A NOTE ON THE
TRANSFORMATION OF ECONOMIC SYSTEMS

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Abstract

This paper deals with transformation issues along the line of constitutional economics. Transformation is considered to be a mix of top-down and bottom-up developments. Given such a mix, what is preferable, a rapid transformation of a former socialist economy into a free market economy - or a more gradual one? This question is first discussed by use of the social network concept. Elementary desiderata of system transformations are developed. They are illustrated by the West German currency reform of 1948 and German reunification of 1990. The concept of human network capital is introduced and argued that the main impediments to rapid or big-bang transformation are the difficulties or impossibility to transform human network capital. This is the time consuming part of any system transformation.

JEL Codes: KO, O1.
The following note deals, in a conceptual manner, with the transformation of economic systems from a socialist economy to a capitalist economy, utilizing for the purpose some aspects of Constitutional Economics combined with social network analysis in the sense of multilateral relationships among social entities. There are basically two ways of transforming a socialist into a capitalist economy: purely top-down by replacing the old system - politically and economically - at one stroke by a new one, i.e., a new constitution, a new monetary order, rapidly freed prices, privatized production etc. (e.g. Sachs 1969) or - economically - purely bottom-up by leaving the old socialist political and economic system in tact and offer or allow the parallel development of capitalist institutions „from below“ (e.g. Nee 1992, 1996). In this paper we deal with combinations of the top-down and bottom-up versions of transformation, i.e., cases which start with a top-down political reform, the replacement of the old socialist constitution by a new liberal one, and at least some top-down economic reforms as, e.g., a currency reform, some freed prices and privatized production, the building-up of a „capitalist“ legal system etc. The kind of mix is of interest and the question of speed: what is preferable, a rapid, all-embracing transformation or a more gradual one?

We shall define "economic systems" as compound sets of social networks A, B, C,... each consisting of actors (nodes), attributes of actors and relations between actors. The "Transformation" of system A into system B, in its final stage, is defined as a mapping of network A into network B.

We shall proceed as follows: First, our use of the social network concept is explained. The concept of human network capital is then introduced. The purely top-down transformation of economic systems is, in the terminology of Hayek, a "constructed" procedure, while bottom-up transformations are spontaneous or „organic“. Thus, some remarks on constructed versus
organic orders follow. Next, two stylized examples of transformations are presented - a currency conversion and the transformation from a soviet type economy to a classical market economy. The properties of these examples serve as a basis for the discussion of the elementary desiderata of system transformations of the mixed top-down/bottom-up type. We next outline two historical examples (parallel to the two stylized examples above): the West German currency and economic reform of 1948 and the German reunification of 1990. Finally, we argue that the main impediments to a rapid or big-bang transformation rest in the transformation of human network capital. Marketable human network capital is in the end a matter of spontaneous or organic evolution. It cannot be commanded from above but has to develop from below. It is the time-consuming part of any system transformation.

1. Economic Systems as Social Networks

Though the social network concept will be used here only as a metaphor to better understand our conceptual arguments, not as a theoretical instrument to model society, we must start with some definitions and theoretical interpretations. Social networks consist, as was mentioned above, of actors, attributes of actors and relations between actors (Wasserman and Faust, 1994). The relations between actors are channels for "transactions" ("interactions"), which are directed or controlled by a "governance structure" (Williamson 1985) or "institution" (J. Knight 1992, 2) - a set of explicit (formal) or implicit (informal) rules which structures social relations in particular ways. „Transactions“ are to be understood sensu largo, not only as exchanges of material resources or information between actors (Furubotn and Richter, Ch. 2) - but as any kind of "social action" (Weber 1968, 22ff.) "that establishes a linkage between a pair of actors." (Wasserman and Faust 1994, 18). In other words, the „transactions“ of a social network include such „non-economic“ relations as associations or affiliations between actors; movements between places; physical connections (a road, a telephone line); legal relationships (the formal debtor/creditor relation); biological relationships (kinship, descent); mental relationships (common views, beliefs, convictions, „culture“), and so on. Time plays an essential role insofar as the past and the expected future development of the social network influences the actors' present behavior. A social network at a particular point in time is to be seen as a cross-section of an imaginary tunnel reaching from long ago to a distant future. History and the expected future matter. The first is called by North (1990) path dependency. The importance of the influence of expectations of the future on the present is stressed by Keynes (1936, Ch. 5), by Lucas (1972) and in the present context by Arrow (1999). In analogy to path dependency we may speak of expectation dependency. In the language of network theory, the beliefs of individuals about their past and their future are part of the attributes of individual actors while their common beliefs about past and future are part of the „governance structure“ or institutions of the relations between actors. Institutions control the handling of their historical views and their expectations and thus influence path and expectation dependency.3

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2 Expectation as determining employment.
3 We follow the „historical institutionalists“ in sense of Hall and Taylor (1998, 18), a mixture of the „calculus“ and the „cultural“ institutionalist approach.
An economic system consists of a multitude (or "aggregate") of social networks (Pappi 1993, 86). Thus each actor in an economic system has multiple attributes (debtor, boyfriend, employee, customer, ...) and can have multiple relations with some other particular actor (as their creditor, girlfriend, employer, salesperson, ...). To simplify our language, we understand the terms "attribute", "relation" and "institution" as aggregates: an "attribute" of an actor is or can be a multitude of different attributes, a "relation" between two actors can be a multitude of different relations between them and, accordingly, a "governance structure" or "institution" can be a multitude of different institutional arrangements controlling the various relations between particular pairs of actors. Examples are the formal and informal networks within a firm or across markets. They constitute what we may call human network capital: the present value of the knowledge and skills of the network of employees, entrepreneurs and owners of firms together with the network of their suppliers including research institutions, universities and schools.  

Suppose we have a social network $A$ consisting of a set of actors $a$ with attributes $\alpha$ and a set of interrelations between these actors $ra$ governed by formal and informal institutions $Ia$. The letter $a$ denotes the set of actors $a$ with attributes $\alpha$. The letter $b$ denotes the same set of actors but with attributes $\beta$.

Note that the attribute of an actor's inner belief cannot be formalized ("die Gedanken sind frei - "thoughts are free") while the institution governing the interrelation between believers can.

A transformation of $A$ into $B$ (in its final form) consists, then, of the transformation of each set of

- individual attributes $\alpha$ into a set of attributes $\beta$,
- interrelations between actors $ra$ into a set of interrelations $rb$ and
- institutions $Ia$ into a set of institutions $Ib$.

Some transformations can be achieved by sudden administrative or legal acts ("big-bang approach"), others only gradually ("gradualism"). The first emphasizes the transformation or establishment of formal institutions from above, the second a trial and error evolutionary approach from below. Thus, property rights can typically be transferred by a sudden, "constructed" legal act while, e.g., society's human network capital can only be changed gradually or "organically". To change society's human network capital is difficult because the human network capital already in existence in general cannot be transformed "one to one" into new human network capital. To a smaller or larger degree it has to be developed completely anew.

The "big-bang versus gradualism" question is thus related to the opposed concepts "constructed" versus "organic" evolution. They are central in Austrian economics. Before continuing, it might be useful to consider briefly these two terms.

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See, e.g., Johannsen and Mattsson (1985), Burt (1992, Ch. 1), Powell (1990) and, of course, Schumpeter (1912).
2. „Constructed“ vs. „Organic“ Evolution

Institutional change and institutional transformation are similar problems, ones of evolutionary economics, which has been for a considerable period of time a central concern of "Austrian economics".

