

Institutional foundations of subsistence agriculture in transition economies

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Abstract

The paper considers the problem of subsistence and semi-subsistence farming in Central and Easter Europe. The latter is analysed in terms of the institutional characteristics of the transition process. The concepts of institutions and institutional change are clarified and subsistence agriculture is derived as a natural consequence from the process of economic transition.

The process of shortening which gives rise to subsistence agriculture is described. It is demonstrated to have economy-wide effects, and in the domain of agriculture these effects lead the emergence of subsistence behavioural patterns.

The policy implications of the proposed view of subsistence agriculture are briefly reviewed and some policy recommendations derived.

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Non-technical summary

Agriculture in Central and Eastern European countries is characterised by considerable share of small-scale farming. This small-scale agriculture often consumes significant proportion of their own production. The latter constitutes the problem of subsistence agriculture. Subsistence agriculture is viewed as a paradox because it represents a deviation from the principles of market economy. Moreover, since it is a characteristic of many developing countries, its presence in the countries in transition striving for accession to the EU is sometimes belittled and intentionally ignored.

This paper analyses subsistence agriculture in terms of the institutional characteristics of the transition process. The basic concepts of institutions and institutional change are defined and this definition is different from much of the economic literature on the topic. The latter provides an important new view on the problem. Consequently subsistence agriculture is derived as a natural consequence from the process of economic transition.

The analysis is developed around the introduced concept of shortening. The process of shortening is described and is demonstrated to give rise to subsistence agriculture. It is demonstrated to have economy-wide effects, and in the domain of agriculture these effects lead the emergence of subsistence behavioural patterns.

The policy implications of the proposed view of subsistence agriculture are briefly reviewed and some policy recommendations derived.

1. Introduction

The existence of subsistence agriculture in transition economies is often perceived as a paradoxical outcome of economic reforms. Transition is an abbreviation for "transition from centrally planned to market economy". By definition it is a process of introducing the principles and elements of the market into former communist economies. With regard to agriculture however, the process of transition led to the opposite result. The market simply disappeared. Moreover, subsistence agriculture does not just exist, it has emerged and expanded during transition. It seems that transition has created and extended current subsistence agriculture in Central and Eastern Europe. The puzzle becomes more complex, when one takes into consideration that small-scale household farms, now defined as subsistence, were in fact market oriented in the pre-transition period (Kornai, 1992). It seems that reforms and transition to the market succeeded in destroying one of the few elements of market of the previous economic system. This gives a different dimension to the problem of subsistence. Subsistence agriculture is not simply a logical outcome of the worsened economic situation in transition economies (Tho Seeth et al., 1998; Caskie, 2000), but also a consequence of transition as a structural change. We view the latter as an institutional change. The dangers of market liberalisation in the absence of strong institutions are now being recognised in Eastern Europe. We argue that subsistence agriculture in transition economies is a result of the dramatic institutional changes that took place in these countries during the last decade. Commercialising agriculture is undoubtedly a *desideratum* of agricultural policy. The process of commercialisation of the dualistic agriculture in transition countries is itself a further institutional change. This change cannot be successfully completed unless we properly understand the nature, driving forces, opportunities and threats that current subsistence agriculture in Central and Eastern Europe presents. To do this we must clarify the institutional foundations of the problem.

2. Institutions

The term institution is widely and often misused. With regard to transition countries, the most often used meaning for institutional change include privatisation, legislation and organisational development. We argue that none of them are institutional change on its own. Institution is a rule or routine for behaviour. It can be illustrated as "if X, then do Y". Using such rules leads to patterns of similar recurrent economic behaviour in similar situations. To put it simply, institutions define economic behaviour. Contrary to the popular neo-classical view of institutions as restrictions in the maximisation problem, institutions are not constraints but the driving force of economic behaviour. Neo-classical orthodoxy assumes away the problem of economic action. It defines economic action as a maximisation problem which is entirely independent of the actions of the other economic agents. Since this is not the case however, the maximisation problem of a given economic agent should include similar maximisation problems of other economic agents. Since these are also dynamic problems maximisation becomes logically intractable. Institutions represent stable patterns of recurrent economic behaviour and, as such, allow the individual economic agent to better assess the environment. In conditions of radical uncertainty and high complexity, rational utility maximisation is not feasible. Using behavioural rules helps to achieve an overall coordination pattern through the formation of economic roles. Institutions facilitate individual and organisational economic action because they make the actions of other economic agents more predictable. We note that existing institutions do not preclude deviations from the behavioural rules they prescribe. The latter implicitly includes in the economic process an element of uncertainty and non-determinacy. Economic development viewed through this lens of uncertainty becomes non-ergodic and path-dependent process.

