concerning individual action based on the basic *homo oeconomicus* model have often proved wrong. If one does not want to give up the distinction between preferences that are assumed to be stable on the one hand and restrictions that can change on the other, one is probably well-advised to delve a little deeper into the restrictions than heretofore usual. Presumably, the accuracy of many predictions can be enormously improved if restrictions emanating from internal institutions – such as customs, traditions, ethical rules, etc. – are more fully taken into account. Experimental game theory can be interpreted as being interested in exactly these restrictions (see below and also the contribution on experimental economics in this volume). Since internal institutions vary greatly depending on time and place, more knowledge concerning their concrete characteristics is necessary if one wants to enhance the quality of predictions systematically.

2.4 Central research topics

A new paradigm rather than a specific research program

Although the NIE is frequently presented as a research program, it seems more apt to present it here as a paradigm that competes with neoclassical welfare economics. It focuses on analyzing interaction. Therefore, it is potentially relevant for the analysis of any interaction situation and not confined to specific ones such as institutional change brought about in the course of the transition currently taking place in Central and Eastern Europe. Welfare economists are interested in maximizing social welfare given certain constraints, i.e. they are interested in optimal allocation. If the market fails to bring about efficient outcomes, the state is often expected to bring it about instead. With its focus on optimal resource allocation, this approach could be coined allocation paradigm.

The allocation paradigm is based on a number of assumptions, the most important of which seem to be that (a) a meaningful social maximand can be named (and operationalized), (b) representatives of the state have at their disposal knowledge that is superior to that held by the market participants and brought about through the market process, and (c) representatives of the state have incentives to use their superior knowledge to maximize social welfare. The usefulness of all of these assumptions has been disputed frequently by representatives of very different research programs, so the criticism is not reiterated here.

Advocates of the NIE believe that attempts to bring about an optimal allocation on the outcome level are fundamentally mistaken. For them, the economy is not an organic whole which could be maximized in any meaningful sense. Instead, they are interested in the question of how the (inter-)actions of a multitude of individuals could be coordinated in such a way that order – and wealth – results. In this paradigm, coordination is not brought about by some allocation deemed to be desirable on the outcome level, but by asking what set of institutions will be able to produce expectations that will make it possible for individuals who do not follow a central plan and who have largely differing goals to coordinate their plans successfully. This could therefore be called the coordination paradigm. Its advocates thus focus on a different level of analysis than the advocates of the allocation paradigm: the latter are interested in the institutions that facilitate or impede exchange, whereas the former are interested in the evaluation of the concrete results of some allocation mechanism.[1]

The key questions of the NIE

Proponents of the NIE are thus interested in the coordination qualities of institutions. Two levels of analysis almost seem to suggest themselves:
(1) Institutions are assumed to be exogenously given and one is interested in the consequences these institutions have on variables of interest to the economist. Various institutions can be compared and it can be asked whether they systematically cause varying results. It is hypothesized that institutions are one key element in explaining the large variance in economic growth and development which has puzzled standard growth theory.
(2) Institutions are assumed to be the result of interactions taking place between various players. To understand the large variance in economic performance, the underlying initial conditions that ultimately cause this variance should be investigated.

If we draw on the distinction between external and internal institutions introduced above, a simple 2 x 2-matrix results:

Table 4-2: Identifying the Key Questions

	Institutions exogenously given	Institutions endogenously determined
External institutions	1	3
Internal institutions	2	4

These four stylized areas of inquiry fall entirely within a positive research program. In both columns, we are interested in nomological hypotheses of the type "always and everywhere if x, then y". In the next couple of paragraphs, questions that advocates of the NIE could ask will be highlighted.

The effects of exogenously given external institutions (cell 1) will be of interest with regard to a wide variety of interaction situations: (a) It could be asked in what ways these institutions influence the horizontal exchange of private actors regarding market transactions; e.g. kinds of goods traded, means of payment used, etc. (b) It could be asked in what ways these institutions influence the governance structures that are set up by private actors to structure repeat transactions; this is the research program identified with Oliver Williamson. (c) It could be asked in what ways government actors' incentives – and actions – are shaped by these institutions. This research program is thus con-

[1] In neoclassical economics, if institutions are taken into account at all, they are often assumed to be "neutral" in their allocation effects, in other words, they are assumed to be irrelevant for the resulting allocation. Furubotn and Richter (1996, 9f.) contain numerous examples of this procedure.

cerned with principal agent relationships within government and it is often called positive political theory (Weingast 1996 is a survey). (d) It could be asked in what ways institutions are an explanatory variable for economic growth and development. Whereas possible research questions (a) – (c) focused on the micro-level, (d) constitutes a macro-enterprise. It would obviously have to incorporate insights gained with regard to (a) – (c). If research is successful there, this could even be called a micro-based macro-theory.

Concerning the effects of exogenously given internal institutions (cell 2), the same questions will be relevant. If they are potentially relevant for the answers to areas of inquiry (a) – (d), then we need to inquire into the possible relationships between external and internal institutions.[1] Four kinds of relationships can be distinguished: (1) it can be *neutral*, i.e., the institutions regulate different areas of human interaction; (2) it can be *complementary*, i.e., the institutions constrain human behavior in an identical or similar fashion and rule-breaking behavior is sanctioned by private individuals as well as by representatives of the state; (3) it can be *substitutive*, i.e., the institutions constrain human behavior in a similar fashion, but rule-breaking behavior is sanctioned *either* by private individuals *or* by representatives of the state; (4) it can be *conflicting*, i.e., the institutions constrain human behavior in different ways. Abiding by an internal institution would then be equivalent to breaking an external one and vice versa. If the relationship between internal and external institutions is conflicting, this will increase coordination costs. If it is complementary, it will decrease them, because the state has to provide fewer resources for the enforcement of its institutions. Research would thus have to center on estimating the consequences of the various possible relationships in terms of the four areas of inquiry spelled out with regard to cell 1.

In analyzing endogenously determined external institutions (cell 3), one would, of course, try to identify the key factors that lead to the emergence of one specific institution (or specific set of institutions) rather than another. Compared with endogenously determined internal institutions, their most important characteristic seems to be that they are subject to deliberate collective choice. In explaining their development, one will therefore start by identifying those players who are potentially influential in this process. It will be asked what interests those players pursue, what strategies they can use, what resources they command, what their fall-back options are, etc. This can be done in a game-theoretic fashion. If we observe change

[1] The analysis would become more complex still if we were to take into account explicitly the possibility that the extent of the groups for which a set of external institutions is valid need not necessarily be congruent with those for which a set of internal institutions is valid. Two divergences are possible: (1) a set of external institutions is valid in an area encompassing various groups that structure their interactions according to a variety of internal institutions. (2) A valid set of internal institutions is more encompassing than the validity of a set of external institutions; it could, e.g., be the case that members of one groups live in two or more nation-states.

An altogether different possibility of heterogeneous internal institutions comes into play if groups are not delineated by the criterion of geographic extension. The group of diamond traders is a group interacting the world over and largely drawing on their internal institutions (see, e.g., Bernstein 1992).

in external institutions, methodological individualism tells us to explain it by explaining the incentives and actions of those players involved in bringing it about. The decision situation of any actor living under any set of external institutions can very schematically be reduced to a 2 x 2 matrix (this matrix can be read as a submatrix of table 4-2, filling cell 3 of that matrix with detail).

Table 4-3: Individual action set concerning external institutional choice

	Demand institutional change	Not demand institutional change
Comply with institution		
Not comply with institution		

It would, of course, be interesting to be able to predict the conditions under which we can expect what sort of action. Since change in external institutions is always a consequence of collective action, the typical problems associated with it (Olson 1965) will have to be explicitly recognized. The next question to be dealt with here would be the ways possibly competing demands for institutional change are met by a corresponding supply. Conceptualizing institutional change as the result of an exchange process, of course, is not monopoly of the NIE. Advocates of the Public Choice approach and members of the Chicago School (e.g. Becker 1983) have also done so. The twist the NIE adds is to take political transaction costs explicitly into account. As already alluded to above, these are the costs that have to be incurred in order to change the set of institutions. They thus constrain the politically feasible reforms. Recently, Williamson (1996) and Dixit (1996) have pointed out that "first best"-solutions are only first best if they are politically feasible, i.e. after political transaction costs have explicitly been accounted for.

Turning to cell 4 of table 4-2 and thus to endogenously determined internal institutions, the basic question remains unchanged: what are the factors that determine change in internal institutions? The decisive difference being that internal institutions are often not subject to deliberate collective choice. Change will, in other words, usually occur in an incremental fashion. Candidates for explaining the emergence of and changes in conventions, mores, customs, norms, traditions, etc. that have been discussed are: (a) the resource endowment of a group of people, including factors such as soil, climate, technology, etc. (see, e.g., Engerman and Sokoloff 1997 or Demsetz 1998); (b) the mental models held by a majority of its members (Denzau and North 1994)[1]; and (c) chance (Elster 1989), which basically means that we have not been able to identify any systematic relationships. It

[1] Denzau and North (1994, 4) define mental models as "the internal representations that individual cognitive systems create to interpret the environment" and ideologies as "the shared framework of mental models that groups of individuals possess that provide both an interpretation of the environment and a prescription as to how that environment should be structured".

has been shown that internal institutions can continue to exist even if they are not welfare-enhancing (Sugden 1986).

Just as the possible relationships between cells (1) and (2) were of interest above, the relationships between (3) and (4) in table 4-2 are of interest here. One will then ask how internal and external institutions influence each other; in what ways do internal institutions affect external ones and vice versa. Do we know anything about time lags? Is it possible to distinguish between institutions with a high persistence and those with a low one? Is this equivalent to high and low costs of modification? To what degree is it possible to establish and to execute external institutions although they conflict with regard to one or more internal institutions? What indicators could one use to ascertain incompatible internal and external institutions?

The questions presented as the key questions of the NIE can all be dealt with in an entirely positive fashion. Ultimately, however, we are interested in policy implications. To derive them, one needs a set of commonly agreed goals as well as technocratic knowledge that informs policy-makers how to diminish the divergence between "is" and "ought".

2.5 Core hypotheses

After having presented the key questions of the NIE, we want to present three hypotheses that we think could be termed the central or core hypotheses of the entire enterprise.

Hypothesis #1: Growth and development crucially hinges upon institutions

The willingness and the ability to specialize and thus to enhance the division of labor as well as to invest in long-term capital goods depend directly on the security of property rights, i.e., a special set of institutions. Their content as well as the costs that have to be incurred to reach compensation in case a contract has been breached are thus considered crucial determinants in explaining growth and development. Or, as North (1990a, 54) writes: "... the inability of societies to develop effective, low-cost enforcement of contracts is the most important source of both historical stagnation and contemporary underdevelopment in the Third World."

In his Distinguished Lecture on Economics in Government, Mancur Olson (1996) poses the question why some nations are rich and others poor. He considers the usual suspects, such as differences in access to the world's stock of productive knowledge, differential access to capital markets, differences in the ratio of population to land or natural resources, differences in the quality of marketable human capital, and the like. He dismisses them as unconvincing, only to continue (ibid., 19): "The only remaining plausible explanation is that the great differences in the wealth of nations are mainly due to differences in the quality of their institutions and economic policies."

Hypothesis #2: Internal institutions are generally more stable than external institutions

As just presented in section 2.4, internal institutions will in general be more stable than external institutions because they are usually not subject to a deliberate collective choice mechanism. If both internal and external institutions influence economic growth and development, then it will be essential not only to analyze their impact in isolation, but also to take their relationship explicitly into account. A general hypothesis is that, in the final analysis, the enforceability of external institutions depends on their compatibility with internal institutions (Weingast 1995, Voigt 1999, chapter five).

Moreover, a complementary relationship between external and internal institutions seems to be a necessary condition for economic success, but not a sufficient one. Whether a complimentary set of internal and external institutions is conducive to economic growth depends on the contents of the institutions. In other words: not every institution stabilizing expectations will spur economic growth. Institutions might be responsible for the non-emergence of markets, for the tight regulation of markets, for the prohibition against trading certain goods etc. (see Voigt and Kiwit 1998).