2. 1 The Austrian View

According to Carl Menger or Friedrich Hayek, some institutions arise (or are transformed) "pragmatically" (or by "construction") as "the result of the general will (agreement, positive legislation etc.) directed towards their establishment" (Menger 1883, 145), others "unintendedly" (or "organically") as "the unreflected outcome of human efforts directed to the achievement of essentially individual goals (the unintended result of these latter efforts)" (145).

The latter developed themselves "without any agreement, without legislative pressure, even, indeed, without consideration of the 'public interest'" (Menger 1883, 176; emphasis in the original). 5

Among them are money, (172), villages (178), the state (179), language, and the law (180). These "spontaneously" established social phenomena, as Hayek later called them (1973, 38ff.), are described by Menger as "natural" or "organic" social phenomena (146). For some reason, the "Austrians" have devoted much attention to the idea (or model) of "organic" or "spontaneous" evolution. However, on several occasions, Menger (1883) stressed that his "organic" understanding of an institution was adequate only to a part of social phenomena and that the pragmatic or "constructed" view of institutions is equally indispensable (1883, 148). Quite surprisingly, he ruled out mixed interpretations. For example, he regarded a pragmatic interpretation of institutions of organic origin (e.g. money) as inadmissable (161). Furthermore, he saw the pragmatic origin of institutions as of no theoretical interest. All that was significant for him was the understanding of the (to him, possibly more miraculous in nature)

"origin of and the change in institutions that 'originated in an organic way', that is closely linked with the solution of the most important problems of the theoretical social sciences in general and theoretical economics in particular" (164ff.).

The Austrians follow to some extent David Hume (1739/40), who at an early stage explained the concept of convention (in the sense of Lewis 1969). But social conventions function only if there is either "a coincidence of interests" among actors, i.e., if strategic or "opportunistic" behavior does not pay, or if self-enforcing implicit agreements work (as, e.g., in a customer relationship). Otherwise, explicit agreements or rules, enforced by an external authority (e.g., the courts), must be used.

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5 Menger is following David Hume (1739/40), who early explained the concept of convention (in the sense of LEWIS 1969) with the famous example of two rowers in a boat, who pull their oars in time "tho’ they have never given promises to each other" (Hume 1739/40, 542).

6 Lewis (1969), the actors are indifferent with respect to the various possible coordination equilibria.
The problem of the invisible hand mechanism of institutional evolution is that it works rather slowly and does not necessarily lead to desirable results. It can be directed and speeded up by pragmatic actions such as, e.g., the passing of suitable laws. It is at this point that institutional or constitutional economics enters the scene.

2.2 The Constitutional Economics View

Representatives of Buchanan’s constitutional economics, Eucken’s ordo-economics, the property rights approach or Douglass North’s new institutional approach to economic history use a mixture of both the concepts of constructed and of organic evolution - top-down and bottom-up development - to explain how institutions change or work. The hypothesis of the constitutional economic approach is that we have quite a good idea of how (on average) individuals will behave, given some institutional or constitutional "environment." Thus, by suitable institutional changes, we might be able to speed up the operation of the invisible hand and make sure that it aims in a desirable direction. Because of unforeseeable events, legislators and contractual parties know that it is wise to leave some room in the constructed design. This room will be gradually filled by the organic evolution of appropriate formal or informal rules. As a result, the constructed constitution will be enlarged or stabilized, i.e., become a stable mix of constructed and organic institutional evolution.

The basis of institutional transformation is a target set of constitutional principles (Eucken 1952, 254 ff.). The transformation from a soviet type economy to a market economy is dominated by the classical principles of private property, freedom of contract and liability for contractual and noncontractual obligations. To the now fashionable welfare state or "social market economy" a fourth principle is added, the principle of social commitment of individuals. In addition, some basic functional principles are to be observed, in particular the principle of sound money (to guarantee the working of the price mechanism) and the principle of open markets (to secure competition as a procedure of self-enforcement of promises and spontaneous improvement of institutions).

Expressed in the "Austrian" terminology, the constitutional economic approach to system transformation is a blend of "constructed" and "organic" evolution. It starts out with some "constructed" (possibly "big-bang") transformation of the constitution and legal framework of society A into a new constructed order of society B. The remainder of the transformation of society A into society B is left to the "organic" evolution within the new institutional framework. The final product, the society B which is being aimed at, cannot be realized directly "by construction". The final result is a product of a gradual "organic" evolution. Whether the process ends in the state which we desire depends on the possibly rapid introduction of a "constructed" new constitution.

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7 Because of the possibility of multiple convention equilibria.
8 A rather hazy principle. "It prohibits any misuse of freedom rights to safeguard individual positions of power at the expense of others" (Stein, 1993, 175). The idea is that the "socially weak" are protected against the "misuse" of the otherwise constitutional rights of the "socially strong." Equality before the law is, so to speak, weighted by the degree of social "weakness" of the individual.
9 Eucken (1952, 254) speaks of the "primacy of currency policy".
10 Eucken (1952,)
2.3 The Role of the State

The role of the state is to provide the public good "basic system transformation" by "constructing", first, the basic framework of the new system; second, the general transformation procedures from the old to the new system; and third, the institutional environment which is able to credibly commit the state to the promised transformation (Furubotn and Richter 1997, Section 9.2). System transformation is unthinkable without sufficiently strong coercive power on the part of the state, yet such a coercive power is a double-edged sword. It can be used in both directions: to protect individual or common rights (as, e.g., property rights) or to take them away (e.g., expropriate individuals or communities). Individuals know this and will act accordingly. Credible commitments of the state (or policy makers) are therefore vital for the success of system transformation. It is important in this context (particularly in an open society) to consider the role of interest groups. The commitments of the state have to be made credible by means of suitable institutional arrangements. Weingast (1995), e.g., emphasizes that federalism is an important political institution to credibly commit the state to the preservation of markets. By setting limits to the discretionary powers of the government, economic freedom can be enhanced. Attention is given in this line of discussion to what makes the restrictions of federalism self-enforcing. Weingast shows how these mechanisms work. In particular, credibility of property rights is an important condition for a successful economic transformation of soviet type economies into market economies. Riker and Weimar (1995, 94) hypothesize, e.g., that "the greater the credibility of a right to property, the greater will be the investment in improving the economic productivity of property."

Riker and Weimar (1995, 85) argue also that the disregard of the interrelationship between economic development and the political processes by Western academic advisors is responsible for the malaise of development economics and the slow and hesitant economic transformation of post-communist countries. They point out that Western advisors have not been as alert to the political side of political economy as to the economic side. Consequently, they "initially proposed reforms for a well-operating market for free trade. But when these reform were undertaken, without solicitation of popular political support for the new economic system, the voters often became hostile to the reforms, which seemed to offer immediate suffering for only the prospect of future benefits." The authors continue: "Only in the Czech Republic ... did the government undertake economic reform balanced with a search for political support" (ibid.).

Expressed in the network jargon, the state "constructs", first, the new formal governance structure (order, constitution, institutional framework) aimed at, which is supposed to control the future relations between actors; second, the basic formal changes in the attributes of actors and relations between actors from the old to the new system; and third, the guarantee of the basic transformations. Path and expectation dependency matters, i.e., the actors' actual or believed past and expected future rights. The quality of the state's (or government's) guarantees depend not only on institutional arrangements but also on its history (or reputation). Note, however, that the state cannot do much more than to provide essential parts of the "constructed" (formal) part of system transformation. The "organic" (informal) component of system transformation must work or grow "by itself". Human network capital, an important part of informal social systems, is typically "sunk". It cannot generally be
transformed but has to be newly "grown" and this with in general enormous qualitative differences. In many respects, transformation policy demands a gardener’s wit and patience.