In a stable institutional structure however, most individuals have no incentives to deviate from the institutionalised rules of behaviour. This creates a greater degree of

predictability of economic behaviour, defined by the stable institutional structure, although the latter should not be understood in absolute terms.

Institutions can be defined as workable (not necessarily efficient) adaptations to the environment. As such they represent an economy of calculative efforts and are a necessary pre-requisite for economic action. The market which is a major economic concept is itself an institution. It is curious that although this is probably the most widely used term in economics, there exists no comprehensive and acceptable definition of the market. Since the market is an institution, that is a set of behavioural rules and routines, that have evolved over time, it cannot be universal. The textbook notion of a market is an abstraction and real markets need to be studied to gain a better understanding of the underlying economic processes. We argue in this paper that subsistence agriculture itself is a market, integrated in the structure of other markets.

Institutions as channels for economic action are organised in a hierarchical way. This is a consequence of the well known psychological finding that human perceptions and the related categories are organised hierarchically. Since the way we see the world is hierarchical (Simon, 1981), the way we act, and thus economic institutions should also be hierarchical (Langlois, 1986). Any complex set of behavioural rules, such as the market, should thus be defined as an institution. The institutional structure of an economy therefore consists of nested sets of institutions, which are mutually embedded and interdependent. We note that the countries of transition are often referred to as economies with missing institutions. This is false by definition. Institutions cannot be missing. They describe economic action. Doing nothing, because one does not know what to do, for example, is a rule of behaviour. Institutions are only defined as missing from a normative or comparative point of view. Both these are inadmissible. The normative point of view uses highly idealised concepts of market, perfect competition etc., in comparison with which any real situation will be imperfect. The comparative point of view, on the other hand, ignores the basic truth that institutions are interdependent. Stating that some institution, present in country A is missing in country

B, is reductionist and misleading. The significance of the above can be considered only with regard to the comprehensive institutional structure of A and B. The institution that is 'missing' in B, may not be favourable in the conditions and the existing institutional arrangements in B, and its non-existence there may be a manifestation of economic efficiency.

3. Institutional change

The process of institutional change is best understood in the realm of interaction between formal and informal institutions. The main difference between formal and informal institutions is the question of their design. Formal ones have to be designed while informal ones are considered as the unintended consequence of human action. The design of formal institutions makes them convenient for analysis, since they are well defined, usually in written form. This explicit expression makes them suitable for formal analysis. To put it simply, formal institutions are easier to assess, they exist in a communicable form and are readily available to everyone. Informal institutions, on the other hand, are less tangible. They often contain a high proportion of "tacit knowledge" and thus are much more difficult to analyse. Due to this, informal institutions are difficult to analyse on their own and it is not easy to predict their effects. It follows therefore that the easiest thing is to ignore informal institutions and treat them in a neo-classical fashion as constraints and solely concentrate on the formal institutions. The difference between formal and informal institutions and the widespread use of mathematical models in economics favours such an approach. This approach could be justified if formal institutions were the main determinants of economic activity while informal ones had only secondary functions. It follows then, that this is the neo-classical approach to institutional theory and, in general terms, is the stance of the New Institutional Economics. It is therefore hardly surprising that Douglas North (1990), who explicitly states his aim as incorporating institutions into neo-classical economics,