Hypothesis #3: Institutional change is path-dependent

The concept of path dependence was originally developed to explain the diffusion of competing technologies (e.g. Arthur 1989). If one observes (a) non-convexities on the supply side caused, e.g., by indivisibilities or technical complementarities or (b) positive externalities on the demand side, e.g., because a product is valued more the higher the number of other actors who already use it (network-effects), a multiplicity of equilibria results and the one indeed chosen is extremely sensitive to initial conditions.[1] North (1990a, 92-104) suggests that this concept can be used analogously to explain institutional change. The implications are evident: Inefficient institutions that are not conducive to economic growth and development can emerge and survive. If we want to understand the great variance in institutions observed today, we better have a closer look at the initial conditions that lead to their emergence. Looking into the future, institutional path dependence means that the scope of institutional change that can be made effective may be severely limited. David (1994, 218f.) writes: "... institutions generally turn out to be considerably less 'plastic' than is technology and the range of diversity in innovations achieved by recombinations of existing elements is observed to be much broader in the case of the latter. Thus, institutional structures, being more rigid and less adept at passively adapting to the pressures of changing environments, create incentives for their members and directors to undertake to alter the external environment ... Finally, it may be remarked that because the extent of tacit knowledge required for the efficient functioning of a complex social organization is far greater ... than is the case for technological systems, institutional knowledge and the problem-solving techniques subsumed therein are more at risk of being lost when organizations collapse or are taken over and 'reformed' by rivals."

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[1] To illustrate, David (1997) uses the well-known Edgeworth Box: suppose some arbitrary initial allocation and further suppose that a non-tatonnement market process is used, i.e., a process involving a sequence of trades, each of which is constrained by the prevailing set of Pareto-improving moves at each specific moment. Without further information, we can predict only that the final solution will lie somewhere on the contract curve. To predict the exact equilibrium, we need additional information, namely the historical details of the evolution of the game.

3 Empirical Insights

It is the aim of this section to present the empirical evidence that has been gained with regard to the theoretical questions presented in the last section. The state of empirical evidence has been evaluated rather critically by a number of observers. Matthews (1986, 917), e.g., wrote some dozen years ago: "But it seems to me that in the economics of institutions theory is now outstripping empirical research to an excessive extent." We will try to prove that empirical research has been catching up with theoretical reasoning but that much research still remains to be done. Before presenting the empirical evidence, we will deal with some methodological issues concerning adequate tools for doing empirical research within the frame of the NIE.

3.1 Methodological questions

Identification, relevance, and coherence

As we saw above, the key research questions of the NIE can very crudely be classified into (a) assuming institutions to be given and asking for their effects and (b) trying to explain their emergence and modification over time and to identify those factors causing change. For both these endeavors, the capacity to identify institutions and to ascertain their relevance is crucial. Since institutions were defined as consisting of a rule and an enforcement component, both components will have to be identified. *Prima facie*, this seems to be rather easy with regard to external institutions: the content of the rule component and the sanctions for non compliance will regularly be part of formal law and thus ascertainable. However, in many cases, this approach will reveal rather limited information on the *de facto* functioning of institutions. For example, the probability that non compliance will indeed be sanctioned (in case of public law) may vary considerably, although the institutions are formally identical. Under private law, the resources that have to be spent to receive compensation may also vary widely, depending on where a formally identical institution is applied.

Suppose for a moment that no internal institutions exist that could be used to structure interactions such as the exchange of goods. If we further assume that demanding institutional change is not perceived as an option by the players, then their choice is between (a) carrying through the desired action under the institution as is or (b) refraining from carrying it through. The "desired action" could be to found a company, to make an investment, to exchange some good, etc. In reality, these choices will be made from a continuity of options rather than discrete ones as just described. The decision will, e.g., be how much to invest in what sort of technology given the constraints due to the external institutions. Now suppose that a specific interaction can be structured drawing on a variety of different external institutions. We may then be able to ascertain the relevance of an institution by counting the (relative) frequency with which it is used compared with other institutions that could – at least in principle – also have been used (or chosen). Second, we could count the frequency with which the rule is broken and, third, the frequency with which non compliance is indeed sanctioned. If individuals never structure their actions in accordance with an existing institution, it could be deemed irrelevant. If the compliance proportion is low but the sanctioning proportion high, then breaking a rule simply has a price that many people are apparently willing to pay. It is then questionable whether the institution is relevant in the way envisioned by the legislators. If not only compliance but also enforcement is low, this could be interpreted as a tacit consensus between state and society regarding the irrelevance of that particular institution.

In the last paragraph, it was assumed that individuals could not resort to internal institutions to structure their interactions. Now suppose that internal institutions exist and that the set of institutions among which interacting individuals can choose to structure their dealings has thus become larger. To describe such a choice, the (new institutional) economist will have to be able to ascertain the relevant internal institutions. This will not be as easy as in the case of external institutions, because in many cases, they are not written down in documents easily available, if they are written down at all. With regard to informal rules used by rural dwellers in Nepal, E. Ostrom (1996, 208) writes: "These rules may be almost invisible to outsiders, especially when they are well accepted by participants who do not even see them as noteworthy."

One of the core hypotheses of the NIE is that a necessary condition for economic growth is that internal and external institutions are not flatly at odds with each other. Above, four possible relationships between external and internal institutions were named. To test the compatibility hypothesis empirically, it will be necessary to empirically ascertain the possible relationships. It will thus be necessary to inquire whether the rule and/or the enforcement components of external and internal institutions are neutral, complementary, substitutive, or conflictual. One step logically preceding the analysis of the relationship between internal and external institutions is to analyze their individual coherence: it is by no means certain that, for example, the set of external institutions as such will be coherent or consistent.

After having identified the (relevant) institutions and ascertained their coherence, it is possible to take the next step, namely to ask for the effects of institutions. Only after these have been identified will it be interesting to explain their change over time.

Comparative institutional analysis

Comparative Institutional Analysis (CIA) is the attempt to identify the consequences of alternative institutional arrangements on various variables of interest to the economist and to compare them with each other. Usually, CIA is done cross-sectionally, often with a focus on institutions of the past.[1] It is also conceivable to compare institutions longitudinally, although obvious problems are connected with such a procedure. CIA is a departure from another kind of comparison often observed in traditional theorizing, where an empirical result is compared with theoreti-

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1 This is supposedly due to the fact that many of the initiators of the NIE are economic historians. Barzel and Kiser (1997) compare the voting institutions of medieval England and France, Root (1994) compares the political foundations of these two states, and Greif (1994) compares the institutions of the Maghribi traders with those of the Genoese.

cally derived optima. In such comparisons, reality generally appears suboptimal and state interventions are often justified on these grounds. In CIA, in contrast, one compares only realized with realized institutions and thus does not succumb to what has been termed the Nirvana approach (Demsetz 1969).

Since the number of theoretically possible cause-effect relationships will often be very high, concrete analysis will be confined to testing a rather small number of theoretically-derived relationships. CIA is thus based on deductive reasoning, an evaluation not shared by all proponents of this approach.[1] Of course, CIA is not without problems itself, the most important of which seems to be the causality question. It might very well be possible that close correlations between certain variables can be observed in many cases, but since idealized *c.p.* conditions will almost never be fulfilled in the real world, unobserved variables might be responsible for the correlation just as well (Aoki 1998 is a broad description of the approach).

As was just alluded to, CIA is a direct consequence of the paradigm-shift connected with the NIE: Since one has dropped the concept of social optimum, realized states are only compared with other realized states and not with theoretically-derived optima. Instead of focusing on an optimal allocation, one is interested in the coordination costs that are caused by the underlying incentives that accompany various institutional arrangements and the outcomes they bring about. One way to measure the quality of institutions therefore almost seems to suggest itself, namely the costs incurred to use the institutions under scrutiny. These are the transaction costs introduced above.

Laboratory experiments

Homo oeconomicus is a very simple model that allows for very precise predictions. It is therefore tempting to test predictions in the laboratory, where conditions can be controlled. Over the last couple of years, it has been shown not only that many predictions are consistently falsified, but also that subjects behave within certain bounds and that their actions can thus be predicted on the basis of such experiments (Kagel and Roth 1995 provide an overview of this mushrooming field). For the NIE, these experiments are highly relevant, because many of the actions observed in the laboratory can be explained by taking internal institutions such as socially shared norms explicitly into account. Laboratory experiments are thus one method of ascertaining the relevance of internal institutions. Social norms are usually culture-specific. From the point of view of the NIE, it is therefore interesting to play formally identical games in different places and to analyze whether differences in behavior can be attributed to different underlying social norms, i.e. to differences in internal institutions.

Whereas the function of the types of experiments just sketched is to advance the theoretical basis of economics (in this case the behavioral assumptions), laboratory experiments can also be used for a more policy-oriented purpose (see also Binmore 1999, who compares these two approaches with the distinction between physics and engineering made in the hard sciences). They can be used to test the

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1 Greif (1998), for example, recently described HCIA (Historical Comparative Institutional Analysis) as an inductive tool.

effects of new institutional settings that are the result of theoretical reasoning and have not been applied in practice. This type of analysis could therefore complement comparative institutional analysis. Testing theoretically useful institutional innovations in a laboratory setting would allow better predictions of the consequences of a modified institutional setting and also point to unknown side-effects. Laboratory consequence evaluation therefore stands in the tradition of Popper's (1959) critical rationalism. Since the consequences of a new solution to a problem – in this case a new rule and/or a new enforcement mechanism – can never be anticipated completely and with certainty, restricting possible negative side-effects could be a positive consequence of this strategy. This resembles Popper's proposal to proceed by trial and error in a piecemeal fashion. Laboratory experiments could be viewed as an additional plane of negative side-effect containment: discovering negative effects in the laboratory – and burying some of the hypotheses incorporated in institutional reform proposals already there – is probably the least costly way of experimenting for society.[1]

Econometric tests

If one is able not only to recognize institutions and describe them qualitatively, but to quantify them and make them comparable, the door to applying conventional econometric tools opens. It then becomes possible to test for the consequences of external as well as internal institutions. An example of the first would be to regress the security of property rights on aggregate investment or per capita income. An example of the second area of application is the question whether internal institutions influence per capita income.

3.2 Empirical evidence

In a paper that is ultimately aimed at possible policy implications, it would not make much sense to try to present empirical evidence as comprehensively as possible. We have therefore decided to present empirical studies rather selectively, the central criterion being the impact that these studies have made on thinking within the NIE. We will present findings of case studies as well as some evidence from the laboratory and more traditional econometric tests. In the case studies presented, special emphasis is put on the relationship between internal and external institutions, attempts to measure transaction costs, and the role of the informal sector.

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1 In Germany, "Verwaltungsplanspiele" (administrative simulation games) are sometimes played to uncover possible effects of new laws and other legislative or executive acts. The "Handbuch zur Vorbereitung von Rechts- und Verwaltungsvorschriften" (handbook for the preparation of legal and administrative regulations) describes four aims of these games: (1) to estimate organizational as well as material consequences of the law, (2) to create transparency in the law, (3) to screen the practicability of processes, and (4) to extract of material for ordinances and/or decrees (1992, 83).

Comparing the relevance of external with internal institutions

There might be situations in which actors have the choice of resorting either to formal law (i.e. external institutions) or to customs (i.e. internal institutions) when trying to resolve conflict. In analyzing their actual choices, we can learn something about the actual relevance of these sets of institutions. Ellickson (1986, 1991) is an empirical study pointing to exactly this question. Ellickson wondered whether Coase's (1960) famous example of the farmer and the rancher had any empirical content. Coase maintained that conflicts between farmers, on the one hand, and ranchers whose cattle trespass on the farmers' land, on the other, are decided by the legal system. Ellickson (1994, 97) maintains that this view "is almost certainly incorrect in any rural area in which neighbors repeatedly interact." The author studied how disputes between ranchers and farmers were settled in Shasta County, California. This county was chosen because in some parts of it ranchers are strictly liable for cattle trespassing, while in others they are not. Ellickson was able to show that, no matter what legal rules prevailed, the way neighbors resolved their conflict remained unchanged, i.e., the law did not have any effect on the kind of conflict-resolution chosen. This study tells us that, under certain circumstances (repeat interactions), internal institutions still trump external ones, even in such highly developed societies as that of California.

Stone, Levy, and Paredes (1996) also inquire into the relevance of both external and internal institutions for doing business in two countries, Brazil and Chile. Brazil is described as "highly interventionist in an exceptionally detailed way", whereas Chile "has engaged in systematic reform to reduce the size and role of government in markets and to impersonalize the rules of economic competition" (ibid., 100). Stone, Levy, and Paredes (1996) have analyzed two areas in which private businessmen and government interact (start-up of new business and regulation of business) and two areas in which businessmen interact with customers (orders and sales on credit). Interviews were conducted with 42 garment firms in the São Paulo as well as the Santiago area. The results of this study are surprising: although getting a new business legalized is formally far more difficult in Brazil than in Chile, the interviewed Brazilian garment industry representatives hardly complained. The authors explain this with the profession of the *despachante* that has emerged as a consequence of the complicated legal structure. Instead of trying to get the various certificates themselves, they delegate this job to the *despachante*. The total cost of registering a business in Brazil amounts to $640, compared with $739 in Chile. The total time necessary to register was 1.6 months in Brazil, compared with 2.0 months in Chile.

