CONTRACTUAL CHANGE AND SELF-REINFORCING GOVERNANCE: LESSONS FROM POST-SOCIALIST TRANSITION FOR INSTITUTIONAL REFORM POLICIES*

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Key words: Transition, Transaction, Self-reinforcement, Network Externalities, Czech Agriculture, Korean Peninsula.

ABSTRACT

This paper focuses on firm restructuring in transition countries by suggesting mechanisms of governance change that can lead to self-reinforcing contracts. The urn-function model, by linking history, policy, and the relative governance share in a business sector, seeks to support the explanation of the stability of large-scale agriculture. Applied to agricultural restructuring, network externalities in governance structures and increasing transactional returns resulting socialist farming may cause the stability of large-scale farm organizations during transition, even though family farming is often expected to be more efficient

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according to transaction costs arguments. Some empirical evidence comes from the Czech case of post-socialist transition. Finally we try to draw out the lessons for a possible transition on the korean peninsula.

Ⅰ. Introduction

Interestingly, agricultural transition in many Central and Eastern European Countries (CEEC) did not result in family farming in which a self-employed farmer and his family members usually work. Rather, corporations and cooperatives doing agricultural business characterize the agricultural picture even more than a decade after the Big Bang. Indeed, the importance of individual farming and their farm sizes has significantly increased in the past decade. However, corporate and collective companies rather than individual farms cultivate the majority share of agricultural resources in many CEEC, usually deploying more than a dozen employees and several hundreds or even thousands of hectares of agricultural land. Table 1 in the Appendix shows selected items for two cases of firm restructuring (see also Swinnen 1997; OECD 1999 67, Lerman 2000a; Brem 2002).

These so-called large-scale farms generally have directly descended from the socialist state or collective farms. Even though individual property rights over assets of state and collective farms were re-established to a significant degree into private hands in the early transition period, interestingly the agricultural structure and the firms in this sector did not directly follow this change of formal property rights.

This raises the question as to reasons why just a small portion of stakeholders decided to leave the then existing large-scale farm. The article seeks to answer why an existing bundle of coordination mechanisms (the firm as a nexus of contracts, Williamson 1990) has been frequently disentangled very slowly, even though the new institutional environment such as privatization and decollectivization policies in transition countries allows expeditious restructuring in most CEEC.

TABLE 1. Main Characteristics of Two Selected Cases of Farm Restructuring

Characteristics	Case 1 From collective into cooperative type	Case 2 From state into corporation
Legal form in 2000: Characterization of restructuring:	• cooperative entity (coop) • direct continuation of the farm; only change of the legal form	• limited liability company (Ltd.) • organizational split up from the main body of the former state farm
# employees btw. 1989 and 2000:	• 375 → 110	• 450 → 63 (100 → 63 in the main branch of the state farm)
Type of labor contracts:	• contracts with formal ownership but without special job security and time limits	• contracts without special job security and time limits
Land size from 1989 to 2000: Type of land contracts:	• 3,300 → 2,900 • simple leasing contracts, membership does not influence the contract structure.	• 5,500 → 2,050 • simple leasing contracts.

In the early stage of transition, after the initial Big Bang had been launched through regime collapse and/or constitutional changes, many policy makers and experts often dreamt of rapid restructuring into farm structures similar to Western non-transition countries. However, this rarely happened. In most CEECs, the organization of agricultural production look similar to that of the early half of the 1990, even the late 1980s; and today, as well large-scale farming in corporate large agricultural firms has remained to form a huge part of farm structures across the region (Brem and Kim 2002, 23).

When looking at the transactional level of asset deployment into agricultural firms, one can identify that, although contractual change has formally taken place, governance change is still lagging behind the formal change of property rights (cf. Lerman 2000b). Passive organizational adjustments rather than active ‘entrepreneurial’-like break-ups out of the socialist structure characterize restructuring in agricultural transition in CEEC to a

large extent (Buduru and Brem 2003).[1]

Based on this conundrum, we present a discussion on self-reinforcing governance in transition. Our analysis incorporates the impact of the existing governance structure on firm restructuring in transition (Argyres and Liebeskind 1999). Combining the formal model of Lazzarini (1999) along with arguments of Katz and Shapiro (1985) and Arthur (1989) the article will present the accumulated history, the share of the governance structures in a given sector, and the individual preference provided by the institutional framework for one of the governance structures as key factors for understanding firm restructuring and disorganization in transition (Blanchard and Kremer 1997).