ignores informal institutions and concentrates on the formal ones - "In term of the focus of this study a major role of informal constraints is to modify, supplement, or extend formal rules" (North, 1990, p. 87). Even the language usage is expressive of the main idea, informal institutions are termed *constraints*, they do not merit the term institutions and analytical attention. The only role of informal rules in the above argument is to support the formal ones. It is important to stress the consequences of adopting such an approach. In terms of institutional development, it suggests institutional engineering. If formal institutions have the primary role, then by modifying them one can obtain desirable results. It is true that North (1990) and other proponents of this approach explain in detail the "evolutionary" nature of institutional development. Nevertheless this does not change the main idea as being formal institution building. It is thus hardly surprising that with regard to recent economic transition this approach has been "propounded by those - generally of laissez-faire leanings..." (Dallago and Mittone, 1996). This is the expression of the deterministic neo-classicism.

This view of the primary role of formal institutions is however untenable. Because "as Rousseau contended, it is in the end the law that is written in the hearts of the people that counts" (Riker, 1976, p. 13). This suggests the opposite idea of priority of informal institutions and complementarity of formal ones. The absurdity of North's idea becomes greater taking into account his detailed "analysis" of the way Latin American countries adopted the principles of the American constitution (the formal rules) and the ensuing results. Powelson (1972) provides a detailed account on this topic. If "informal constraints" were really so unimportant, how was this all possible?

The opposite approach stresses the importance and leading role of informal institutions. Menger (1963) coined the terms organic for informal institutions and pragmatic for formal ones. He considered the approach of intentional design of formal institutions in order to influence the informal ones, as ahistorical. If one finds the Austrian subjectivist approach as predetermining this opinion, such an accusation cannot be made with regard to John Commons. It is useful to remember that Commons deemed that order

cannot result spontaneously but is always a consequence of application of power, which is the opposite to the Austrian standpoint. And yet Commons says: "Custom ... may ... be even more mandatory than the decrees of a dictator" (Commons, 1931, p. 651). This highlights the importance of informal institutions. Institutional "engineering" is therefore unnecessary and harmful. The role of economic policy is not to provide the "rules of the game", but to select from the available set of rules. This is explicitly stated in Commons (1934) theory of institutional change. Even when purposefully orchestrated, institutional change will always have unintended consequences. Precisely predicting the change will only be possible if we are able to 'calculate' the complex interactions within the various institutions. Moreover, even if the latter was possible, the element of non-determinacy of institutional rules would make our task infeasible. There are limits to predictability in economics. In terms of institutional change, it is more difficult to 'control' the process, because institutional change is not simply change in the 'rules of the game' but a change in the game itself.

4. Transition and the *raison d'être* for subsistence agriculture

4.1. An Institutional Framework of Transition

Economic transition can be defined as a process of dramatic institutional change. The institutions and working mechanisms of the centrally planned economy were so different from those of the market economy, that transformation from the former into the latter requires deep behavioural change (Kornai, 1992). A common misunderstanding of the nature of transition is the persistent belief that this institutional change was designed. Actually the political and economic changes only altered the economic environment. Since economic institutions represent workable adaptations of economic agents to this environment, the older institutions simply ceased to be useful in the radically new environment. In other words, by designed and implemented alteration

of the economic environment, conditions were created for institutional change. The driving force of the institutional change however is not the government, but purposive economic agents.

Institutions have an information role. They provide rules and routines that are proven to work in given situations. Faced with uncertainty of the future, individuals are likely to confine their behaviour within these rules. Instability is a logical consequence of the destruction of the old established institutions. Rules of behaviour, prescribed by institutions destroyed in transition ceased to work. This dramatically increased uncertainty. This process is illustrated in Johnson et al. (1997) who emphasise the crucial role of the speed of the reforms. During this process of transformation, small scale agricultural production remained one of the few institutions that individuals could rely on. Household agriculture had to cope with the changed economic conditions and did this by becoming increasingly subsistence.