Regarding sales involving credit, Stone, Levy, and Parades (1996) present the view that credit is essential to the functioning of the entire industry. Yet, transactions are often small, and recourse to conflict resolution involving external institutions would be expensive and time-consuming, even if it were efficient. Nonetheless, transactions involving credit take place. Firms extending credit to new customers check on them in two ways: (a) through references and (b) through credit agencies. The necessity to resort to conflict-resolution schemes is thus mitigated by a broad information scheme. Although Brazilians have developed alternatives to formal conflict resolution, Chile's mechanisms seem to be superior in this regard (ibid., 122). This study tells us how important it is to focus on *de facto* and not *de jure* institutions. In the latter, Chile is clearly superior whereas in the former, differences are not that great.

Summing up, both studies focus on ascertaining the relevance of internal institutions as compared with external ones. Ellickson (1991) shows the former to be more important than the latter, whereas Stone et al. (1996) show that the inferiority of a set of external institutions can at least be partially offset by functioning internal institutions.

A somewhat different approach towards ascertaining the relative relevance of external and internal institutions could be based on the following thought: Suppose the external (internal) institutions according to which various groups of people structure their interactions are identical, yet relevant outcome variables such as per capita growth differ significantly. It might then be worthwhile to inquire whether the variance is correlated with differences in internal (external) institutions and whether these might even have caused the variance. An obvious candidate for such an approach is Italy: the external institutions are identical all over the country, but it has often been noted that the ways people structure their interactions vary greatly between the northern and the southern part of the country, i.e., internal institutions demonstrate considerable variance. To a lesser degree, this might even be the case for northern vs. southern Germany.

Robert Putnam (1993) is not intended to be a contribution to the NIE. Yet, many of the issues he raises and the methods he chooses to deal with them are reminiscent of the NIE. Putnam is able to show that the number of horizontal voluntary associations at the end of the 19th century is a very good predictor for the performance of local government in the various regions of the country today. He argues that voluntary associations are not a sign of idealistic altruism, but rather of practical reciprocity that serves to pragmatically reduce risks in societies that are subject to rapid change. He puts great emphasis on the organizational structure of social bonds; the southern part of Italy is not apolitical or asocial. But it reaches much lower scores in the degree to which its civil society functions because it is structured much more by vertical bonds, which mean dependency and exploitation. Putnam believes that horizontal bonds, as found in the northern parts of Italy, are conducive to mutual solidarity.

Putnam reconceptualizes the different development of northern and southern Italy by drawing on the concept of path dependence (ibid., 177-80): in the north, a self-reinforcing social equilibrium with high levels of cooperation, trust, reciprocity, etc. developed. In the south, conversely, another equally self-reinforcing social equilibrium emerged in which defection, distrust, opportunism, etc. are the behavioral norm.

Other empirical studies such as Miegel et al. (1991) also seem to confirm that not only can internal institutions influence the external institutions of a society (a causality one would expect), but also that the external institutions can have an effect on the internal institutions of a population. If internal institutions not only influence external institutions but are also be influenced by them, they are obviously both dependent and independent variables, which is methodologically nasty. Both studies cited can be read as an empirical confirmation of the relevance of internal institutions. It seems appropriate to look for other settings in which external (internal) institutions are identical but internal (external) institutions diverge. North and South Korea as well as East and West Germany come to mind.[1]

Estimating transaction costs

As already indicated in section 3.1, the amount of transaction costs incurred to secure a certain transaction seem to be a natural indicator to empirically ascertain the quality of institutions. Institutions are here interpreted as devices to structure repeated interactions. The quality of these devices can thus be ascertained by identifying – and possibly comparing – the amount of transaction costs that are incurred if one wants to exchange something under a given set of institutions. For a long time, advocates of the NIE were rather hesitant in trying to measure transaction costs. The term was perceived as having a conceptual or heuristic function and many were not concerned with the difficulties of testing their own hypotheses empirically. In the meantime, estimations concerned with the micro- as well as the macro-level have been published. Before presenting some of the results, we want to deal briefly with some of the difficulties in measuring transaction costs. Benham and Benham (1998) name four reasons for the small number of empirical studies: (1) there is no generally accepted terminology; (2) transaction costs are difficult to estimate because they are usually incurred together with transformation costs and thus need be separated from the latter; (3) if transaction costs become prohibitive, no transaction can be observed at all; (4) the "law of one price" is not valid for transaction costs because the latter vary depending on the respective actor.

Benham and Benham (1998) then go on to compare transaction costs of specific transactions. In the early 1990s, for example, they compared the cost of obtaining a business phone. The price for having a phone installed within two weeks ranged from $130 in Malaysia to $6000 in Argentina. They propose that teams of researchers assess the costs of securing specific important transactions throughout the world.

Wallis and North (1986) are not interested in micro-economically relevant transaction costs but in measuring the aggregate level of transaction costs, i.e., in the macro-level. But since transaction costs always contain subjective costs such as the costs of searching or waiting, they actually measure the volume of the transaction sector and not the volume of transaction costs. The transaction sector is made up of those transaction costs that lead to exchanges of marketed goods and services, such as fees for lawyers and realtors, that are incurred to effect a transaction. The transaction sector is separated from the transformation sector (which is primarily concerned with the production of goods) and the transportation sector (which is interpreted as prolonging transformation costs). Wallis and North construct the transaction sector as composed of three components: (a) transaction industries whose primary function consists in making exchanges possible. They

[1] To the extent that pre-1990 East German external institutions were (largely) identical with those of other CMEA countries, differences in performance would have to be attributed to differences in internal institutions (regarding Central and Eastern Europe, see Voigt 1993).

are also called intermediaries and the authors rank all the resources used in finance, insurance, real estate, wholesale and retail trade among them. (b) Within the transformation industries, a lot of people are occupied with purchasing inputs or distributing output, processing information and making exchanges, etc. These people are classed in the transaction sector. They include owners, managers, proprietors, supervisors, foreman, inspectors lawyers, accountants, judges, notaries, police, guards, and watchmen. North and Wallis ascertain their weight by estimating the labor costs of these people. (c) A lot of activities performed by the public sector serve to protect property rights and to make a division of labor possible. Wallis and North include defense expenditures (because they protect property rights in a very basic sense), education, transportation services, and urban services. For the U.S., they estimate the size of the transaction sector in 1870 to have been 26.1% of gross national product and to have risen to 54.7% by 1970, and thus to have more than doubled over a period of 100 years.

Whereas macro-studies are based on a restructuring of available national account statistics, micro-studies such as the one cited will regularly be based on primary data. Micro-studies are presumably politically more relevant: the country that allows the securing of a certain transaction at the lowest price could be considered the benchmark case that policy-makers in other jurisdictions try to emulate.

Estimating the size of the informal sector

We attempted to estimate transaction costs and to compare them among countries to get some hints about the quality of their institutions. Above, great stress was laid on the conceptual distinction between external and internal institutions. It is now hypothesized that the size of the informal sector is a good indicator of the relative quality of the external institutions: the costlier it is to structure interactions using external institutions, the larger the proportion of interactions that will be secured by drawing on internal institutions. It is important to keep in mind that the size of the informal sector is a measure of <u>relative</u> quality: It does not say anything about the quality of the set of external (or internal) institutions *per se*, but only about their relationship. It is furthermore important not to assume implicitly a fixed number of interactions: if neither the external nor the internal institutions are capable of reducing uncertainty considerably, the total number of transactions taking place will be lower.

The most important empirical study in this vein is de Soto's (1990) study of three informal sectors within the Peruvian economy: informal housing, informal trade, and informal transportation. De Soto's central conjecture is that the size of the informal sector is a function of the compatibility of external with internal institutions, or, in his own words (1990, 12): "We can say that informal activities burgeon when the legal system imposes rules which exceed the socially accepted legal framework – does not honor the expectation, choices, and preferences of those whom it does not admit within its framework – and when the state does not have sufficient coercive authority." Although the informal sector is far from anarchic, de Soto is very careful not to glorify its performance. With regard to informal business, he notes that most businesses will have to forego scale effects because beyond a certain size, it will be impossible to remain informal, that they will often remain undercapitalized because they cannot provide the banks with the necessary securities, that they will be excluded from using certain markets such as stock markets and trade fairs, and that transactions will be accompanied by substantial information costs. Furthermore, long-term investment might well be impossible, which means that the investment rate in the informal sector will *c.p.* be lower than that of the formal sector.

Experimental economics

Two functions of experiments were distinguished above: those serving to further development theory and those serving to enhance the capacity to predict the consequences of the introduction of new institutions on a societal level. For each of these functions, one study (or rather group of studies) is presented.

The ultimatum game introduced by Güth, Schmittberger, and Schwarze (1982) has lead to heated discussions concerning very basic issues of the behavioral model of economics (Güth 1995 is "a personal review"). It is, of course, impossible to review that literature here. Instead, we just want to focus on one or two aspects that are relevant for the NIE. In experiments, it has been observed (a) that very often, splits close to 50:50 are proposed and (b) that proposals that give less than a third to the respondent are often rejected. This is even the case with very substantial stakes, for example in Cameron (1999), who has played the game in Indonesia with stakes that constituted approximately three times the average monthly expenditures of the participants.

These observations are often explained by drawing on notions of fairness, although this interpretation is anything but generally accepted. But suppose this behavior can indeed be explained by drawing on internal institutions. It would then be very interesting to play formally identical games in various cultural settings.

An example of the second purpose of experiments, namely to enhance the capacity to predict the consequences attributable to the introduction of a modified set of institutions, are the studies undertaken by Charles Plott (1997) and his collaborators concerning the use of auctions to allocate radio frequences. Rules whose introduction was under consideration were tested in the laboratory for theoretically unexpected side-effects before implementation. Results were likewise used in the software development process, as well as in the actual management of the first auctions that took place.

Econometric evidence

In reporting econometric studies, we are interested in evidence that the quality of institutions (which are assumed to be exogenously given) explains much of the variance that we observe in variables such as investment, per capita income, and growth in per capita income. We thus need to come up with proxies that enable us to quantify the quality of institutions. Typically, the left-hand variables will then be regressed upon these proxies.

The function of institutions is to reduce uncertainty. It is conjectured that secure property and contract rights are an important element in reducing uncertainty. If property rights are secure, this would thus substantially contribute to the quality of institutions. Knack and Keefer (1995) have worked with data that is used by foreign investors to assess and compare the risk connected with investment in various countries. These data are produced by the International Country Risk Guide (ICRG) and include several dimensions of the security of property and contract rights, such as the rule of law, expropriation risk, repudiation of contracts by government, corruption in government, and quality of bureaucracy. Knack and Keefer (1995) find that the ICRG Index has a statistically significant correlation with growth in standard growth regressions; an increase of one standard deviation in the index represents an increase in growth rates by more than 1.2 percentage points per year.

Whereas the ICRG Index is based on subjective data, Clague, Keefer, Knack, and Olson (1995) have developed a simple objective proxy for measuring the security of property and contract rights: they argue that people will prefer to keep money at home if they are afraid of being reneged upon, for example by banks who invest in dubious projects, go bankrupt, etc. The more secure the property rights, the more will people be willing to hold what the authors term "contract intensive money". This is money encompassing those instruments that involve other private parties such as banks. Clague et al. (1995) operationalize contract intensive money with $(M_2\text{-}M_1)/M_2$ and find that it is economically (and statistically) significantly correlated with investment (even if the effects of inflation, real interest rates, and other determinants of investment are taken into account).

Above, we reported Putnam's (1993) results analyzing the quality of local government as a function of the propensity to cooperate. La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997) asked whether these results could be generated on a broader scale and thus hold generally. The propensity to act cooperatively is proxied by the amount of trust that people display toward other people. It is measured using data from the World Values Survey that was conducted both in the early 80s and the early 90s among 1000 people in each of 40 countries. According to this study, the effects of trust on performance are both statistically significant and quantitatively large. It thus seems indeed possible to generalize Putnam's results. The next logical step of inquiry is to ask where the propensity to cooperate comes from, i.e., to endogenize trust. This is exactly what the authors do. As described above, Putnam conjectures that hierarchical organizations – especially the Catholic Church – are obstructive to the emergence of trust and reciprocal cooperation. Porta et al. (ibid.) operationalize the importance of hierarchical religion by measuring the percentage of the population belonging to a hierarchical religion defined as Catholic, Eastern Orthodox, or Muslim. They find (ibid., 336f.) that "holding per capita income constant, countries with more dominant hierarchical religions have less efficient judiciaries, greater corruption, lower-quality bureaucracies, higher rates of tax evasion, lower rates of participation in civic activities and professional associations, a lower level of importance of large firms in the economy, inferior infrastructures, and higher inflation."