3. Two Stylized System Transformations

3.1 Currency Conversion: Actors using the same currency as unit of account and means of payment form a currency network. Its governance structure depends on whether it is a commodity standard or paper standard. Both are well described in the literature. Whatever the currency standard under consideration, a currency conversion requires three "juristically ... necessary" features which Knapp (1905, 17) described as follows:

First, the legal system defines the new means of payment in a way that makes it immediately recognizable;

Second, the legal system lays down a name for the unit of account and confers this name upon the new means of payment;

Third, the unit of account which from now on will come into use is defined by establishing how it is related to the previous unit of account ("recurrent connection").

A currency conversion is in these ways a purely formal (top-down) affair, including its past dependency (the recurrent connection). What Knapp forgets, however, is that, in addition to path dependency, the expectation dependency of a currency conversion also matters. To become a sound money, the new money has to be fully accepted by the actors in the currency network. They will do so only if they believe in the purchasing power commitment of the supplier of the new money. If they do not, the currency conversion will destabilize itself, i.e. be destroyed by the invisible hand mechanism. The credibility of the purchasing power commitment of the money supplier can only to a degree be established by formal ("constructed") institutional arrangements (such as independence of the central bank from government direction). But it also must grow "organically". To that extent, Menger's counter-thesis prevails that money is not a creation of the legal system but "an unintended outcome of history." (Menger 1883, 153ff.)

Evaluation: Expectation dependency aside, a currency conversion (in its pure form) brings little change to the social network of a currency community. Formal or "constructed" changes would do. They would concern neither the attributes of the individual actors nor the direction or character of their social relationships. Formal and informal relations between actors would remain unchanged: debtors and creditors remain what they were before the conversion, informal relations (human network capitals) remain untouched. Only some "numbers," expressing the units of money owed, their name and the appearance (or technique) of the means of payment would have changed. No distribution effects would be involved and thus no conflicts of interest would arise.

The situation is somewhat more complicated if expectation dependency is taken into account. Distribution effects may result from actors' doubts as to the purchasing power promise of the supplier of the new money. To a degree, the purchasing power commitment of the money supplier can be enhanced by a "constructed", self-enforcing institutional arrangement. As for the rest, trust has to grow by itself, i.e., "organically". But as we know from the two German
monetary reforms of 1924 and 1948, informal confidence-building measures may grow and work fast, in a big-bang manner. One reason may be that only (rational) expectations matter, viz., as to the future purchasing power of the new money. No new human network capital has to develop. Distribution effects seem to have only a limited effect on the price level.

While the network effects of a (pure) currency reform are negligible, the same can hardly be said of a major system transformation such as the transformation of a soviet type economy into a market economy.

3.2 Transformation of a Soviet Type Economy into a Market Economy

Such a transformation is quite radical. To a large degree, the attributes of individual actors, the direction and character of their social relations together with their governance structure have to be fundamentally changed. The economically relevant human network capital will be largely lost and must be newly developed - generally by different actors for different purposes under the leadership of innovative entrepreneurs. But not only the economy, the whole political body of the former soviet type economy including its political elite and ideology has to be transformed. Clearly, that is an extremely complex and demanding undertaking. It cannot be a purely top-down affair, commanded by a group of "transformers:“ it requires also a considerable amount of bottom-up evolutions.

Applying Knapp's three transformation requirements to the basic principles of a free market economy, the formal ("constructed") transformation requirements can be summarized as follows:

(1.) the legal system lays down the formal part of the new economic constitution inclusive of the new property, contract and tort laws,

(2.) the legal system determines the new individual property rights, contract rights and liability rights.

(3.) the legal system formally determines the "recurrent connection" in the sense of a clear-cut transfer of property and contract rights from the old (mostly collective) owners to the new (mostly individual) owners or creditors (including the recurrent connection of the unit of account and the payment of old debts).

The principle of the social commitment of individuals has to be taken care of, i.a., by the way in which property and contract rights are transferred (newly distributed), in particular as regards the transformation of pensions, social security, and tax payments, the latter being a new experience for citizens of former soviet type economies.

Path dependency and expectation dependency now play a role that is much more difficult to handle than in a currency conversion.

The term "path-dependency" belongs to the vocabulary of the New Institutional Economics à la Douglass North. By it, North understands the constraints imposed upon a decision by what has happened in the past. Of interest are the initial social and legal positions (property

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11 "Much... of history is path dependent simply by nature of constraints from the past imposing limits on current choices and therefore making the current choice set intelligible” [North 1990, 137].
rights) of actors plus their common beliefs (or ideology\textsuperscript{12}) in general, and their common views of their history in particular.

Regarding path dependency, most actors will lose their former attributes and social relations. They have to accept or develop new ones. Most will also lose their specific (sunk) human network capital and have to more or less completely reorientate themselves. To be successful, they must completely revise their ideology or weltanschauung, i.e., their common ideas as to the way in which the world functions and how they believe it should be organized (North 1978, 975). They have also to change their views about their own history.\textsuperscript{13} It is this change in their weltanschauung and moral values which unavoidably accompanies any "reform", "transformation" or "development". In fact, ideologies or social agreements are, as Arrow remarks,

"... typically harder to change than individual decisions. When you have committed not only yourself but many others to an enterprise, the difficulty of changing becomes considerable." (Arrow 1974, 28).

He goes on to say that what may be hardest of all to change are unconscious agreements, agreements whose very purpose is lost to our mind.

Examples are provided by contemporary developments in Eastern Europe.\textsuperscript{14} For the reasons indicated, then, rational institutional change cannot help but be path-dependent. And: the working of the invisible hand can be accelerated only within limits. Popper (1957, 64) is therefore against a tabula rasa policy and in favor of "piecemeal social engineering".

The role of propaganda and education is to be seen in this context. To save time, the planner of transformation must invest in both. As in the case of markets, openness to international competition matters (international competition in the arts, sciences, literature etc.). The transformation planner has also to create an environment conducive to the re-orientation or new formation of formal and informal social networks and thus, i.a., the change or new development of, i.a., specific human network capital. The significance of the education and up-bringing of the users of institutions - their culture - becomes understandable. As Popper expresses it:

"Institutions are like fortresses. They must be well designed and properly manned." (Popper 1957, 66)

The "victory of reason" is the liberal goal. To achieve it takes a long time and requires an irresappable optimism of those in charge and believing in it.

\textsuperscript{12} On this, North remarks: "The study of ideology has been bedeviled by its origins in the writings of Marx ... and Mannhein ... on the relativity of knowledge to one’s social position. ... But ideology can be studied as a positive science, and empirically testable propositions can be derived, as ROBERT MERTON (1949, 25) pointed out a generation ago in examining the literature on the sociology of knowledge" (NORTH 1978, 975).

\textsuperscript{13} The more „transformations“ the more changes of one’s own history. West Germans had to revise their official („political correct“) views about German history four times during this century, East Germans five times - and no end seems in sight.

\textsuperscript{14} In illustration of this, see the results of a public opinion poll conducted by the Institut für Demoskopie Allensbach in Summer 1995: according to it, the East German population expressed increasing doubt about the Federal German economic system (FAZ 16.08.95, p.5).
Expectation dependency has to now to cover a broad area of confidence of which trust in the purchasing power of money is only a tiny part. As argued above (in section 2.3), the credibility of property rights is a particularly important condition of a successful economic transformation of soviet type economies into market economies. Also important is the role of trust (and of competition policy) for the entrepreneurial innovations in human network capital, whose success determines the competitive position of the transformed soviet type economy in the world market. The "organic" evolution of human network capital through innovative entrepreneurs requires, besides trust in the government's word, also specific investments of all network actors in real resources and time. As in Austrian capital theory, such a "roundabout" production process requires its share of time. One cannot expect a rapid change like that characteristic of a currency conversion.