Given the resulting unstable macroeconomic situation, households faced a high risk environment. Their response to instability and uncertainty was to try to secure their basic food supply via subsistence production. Self-consumption can be considered a form of risk minimisation. Economic instability changes psychological attitudes and with the possibility of chronic food shortages, market stimuli lose their power. The dramatic macroeconomic changes promoted self-sufficiency as a high order household priority, and changed former relationships to the market. It is important to stress the asymmetric nature of this change. The short-term reaction to macroeconomic disturbances became institutionalised in terms of behaviour and began a long-term attitude.

Since at the aggregate level, institutions provide the "means of orientation" (Lachmann, 1971), their change impacts on the behaviour and the attitudes of economic agents. The process of institutional change necessarily brings instability in observed economic behaviour and creates uncertainty. There are two main sources of this instability related to economic transition. The first is the impossibility to follow the rules and routines,

contained in the destroyed institutions, because of the changed environment. This is often described as a "vacuum" borne by the destruction of old structures and the lack of functioning new ones. The second, arguably more important source of instability, is related to the informational role of institutions. Hayek (1973) argues that outside the price system, patterns of routine behaviour transfer information. Except for the restrictions that they impose on individual behaviour, institutions are considered to convey knowledge.

4.2 The process of shortening of production in real time

An important characteristic of the centrally planned economy is the ideological emphasis on industrial development expressed in policies of "forced growth" (Kornai, 1980, 1992). Investment in agriculture was not a priority in this situation. The unavailability of credit leads to reallocation of resources from earlier to later stages of production. Liberalisation created conditions for deepening of the decapitalisation of agricultural production. This process of reallocation of production resources during transition has been termed the shortening of production in real time (Kostov, 2002) and drives total agriculture towards subsistence type of behaviour.

The uncertainty and instability generated by the initial reforms increased the importance of present relative to future consumption. There is a direct link between the shortening and the propensity to consume. The shortening process effectively emphasises the later stages of production, the net effect of which is a relative increase in current relative to future consumption. Therefore this process takes place when there are expectations of a future fall in consumption of final products.

The process of shortening however cannot be properly understood in terms of this restructuring of production resources. It is a self-enhancing process in which institutional instability plays a crucial role. It is a multidimensional process. One of its channels is the effects of the transaction balances. Since transaction balances and

"short-lived" capital goods are complements, whilst transaction balances and "long-lived" capital goods are substitutes (Kessel and Alchian, 1962), the enlarged chance of economic errors leads to a substitution away from long-term capital. This is equivalent to transferring resources from the earlier stages of production (generally associated with long-term capital) to later ones.

Inflation also contributes to the process. Inflation increases the preferability of current relative to future consumption of goods such as food, and therefore contributes to the shortening of agricultural production. In terms of agriculture, the above process means a need for current food and due to an expected future decline in food production, the danger of future food shortages. Both the above processes give rise to a tendency towards self-sufficiency. This tendency, however may be expected to be relatively temporary, subject to the development of the new market institutions.

The effect of shortening can alternatively be defined as diminishing the roundaboutness of production, that is by substitution of less roundabout production techniques for more roundabout ones. By using the term roundaboutness we do not want to invoke the Bohm-Bawerk's formulation of theory of roundabout production which refers specifically to the production of capital or other intermediate goods used in production. Here we view roundaboutness in a broader framework, without reference to whom and where these intermediate goods are being produced, but only being interested in their final application in the production process. This treatment follows Kostov (2002) and is similar to the neo-institutional argument about asset specificity.

With regard to subsistence and commercial agriculture, more roundabout production techniques are deemed superior than the less roundabout ones. The effects of the shortening process lead to agricultural decommercialisation, that is emergence and development of subsistence agriculture. It may seem that this is unrelated to whether one produces for the market or for own consumption. The decreased roundaboutness of agricultural production however represents a regressive technical change that further shortens the time horizons and thus enhances the effects of institutional instability. It is

itself, in the lines of our understanding, an institutional change, because it alters the way farmers produce and consume agricultural products.