Summary

The empirical evidence was not presented in the same order as the central hypotheses of the NIE, but rather in the order of the methodological tools as introduced in section 3.1. However, the evidence concerning the relative importance of internal institutions even if alternative external institutions are readily available seems to support the hypothesis that internal institutions are generally more stable than external ones. Similarly, the econometric evidence just presented seems to support the hypothesis that the quality of the set of institutions is an important variable for economic growth.

3. Institutions and Transition

From the perspective of NIE, institutions are important for economic growth and development. Transition economies provide a unique opportunity for the analysis of the connection between institutions and development. The transition from the planned to the market economy requires far-reaching institutional changes to be carried out as quickly as possible. Therefore, the assumption is that both the possibilities for and the limits of institutional change are more evident in transition countries than in the West, where institutions emerged over an extended period of time. To gain a deeper insight into the connection between institutions and economic development, NIE attempts to identify the given institutions in transition countries and to analyze their process of change.

The question as to what role institutions play in the process of transition is at the center of current discussions. Even in its early years, transition was recognized as a complex process with political, social, and economic dimensions (see ECE 1991). It was also presumed that the transition from a planned to a market economy, the creation of the economic framework, and democratization (e.g., the introduction of a multi-party system and the rule of law) would be difficult to achieve. Nevertheless, the necessary institutional changes were often neglected or not analyzed in detail by economists. Institutional change was seen as a precondition for economic transition, rather than one the tasks thereof. Under the assumption that it would be possible to establish the basic rules of the market economy in the short run, reform programs stressed first and foremost the importance of macroeconomic stabilization, liberalization, and privatization. Debate centered on the speed (big bang or gradualism) and sequence of these reform areas (see Funke 1993). The question of how to establish and change institutions was not addressed.

Notwithstanding the different sequences and speeds of reforms pursued in different countries, the whole of Eastern Europe faced a sharp economic decline in the early years of transition. The depth as well as the persistence of the economic slump had not been anticipated. It was therefore dubbed a transition crisis (see Rosati 1994). It had also been assumed that the temporary contraction would be followed by a strong recovery (so-called U- or J-shaped development). Indeed, in most transition countries, GDP increased in 1993. This gave analysts reason to believe that the initial problems had been solved and the transformational recession overcome. From this point on, a continuous and visible improvement of economic performance was expected. In the middle of the 1990s, however, some countries (e.g., Romania) were confronted with a second transitional crisis. Thus, instead of a unique pattern of economic transition, different patterns evolved. These differences were first explained by reference to the different stabilization programs and privatization methods implemented. By the end of the 1990s, institutions had become a major explanatory factor. It was argued that the different stages of institutional development might lead to different patterns of transition, and even that the given institutions are a hindrance to further transition all over the region. The EBRD (1997, 2) concluded that: "However, all countries in the region face a common challenge [...]: the task of developing and providing effective, market-oriented governance. By governance we mean the manner of governing within enterprises and within the economy as a whole, in particular the building and deepening of institutions and behavior that are at the heart of a well-functioning market economy."

Nowadays, institutions are at the center of discussions on transition. International organizations such as the EBRD have developed indicators to measure external institutions. It has become clear, however, that measuring external institutions does not provide the information needed to adequately explain differences between transition countries. Internal institutions matter as well, and should also be taken into account when the different patterns or rates of progress of transition are analyzed. Therefore, research on internal institutions has recently been intensifying. One question being asked, for instance, is whether private organizations or networks develop their own rules and enforcement mechanisms to complement or substitute external institutions. Initial results indicate that internal institutions are of great importance in transition countries.

It should be noted that the analysis of institutions in Eastern European countries is a new field of research, itself developing constantly in response to the experience gained in transition process. Many field studies have been conducted in recent years or are still in progress. In the following, only a brief overview of this work can be given. The "traditional view" of mainstream economics is sketched in the first section (4.1). The starting position of the transition countries, their main problems, and the proposed reform programs are outlined. Emphasis is placed on the role that institutions were supposed to play in the reform programs, and on institutions as an explanatory factor for the outcomes of transition. Thus, the EBRD's approach to measuring and evaluating external institutions is introduced. In the second section (4.2), institutions in transition economies are analyzed in terms of NIE. The results of recent field studies are presented, in particular those on internal institutions and the relationship between external and internal institutions. Policy advice is provided in the concluding remarks (4.3).

4.1 Institutions and transition: the traditional view

As yet, there is no comprehensive theory of transition, but rather a multitude of theoretical approaches. Therefore, it is only possible to provide a short overview of ten years of transition here. Instead of discussing the various approaches in detail, the main focus is on institutions, their place in traditional reform programs, and their role as a factor which might explain the progress or failure of the transition process.

Early reform programs: institutions can be changed rapidly

Early reform programs were based on strategies initially devised for underdeveloped countries (see Funke 1993). Those programs could not be transferred to transition countries without modification because Eastern European countries started the transition process burdened with the legacy of the planned economy, e.g., structural problems.[1] Moreover, the transition from the planned to the market economy required far-reaching changes to the economic system. This was why special research on transition countries was initiated and special reform programs were devised. The first step was to identify the main problems of the transition countries by comparing the characteristics of the planned economy with those of the market system. This comparison led to the above-mentioned policy advice for the economy to be liberalized and privatized. Privatization was seen as a means to reduce the dominant state sector. After privatizing state-owned enterprises, the government was advised to refrain from directly influencing them as it had done in the past. Instead, the state's main task would be to implement the rule of law, e.g., to protect private property. However, the concrete problems that might arise in conjunction with this redefinition of the state's role and the change of external institutions in general were not analyzed in detail at that time.

At the beginning of transition, economists did realize that the extent of the state sector and the state's influence on enterprises differed among the countries concerned. Fischer and Gelb (1991) described these differences in terms of the degree of centralization/decentralization, taking the share of the state with respect to the private sector into account. As a further category, they used macroeconomic stability/instability (inflation rate, indebtedness). Fischer and Gelb thus provided the following classification of transition countries: Poland was characterized by low stability and low centralization at the end of the 1980s. In contrast, Czechoslovakia was a country with high stability and high centralization. In the USSR, stability was low and centralization was high, whereas in Hungary, stability was high, but centralization low. With this classification, Fischer and Gelb showed that monetary stabilization or privatization were more urgent in some countries than in others. In addition, they made concrete proposals on how to plan privatization. Fischer and Gelb's approach is only one example of the fact that, even in the early 1990s, different reform programs were developed on the basis of the different starting positions in the countries concerned.[2] Apart from differences in the share of the state or private sector, however, institutional differences were rarely investigated.

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[1] Concrete problems were: (1) the high proportion of heavy industry and an underdeveloped service sector, (2) outdated capital stock and technological backwardness, (3) high energy consumption and pollution, and (4) the priority on CMEA trade rather than international integration.

[2] In contrast to other authors, Fischer and Gelb trace the between-country differences that could be observed at the beginning of the 1990s back to the different range of reforms that had been undertaken during the Socialist era. Thus, they (indirectly) point to the role of history. Wolf (1991) provides a short overview of earlier reforms.

Institutional change and the establishment of the rules of the game of the market economy were seen as preconditions for – rather than as the centerpiece of – economic reform programs. Most economists assumed that the institutions of the market economy could be established rapidly, that is, before the implementation of reform programs.[1] For rapid institutional change, it was proposed that Western institutions be copied.[2] Copying legal regulations would have the additional advantage of saving resources which could then be used, e.g., to set up the essential legal infrastructure: "The resources saved by this type of short-cut could then be used for setting up institutions and training the individuals who will be entrusted with applying and interpreting the new laws" (ECE 1991, 131). Thus, it was evident that after the transfer of laws from the West and their implementation, further investment outlays would be required for generating the new infrastructure and training personnel. Only a short period of repayment was calculated for this, however.[3] In addition, the fact that the new regulations would still have to gain social acceptance and that the copied external institutions would have to be an appropriate match for the existing internal institutions was not an issue.

It should be mentioned that the meaning of "institution" was vague in the early reform programs. "Institutions" referred to laws, the legal infrastructure (courts), as well as organizations such as the central banks, tax authorities, and special agencies (e.g., privatization agencies). Thus, institutions, organizations, and infrastructure were confounded. It was only in the course of transition that the meaning of "institution" was clarified.

The path of transition: institutional change is slow

At the beginning of transition, it was assumed that GDP would take a "U" or "J"-shaped development. Instead, an economic recession occurred, the persistence and depth of which had not been anticipated (see figure 4-1)[4] Industrial output and in-

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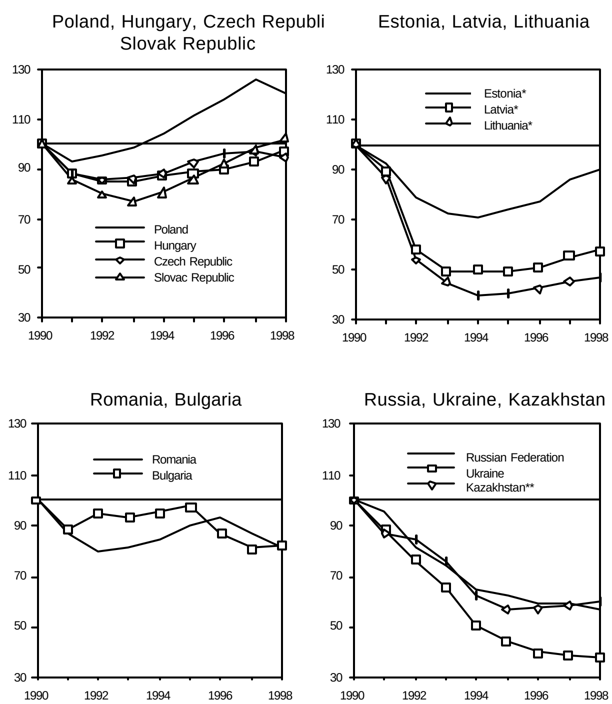
1 Dornbusch (1991, 169ff), who has developed a reform program with a symbolic duration of seven days, allowed two days for the establishment of the rules of the game and the creation of institutions.

2 Western legal systems were indeed copied or used as a point of reference in the early stages of transition. Examples are the Bulgarian and Romanian commercial codes, which were based on German and French law respectively.

3 In contrast, Murrell (1996, 34) believed: "In the large majority of countries, especially in the former republics of the USSR, it will take a generation, or more, for the legal system to buttress capitalism in the manner imagined by the drafters of the many new laws. Although these laws are beginning to affect behavior, they are presently of no more than marginal significance."

4 The level of GDP given in Figure 1 should be interpreted carefully. The data basis for transition countries is not yet well developed. Although statistics are corrected by estimations of the second economy (for instance in Russia), the level of GDP remains difficult to calculate. With regard to Russia, it has been pointed out that a so-called virtual economy evolved, the output level of which is far below the official figures due to accounting practices. Gaddy and Ickes (1998, 54) even observed that: "What has emerged in Russia is a kind of economic system with its own rules and its own criteria for success and failure."

vestment declined sharply and unemployment increased. In general, all transition countries followed this pattern of development,[1] no matter whether they had followed a big bang strategy (e.g., Poland) or a gradual approach (e.g., Hungary). Thus, the crisis seemed to be independent of the reform program implemented.[2] It was therefore assumed that, in the first stage of transition, all countries would face similar problems inherited from the planned economy. These problems would outweigh country-specific factors. The assumed legacy included structural problems (high proportion of heavy industry) and the dissolution of the intra-CMEA trade, for example. In contrast to structural problems which only would be possible to overcome in the long run, institutional problems were assumed to be only temporary. The assumption was that the so-called "institutional vacuum" (Koop and Nunnenkamp 1994, 69) would be filled rapidly.



*1998 preliminary; **1997 preliminary, 1998 estimated

Sources: European Bank for Reconstruction and Development, Transition report update, April 1998, London, 1998. Our calculations.

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1 Rosati (1994), Fischer, Sahay and Végh (1996), and Poser (1999) provide an insight into the causes and the course of transition. The fact that the production decline did not occur at the same time in all countries is explained by the different starting time of transition (1989 in Poland, 1992 in Russia).