Because of the time needed to transform a soviet type economy into a market economy, the political process will sooner or later intervene. Disappointed actors will try to get a better share by political means. Resources are increasingly invested into political actions by which actors try to change the rules of the game in their favor. Thus, actors divert resources and time to playing the political game, instead of the market game. As a result, the transformation process becomes increasingly an international or national redistribution process with diminishing real growth.

Evaluation: System transformations of the type considered in this section are high cost undertakings which demand a considerable amount of time. To achieve a stable new result, the handling of path and expectation dependencies is vital. A sufficiently strong and disciplined government is necessary. Still, a purely "constructed" transformation will not do. The government cannot "command" inventiveness, it can only help to create an atmosphere conducive to the evolution of inventive network human capital. This takes time. No big-bang transformation, no quick fix or Wirtschaftswunder is to be expected. Yet the longer the transformation process, the more vulnerable it is to the political activities of interest groups. This is the weak spot of any democracy, old or young. It is also the weak spot of the world market. Soft and brutal types of blackmailing are imaginable - and actually practiced.

4. Elementary Economic Desiderata of System Transformation

Taking system transformation as a mix of "constructed" top-down and "organic" bottom-up developments, and given our knowledge of institutional economics, what are the elementary desiderata of system transformation which economists would like to have observed by policy makers?

Basically the "transformator" has to construct or design

- the elementary rules (norms, order) of the system or social network B aimed at (its constitution and elementary set of statutory laws) and
- the elementary transition rules from the old network A to the new, sought for, network B.

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15 Rent seeking activities (Buchanan 1980).
16 One typical argument of politicians is: „Entreprenuers should better think up something (sich etwas einfallen lassen) instead of complaining all the time about the government.‘‘
The design of rules has its limits. Because of unforeseeable events, there can be no all-embracing rules. All formal rules (laws) are \textit{nolens volens incomplete}. The gaps they leave will be filled by some invisible hand mechanism. Given a particular set of rules, rational choice theory gives the policy maker an idea of how actors will behave (or decide). This knowledge will be used by the rational policy makers („transformator“). They will construct the rules of the targeted system $B$ and of the transformation process from old $A$ to new $B$ in a manner which makes the best use of the workings of the invisible hand. In this sense the basic rules of the target system $B$ and of the transformation from $A$ to $B$ should remain \textit{rationally} incomplete (Furubotn and Richter 1997, Section 1.7).

This paper is not the place for a detailed treatment of the economic desiderata of system transformation. Only a brief and incomplete sketch can be given.

\textbf{4.1 The Elementary Norms of the Target System $B$}

\textbf{a) General principles:} We shall concentrate on the elements of the economic constitution, which for Eucken (1952/ 1990, Ch. 16) consist of seven "constituting principles" (\textit{konstituierende Prinzipien}). Among them are the three classic principles of private property, freedom of contract and liability for contractual or noncontractual obligations. The remaining four principles are according to Eucken (1) the basic principle (\textit{Grundprinzip}) of the establishment of a price system in the sense of perfect competition, (2) the primacy of currency policy (in terms of fixed rules, Eucken suggests a commodity standard), (3) open markets (as freedom of trade, antitrust policy), (4) constancy of economic policy (\textit{Konstanz der Wirtschaftspolitik}). These are typical classical (or conservative) principles. Eucken (1952, 143) was against full employment policy which, due to its credit expansion and its non-market steering mechanisms, tends to thwart the working of the price mechanism. The somewhat nebulous principle of social commitments of individuals (welfare state) is not part of Eucken's constituting principles, though it is an important part of the German constitution. It is hard to believe that any target system of today's transformation movements will not lean towards some kind of „social commitment", in particular regarding external effects and redistributational issues. This touches the issue of freedom. Thus, majority voting is particularly problematic in the case of „social commitment" and would have to be qualified as suggested by Brennan and Buchanan (1977) or Bernholz (1979, 514 ff.).

As Bernholz (1979, 512) points out: „To ask, in a rich society, for extreme equality of income and wealth and for security against all risks has by necessity the consequence that individuals lose their independence and are more and more directed by bureaucratic agencies.” And he continues: „All collective decision processes, even if they are democratic, are in danger of suppressing minorities. Taking account of incomplete information and the necessity of representative democracy in large communities ... even majorities may be sometime outvoted by minorities. We conclude that co-determination tend to inflict negative externalities on members of minorities or even majorities even if it follows democratic majority rule (Buchanan and Tullock 1962).”

As for the legal system - property law, contract law, tort law - it would be more advisable for transformation states to employ \textit{statutory law} than common law. There are well known examples: Turkey took over the Swiss code civil, Japan.... (examples).
b) **Special principles:** We shall now briefly deal with a couple of special principles of economic constitutions. We structure our exposition according to the five macroeconomic markets: labor, goods, capital, money and foreign exchange markets.

**Labor market:** Freedom of association became a constitutional right (German constitution Art. 9 section III) as a response of the free society to the continuous conflict between labor and capital. The constitutional right of free association is based on the neoclassical theory of bilateral monopoly understood as a segment of a large economy with zero transaction costs. Information and the formation of coalitions are costless. In this case, bilateral monopolies would be as efficient as perfect competition. This is not true for a real world economy with transaction costs in which the state has transferred the right to apply certain kinds of force (strikes, lockouts) to particular coalitions of private individuals. External costs of strikes and lockouts (and their potential for blackmailing) aside, there exists an incentive for the wage bargainers to collude at the expense of the rest of the economy. They may tacitly agree to increase real wages, and thus leave unchanged or even increase unemployment, at the cost of institutions such as the unemployment insurance or unemployment assistance. In any case, neither union leaders nor entrepreneurs have an incentive to reestablish full employment. Union leaders wish to increase (or maximize) their unions' income from membership fees. Unemployment ratios in the range of 10 to 20 percent do not matter much in this context, for 80 to 90 percent of the work force still remain as potential union members. Firms are content with the rule of "marginal cost equals real wage" as long as they hope to be able to sell what they have produced (Richter 1999a). Both sides will stress later that they faithfully observed their "wage increase equals labor productivity increase" restriction (which has nothing to do with full employment) and will criticize the central bank and the government for doing nothing (or not enough) to overcome unemployment. The outcome is a bizarre situation, which should not be replicated in transformation states. The constitutional solution is to limit the freedom of association accordingly, e.g., by making it subject to antitrust law (as in the US).

**Goods Market:** Constitutional guarantees of private ownership (including intellectual property rights) are decisive. This must be seen in connection with Eucken's constitutional principle of open markets: freedom of national and international trade, antitrust policy. Early on, after transformation, the infant-industry argument for tariffs may apply (Haberler 1933, 278 ff.). The difficulty is to give them up again. Limits to taxation are in place. The problem is to make such promises time consistent. The parliament was formerly the natural institution to do this (North and Weingast 1989). But that mechanism is apparently no longer reliable. Brennan and Buchanan (1977) therefore demand a special tax constitution. More effective might be a self-enforcing mechanism: the taxpayers' threat to terminate relations by leaving ("exit") the country. Telser's [1980] theory of self-enforcing agreements is based upon this threat. Yet if the country is big (like Germany) such a threat would at most be credible in the mouths of non-resident foreigners or of firms with relatively small specific national investments. Thus, a method to make "exit" threats credible would be to create sufficiently small, largely

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17 They propose a certain tax structure like a proportional income tax or a progressive income tax formula becoming part of the constitution and could be changed only by a qualified majority. The same could be done with the value added tax and other indirect taxes.
independent tax areas. **Tax competition** could do the trick. American- or Swiss-style federalism might help.