The remainder is as follows: chapter 2 addresses agricultural restructuring by means of selected empirical observations and the theoretical questions, the analytical framework and possible driving forces of governance change. Chapter 3 links the theoretical issues to the emergence of socialist agriculture and the governance change during transition in the Czech case. Chapter 4 and 5 discuss further features and possible lessons for the Korean peninsula.

II. Firm Restructuring in Agricultural Transition

Recent contributions in literature argue that initial conditions affect the impact of reform policies and influence the choice of the reform (e.g., Sarris et al. 1999; Macours and Swinnen 2000; Lerman 2000b; Brem 2001). Complementary to those studies, we link history, policy, and initial conditions to the restructuring outcome. The rationale behind transition outcomes may be that the ‘game’ (here: transactions conducted in one of the possible coordination mechanisms) between actors involved takes place in so-called governance structures or institutional arrangements, which consist of contracts, commitments, and enforcement mechanisms.

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[1] See for the Russian case of farm restructuring, Sedik et al. (2000).

1. Governance Change: Shift from Large-scale to Small-scale?

Agricultural restructuring in transition countries represents a complex process of resetting the boundaries of an economic organization.[2] Data shows that if the policies on privatization and restructuring did not force the stakeholders of the firm to break up the existing economic organization,[3] the stakeholders of the successor firms adapted rather gradually to the new institutional environment. Stakeholders are owners, workers and managers. In other words, if the institutional framework in transition allows stakeholders to search themselves for the appropriate restructuring path of the firm, this economic organization in which many stakeholders are involved tends to continue its business by restructuring gradually and, often, passively.

Figure 1 reproduces the dominance of joint farming or 'combined farming' (large-scale farming), as it is called in this article, compared with individual farming for Bulgaria, Poland, and the Czech Republic. 'Combined farming' or 'large-scale farming' means that individual stakeholders contribute with their labor, land, and non-land assets to firms often classified as corporations or cooperatives with respect to the relevant domestic Commercial Code. As the figure shows for agricultural land, combined farming has decreased in its portion to total agricultural land during the transition period.

Table 2 presents in more detail the result of restructuring in the Czech Republic. In 1995, five years after the reforms started, still more than 80 percent of the workforce and land were actively used in those farms larger than 12 employees and 100 hectares. This large-scale farming type is still dominant in the Czech Republic, although decreasing in its share regarding the

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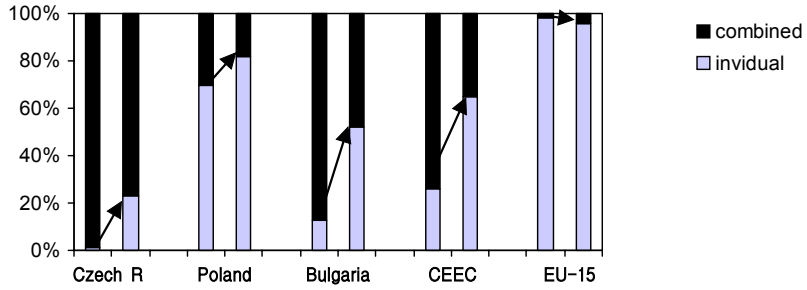
[2] See North (2000a) for open questions on complex processes of political, social, economic, and technological changes and for the need to know the interplay between those features.

[3] See Swinnen (1997, 382) for a classification of decollectivization policies.

organizational types of agricultural production (cf. VUZE 2000). As usually illustrated by Lorenz-curves, a small number of farms deploy most agricultural resources while the large body of firms in the sector grow on a small share of these resources (e.g., Mathijs 2000). The quasi non-restructuring is so puzzling since the new policies did not prescribe any specific organizational or legal form for agricultural production (Buduru and Brem 2003).

FIGURE 1. Share of Total Agricultural Land Farmed by 'Combined' and 'Individual' Farm Types in Selected Transition Countries in 1989 (left column) and 1998 (right column)



Source: OECD (1999, 67), Agrarbericht (several issues).