2 ECE (1992) provides an overview of the various reform programs.

Figure 4-1: Development of GDP 1990 – 1998

Index, 1990 = 100

After 1993, economic performance in the Visegrad countries improved. There were also signs of recovery in south-eastern European countries and the Baltic states. In contrast, GDP continued to decline in the CIS countries. Thus, at least two patterns of development had evolved. A third pattern emerged in 1995, when the south-eastern European countries were once again confronted with declining production. The fact that three patterns of transition had emerged was first explained by the way the stabilization program was implemented and by the speed of privatization. Countries such as the Czech Republic, which followed a restrictive macroeconomic policy and implemented rapid privatization, were regarded as successful. Half-hearted stabilization and slow privatization were believed to be the causes for recession in south-eastern countries. The permanent decline in CIS countries was traced back to policy failures. Thus, at that time, the assumption was that the success (or failure) of transition was dependent on the rapid (or slow) progress in stabilization and privatization.

At the end of the 1990s, even those countries which some years before had been regarded as successful because they had stabilized their economies and quickly privatized their state-owned enterprises now faced declining or negative rates of economic growth. The following explanation was given: "Setbacks in economic stabilization in 1996 and 1997 can often be traced to delays and inconsistencies in enterprise and institutional reform" (Stern 1998, 5). In particular for those countries which were regarded as less successful, it was stated that: "The Russian experience further underscores that institutional reform is essential if the potential gains from privatization and liberalization are to be realized in terms of growth and stability" (EBRD 1998, VI). Russia is no exception within the region. Empirical research indicates that in many countries, privatization did not live up to the hopes that had been placed in it (see box). Therefore, the existing institutions are currently regarded as one of the limiting factors in transition. In addition, between-country differences in institutions are now seen as a reason for the different patterns of GDP development.

The experience of transition made it clear that institutions cannot be changed overnight. Therefore, transition countries nowadays are being advised to proceed with institutional change as quickly as possible. In addition, the areas where institutional reforms are urgently needed (the financial sector, for example) are being identified. However, as institutions change slowly, it could also be useful to treat institutions as a given and limiting factor when designing reform programs: "However, given the time lags needed for market institutions to emerge and be established, macroeconomic policies should be designed in such a way as to take into consideration the deficiencies of the market mechanism in its teething period" (Rosati 1994, 430). Both the adaptation of reform programs to given institutions and the improvement of given institutions require more knowledge on institutions and institutional change. A first step would be to identify institutions, a second to measure, and third to evaluate them.

Privatization and Institutional Change

In transition countries, special importance was attached to privatization, that is, the transfer of state equity into the private sector.[1] Privatization was seen as a means to reduce the state's influence on enterprises and to change the ownership regime rapidly. In order to accelerate privatization, increase the people's acceptance, and improve corporate governance, Western privatization methods were adapted in modified form. Special methods applied in Eastern Europe included voucher privatization and management/employee buy-out.[2]

The success of privatization was first measured in terms of the number of enterprises privatized. Czech privatization was therefore regarded as more successful than the privatization efforts made by south-eastern European countries. This measurement, however, did not take firms' behavior into account. Field studies show that privatization has often resulted merely in a formal transfer of state equity to the private sector, no matter how privatization was carried out, and in what time frame. Privatized enterprises will only change their behavior and start restructuring if confronted with hard budget constraints and competition (Pinto, Belka and Krajewski 1993). This means that the introduction of market-styled institutions is the precondition for the success of privatization.

In many countries, property rights were not clarified in the privatization of state-owned firms. This holds not only for CIS countries, but also for Visegrad countries. With most of the enterprises privatized, the ownership structure in Hungary is characterized as "recombinant property" (Stark 1996, 993) and the structure in the Czech Republic as a "web of cross-ownership" (Kenway and Klvaèova 1996, 797). In addition, enterprises which have been officially privatized are characterized as "non-state, but not fully private" (ECE 1995, 13). Thus, privatization contributes little to either clarifying property rights or changing the ownership system.

Transition results: institutions cause East-West differences

The EBRD has developed so-called "transition indicators" to measure the progress of transition. Different indictors are provided for the various reform areas (privatization, liberalization, etc.). Each indicator is rated on a range from 1 to 4+, the highest value representing the characteristics of the market economy. One of the indicators is the so-called legal transition indicator. This measures the development of important regulations concerning business law (company law, insolvency law), and is thus a measurement for external institutions. Since 1997, the legal transition indicator has been based on the criteria of extensiveness and effectiveness. Extensiveness assesses the extent to which the laws en-

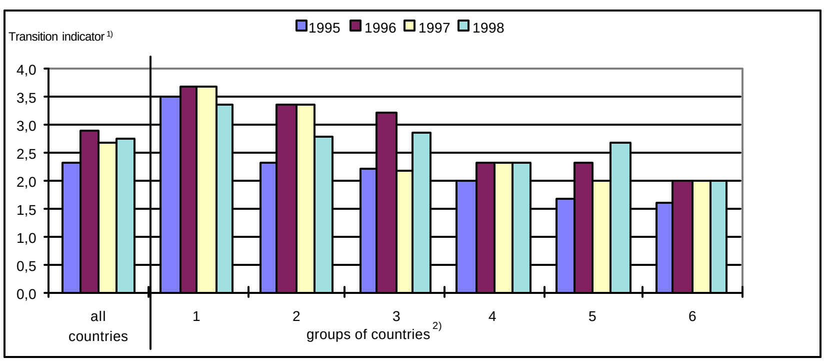
1 This is a narrow definition of privatization. In a broader sense, privatization means the evolution of a private sector including the emergence of small and medium-sized enterprises.

2 During the so-called privatization debate, a wealth of articles were published on privatization. Noteworthy articles include Lipton and Sachs (1990), Aslund (1991), Inotai (1992), and Winiecki (1991). For more recently published articles, see The World Bank (1996, 52) and Frydman, Gray and Rapaczynski (1996).

acted approach the laws of market economies. Effectiveness assesses whether legal rules are enforced judicially, and thus actually implemented. Measuring effectiveness is particularly important in Eastern European countries, where laws often exist only on paper.

The EBRD itself concedes that the indicators should be interpreted carefully. The indicators are not only based on official statistics, but also on surveys. Data for the legal transition indicator, too, is gathered by subjective assessment. A further problem is that more and more indicators (to measure infrastructure, for instance) have been developed in recent years. Thus, the different indicators do identify the areas where problems either have been solved or still remain. However, as aggregation is difficult, the indicators do not reveal much about the overall success or even failure of transition. As such, the transition indicators should be used with care. This should be kept in mind during the following presentation of some of the indicators.

A comparison of the different reform areas shows that in all countries under consideration, progress has been made with respect to the liberalization and privatization of enterprises (EBRD 1998, 30). In contrast, reforms of financial markets have been delayed. According to the legal transition indicator, the external institutions also lag behind in development (see figure 4-2). Thus, progress has been made first and foremost in those reform areas which were an explicit part of the agenda of the reform programs. However, as privatization is measured in terms of state equity transferred to the private sector, no evidence is provided about the behavior of the enterprises, the extent to which enterprises are still under the influence of the state, or the change of the property-rights system in general.



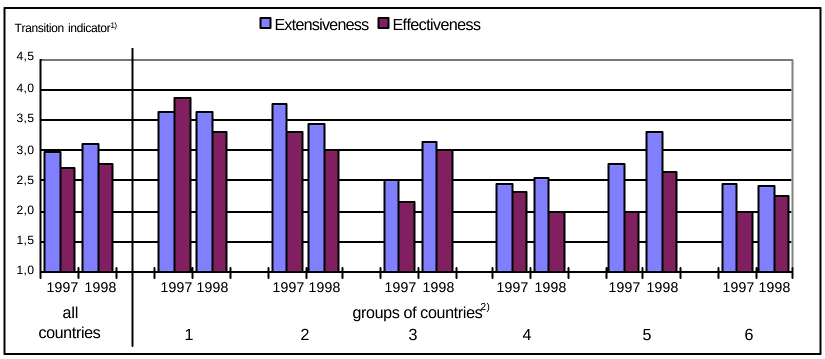
1) The indicator measures the transition from a planned (1) to a market economy (4).

2) For country groups see figure 3.

Sources: European Bank for Reconstruction and Development, Transition report update, April 1998, London, 1998. Our calculations.

Figure 4-2: Legal transition indicator by groups of countries 1995 – 1998

The indicators reveal a typical regional pattern: less progress in transition has been achieved in the East than in the West. Visegrad countries, for instance, have been more successful than CIS countries. East-West differences are observable in all of the reform areas, including the legal transition indicator. In addition, the distinction between extensiveness and effectiveness reveals that most of the transition countries enacted the necessary laws, but failed to enforce them adequately (see figure 4-3). The fact that effectiveness declined in the Visegrad and Baltic countries in 1997/1998 seems astonishing at first. According to the EBRD (1998, 39), the decline is due to the fact that the infrastructure is not sufficiently equipped to cope quickly with legal changes.[1] Further explanations of East-West differences are initial socio-economic conditions, early patterns of reform, and later policy choices. At least where the initial conditions are concerned, internal institutions seem to be of some importance. This means that internal institutions, which are not measured by any of the indicators, do indeed matter in practice.



1) The indicator measures the transition from a planned (1) to a market economy (4).
2) For country groups see figure 3.
Sources: European Bank for Reconstruction and Development, Transition report update, April 1998, London, 1998.
Our calculations.

Figure 4-3: Legal transition indicator – extensiveness and effectiveness of legal rules1997 – 1998

There are two approaches which might explain the regional pattern of institution-building and give an idea of the possibilities these countries have to develop their institutions in the future. The first one is the prospective approach: those countries that will join the European Union in the first wave have stronger

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1 Effectiveness is low because of lengthy judicial procedures among other reasons. In addition, law implementation is negatively affected by corruption in many countries. In this context, it should be mentioned that it is difficult to assess the extent of corruption. One example of a way of measuring corruption is the Transparency International's corruption index. The index is based on surveys and should be interpreted with care. As expected, the indicator shows that the level of corruption in transition countries is high compared with market economies. However, corruption is lower in Visegrad than in CIS countries. Thus, illegal actions are less frequent in countries with higher levels of legal effectiveness. For corruption see also 4.2.

incentives to improve their institutions than those countries that might join it in the second wave or, in particular, those that will never join it at all. The second is the retrospective approach: transition countries such as the Visegrad countries, which had been in economic and cultural contact with the West in their pre-socialist history, still have more experience with the market economy than CIS countries.[1] If the first and the second approach are combined, then in particular the Visegrad countries that will join the EU in the near future and that were and are in close contact with the West have great potential to improve their institutions. These are followed by countries such as Romania that might join the EU later and that were in contact with the West at the beginning of the century. Conditions for institutional change are the least favorable in CIS countries.

The prospective approach is based on the assumption that people in transition countries are aware of the institutional changes needed and actually taking place, because they know that the market economy is the goal of the reforms in progress, and because Western economies are held as examples to be emulated. Such a conscious change must be distinguished from the change or evolution of institutions that all societies experience over time without people being consciously aware of it (Engerer 1999). The latter process of institutional change is constitutive for the retrospective approach. It is also the main focus of recent research on institutional change in transition countries. At the same time, research suggests that the possibilities for setting up external institutions and influencing the expectations of economic agents are slimmer than initially assumed. In addition, processes of conscious and unconscious institutional change occur simultaneously and mutually influence one another. Recent research has attempted to shed some light on these processes. To this end, internal institutions are identified and the relationship between external and internal institutions in transition countries is analyzed.

4.2 Institutions and transformation: The view of NIE

4.2.1 Initial conditions, path and results of transition: institutions matter

According to NIE, the institutions in existence at the beginning of transition influenced the starting position of the transition countries. They also affected the choice of reform program as well as the path of transition in individual countries. In the following, differences between the traditional and the NIE perspective are discussed.[2] Some examples are given to highlight the NIE standpoint.

1 See Voigt (1993).

2 The articles on institutions that were published at very the beginning of transition highlight many differences between NIE and mainstream economics (see, for instance, *Journal of Institutional and Theoretical Economics*, 148/1, 1992).