**Capital market:** A basic mistake is that transformation (or developing) countries - as well as supposedly helpful politicians from the more developed countries - stress foreign investments, not their own national capital accumulation. Yet the precondition of any development, individual or state, is that oneself not only promises to do so but actually does accumulate capital. This is the hostage which makes development promises credible. In addition, of course, the transformation state has to guarantee the free flow of capital. One might think of a special constitutional provision. But „paper is patient“ (*Papier ist geduldig*). A probably more convincing method to make the promise of free capital flows credible is for a newly established transformation state to join an existing international regime, i.e., a network of cooperating states - described, e.g., by Alt, Calvert and Humes (1988). „Hegemonial cooperation“ (Keohane 1984) is one such type of reputation-creating and -stabilizing international cooperation. To describe it, Keohane uses Williamson's (1985) concept of transaction cost economics. Note finally, that any promise of free capital flows is interrelated with the promise of particular kinds of foreign exchange policy. We shall deal with this below. It is related - together with the need for "sound money" - to Eucken's primacy of currency policy.

**Money market:** We know that what is necessary for the determination of the purchasing power of paper money is: The exogenous fixing of a magnitude expressed in monetary units (for example, the nominal quantity of money M) and a rate of interest (for example, for a medium of circulation)\(^{18}\) and the promise not to expand M at will as well as to keep that interest rate constant (as, e.g., zero on coins and bank notes);

Credibility of commitments, in this case of the money producer, is again of importance.\(^{19}\) Again credibility cannot be "produced" directly but it can be achieved indirectly by "constructing" an appropriate monetary order or constitution. The monetary order is comparatively uncomplicated and thus lends itself to an explanation in some detail of the constitutional "construction" of credibility of government commitments. Basically the following rules have to be „constructed“ to make credible the purchasing power commitment of the government or its agent, the paper money supplier:

The monetary system must enable the prospective money user 
- to verify the fulfillment of the money supplier's commitment, and 
- to enforce that fulfillment.\(^{20}\)

So far as concerns the fulfillment of the purchasing power commitment, the dominant view of economists is that the central bank of a paper standard country must be independent of any direction by the government.

The theoretical argument for the independence of the central bank is that the bank's purchasing power commitment is enforced by the money users' implicit threat to destroy its president's

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\(^{18}\) Patinkin (1961, 116).

\(^{19}\) The money users have to trust in the however of money understood value [Simmel 1930, 164].

\(^{20}\) Assuming individual rationality on the part of the person accepting the commitment, as economists generally assume.
reputation [Barro and Gordon 1983, 108]. There is an extensive literature on this view in the academic discussion on the theme "rules versus discretion". To our mind this threat is not particularly convincing. Much stronger is the implicit threat to terminate one's relations ("exit"). Yet, as we argued above, threats also have to be credible, and the implicit threat to stop using the national money in circulation is at most credible if expressed by foreign investors, not domestic. For domestic money users, the costs of switching to another domestic currency is equivalent to the threat to emigrate - which is a rather costly affair. Things must really have gone downhill before people will pack their bags to leave.

But, again as argued above, there is the alternative of "voice" (Hirschmann 1970). - at least in a democracy. The elected government is subject to the credible threat of a "termination of relations" by those who elected it, viz. the domestic money users. The independence of the central bank from government direction, together with the central bank’s legal obligation to safeguard the purchasing power of its money, may thus be seen as a credible commitment by the elected government to a policy of sound money.

Because of the impossibility of foreseeing all future events, however, no precise commitment can be given. How then can the user of money verify whether the supplier of money has kept their word? We shall answer this question further below in the section on „rational incompleteness.”

Foreign exchange market: Basically there exist three constitutional principles: absolutely fixed exchange rates, stepwise changing rates (Stufenflexibilität á la Bretton Woods), flexible exchange rates. The Bretton Woods System helped at least German economic redevelopment quite considerably. Yet it soon caused numerous problems, also for Germany, and eventually broke down, not without institutional economic reasons (Richter 1999b). Of interest for transformation countries remain absolutely fixed rates, achievable through currency boards, or flexible exchange rates. In the first case there is no exchange rate risk (provided the continuation of the currency board is credible). In the second case exchange rate risk is prevalent. - The currency board solution amounts to a union of a transformation state (e.g. Estonia) with some other currency community (e.g. Germany). The foreign currency is not de jure but de facto used. National currency in circulation is 100% covered by the foreign central bank money. The national interest rate is the same as in the host country. What is needed to start a currency board solution is a sufficiently high initial stock of foreign exchange and later, to avoid deflation, a sufficiently high current account surplus of the transformation country to increase its national currency in circulation at the rate of growth of its real GDP. The theoretical idea behind this foreign exchange order is the price-specie-flow mechanism of the gold standard. A lucky, though not perfect, example for its application is provided by Estonia.

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21 The following may be mentioned: Kydland and Prescott (1977), Barro and Gordon (1983), Backus and Drifill (1985), Blackburn and Christensen (1987), and Persson and Tabellini (1990) among others. For a survey see Blackburn and Christensen (1989) or the systematic presentation of Persson and Tabellini (1990).

22 No modern central bank is controlled by the president alone but by a board of governors or Zentralbankrat with its president being princeps inter paris. The utility function or "honor" of a group of ten or more people is a rather questionable pawn in the hands of the money users.

23 Such costs are composed of the "sunk costs" of settlement in a currency area and the costs of the currency conversion.

24 Independence of the central bank is not a sufficient condition for the safeguarding of the currency; it may not even be a necessary one. Cf. on this Cukierman (1992).
(which was able to use its currency reserves secured from before World War II, cf. Karp and Siebke 1999). The question is whether and how this works, given, in particular, the enormous differences between the competitiveness of a transformation state and the country whose money it (de facto) uses. Flexible exchange rates are insofar less problematic but will result in high risk premia on national interest rates. There is, of course, the exchange rate risk involved particularly with regard to long term investments for which no forward markets exist. On the other hand, foreign investments are less important for economic development than an increase in exports and the accumulation of domestic capital.

**Evaluation:** As we have indicated there exist general and specific rules by which human behavior can be directed into a desired direction. But these rules have somehow to be enforced - either by third parties or „by themselves“. The basic hypothesis of self-enforcement is "that someone is honest only if honesty, or appearance of honesty, pays more than dishonesty." [Telser 1980, 29]. The enforcement instrument in this case is the threat to break off relations either directly through „exit“ or indirectly, through „voice“. Credibility plays a role - credibility both of the promise to provide what has been agreed upon and of the threat to break off relations through exit or voice. An important institutional economic issue is to analyze the role of credibility or reputation in political and economic life. As we have already noted, the "production of" or "investment in" credibility can be encouraged by the „construction“ of a suitable institutional or constitutional environment.

In the language of network analysis, this section deals with the attributes of actors and the governance structures of their bi- or multilateral transactions. The initial endowments (by nature or law) determine the attributes of actors. The constitution and legal framework offers the cornerstones of a network of paths to be used by the actors for their transactions. They leave room not only for transactions but, importantly, also for the „organic“ evolution of law, contracts that is, by private actors, and it is assumed that actors take advantage of this opportunity. As a result of the private activity, the network of paths provided by the constructed legal order is filled out by a network of contracts between actors. Collectively, these contracts constitute a "voluntary legal order" built up spontaneously from below by utility-maximizing individuals (v. Hippel 1963, 27). In effect, freedom of contract is the institutional counterpart to the principle of economic decentralization - which is presupposed by competitive market models. In addition to the organic evolution of law „from below“ we observe also the organic evolution of custom (Schlicht 1997), the non-legal institutional matrix of economic life. Clearly, the organic evolution of law and custom of the new social system B takes time, while a new constructed constitution or elementary legal order can practically be popped on the actors’ head.