The relative preference of current to future consumption and the shortening of production in real time lead to a relative decrease in both future production and consumption. The decrease in roundaboutness of the production yields the same results. Subsistence behaviour, therefore, can be regarded as an insurance against the expected fall in consumption. Kostov and Lingard (2000) and Kostov (2002) argue that the aggregate effects of subsistence are in maintaining consumption at a higher level than otherwise would be, thus offsetting some of the consumption effects of the decreased roundaboutness of agricultural production. In other words subsistence represents the reaction of total agriculture to the process of shortening. Shortening, it should be noted, is a global process that impacts on total agriculture and on the economy as a whole. Its impacts on the different economic actors, however are different. Small-scale agriculture is more susceptible in conditions of shortening to become subsistence. The effects of shortening on larger commercial farms may alternatively be expressed in restriction of their productive activity and may drive them out of business. The nature of the effects is also a matter of intensity of the shortening process. It would be useful to illustrate the latter with an example. Kostov and Lingard (2002) report survey results about the degree of commercialisation of Bulgarian farm units. It appears that most medium sized co-operatives and about half of the small private farming companies are subsistence production units. This shows that, depending on the intensity of the process of shortening, larger production units may be driven to subsistence behaviour.

4.3 Institutional characteristics of shortening

The above discussion stressed shortening, representing a process of production resource re-allocation. What however is the meaning of "real time". It is clear that the process of shortening cannot be interpreted in the context of calendar time. In the case of

agricultural production it takes the same amount of calendar time. That is why we define the process of shortening using the subjective concept of real time. Real time is understood as a flow of events. One of the main differences between real and Newtonian concepts of time is that the former allows for novelty and surprises. Moreover time is identified with this element of surprise. When we say shortening in real time, however, we do not mean that the number of unexpected events during the process of production will be lower (Kostov, 2002). One can conclude that normally the opposite will be the case. The term "shortening" reflects that events that would affect typical features of the economic behaviour are less likely to occur. In other words the process of shortening increases the role of the rule following behaviour by lowering the subjective probability of deviating from adopted rules. To put it simply, shortening increases the importance of institutions. Here is the paradox of shortening. It requires working institutions but in transition these are absent. Establishing new institutions is the outcome of a learning process that includes entrepreneurship. The latter however is impeded by effects of the shortening process. In other words the process of shortening may become a vicious circle. This is more likely in agriculture than in other sectors of the economy. The emergence of subsistence agriculture is a compensatory outcome of the process of shortening. Subsistence is an institutional solution for problems of shortening. Without subsistence the process of shortening cannot continue. It should stop at some point, otherwise the productive system will be destroyed and, in its turn, will effectively stop shortening. In agriculture however, the possibility to directly consume produced food creates subsistence, which extends the effects of shortening by temporarily resolving the conflict. Subsistence agriculture is the institution that sustains the process of shortening of production in real time. This character of subsistence is enhanced by the 'institutionalisation' of attitudes and perceptions, resulting from the ongoing process of shortening. The latter leads to a stable state, which expresses what Kostov and Lingard (2000) termed the 'market clearing role' of subsistence, that is its tendency towards a suboptimal equilibrium. This 'market clearing role is expressed in

the introduced by subsistence agriculture relative productive efficiency losses and additional food consumption which taken together decrease the possibility of a production surplus and thus lead to a more stable market. The market with subsistence is more stable and, in the short term, Pareto dominates the case of a totally commercial agriculture. The suboptimality of subsistence effects follows from a dynamic perspective, taking into account its impeding effects on further agricultural developments.

5. The nature of subsistence agriculture in transition economies

Understanding subsistence agriculture as an adaptive reaction to the dynamic effects of shortening is an important step towards a clearer view of its role and place in the process of transition. Subsistence can no longer be deemed an unimportant and temporary phenomenon, neither can it be seen as an expression of economic irrationality. In accordance with the new economic paradigm of subsistence agriculture which "draws attention to the linkages across markets and adaptive behaviour by rural decision makers that often compensate for the apparent efficiency losses caused by market failures" (Timmer, 1997: 621), it is viewed as a complementing market mechanism, that corrects some market failures. This alternative approach conveys the view of subsistence as a market institution (Kostov, 2002) which increases the adaptability of overall agriculture to the environment (Kostov and Lingard, 2000). Consequently, "efficiency" considerations in implementing government policies that fail to take this into account, may lead to perverse results (Hoff et al., 1993). Neo-classical household production models assume separability of production and consumption decisions. This only holds for commercial farms not for subsistence ones. The process of agricultural decommercialisation implies a gradual shift to a separation of production and marketing choices which reflects an anchoring household production to household consumption. The effect of the process of shortening is towards temporal separation of