From the NIE perspective, history matters. In order to understand the starting position of transition countries, it is useful to analyze the planned economy and the reforms undertaken during the socialist era. Representatives of NIE, among others, point to the fact that in the planned economy, transaction costs were positive and information was incomplete. In order to diminish costs and minimize the monitoring and enforcement problems, a vertical planning system was introduced and large-sized production units were created (Eggertsson 1994); these ranked among the main characteristics of the planned economy. A further response to the information and monitoring problems was the centralization of the political process and the primacy of politics over economic activities. In this way, positive growth rates were achieved for a long period of time. When growth rates began to decline in the 1980s, the attempt was made to foster innovation. However, as production processes became more complex, information and monitoring costs rose. Furthermore, inefficiencies prevailed. In order to enhance efficiency, some countries decentralized the decision-making power of state-owned enterprises to some extent. One result was an increase of principal-agent problems. Another result was that state enterprises also pursued their own goals, as they were no longer under the strict supervision of the central authorities. Enterprises built up networks and developed their own rules and enforcement mechanisms. Problems of compatibility between internal and external institutions arose. These problems were not uniform throughout the region, because the degree of decentralization as well as the extent of other reforms (legalization of private activities, for instance) differed in the countries concerned. The reform measures did not succeed in stopping the overall economic decline, however. According to NIE, high transaction costs and principal-agent problems contributed to the breakdown of the planned economies.

At the beginning of the 1990s, governments in Eastern Europe proclaimed that the transition from the planned to the market economy promised welfare increases. All interest groups supported the general goal of introducing a market economy. However, they also brought their influence to bear on the reform programs, thereby altering the initial design of the programs or even preventing some of the reform measures. One example is privatization. Directors and employees of state enterprises opposed the selling of their companies because they feared a loss of influence. A second example is the liberalization of market entry. Again, managers of state enterprises resisted liberalization in order to keep new private enterprises out of the market and prevent competition. Price liberalization is a third example. The cutting of subsidies (e.g., foodstuff, tariffs) reduced the population's support for reforms. Finally, politicians resisted reform because they stood to lose some of their power if the state ceased to exert direct influence on enterprises. All in all, the transition game did not start out in a spirit of cooperation. Therefore, compensatory payments had to be made in order to enhance the players' willingness to cooperate.

At the beginning of transition, the question arose of which kind of market economy should be introduced – a market economy *with* a descriptive adjective ("social" market economy, etc.) or one *without*. The debate on adjectives once more revealed the interest groups' power to influence the reform program. Again, privatization is a good example. Due to the decentralization that had already taken place in Poland, Polish employees had a broader scope of influence than Czech workers. Therefore, the Czech Republic could start with privatization "from above", whereas privatization in Poland could be carried out only with the consent of employees. In fact, Polish privatization was accompanied by a special phenomenon, the so-called "Bermuda triangle" (Bienkowski 1992).[1] In addition, Polish employees were granted certain privileges if their enterprise were sold.[2] Privatization is one example of the fact that both reforms within the planned economy and the initial conditions played a key role at the outset of reforms. Although the theoretical debate centered on the question of what kind of reform program (big bang or gradualism) and what privatization method (voucher method or selling) was best suited to countries in transition, in practice freedom of choice was limited. Even after the implementation of the reform programs, there was resistance to reform. As a result, some countries (e.g., Romania) modified their initial program, whereas others (e.g., Czech Republic) initially stuck to theirs. The path of transition was dependent on the question of whether cooperation had been established once and for all, or whether it would have to be re-established over time.[3]

Representatives of NIE reject the assumption that institutional change can be carried out overnight (Streit 1996). However, they neither support gradualism nor totally oppose traditional reform programs. Instead, they believe that privatization and liberalization are necessary steps for transforming the planned economy into a market system. However, this requires institutions to have been created or changed in a crucial preliminary step. Privatization is again a good example. Privatized enterprises will behave like their Western counterparts only if hard budget constraints have already been introduced, the former state-owned enterprises feel competitive pressure, and the state protects private property. If these institutional conditions are not given, privatization will only result in a formal transfer of state equity to the private sector, and not in the creation of private ownership. In addition, liberalization will not lead to the emergence of new enterprises if the credibility of the legal system is low. All in all, the traditional reforms in transition countries will not live up to hopes as long as the rules of the game of a market economy have not evolved.

Representatives of NIE believe rapid institutional change to be unlikely. Particularly internal institutions change slowly. But even the reform of external institutions is less easy to accomplish than mainstream economists have as-

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1 "Bermuda triangle" means a triangle of enterprise managers, workers, and trade union representatives. These various players follow a short-sighted strategy of opposing privatization with the result that firms vanish. This process can also be interpreted as a kind of spontaneous privatization.

2 This is a simplified description of the processes that were actually taking place. Apart from the workers, other interest groups influenced the choice of privatization method and reform program. Keefer and Shirley (1998), for instance, analyze the political process.

3 Support for the reforms has declined in recent years. The transition barometer indcates that this is not only true in the less successful countries, but also in the Czech Republic (for "Tansformationsbarometer" see Haarland and Niessen 1998).

sumed. A rapid enactment of laws will probably be only of symbolic value, especially if the infrastructure needed to implement and enforce the laws does not exist (see Lamb 1994, 131). Therefore, merely copying Western laws is no real solution. Rather, it causes additional problems: after having replaced old laws by Western-style laws, conflicts between external and internal institutions may arise. In cases where only part of the laws have been copied from the West, contradictions between the old and new laws are likely to appear. Russia serves as an example. Here, domestic laws and copies of Western laws are not always compatible. In addition, credibility has declined because legal regulations have been changed so frequently. Therefore, transition countries are advised to establish only the most important laws (see Naishul 1993), and to avoid frequent legal changes in order to stabilize expectations. Under these cir cumstances, it is more likely that internal institutions will adapt to external ones.

In sum, NIE reveals some of the weak points in the traditional view and some of the reasons why the expected results of reform programs have not yet materialized. NIE does not, however, predict the outcomes of transition in detail. As Furubotn (1992, 204) remarks: "if institutional choice and the pace of privatization are influenced significantly by the pattern of gain and losses that reorganization produces, prediction would seem to require detailed information about a system's structure and initial conditions. [...] But this approach, based on the need for extensive information, does not take us very far." Therefore, researchers on transition have proposed that data gathering be restricted to certain reform areas or institutions (e.g., property rights) (see Riker and Weimer 1995). Instead of analyzing single institutions, recent field studies attempt to identify internal institutions and to analyze the relationship between external and internal institutions.

4.2.2 External and internal institutions: relevance and relationship

One peculiarity of transition countries is their simultaneous economic transition and political democratization. This means not only that an economic framework must be created, but also that the rules of the political game must be changed. Political instability cannot be ruled out during the transitional period, and this is likely to lead to delays in the creation of the economic framework. Thus, the enforcement of the rules of the game remains difficult as long as the state is redefining its role, thus resulting in a credibility problem. In a situation in which external institutions do not function, however, economic agents make their own efforts to compensate for inadequate legal regulations. In this way, they build up supplementary insurance. One possibility for such additional insurance is to maintain traditions such as economic exchange within the family, or to retain those business relationships which rely on personal contacts. Both courses of action were and are familiar in transition countries. Another type of insurance is the enterprise network, many of which have been created in transition countries. These networks will probably exist in their present form for only another few years, and dissolve when additional insurance is no longer needed. Given this fact, these networks can be characterized as "transitional."

In practice, it is difficult to make a clear distinction between the different types of institutions found in transition countries, particularly with regard to internal institutions. In order to identify institutional change in transition countries, it seems useful to start by analyzing typical phenomena (networks, barter, "mafia"). In the table below, the attempt is made to classify institutions or phenomena observed in transition countries in accordance with table 4-1 (section 4.2.3).

Table 4-4: Institutions: Examples in Eastern Europe

Kind of Rule	Kind of Enforcement	Examples/Phenomena in Eastern Europe	Type of Institution
Convention	Self-enforcing		1 -Internal
Ethical rule	Self-commitment of the actor	Fear of erosion of personal trust	2 Internal
Customs	Iinformal societal control	Fear of erosion of reputation/ barter	3- Internal
Private rule	Organized private enforcement	Private arbitration; private protection firms; "mafia"	4 Internal
State Law	Organized state enforcement	Arbitrazh Court	External

The following three areas in which institutions are assumed to play an important role can be distinguished: (1) Norms and networks, which establish their own rules and enforcement mechanisms. (2) So-called *state arbitrazh* courts and private courts of arbitration; the main focus here is on public acceptance of these courts and on the question of how these courts work together. (3) (Il)legal private protection, meaning the activities of private agents to protect themselves by legal or illegal means. Although these three areas do not provide a comprehensive picture of institutions in transition countries, they do illuminate problems typical of institutional change. It should be mentioned that recent research focuses mainly on the Russian Federation, where phenomena such as non-payment or breaches of contract are widespread, the jurisdiction is underdeveloped, and the "mafia" is a powerful organization. Other countries where the relevant information is available will also be analyzed.

Norms and networks

In the planned economy, enterprises were part of a vertical structure. Horizontal relationships and direct contracting between enterprises rarely existed. Nowadays, phenomena such as non-payment indicate that the principle of *pacta sunt servanda* has not yet been established. Therefore, enterprises create their own mechanisms to enforce contracts. According to Hendley, Murrell and Ryterman (1999) one enforcement mechanism applied is relational contracting, which means business contacts relying on the mutual trust of their trading partners.

The partners, who have traded with one another for a long time, stick to the contract because they otherwise fear a loss of trust. The threat of one partner stopping trading is effective, because in transition countries with underdeveloped markets and an unstable economic framework, information on alternative trading partners is still limited. Relational contracting is based on a kind of self-commitment (Type-2 Internal). Sometimes, the expectation that a partner might stop trading is enough to prompt a manager to stick to a contract. Although the threat to stop trading is hard to distinguish from relational contracting, Hendley et al. characterize it as a kind of self-enforcement. In contrast to the table above, however, the authors use the term self-enforcement for all enforcement mechanisms that are not based on organized private or state enforcement. Another kind of enforcement is third-party enforcement (see Type-3 Internal), which can be expected to be widespread within networks where enterprises inform one another about the reputation of their trading partners (see below). Loss of reputation is believed to be one of the enforcement mechanisms applied within networks.

According to Hendley et al. (1999), relational contracting is the enforcement mechanism most often applied in transition countries. In Russia, enterprises rely first and foremost on business contracts established in the Soviet era. Among the enterprises surveyed, almost half are still trading with old partners. Furthermore, a survey conducted by Johnson, McMillan and Woodruff (1999) into Russian, Ukrainian, Polish, and Romanian enterprises shows that enterprises will stick to old trading partners even if new suppliers offer better conditions. They will change supplier only if courts or external institutions in general are seen as a credible means of contract enforcement.

If no old trading partners exist, then enterprises apply methods of self-enforcement (Hendley et al. 1999). One such method is the above-mentioned threat to stop trading. Another is pre-payment. In an environment where non-payment is widespread, pre-payment circumvents the difficulties of assessing the customer's ability to pay. Thus, pre-payment is one solution to the problem of asymmetrical information. Another solution is barter, because service and return service are carried out simultaneously. Whereas bilateral barter is another form of self-enforcement, barter transaction between more than two enterprises that at least temporarily form a kind of network can be characterized as third-party enforcement.

In the planned economy, networks of enterprises were built up in order to secure a supply of needed inputs and thus to achieve plan fulfillment. Nowadays, enterprises join together with the aim of contract enforcement via societal control. However, third-party enforcement is not applied equally in formal and informal networks. So-called financial-industrial groups (FIGs), which have emerged in Russia in particular, but also in the Ukraine, are one example of formal networks.[1] Within these groups, third-party enforcement does not play a

[1] FIGs are associations between enterprises and financial institutions, some of which arose spontaneously. Since 1993, they have also been established by state authorities via decree laws. These FIGs must register themselves. In order to encourage registra-

major role (Hendley et al. 1999). The members of an FIG seldom ask the association for assistance in evaluating a customer's ability to pay or in solving conflicts. Instead, they prefer to go to court. In contrast to such formal networks, third-party enforcement is an efficient enforcement mechanism within informal networks.

In their function as interest groups, FIGs influence the design of external institutions. The so-called bank-led FIGs, in particular, maintain close contacts to politicians and have succeeded in negotiating favorable conditions.[1] For instance, they have prevented the participation of foreigners in privatization, thus lowering the selling price. Russian FIGs are only one example of FIGs functioning as interest groups.[2] With regard to the relationship to politics, there are two kinds of networks in transition countries: (1) networks of enterprises which can survive and have already started restructuring, and (2) networks of enterprises which are engaged in a struggle for survival (see Dolgopiatiova 1996, Huber and Wörgötter 1998). The latter enterprises attempt to obtain subsidies in order to prevent bankruptcy. They exert influence on politicians in order to prevent reforms ex ante or to delay their implementation ex post. In contrast, networks that are able to survive are more interested in reforms. However, both kinds of networks still have short-term objectives. Therefore, there remain some doubts as to whether networks can contribute to the creation of stable institutions in transition countries.