**4.2 The elementary transition rules from the old network A to the new, target network B**

Given an ideal classical model with zero transaction costs, no transition rules would be needed - except one: the redistribution of absolute and relative property rights of actors from A to B. The rest would work out immediately by itself. In this case, "big-bang" would be the right thing to do. Actors are immediately in the position to make long-term decisions. But the fact that in reality there are transaction costs will cause difficulties, e.g., in the re-ordering of

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25 German legal literature speaks in this context of Privatautonomie, the principle that each individual is free to regulate the circumstances of his life by himself.

26 Ownership and claims.
property rights - of privatization in case of the transformation from a socialist to a market capitalist economy (or of socialization in the opposite case). Some economically important property rights, e.g., of human network capital, become completely worthless. There is nothing left of value for privatization. In other cases, e.g. land, privatization may lead to enormous transformation gains. Again, under the neoclassical conditions of zero transaction costs, the initial endowments of actors are irrelevant for the economic outcome. It will be Pareto-efficient whatever the initial conditions are. Motivation, effort, loyalty etc. are irrelevant for the outcome, there is no interrelationship between the economic and the political game. The latter is completely disregarded in neoclassical economics. Given real life conditions, privatization is no small task. The various ways and problems of privatization are widely dealt with in the literature (quote!). In the present context, it is sufficient to point out that it is a time- and resource-consuming procedure with economic and political side effects which must be taken into account and which require the development of „rational“ (transaction cost-saving) transition rules.

Thus, e.g., markets are not simply „there“. They are public goods and, like all public goods, have to be provided or created by someone. Markets are special networks of explicit or implicit contracts between actors, the buyers and sellers. The organic evolution of law and custom is of vital importance. Individual feelings play a role (Frank 1990). Transaction costs in the form of asymmetric information disturb the beauty of the classical model of „demand and supply determining the price.” Opportunism is prevalent as well as what we call the “political game”, the legal or para-legal use of force (instead of exchange) as a means of resource allocation.

4.3 Rational Incompleteness of the Norms of a System

We stated above that the basic rules of the target system \( B \) and of the transformation from \( A \) to \( B \) should remain incomplete in a somehow rational sense. The reason are unforeseen events. There remains always room in constructed rules in which the invisible hand mechanism works. The point is that the economic planner (or „transformer“) should rationally make use of unavoidable fact.

The NIE concept of „relational contracts“ in the sense of Mcneil (1974) plays a role in this context. According to this concept, actors and their representatives agree, either explicitly or tacitly, „about the procedure [the 'constitution'] that will be employed to deal with problems that may arise in the future." (Macneil 1974, 753). Moreover, it is accepted that negotiations on matters of concern will be carried on more or less continuously. Strategic or opportunistic behavior plays a role and has to be accounted for (Williamson 1985, 47). The problem is how to make incomplete agreements „binding“ and thus credible; the credibility of commitments of the state (or any other promiser) is central for the success of the transformation process. As was argued above, self-enforcement matters. But there is the problem that, because of the impossibility of foreseeing all future events, no precise commitment can be given. How then can the actors (voters) verify whether their representatives (government, legislators) have kept their word?

Kreps [1990] attempts to provide an answer with his interpretation of the concept of organizational culture. Applied to transformation policy, the social planner has to spell out and
commit themselves credibly to a "principle" according to which they will react to unforeseen events. That principle must fulfill two conditions:

The actors (voters) must

- be able to establish \textit{ex post} whether the "principle" has been adhered to, and
- be convinced \textit{ex ante} that the "principle" (the economic theory behind the principle, e.g., private property theory) will be successful.

In this way, despite the uncertainty of the future, the social planner can establish and defend their reputation for keeping their word (example of paper money see Richter 1999c).

In a sense, organizational culture is part of „expectation dependency“ of transformation. The credibility of the promises by the „transformer“ matters.

5. Sketch of two Historical Examples

To further illustrate our arguments, we shall present two historical sketches: (1) The West German currency and economic reform of 1948 and (2) The German reunification of 1990.

\footnote{The "principle" should, according to the views of Kreps, possess the characteristics of a "focal point" in the sense of that term as used by Schelling (1960).}
5.1 West-German Currency and Economic Reform of June 20, 1948

The technical part of the currency reform was more or less the same as the above described stylized currency conversion - with one big exception: the annulment of German governmental loans.28 Considerable distribution effects were the result. An attempt was made later to at least partially compensate for them by the equalization of burden law. The additional economic reform was, compared with today’s transformation countries, an easy task. The elementary legal structure of a market economy - property and contract law - still existed from the time before the war. It had been suspended and overshadowed by war-time regulations, e.g. quantity rationing and price controls, which remained in force after the war. The economic reform needed to make the currency reform of 1948 a success, was thus comparatively easy - at least theoretically. All that had to be done was to abolish the war-time regulations. But to do just this was a considerable political problem which, in contrast to the currency reform, had to be solved by the Germans themselves. That was largely done under Ludwig Erhard’s guidance, i.a., by the „Law of the Guiding Principles for Economic Control and Price Policy after the Currency Reform“ which became effective four days after the currency reform.29 It demanded the relaxation of rationing and price controls. By July 1948 about 90% of the statutory price regulations were repealed and the general price freeze of 1936 was suspended. The Guiding Principles also called for the restoration of competition, the application of credit policy measures and the relaxation of the wage structure.30 As for the latter, the wage freeze was abolished on November 3, 194831 and the „Law Concerning Collective Wage Agreements“ (Tarifvertragsgesetz) became effective on April 9, 1949.32

28 It was based on the Colm-Dodge-Goldsmith Plan of 1946 (see: Colm, G., Dodge, J.M., Goldsmith, R.W. „A Plan for the Liquidation of War Finance and the Financial Rehabilitation of Germany,“ Zeitschrift für die gesamte Staatswissenschaft, 111, 204 - 243).
30 Stolper und Roskamp (1979, 374 - 404).
32 Gesetz- und Verordnungsblatt 1949 No. 11, Frankfurt am Main, April 22, 1949, 55-56.
The constraints of "path dependency" helped more than hindered the economic reconstruction of Germany after 1948. Not only the elementary formal structure of a market economy but also most of the old property rights structure still existed from before the war (i.e., only some 10 to 15 years ago). Much of the informal ("organically"-developed) part of pre-war (or pre 1933) economic life was still alive: a social-liberal ideology with its distaste for Marxism as well as for "Manchester Liberalism" plus its corporatist tendencies; the technical knowledge represented by brand or firm names like Mercedes, Siemens, Bosch, Zeiss, Leitz etc.; the knowledge and skill of how to do business; the network of personal and business relationships within and across national borders; and so forth. In short, the human and social capital of pre-war Germany still existed in spite of devastating human losses. As a result, the concept of "social market economy", with its roots in the German Historic School, contributed to social peace. Of course, trade unions protested (Schmidt 1970, 141) and the social asymmetry emphasized by the unions was also felt by the population - no wonder given the distribution effects of a currency reform which aimed not only at stable money but also the "Liquidation of the War Finance and the Financial Rehabilitation of Germany."

33 Müller-Armack (1966b) had introduced the term. The idea was, given a well-ordered market economy, that......the growing wealth of the nation would enable society to take care of the weakest groups in a manner which no central planning system could afford. ..... a true social market economy can, and indeed should, provide social security and protection to the weakest not only by private charity but also by a certain income- amount of redistribution via state measures. ... government should not intervene directly in the market process, but the redistribution should be brought about by direct transfers." (Watrin 1979, 420).