TABLE 2. Agricultural Structure by Farm Size Categories in the Czech Republic in 1995

Size category in ha	No of farms by 30 Sept. 1995	Share of total agricultural land (%)	Share of total employment in agriculture (%)	Employees per farm
0 < 10	13,075	1.6	10.1	1.9
10 < 50	8,795	5.2	6.5	1.8
50 < 100	1,461	2.8	2.5	4.2
100 < 500	1,565	10.1	8.0	12.4
500 < 1000	806	16.6	12.8	38.4
≧ 1000	1,202	63.7	60.1	120.9
Total	26,904	100.0	100.0	9.0

Source: ČSU (1996: Tab.022, Strana 1, část III).

These figures show that individual farming has increased in importance but combined farming is still prevailing in those regions where state and collective farming has existed during socialism (a prominent exception is Albania, compare also Swinnen and Mathijs 1998; Swinnen 1997). This holds not only for the Czech Republic but also for many other transition countries where the state bureaucracy determined socialist large-scale farming. In Poland, for example, the institutional framework did not prescribe any radical change into individual farms in the Western Polish regions where farming was organized in state and collective farms during socialism (Milzcarek 2002). As a result, so far structural changes in these regions have occurred successively rather than in a radical way towards the framework provided by market institutions. In contrast to Poland, the so-called agro-industrial complexes of Bulgaria were abolished and decollectivized by the post-socialist government's set of privatization and decollectivization tools. As a consequence, there was a fundamental change in the Bulgarian structure of agriculture in the early transition. Large agro-industrial complexes, sometimes of up to 100,000 hectares in size, were privatized into small peasant plots. However, after several years of institutional entanglement in Bulgaria,[4] those small farms rediscovered larger farming units (see OECD 1999, 64-68) for more information on the agricultural structure in transition countries).

Although large-scale farming has been decreasing, it still contributes significantly to the agricultural structures in many CEEC, while individual farming has been continuously increasing both in number and scope over the transition period, as indicated by the darts in Figure 1. However, the economic and social impossibilities of switching from large-scale into small-scale farming should be taken into account when reviewing restructuring policies for establishing individual farming. As

[4] See for the institutional turmoil and the obscure agricultural policy, Hanisch/Boevsky (1999).

known, new individual farmers lacked technological and machinery equipment, livestock capital and comprehensive farming skills when they started their own business. Although it might be too early to assess failure and success of individual farming in transition countries, scholars usually commonly agree that the governance switch from large-scale to small-scale farming (western-styled farming) is a stressful challenge for both the stakeholders and the policy-makers.

2. Possible Determinants

In order to explain the restructuring outcome which did not result in new firms as it was expected, we elaborate on three factors determining the governance change: (a) the history of given governance structures for transactions, (b) the policy 'ruling' governance structures under new circumstances, and (c) the share a certain governance structure holds in a sector.

The basic idea for the analysis given here is as follows: the governance of any new transaction in which the stakeholder seeks to engage may have become linked over time inseparably with the governance of other transactions in which the firm has already been engaged. In other words, the past governance choices significantly influence the range of governance mechanisms one can adopt in the future, as long as the new policies do not forbid choices on these ranges. Our empirical studies in CEEC show that each transaction governed in a large-scale firm (nexus of contracts) of the former socialist type was integrated into an economic and social system of other governance mechanisms of this socialist agriculture.

Therefore, the 'participant' of the firm's restructuring process, who became a stakeholder when institutional reforms were triggered with the objective of increasing efficiency in agricultural production regarding the deployment agricultural assets, may have received an additional return from each new transaction when it was conducted in the same institutional and organizational setting as it was in socialism. This return is caused by the payoff generated learning, tacit knowledge and routines.

Any new investment in both physical and human assets may cement the existing one. The explanation behind this theory has to do with an increasing irreversibility due to the inseparability of physical assets from learning, trust, credible commitments, common knowledge and tacit knowledge in the firm (Noteboom 1993). This may cause increasing returns for the next transaction of the governance structure considered. If transactions recur over time, the benefits associated with the transaction positively influence and, thus, reinforce the governance structure. Moreover, based on informal institutions prevailing in the socialist economy, routines in the firm such as non-contracted maintenance services (routinely rendered from the firm to the individuals during transition) and the hierarchical decision-making, specific to and inherited from the socialist firm, may reinforce the existing governance structure.[5]

Hence, following the arguments outlined above, we aim to illustrate that future transactions will likely be governed similarly as they were before, as long as the following two conditions hold:

- There have been increasing transactional returns in the past when the stakeholder decided to conduct transactions in the same governance structure.
- During transition, any governance structure other than the existing one is an option for the stakeholder, offered by the institutional environment, yet not a 'must' (which has to be chosen).