Personal contacts, both among managers and between managers and politicians, are important in transition countries. When analyzing these relationships, it should be taken into account that in many cases, managers and politicians have not yet given up the vested rights they acquired in Soviet times. Instead they implicitly lay claim to these "rights," which often remain hidden. In order to gather information on such hidden rights, conflicts should be legalized (Naishul 1994). Only if conflicts take place in public will the arguments of the parties involved be revealed.

Private and state arbitration

Private arbitration courts are established by industrial or trade associations such as chambers of commerce. They represent an authority to enforce rules (see Type-4 Internal). In contrast, *arbitrazh* courts were, during the Soviet era, a means to enforce the state's interests. At the beginning of transition, they were either abol-

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tion, the government first promised tax reductions and subsidies, but these have not actually been granted.

1 Two kinds of FIG exist in Russia: the so-called bank-led FIG, whose core is a commercial bank, and the so-called industry-led FIG, whose central member is an industrial enterprise. The latter are often heterogeneous. Therefore, as an interest group, industry-led FIGs have weaker power of influence.

2 There are regional differences in networks in Russia. One reason is that differences in concentration already existed during the Soviet era; another reason is regional policy or federalism in general. Specific problems of institutional change that can be attributed to the federalist structure are not discussed in the following.

ished (e.g., Hungary) or transformed into independent state courts (e.g., Russia). As state courts, they are part of external institutions. The transformation of *arbitrazh* courts and the establishment of arbitration, however, was not easily accomplished during transition. In addition, disputes arose between the courts over the respective areas of competence (Pfaff 1996, 322). Thus, in general, conflicts between external and internal institutions could not be avoided.

Research studies on Russian *arbitrazh* courts (see Hendley 1998, Pistor 1996) reveal interesting findings. In contrast to the widely held assumption that proceedings are time-consuming and expensive, it emerged that even compared to state arbitration in the USA, Russian *arbitrazh* courts process petitions rather quickly. This can be attributed to the strict supervision of the supreme *arbitrazh* court among other factors. However, the cases decided are far fewer in number than the petitions filed.[1] Cases of non-payment are the largest single category of disputes, but many of the courts' decisions on these disputes are not actually enforced in practice. The question thus arises as to why firms initiate proceedings at all against customers that do not pay. One answer is that enterprises want to prove that they have tried to collect outstanding debts. Only with this proof are they allowed to write off the debt for tax purposes (see Pistor 1996). Another answer to the question of why enterprises initiate proceedings although their customers are not ultimately forced to pay is a kind of demonstration effect. Enterprises want to show their (potential) partners that they themselves would not breach contracts. Thus, enterprises may initiate proceedings for reasons that are unique to the transition period. As such, the number of cases filed does not indicate whether or not courts are believed to actually enforce contracts. The fact that foreigners seldom apply to the courts indicates, rather, that the Russian *arbitrazh* courts are not yet a credible authority. Thus, the case of the *arbitrazh* courts reveals that the mere existence of courts and the number of cases initiated do not necessarily provide reliable information about the emergence of market-styled institutions. Instead, it is necessary to investigate who applies to the courts, and for what purpose. This is also true for the so-called tertiary courts (*treteyskie sudy*). The number of such private courts has increased in recent years. In comparison with *arbitrazh* courts, *treteyskie sudy* play a minor role. According to Pistor (1996), a possible explanation is that the parties do not voluntarily comply with the decisions of *treteyskie sudy*, but instead go to state *arbitrazh* courts as the next stage of appeal. The recent study conducted by Hendley et al. (1999) reveals that few enterprises use the *treteyskie sudy*, not only because the courts' judgement is not respected, but also because costs are higher than at the *arbitrazh* courts.

Throughout the transition area, private arbitration plays a minor role, at least with regard to tribunals established by the chambers of commerce. The chambers of commerce themselves had to be reorganized in the course of transition.

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1 The number of cases decided decreased from 1993 to 1995 (Hendley 1996, 382). One reason for this decrease is that the *arbitrazh* courts were reorganized during this period. Another reason is that enterprises had become accustomed to the new rules of the game.

Mere reorganization of the old chambers proved to be difficult in some countries (e.g., Czech Republic) on account of credibility problems. In other countries (Hungary and Poland), several new chambers were founded, resulting in fragmentation and unclear areas of competence. Problems of credibility and competence have contributed to a decrease in the voluntary membership of chambers in the Czech Republic (OECD 1996, 86). In fact, membership has decreased although the number of private enterprises increased over the same period. In Poland, the number of cases heard by the tribunals has increased far less than the number of new legal entities (Rapaczynski 1996, 95). This indicates that enterprises do not yet rely on arbitration courts. However, there is little information on the tribunals, e.g., on the opportunities non-members have to apply to them and on the costs thereof. There is, however, some evidence to show that arbitration courts still do not supplement state courts.

(Il) Legal private protection and corruption

Private protection is also classified as a type-4 internal institution. On the one hand, private protection implies legal protection (e.g., protection by security firms). Individuals employ such firms to protect their ownership in addition to or as a substitution for the protection provided by the state. On the other hand, private protection refers to illegal protection organizations ("mafias"), which provide security against forced payment. Illegal private protection is usually a result of the state's inability to protect private property. In contrast to illegal private protection, corruption is generally defined as an illegal action between private and state agents (e.g., bribery). However, it is difficult to make a clear distinction between illegal private protection and corruption in transition countries, where the private and the state sectors are intertwined in practice. Therefore, estimations of illegal activities often do not distinguish between illegal private protection and corruption.[1]

Legal protection firms obviously play a minor role in today's Russia. In the mid-1990s, there were about 12,000 registered and non-registered firms with about 60,000 employees (Pistor 1996). In relation to the size of the Russian population and of the country itself, these figures are low. However, the survey conducted by Hendley et al. (1999) shows that both private firms and legal protection firms have established special enterprise units and thus their own "security services." The main task of these services and the legal firms is obviously to protect enterprises' property and not to collect outstanding debts. However, the concrete tasks of the security services remain unclear. Therefore, additional field studies are necessary to collect information on this aspect. It seems especially

1 Zhuravskaya (1998) asked Russian owners of small shops about their experiences with illegal private protection and corruption. Shopkeepers answered that they had more problems with corruption than with illegal private protection. They even believed illegal protection to be a substitute for state-provided police protection. It must be assumed, however, that the shopkeepers were not in a position to protect themselves against the criminal and violent illegal organizations, and that they therefore did not reveal the extent of illegal actions and damage caused by such organizations.

important to identify those enterprises that use private protection services. A survey of these enterprises and their reasons for using private protection might give some insight into the effectiveness of external institutions. In addition, it could provide an answer to the question of how private entrepreneurs try to protect themselves against illegal private protection by means of legal private protection.

As yet, there are few studies on legal protection firms. Illegal private protection and corruption in transition countries are extremely widespread, but assessment of illegal activities is difficult.[1] In principle, illegal actions are more prevalent in CIS countries than in Visegrad countries. The Russian government estimates that 70-80 % of private enterprises in large cities are affected by protection rackets and bribery (Alexeev, Gaddy and Leitzel 1995, 687). According to other estimates, the enterprises are forced to spend 10-30 % of their revenues on the "services" of criminal organizations, which are also called *krysha* ("roof") (see Shlapentokh 1996, 402). Enterprises also use these "security services" to force their customers to repay outstanding debts. In general, however, the role criminal organizations play in contract enforcement is lower than initially assumed. Instead, enterprises favor the *arbitrazh* courts, because they consider the courts to be superior in terms of competence, cost, and certainty of enforcement (Hendley et al. 1999). This, however, contradicts the above-mentioned finding that the courts' decisions are frequently not enforced. One explanation for this could be that enterprises do not admit publicly that they use criminal organizations. Another reason could be that criminal organizations are in fact no substitute for state *arbitrazh* courts (e.g., do not furnish proof of attempted debt collection as a precondition for being allowed to write off debts for tax purposes). Therefore, the importance of the "mafia" seems to be overestimated to some degree. All in all, because of their speculative nature, studies on illegal private protection contribute little to the analysis of institutions.

4.3 Final remarks

The analysis of institutions in transition countries is a new field of research. Early results indicate that the possibilities for rapid institutional change are limited. Moreover, initial experience supports the hypothesis that internal institutions are of central importance. Terms such as "survival strategy" point to their staying power. In addition, traditions determine the ways in which contracts are enforced. For example, enterprises favor trading with old partners with whom they have personal contacts. Only if no such contacts exist do enterprises use mechanisms of *third-party enforcement* or appeal to state courts. The way contracts are enforced is only one example of the fact that economic agents only slowly gain trust in the state, which has to redefine its role to that of a protective state. Thus, changing external institutions in transition countries is more time-consuming than was initially assumed. There are only a few ways of supporting this process. Early experience suggests that it is useful to enact and implement some important and well-formulated laws at an

1 See the remarks on corruption in section 4.4.1.

early stage. In addition, legal regulations should not be changed too often, so that expectations are stabilized. Finally, when vested rights that were acquired during the Soviet area are still being exercised, this should be made known to the public.

The developments in Eastern Europe show that people have not continued to pursue the long-term and abstract goal of introducing the market economy without reservations. Interest groups and politicians have short-term objectives during transition. Enterprises act in an "inventive" way in order to influence planned reform measures or to undo those already implemented. They use – from a Western perspective, perhaps even abuse – state authorities for their own purposes. The Russian *arbitrazh* courts are one example, showing that more evidence is needed to assess whether the institutions that have emerged from the transition process really do meet the requirements of the market economy. In addition, this example shows that the goal of establishing the rules of the game of a market economy might conflict with other economic objectives, e.g., short-term tax regulations. Therefore, harmonizing short-term and long-term economic objectives seems to be of particular importance in transition economies. In connection with this, an extension of time horizons should be given priority.

In some cases, enterprises do apply to state courts for "transitional reasons." However, the fact that they apply to courts at all indicates that trust in state authorities has grown in recent years. Bolstering trust in state authorities is an important task at this point in time. Compared to state courts, private arbitration bodies, such as tribunals set up by the chambers of commerce, play a minor role. Trust in the chambers of commerce is still low, either because they are the legal successors of old organizations, or because a complicated chamber system has emerged with unclear areas of competence. Reorganization of the chambers is difficult because of the high costs involved. In addition, due to a lack of transparency, their functions are often not entirely clear to potential members. Although it is not a new idea, transition countries are generally advised to increase transparency and to improve the flow of information. In addition, transition countries should be encouraged to financially support the emergence of private organizations such as arbitration courts because these are important organizations supplementing state courts in the market economy.

Networks constructed "from above", that is, by the state, cannot compensate for the lack of state authorities and external institutions. In Russia, for instance, formal networks that were created by the state (e.g., FIGs) have rarely developed enforcement mechanisms with regard to contract enforcement. Thus, instead of the state creating networks, it would seem more useful for it to support the informal networks which have evolved spontaneously. However, knowledge about the relevance of these networks and the way they function is limited at this point in time. One question future field studies might address is whether internal institutions in the form of networks only temporarily substitute external ones, or whether they have a more durable character.

Transition countries provide crucial insights into processes of institutional evolution and change and thus remain an interesting field of research. Thus far, research has concentrated on the extremes of the rule of law (or the pure existence of laws) on the one hand, and the "mafia" on the other. The analysis of legal internal institutions has been neglected. It seems, however, that it would be more useful to spend money on analyzing legal internal institutions than to speculate about illegal private protection. The problem with this – namely that it is an "[...] approach based on the need for extensive information [...]" (Furubotn 1992, 204) – can be avoided or reduced if the concrete enforcement mechanisms rather than the multitude of rules are placed at the center of analysis.

5 Data Desiderata

"The Department of Agriculture gathers data on the cost of growing peanuts, but we do not yet have a Department of Transactions to give us the crucial variables we need to operationalize the new institutional economics" (James D. Hess (1990,74)).

The NIE is still a relatively young endeavor and so the theory still undergoing quite substantial changes. Here, we take as given the theory as we have interpreted in Part Two as given and simply describe the data which advocates of the endeavor would like to have at their disposal to test their theories empirically.

A very basic necessity in evaluating the relevance of institutions is what could be coined "institutional stock-taking" or "institutional accounting". Identifying institutions as they are actually used and applied is obviously essential for most empirical studies. Institutional accounting is necessary for both external and internal institutions. Already a Herculean task for external institutions, it will presumably be even more difficult for internal institutions. This is due not only to their informality, but also to considerable variance internal institutions display within one society that lives under a single set of external institutions.