these choices. Mishev and Kostov (2001) utilise a mental accounting methodology to deduce this for Bulgarian subsistence farming. We can demonstrate that this separation is needed for maintaining stability at the aggregate level and thus expresses one institutional characteristic of subsistence agriculture. The process of shortening takes place in an extremely volatile economic environment, characterised by high environmental entropy. Any system within this environment can be stable only if it exhibits low behavioural entropy (Heiner, 1983). To put it simply, the latter means that shortening restricts entrepreneurship which is a high entropy type of behaviour and emphasises the importance of institutions. The informational role of institutions aimed at reducing uncertainty can alternatively be expressed as reducing environmental entropy via the establishment of economic roles. Subsistence economic behaviour is characterised by a lower behavioural entropy than commercial. This is partly due to the separation of production and marketing functions which insulates subsistence farming from market risks. Shortening therefore leads to augmentation of the relative importance of the subsistence component of total agriculture.

The emergence of subsistence agriculture in transition countries should be explicitly related to the market orientation of small-scale agricultural producers in the pre-transition period (Kornai, 1992). The separation of production from marketing choices reflects the inability of current subsistence farmers to correctly "guess" volatile market fluctuations. The initial step in this separation is a strategy of waiting in which marketing decisions are simply postponed. The failure to sell all the available market surplus in later periods however, impacts on the production potential of subsistence farms causing them to further withdraw from participation in the markets for inputs. We stress that subsistence agriculture in transition countries is an institution. Moreover, it is a crucial market institution, that makes the functioning of incomplete and imperfect agricultural markets possible. In other words, subsistence agriculture is not an alternative to the market, it is rather the market itself. This understanding of subsistence agriculture would require us to have a more holistic view of transition processes. Such a

view may incorporate the role of social capital in overcoming the burdens of transition and the role of subsistence agricultural production in the societal safety nets. It would also require a better definition of what we define as 'subsistence'. Does it include non-market transfers based on links of kinship and friendship? These and other important questions are unfortunately beyond the scope of the present preliminary in many regards study.

6. Breaking the vicious circle

For a fuller understanding of the dynamics of subsistence it is useful to consider how the vicious cycle of shortening can be broken. The key variable is the propensity to consume which can decrease given lower uncertainty. Obtaining general economic stability is already an institutional change since it implies qualitatively different economic behaviour. It should be noted that uncertainty cannot be properly captured by macroeconomic variables, because we are referring to a mainly micro-economic phenomena. An example of the trade-off between macro and microeconomic stability is the case of income compensation policies pursued in transition countries, particularly in the earlier years of transition. These aimed at restricting income compensation below the level of inflation in order to achieve macroeconomic stabilisation. The ensuing fall in real incomes however created instability at the micro level impacting on the propensity to consume and on the composition of consumer demand. Bridging and complementing the levels of uncertainty at macro and micro level is a challenging problem that needs further study.

Reversing the process of shortening however also requires "sacrifice" of current consumption to increase the roundaboutness. Such a "sacrifice" is only feasible if accompanied by expectations of a future rise in consumption. By consumption we include both domestic and external demand for final products. The existence of subsistence agriculture changes this proposition. The immediate response of subsistence

farms to changed demand would be more flexible than that of commercial farms. What they do is simply reallocate part of their own consumption to the market to adjust to unexpected changes in demand. In principle such reallocation would represent a shift in the propensity to consume if higher demand is expected. In a world of uncertainty and ignorance however, expectations have to be formed. With regard to this, the immediate reaction of subsistence agriculture to changes in production would not necessarily involve expectational elements. If the new higher demand stays at this level sufficiently long, the temporary character of the change in the propensity to consume may be obliterated and therefore "sacrificed" current consumption may lead to increased roundaboutness. The latter is a process that is developing in time. The process takes time, but also time is a crucial factor in its dynamics and therefore the process is necessarily non-ergodic and path-dependent.