34 Domes and Wolffsohn (1979, 341) report: In July 1948, 79% of West Germans believed „that certain strata of the population gained special advantages through the currency reform.” (quoted by Domes and Wolffsohn from Noelle and Neumann 1956, 151).

35 Tittle of the Colms, Dodge, Goldsmith Plan (Wandel 1979, 322).
As for the role of "expectation dependency" the Bretton Woods System with its fixed exchange rates and disciplining measures may have contributed considerably to the build-up of confidence. As for West Germany, there was only one devaluation in September 1949 (from 3.33 to 4.20 DM/$). This new rate was certainly favorable to German exports. In addition, the import restrictions of that time protected the reconstruction of the West German industry. The Bretton Woods System also helped to discipline the financial policy of West German governments and strengthened the position of the German central bank. The Bank deutscher Länder, the later Bundesbank, still had to gain its reputation. "Expectation dependency" also played an important role among investors and consumers. But what determined the growing optimism of this time is difficult to tell. That early optimism was soon reinforced by the success of the German economic policy. The average GDP growth rate of 1950 - 1960 amounted to 8.2%. Unemployment decreased from 11% (1950) via 5.6% (1955) to 1.3% (1960). Real wages increased by 60% between 1950 and 1960. Stable prices, an important issue for Germans, contributed to the build-up of confidence: the inflation rate averaged 1.15% between 1950 and 1960. International trade played a vital role in this process. The export quota (exports/GNP) increased from 8.6% in 1950 to 17% in 1960. Imports increased less and thus currency reserves grew considerably - from practically zero (1948) to 33.24 bill. DM (1960), when 38% of West German currency reserves were in gold.

**Conclusion:** The German currency and economic reform of 1948 was a transformation from a former market economy disfigured by war back to a peace-time free market economy. It was "big-bang" as "big-bang" can be. The decisive "pragmatic" actions, the currency reform itself and the central parts of economic reform, took place within a couple of days (or months if we include the *Tarifvertragsgesetz*). The resulting fast growth of German employment, of GDP, of foreign exchange reserves - with almost stable prices - was promoted by a favorable institutional environment: Path dependency and expectation dependency helped considerably. As for the first, the apparent high market value of human network capital must be mentioned. It contributed decisively to West German competitiveness in the world market. Regarding expectation dependency, the early, not overwhelming optimism was reinforced by the political process and the immediate and rapid economic growth itself. The importance of the political process for the success of a comparatively "simple" transformation such as the one under consideration is illustrated by the difficulties the British had with their return to a peace-time market economy after World War II.

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36 Right after the currency reform, in July 1948, 44% of West Germans polled looked more optimistically in the future, 24% more pessimistically (Noelle and Neumann 1956).
38 12. 48 bill. DM; Stolper, Häuser, Borchardt (1964, 254). The West German gold reserves were higher than in pre-1914 Germany during the times of the gold standard (loc. cit. 256).
5.2 German Reunification of 1990

The German reunification of 1990 is a special, not to say extreme, case of transformation of a soviet type economy into a market economy. Its basic formal parts were carried out in two steps which were only three months apart.

(1) The contract about the economic, currency and social union which came into effect July 1st 1990 after brief negotiations, lasting only about four months, between the representatives of the two states. The technical part of the currency conversion followed literally the above (in 3.1) described three „juristically necessary“ features with an individual conversion rate („recurrent connection“) 1:1 for the first 2 East Marks and 1:2 for the rest. Wages contracts were converted 1:1.

(2) The actual reunification, i.e., the integration of the German Democratic Republic (GDR) into the Federal Republic of Germany October 3, 1990.

This was probably the most rapid formal transformation from socialism to capitalism in the world. The GDR took on, virtually overnight, the West German currency, the West German constitution, its legislation, administrative rules, economic order, social policy etc. Public administrations, courts, universities were turned upside down and newly staffed, to a large degree, with West German specialists.

Yet different from the 1948 currency reform, the constraints of „path dependency“ were an enormous handicap for the East German economic reconstruction. The old formal structure of a market economy and most of the old property rights structure in existence until 1945 and later was thoroughly destroyed. Socialist ideology, detested as it may have been, had its effect on the way people explained the world in which they assumed they lived in. Much of the informal ("organically"-developed) part of the pre-1989 economic and political life was still there: a (softened) Marxist philosophy, a strong distaste for competition ("elbow competition" was the slogan), strong corporatist tendencies (as in the West), a human network capital of no (or only little) value on the world market (compare the brand name of the Volkswagen in 1950 with the brand name of the Trabant in 1991!), the knowledge and skill of how to do business in a centrally planned economy was there but it hindered more than helped the economic reconstruction of East Germany. It was more a network of amigo type connections, trained to sidestep the regulations of a centrally planned economy (mockingly called „rope teams“ = Seilschaften).

Given such initial conditions, the rapid currency union had a devastating effect on the East German economy. The law of one price operated in an unhampered fashion. Not only the West German, the whole world market spilled immediately over into Eastern Germany. The until then highly protected, outdated East German industry was unable to compete on the world market which happened to be suddenly in front of their door. As a result, East German industrial production decreased in the second half of 1990 by 50% compared with the second half of 1989 (Bbk Geschäftsbericht 1990, 23). The law of one price contributed also to wage increases of 25% and 60% in the second half of 1990 - far above East German labor productivity.
While the conversion of monetary assets or liabilities was quite easy, privatization took time, particularly since a property restitution to their former owners (or their heirs) was decided upon. This is a typical problem of path dependency which also influences expectation dependency: the credibility of the government’s commitment to protect private property in the years to come and its effect on private investments now.

One typical argument against restitution was that it slowed down private investments and thus economic growth in East Germany. Compensation payments instead, would have separated the investors’ property rights issue from finding former owners and from disputes over the level of their compensation payments (Sinn & Sinn 1992, 93). Property rights assignments would not have held up investments. The typical counterargument of our practical minded politicians was that compensation payments would be too expensive. Sinn&Sinn suggested linking compensations strictly to the act of sale. They do not mention that such a solution would not only open up the Pandora Box of political intrigues and machinations but would in effect be a legalization of the socialist state’s expropriations -- sweetened only by some difficult in evaluating and justifying compensations. Restitution was, I think, the more suitable way to make the state’s constitutional guarantee of private ownership credible [a problem not mentioned by Sinn ].

**Expectation dependency** played a crucial role regarding the propensity to invest in East Germany. This propensity should not seriously have been expected to be high (though it was), because of

- the lack of high powered human network capital and the resulting lack of world market products (besides Meissner Porcelain),
- the inability to compete on world markets (expressed by a low East German export quota\(^{39}\)),
- the low East German labor productivity,
- its completely outmoded and run-down infrastructure,
- the catastrophic environmental burdens inherited from its socialist past.

In spite of these known or foreseeable impediments to investment, German politicians expected (at least publicly) that investors would rush into East Germany immediately after reunification. The German Minister of Economics, Count Lambsdorf, expressed this hope in the unforgettable words: "The investors are waiting on their starting blocks!"\(^{40}\) Only a (big-

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\(^{39}\) The East German export quota decreased between 1991 and 1994:
1991: East German export to foreign countries/GDP = 8.5%:
   East German "export" to West Germany/GDP = 4.4%
1994: East German export to foreign countries/GDP = 3.5%:
   East German "export" to West Germany/GDP = 4.0%
The West German export quota had in 1950 about the same size as the East German export quota in 1991, but it increased to 17% in 1960, i.e., to much more than the East German total "export" quota (including exports to West Germany) in 1994. (The systematic record of commodity exports/GDP for East Germany was discontinued in 1995). (Source:?). The situation improved slowly in the following years. Still, compared with West Germany were exports relative to the total turnover of the producing industry (produzierendes Gewerbe) in most branches relative low (see SR Annual Report 1998/99, Table 38, p. 94).