Suppose institutional accounting was introduced and data were available for a number of years. This could teach us a lot about the relationships between internal and external institutions. To illustrate, the questions named at the end of section 2.4 are just reiterated here: how do internal and external institutions influence each other; in what ways do internal institutions affect external ones and vice versa? Do we know anything about time lags? Is it possible to distinguish between institutions with a high persistence and those with a low one? Is this equivalent to high and low costs of modification? To what degree is it possible to establish and execute external institutions even if they conflict with one or more internal institutions?

To provide answers to these questions, institutional accounting would have to lay great emphasis on the (relative) costs of modifying rules and the corresponding enforcement mechanisms. It is tempting to think of a thorough modification of the entire system of national accounting as repeatedly demanded by Douglass North. No readily implementable proposals have, however, been advanced.

As just repeated, institutional accounting will be more cumbersome with internal institutions. To carry out econometric tests, proxies for internal institutions have been used. The World Values Survey is one example. It would, of course, be desirable to extend the number of countries included in the survey. Right now, surveys are taken in 40 countries. Using existing surveys, one could use Eurobarometer to enhance our knowledge concerning internal institutions. Eurobarometer is interesting because its surveys are no longer confined to the member states of the European Union but are regularly done in Central and Eastern Europe as well. The introduction of Latinobarómetro – which is supported by the European Union – is equally interesting. Unfortunately, there are problems in making the data accessible.

It has been argued that the performance of local government is a function of the percentage of a population involved in horizontally-structured voluntary associations (Putnam 1993). This hypothesis has been tested by comparing regions with large differences in membership (see above). Unfortunately, the statistically significant correlations do not tell us very much about the underlying causalities: is government performance better because government feels tightly controlled because voluntary associations have managed to become relevant political actors? Or is government performance better because involvement in voluntary associations influences personality traits, e.g., increasing the propensity to cooperate and thereby contributing to the voluntary provision of public goods?

If institutions are to ease interaction, an indicator of their quality is the transaction costs that are incurred to secure certain transactions. Above, we have discussed the strengths and shortcomings of the Wallis and North (1986) study. With regard to Germany, we know very little concerning the size of the transaction sector or even the extent of transaction costs. Studies both on the micro- and on the macro-level would be of interest. Of course, it would also be interesting to be able to compare studies from other countries (say, the OECD-members). In the years to come, the effects of the Internet promise to be particularly interesting.

As has been pointed out at some length above, attempts to measure transaction costs face severe difficulties. Measuring political transaction costs will presumably be even more difficult. Yet, if North's conjecture is correct that political markets are even more prone to inefficiency than standard goods markets, operationalizing and comparing political transaction costs is potentially important in understanding strengths and weaknesses of those institutions that make up the political system. The costs of demanding, supplying, and indeed carrying through institutional change will be largely determined by a specific set of institutional rules, namely constitutional rules. A host of variables will be relevant: agenda-setting rules, voting rules, the number of chambers, direct-democratic elements, influence and independence of the judiciary, but also less easily operationable ones, such as the role of the press, etc. The relevance of all these variables is central for a newly emerging research program called positive constitutional economics (for a survey, see Voigt 1997). Quantifying political transaction costs might give us important insights into the barriers that slow economic growth in many parts of the world. Whether actors who have the capacity to implement institutions more conducive to economic growth have any incentive to do so is a politico-economic question and will have to be dealt with in the next section.

6 Policy Implications

Above, we have stressed that the NIE is a novel approach that can be used to analyze almost any interaction situation. Various groups of interaction situations were named. Concerning the empirical studies, we did not confine ourselves to economies in transition but named studies primarily concerned with Less Developed Countries as well as studies primarily dealing with the most developed countries. There is thus an incredibly broad potential for applying the insights gained by the NIE. It would therefore be futile to come up with policy advice on concrete problems. Rather, we try to draw some general policy lessons.

The most obvious and most straightforward policy advice that follows from the insights of the NIE is:

Policy Advice #1: *Do not focus primarily or even solely on the direct improvement of physical capital. Rather, try to get the institutions right.*

Ostrom (1996, 229) has formulated the same advice after having studied Nepalese irrigation systems in these words: "Donor agencies need to direct their efforts toward enhancing the productive capabilities of a larger proportion of the local community rather than simply trying to replace primitive infrastructures with modern, technically sophisticated ones."

Second, the function of institutions is to enable actors to form expectations that have a good chance of turning out to be true. Any form of institutional change, even the best-intentioned, runs the danger of creating additional uncertainties. Conversely, the longer institutions are in place, the easier it will be for those who structure their interactions according to them to form expectations that have a good chance of turning out to be true. In this sense, institutions have the quality of a capital good that gains value the older it grows (cf. Buchanan 1975, chapter 7). The policy advice thus reads:

Policy Advice #2: *Modifying institutions should be the exception rather than the rule. If change promises net gains, it should be administered with as much transparence as possible, which allows the actors to form expectations that have a good chance of turning out to be true.*

If it is the goal of economic policy to increase per capita income, and the kind of external and internal institutions in place are a crucial variable in determining per capita income, then advising government to modify the institutions accordingly is surely not surprising advice. But it cannot be that simple, otherwise we would not observe so many dysfunctional sets of institutions. Institutions which are only formally valid but which do not help interaction partners to build stable expectations in practice will be of little help. It must therefore be a goal that *de jure* and *de facto* institutions converge. This is an intermediate goal, more precisely a formal intermediate goal. Suppose that a substantial intermediate goal consists in reducing transaction costs, i.e., in enlarging the potential gains from trade to be realized within an economy. In that case, government faces a commitment problem (North 1990b, 1993, Weingast 1993). Why should the private actors believe government if it promises secure property rights if it has the capacity to expropriate them later on? It has been proposed to make property rights more secure by incorporating them into the constitution (Gwartney and Holcombe 1997). But why should a promise be more credible just because it is written on a piece of paper with a different name? It has been argued that, ultimately, the provisions contained in the constitution need to be self-enforcing (Hardin 1989, Ordeshook 1992). It can also be shown that the chances that constitutional provisions will indeed be enforced are positively correlated with the degree to which the constitutional provisions are compatible with the internal institutions prevalent in a society (Voigt 1999). This means that:

<u>Policy Advice #3:</u> *Government should only pass institutional change that is in tune with its possibilities to credibly commit itself.*

Dealing with this problem, Levy and Spiller (1994, 210) suggest that if a country is lacking credible internal commitment devices, international guarantees might be a viable alternative in some cases (they are discussing how governments can encourage foreign telecommunications firms to make major investments).[1] Whether the World Bank – or other international organizations – are well suited for such a role needs to be checked on a case-by-case basis.

Institutional change which increases the *de jure/de facto* divergence only increases transaction costs and will therefore be counterproductive. Keefer and Shirley (1998) observe that policy intended to bring about changes in external institutions has often been unsatisfactory in the past and therefore ask whether an alternative policy could focus on inducing changes in internal institutions. The authors are, however, quick to admit that adequate internal institutions alone will not be sufficient to lead to sustained economic development. Most likely, attempts to radically alter the prevalent internal institutions will fail. If they are attempted anyway – e.g. by introducing external institutions that penalize the use of internal institutions – overall enforcement costs will increase. If private actors continue to prefer structuring their interactions according to the – now forbidden – internal institutions, they will have to be more careful than before, which is equivalent to higher transaction costs. If the enforceability of external institutions is furthermore higher where they are compatible with the internal institutions, another policy advice follows straightforwardly:

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1 With regard to their problem, the authors (1994, 241) note that a privatization program that distributes ownership very broadly may also increase government credibility because it creates a large constituency in favor of respecting private property rights.

<u>Policy Advice #4:</u> *Reforms of external institutions should take the prevalent internal institutions explicitly into account. External institutions should by and large be compatible with the internal ones.*
This insight has been formulated in various ways by different authors. North (1990a, 140) e.g., writes: "When there is a radical change in the formal rules that makes them inconsistent with the existing informal constraints, there is an unresolved tension between them that will lead to long-run political instability."

This seems to imply that government should refrain from tinkering with internal institutions. This implication might, however, be premature. As a consequence of her study on irrigation systems, Ostrom (1996, 226) proposes that farmers whose irrigation system does not work well be given the chance to travel to communities where they work well and learn from them. Formulated as a more general policy-advice, this could read:

<u>Policy Advice #5:</u> *Try to identify the productive potential and hitherto unexploited potential of internal institutions and help private actors to realizing it by acting as a catalyst.*
To some policy pundits, the rules proposed up to now might appear timid and even conservative. But there is more in store. Suppose a government wants to improve growth rates and simultaneously seeks to stay in power after the next elections. We are then dealing with questions of political sustainability. The popularity of a government also depends on the sequence in which it decides to introduce institutional change. With regard to New Zealand, it has been claimed (Edwards 1992) that the sequence of reforms carried through there was suboptimal because early reform of the labor market could have induced lower real interest and exchange rates and would thus have reduced adjustment costs. In such welfare economic assessments, the re-election restriction of governments is often forgotten. The NIE in which political transaction costs are taken into account and feasibility is a concern, would thus focus on "politico-economic sequencing", which is sequencing in which the popularity of the government is explicitly taken into account (and which therefore has higher chances of making an impact on actual policy).

Observers of the reforms that have taken place in New Zealand (Evans, Grimes, Wilkonson, Teece 1996) have noticed that the simultaneous introduction of quite diverse reforms had sustainability-enhancing effects: the costs that some branches had to bear due to reduced subsidies or reduced protection were in many cases more than offset by additional benefits that occurred because subsidies to and protection of other branches were similarly reduced. Those branches that were subject to reforms early on often demanded that reforms also be carried out in other branches and thus because proponents of additional reform. Formulated as a policy rule:

<u>Policy Advice #6:</u> *When aiming at institutional change bringing about deregulation, try to push through large packages at the same time implying the possibility that people who suffer from reform in their own sector will gain from the reforms in other sectors.*
Finally, we want to deal briefly with the question of whether any policy implications might be derived from the insight that institutional change is subject to path dependence. The concept of path dependence mainly serves as a device to explain why

largely varying patterns can emerge out of initial conditions that appear very similar but are not entirely identical. Until now, we are not able to transform this concept in such a way that would allow us to make predictions. That means that path dependence could basically serve to increase our awareness that decisions which appear to be of minuscule importance might very well turn out to have major effects in the long run. It seems doubtful whether any immediately relevant policy implications can be derived from the concept. Schiavo-Campo (1994, 10) does draw a piece of policy advice for foreign advisors. He notes that the unpredictable long-term consequences will have to be borne by the people of the respective country: "Thus, the moral hazard inherent in all forms of intervention from the outside – however benevolent – is especially severe in the area of institutional change."

7 Conclusions and Outlook

This is a very lengthy paper. We will thus be short in the conclusion. Until now, the NIE has often been seen as a theoretical challenge to more established theory while remaining, however, empirically untested with little to say on economic policy. We hope to have shown that both of these assessments are wrong: the number of empirical tests has risen very fast over the last few years and there are not only policy implications that can be derived from the theoretical insights, but also implications that are not entirely congruent with mainstream economics, which means that the NIE does indeed have the potential to be the foundation for some policy-reassessments. Let us return to Matthews (1986), with whom this report was opened. He continues:

> "Yet among the main features of institutional change are its complexity and the unforeseeable nature of its consequences, setting us off an random walks to goodness knows what destination. Institutional experiment by a single firm is fine, because it does not matter much for the economy as a whole if it does not work. Institutional experimentation at the level of the whole economy gives one more pause. Reflection along these lines can easily lead to timid conservatism."

A glass can be seen as half-empty or as half-full. If Matthews' view is interpreted as the rather pessimistic one, then the description of the intellectual underpinnings underlying the reforms introduced in New Zealand given by Alan Bollard (1994, 90f.) is surely more optimistic. He writes:

> "The Treasury spent much of this time reexamining economic alternatives and eventually came up with its own views about New Zealand's economic requirements. The economists in the Treasury were heavily influenced by new microeconomic thinking from certain US universities, especially Demsetz and Coase on the nature of the firm, Williamson on the theory of transaction costs, Baumol's contestability theory, Alchian on property rights, and Buchanan and Tullock on the political process."

Needless to say, this paper has presented most of these as belonging to the NIE. It is therefore not only policy-relevant in theory but has proved its usefulness in a reform process usually considered very successful.

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