Therefore subsistence agriculture could contribute to the formation of expectations which is a pre-requisite for agricultural commercialisation. The latter is a logical result of the nature of subsistence agriculture as a market institution. It is nevertheless important to stress that we see the role of subsistence as complementary in forming expectations. To put it simply, subsistence agriculture could contribute to the formation of expectations by saving time, but is not to be seen as a main driving force in the latter process.

Once the expectations for higher demand are realised, the roundaboutness of agricultural production should increase to meet this higher demand. The possibilities of subsistence agriculture with backward technologies are limited and beyond some point this would become an impediment for agricultural development. The possibilities for technological advances are much greater in commercial agriculture. Even in the commercial sector however, this is constrained by institutionally defined limits to capital accumulation. Kostov (2001) argues that the process of capital accumulation needed for increasing roundaboutness of agricultural production represents a process of intertemporal substitution of different types of specific capital. The realisation of this

process is dependent on stability in the areas of prime use of the assets and institutional constraints on their substitutability. Mishev and Kostov (2001) demonstrate that the forces shaping subsistence agriculture contribute to its "closure" in the sense that it becomes segregated from other sectors and thus impedes processes of capital accumulation.

7. Policy implications

Policies aimed at general economic development and creating income opportunities will in general exercise favourable effects on agricultural commercialisation. They alter the environment in which subsistence farmers operate and would make them adapt by changing their economic behaviour. Measures promoting market opportunities such as export stimuli could also contribute to this process.

We would however stress the dangers of direct government measures designed to abolish subsistence practices. We have argued that subsistence agriculture complements the underdeveloped market in transition countries. Trying to decrease subsistence agriculture by administrative measures means reducing the market. This is the meaning of institutional engineering discussed at the beginning of this paper. These dangers need to be emphasised because this is current practice and the way of thinking of policy makers and academics in transition countries. Expressions such as "to get the institutions right" and numerous analyses of the legal framework and other formal institutions demonstrate this. Formal institutions are easier to change. Institutions in a given society are however interrelated. They complement each other and are basically devices for identification and resolution of existing conflicts. Their complementarity and hierarchical structure facilitate this. Within the institutional structure, informal rules are the result of an ongoing evolutionary process shaped by formal rules and historic precedents. Introducing formal rules that contradict the existing informal institutions violates the coherence of the overall institutional structure. Instead of solving conflicts,

this generates new conflicts and increases uncertainty. The implicit assumption of supporters of institutional engineering seems to be that informal rules would adapt successfully and promptly to the formal institutions. Such an assumption is however unjustified. In practice it is much easier to adapt formal rules to existing informal institutions. Commons (1931, 1934) supports the latter, viewing it as a 'normal' practice in institutional evolution.

We are concerned here with other effects of the choice of institutional development. Pejovich (1996) gives an example of a conference at which a representative of the former Soviet Union remarked that the former supporters of central planning are nowadays the most ardent partisans of exogenously driven institutional change. Institutional change is an outcome of the learning processes in the economy. Transition from central planning to market alters the environment and behavioural rules. Learning is no longer possible using old rules and routines. They have to be unlearned. Institutional engineering, that is exogenously imposed institutional change, preserves behavioural routines that are harmful for this process. They preserve the old command style of economic governance. They create an illusion about the possibility to plan institutional change. If we can plan institutional change, then we can effectively plan the economy. In other words the idea of planned institutional change preserves the governance structures of central planning and therefore imitates change. Instead of creating possibilities for a "market" for institutions, this type of policy is a substitute for the market. It is clear that the informal institutional structure compatible with this type of policy is much closer to a centrally planned economy. In this case the new "planned" institutions are unable to identify conflicts between market principles and conducted policies. Therefore the resulting institutional structure is inefficient.