\(^{40}\) Lambsdorf forgot that West German net capital imports during the *Wirtschaftswunder* West Germany were limited to the first two years. From 1951 onward until 1964 West Germany had an active current account balance, a precondition for the Bundesbank’s accumulation of foreign exchange reserves (see, e.g., *40 Jahre Deutsche Mark, Monetäre Statistiken 1948 -1987*, Frankfurt am Main, 1988, 254).
bang) transformation to a free market economy would be necessary, with the rest being done quickly and smoothly by market forces. A number of politicians and economists expected, unrealistically, a repeat of the 1948 West German Wirtschaftswunder.

Certainly, if we compare the East German situation after reunification with other former soviet type economies, the basis for expectation formation of foreign investors was superb. The high reputation of the German Bundesbank guaranteed sound money. The 40 years of the well-tried constitutional West German state guaranteed the security of private property and contract rights. Yet, as for the East German population, their expectations to become rich quick were unrealistically high. Kohl's colorfully expressed hopes of „flourishing landscapes“ within five years were taken literally. Instead, no second Wirtschaftswunder occurred and disappointment among East (and West) Germans soon spread. It was reinforced by the almost continuous increase in East German unemployment, which averaged 15.5% between 1992 and 1997 and reached 18.2% in 1998.

**Conclusion:** German reunification of 1990 is an extreme form of a transformation from a soviet type economy into a free market economy. As in the case of the currency reform of 1948, its formal part was a "constructed" big-bang action. Its two decisive steps, the contract between West and East Germany about the Economic, Currency and Social Union of July 1st 1990 and the final legal integration of the German Democratic Republic (GDR) into the Federal Republic of Germany on October 3, 1990, were carried out only within three months. Yet the result was very different from what had happened after the 1948 German currency and economic reform. East Germany had, instead of a quick start, an immense economic breakdown of production for two years followed by six years of mixed growth, averaging less than 5%. The unemployment rate increased to levels unknown in Germany after the Great Depression. Bonn coughed up transfer payments higher than the most pessimistic forecasts of 1990. By 1998 they had amounted to more than one trillion DM. Transfers of such a size and duration are not necessarily an incentive to improve one's own lot, and they will be difficult to end. German reunification, in spite of many pleasant sides, does not look good.

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41 After the breakdown of the East German industry in 1990 - 91 economic growth in 1992 - 95 amounted to 7.6% on average, then decreased to 2% 1996-97 and 1.8% 1998 (Richter 1999).
42 Net transfer payments from West to East Germany amount to more than 100 billion DM per year since 1991.
Why such disappointing developments after 1990? The standard reply is that it was because of too high wages pushed up by West German unions eager to avoid „cheap labor competition“. Certainly, East German wages were and still are far above labor productivity. But even if they were not, the East German economy would have considerable employment problems. The reason is the enormous gap in world market-relevant specific human network capital between East and West Germany. The size of this gap is illustrated, as was mentioned, by the difference between such automobiles as the *Trabant* and the *Volkswagen Golf* or the *Wartburg* and any *Mercedes* model of 1990. No such gaps existed between West Germany and other Western industrial nations after World War II. They had all suffered during the war, a period of 6 years, but their losses of life and real capital were small or of a different kind than the heavy losses of East Germany's world market-relevant human network capital during its 40 years of socialism. Such a gap cannot be closed within a couple of years. Whole arrays of new products and production techniques were developed in Western Germany and the western industrial nations during that period of time. East Germans may have known of these developments but were not able to build equivalent human networks able to compete with modern developments. Furthermore, given the increase in labor productivity, the East German demand for the new products could easily be supplied by Western firms. To regain its pre-World War II position, when it belonged to the top level of the Central European industrial area, East Germany has to develop new industries, i.e. to innovate, as all transformation states have to do. Innovation requires venture capital and that, for obvious reasons, has to be saved (accumulated) largely by the transformation states themselves. Foreign investors cannot do more than provide seed money. Finally, marketable innovations are in the first place the result of private enterprise. The state is a poor innovator as the breakdown of communism demonstrates. What the state (the government) can do best is to "construct" an institutional environment conducive to the "organic" growth of innovative, viz., internationally-marketable human network capital. The rest has to work out by itself and needs time and patience. Experience shows that poor regions adapt to rich ones only slowly - at a rate of no more than 2 - 3% p.a.44

6. Big-Bang or Gradual Transformation?

Our considerations and examples demonstrate the mixed role of big-bang actions in transformation policy. Important for the decision as to whether a rapid or a more gradual transformation from the previous socialist system *A* to a new market system *B* is appropriate, is to evaluate the three main impediments to change:

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43 East German labor productivity was 46% of West Germany’s in 1997 while its wage level was 77% of West Germany’s wages, see Barro (1998).

• path dependency,
• expectation dependency,
• the gap in human network capital between A and B.

The greater the gap between old and new (internationally-marketable) human network capital, the longer will probably be the process of adaptation. The point is illustrated by the difference between the economic development after the German unification of 1990 and the West German Wirtschaftswunder after the currency reform of 1948. The size of the gap in human network capital is, of course, a consequence of the history of system A. To that extent it is a path dependency problem, a particularly difficult one to solve. There are path dependency problems which are much easier and quicker to handle, as illustrated by the example of the „recurrent connection“ in the case of a currency conversion. While there are considerable differences in the level of difficulties with path dependency, expectation dependency, i.e., trust in the announced new system, is more or less equally vital in all types of transformation, the rapid and the slow ones.

Since the size of the gap in human network capital is of vital importance for the period of adaptation, a closer look at the nature of „marketable human network capital“ would be in place. The answer, though, has to be left to a later paper. Only this can be said at this point: marketable human network capital is a combination of human and social capital. It is not only human capital in the sense of Schultz (1963), Becker (1964) or Mincer (1958) - i.e. the market value of an educated engineer, a business person or a skilled worker etc. It is also part of social capital as described by Schlicht (1984) or Coleman (1990), i.e. a set of obligations, expectations, and mutually developed norms and sanctions that evolve from prior social interaction. Network externalities play an important role, i.e. positive external effects not only in production and trade but also (and importantly) in the creation of new technologies or products. Obviously, the transfer of money or technical knowledge, helpful as it may be for the start, is not sufficient to close the gap. It may even set the wrong incentives and slow down rather than speed up the transformation process.

A purely and rapid top-down transformation, as in the case of German reunification, may be politically necessary, though, one should not expect it to be rapidly successful economically. The speed of the transformation process is limited by the speed of the necessary bottom-up evolution within the new political and economic order. The other approach to system transformation, not dealt with in this paper, is (economically) purely bottom-up. It leaves the old socialist political and economic system intact and offers or allows the parallel development of capitalist institutions „from below“ as in China. A different approach of this type would be to offer a set of superior institutional arrangements as an alternative which can be freely chosen. The Romans are said to have this done with their money, language and legal system in the countries they had occupied. Note that both methods are implemented by a powerful state which forcefully insures that it continues to get its own economic share. The Chinese or Roman kind of transformation process will be economically - not politically - quite messy at the beginning and require some time to be completed. But it may be an open question whether its economic results, and possibly the desired political change towards more actual

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freedom, will really develop much more slowly or ultimately be less stable and trustworthy than in most of today’s hasty transformation and development exercises.
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