It is important to stress that we do not argue against introduction of market related legislation and other formal institutional changes. They are needed as conflict resolving devices. Nevertheless the way in which these changes are carried out and the way in which they are viewed is important for institutional development. As Commons puts it,

institutions are not only "collective action in control of individual action", but also "collective opinion in control of individual opinion". The latter is an informal institution because it defines behaviour. Academic research is an important instrument for changing prevailing opinions and guaranteeing more efficient institutions.

References:

Caskie, P. (2000) Back to Basics: Household Food Production in Russia, *Journal of Agricultural Economics*, 51(2): 196-209.

Commons, J. R. (1931) Institutional Economics, *American Economic Review*, 21: 648-657.

Commons, J. R. (1934) *Institutional Economics: Its Place in Political Economy*, New York: MacMillan.

Dallago, B. and L. Mittone (eds.) (1996) *Economic Institutions, Markets and Competition: Centralisation and Decentralisation in the Transformation of Economic Systems*, Edward Elgar.

Heiner, R. (1983) The Origin of Predictable Behaviour, *American Economic Review*, 73: 560-595.

Hayek, F. A. (1973) *Law, Legislation and Liberty: a New Statement of the Liberal Principles of Justice and Political Economy*, vol.1: *Rules and Order*, London: Routledge & Kegan Paul.

Hoff, K., A. Braverman and J.E. Stiglitz (eds.) (1993) *The Economics of Rural Organisation: Theory, Practice and Policy*, Oxford University Press.

Johnson, S., P. Kouvelis and V. Sinha (1997) On Reform Intensity under Uncertainty, *Journal of Comparative Economics*, **25**, 297–321.

Kessel, R.A. and A.A. Alchian (1962) Effects of Inflation, *Journal of Political Economy*, 70: 521-37.

Kornai, J. (1980) *Economics of Shortage*, Amsterdam: North Holland Publishing.

Kornai, J. (1992) *The Socialist System: The Political Economy of Communism*, Oxford: Clarendon Press.

Kostov, P. (2002) Transition, Agricultural Decommmercialisation and their Implications for Quantitative Modelling, in Mergos, G. (ed.) *Agricultural Policy for Transition and Accession to EU in Slovenia and Bulgaria*, Kiel: Wissenschaftsverlag Vauk.

Kostov, P. and J. Lingard (2000) Modelling the Effects of Subsistence on Bulgarian Agricultural Performance, AES Annual Conference, Manchester.

Kostov, P. and J. Lingard (2002) Subsistence Farming in Transitional Economies: Lessons from Bulgaria, *Journal of Rural Studies*, 18: 83-94.

Lachmann, L. M. (1971) *The Legacy of Max Weber*, Berkeley, Cal.: Glendessary Press.

Langlois, R. N. (1986) Coherence and Flexibility: Social Institutions in a World of Radical Uncertainty, in Kirzner, I. M. (ed.), *Subjectivism, Intelligibility and Economic Understanding*, New York University Press.

Menger, C. (1963) *Problems of Economics and Sociology*, Urbana, Il.: University of Illinois Press.

North, D. C. (1990) *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press.

Pejovich, S. (1996) The Market for Institutions Versus the Strong Hand of the State: The Case of Eastern Europe, in Dallago, B. and L. Mittone (eds.) (1996) *Economic Institutions, Markets and Competition: Centralisation and Decentralisation in the Transformation of Economic Systems*, pp. 111-125, Edward Elgar.

Powelson, J. P. (1972) *Institutions of Economic Growth*, Princeton, NJ: Princeton University Press.

Riker, W. H. (1976) Comments on Vincent Ostrom's Paper, *Public Choice*, **27**:13-15

Simon, H.A. (1981) *The Sciences of the Artificial*, 2nd edition, Cambridge: MIT Press

Tho Seeth, H., S. Chachov, A. Surinov and J. von Braun (1998) Russian Poverty: Muddling Through Economic Transition with Garden Plots, *World Development*, 26(9): 1611-1623.

Timmer, C. P. (1997) "Farmers and Markets: The Political Economy of New Paradigms", *American Journal of Agricultural Economics*, 79: 621-627.