The governance structure in agriculture during socialism in many transition countries was large-scale farming with a large number of hired employees (including management), specific fixed assets of an industrial-farming type (capital), giant fields with removed border stones of the pre-socialist property rights structure and field-specific investments in irrigation and/or infrastructure (land). Then, the reason for increasing returns is

[5] See North (1998), OBrien et al. (1999) for the impact of informal routines regarding organizational change.

that benefits from the way of transacting in the past continues to support this type of transaction, even if another governance structure seems more efficient. This may hold as long as benefits of using the former governance structure are larger than foregone benefits of the more efficient one.

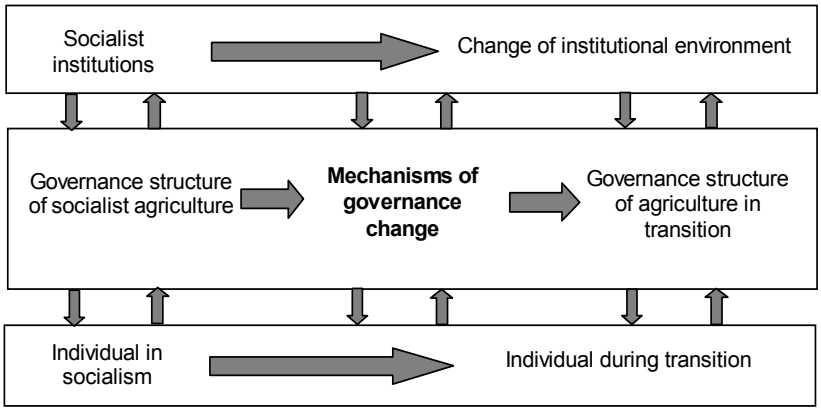
3. Understanding Firm Restructuring

Transaction Cost Economics (TCE) can support the analysis of firm restructuring. A transaction is an exchange of a good or service. This exchange is costly for the reasons of resources spent for searching and evaluating partners, contracting and conducting transactions, and safeguarding and enforcing the arrangements. Since a transaction is usually linked to another transaction (e.g., the worker's labor input into the firm and the remuneration to him from the firm), the transaction partners need efficient coordination mechanisms in form of governance structures. Attributes of a transaction (i.e. asset specificity, uncertainty, frequency, measurability) and the institutional environment (laws, policies, values, norms) and the actors behavior (bounded rationality, opportunism) determine a transaction-cost efficient governance structure.

In this model, derived from Williamson's TCE (e.g., 1990; 1996), the firm can be considered as a nexus of hierarchical governance structures (internal transactions, e.g., for labor, land, non-land assets). Its external transactions are governed by hybrid and market coordination mechanisms (external transaction, e.g., for contracting with service stations, processing companies, buying machines).[6] In a straightforward sense, gradual restructuring of the firm in transition can be described as re-contracting a bunch of transactions where, on the one hand, some stakeholders decide for new governance structures whereas, on the other hand, the majority of stakeholders keep their transactions in the existing governance structures. Figure 2 sets the framework of restructuring

[6] Comp. also Jensen/Meckling (1976), Hart (1995), Hansmann (1996) for the ‘firm as a nexus of contract’.

FIGURE 2. Governance Change in Transition: Modeling Framework



with respect to the dynamics of governance change in transition.

Several attributes like asset specificity, uncertainty, frequency, and measurability determine what kind of governance structure is efficient for the transaction. Here, for illustrative reasons, the specificity of assets from socialist agriculture and the measurability of residuals generated by using these assets are depicted in order to show mechanisms of governance change in agriculture. In order to reduce analytical complexity, frequency and uncertainty are not dealt with in this article.

4. Driving Forces of Governance Legacy

The dominance of large-scale, factory-styled agricultural production in transition countries apparently contradicts many studies showing that farming is most efficiently organized in firms where moral hazard problems are excluded and, simultaneously, the residual claimant can gain from economies of scale and specialization.[7] In that body of literature, family farms

[7] For a discussion on the trade-off between gains of specialization and moral hazard problems, see Schmitt (1993), Roumasset (1995), Allen and Lueck (1998), Beckmann (2000), Mathjis (2000).

with individual and/or family residual claimants rather than factory-styled organizations of agricultural production are the results of the trade-off.[8] This trade-off in favor of family farms holds as long as the non-predictable nature plays the major role in determining the amount of yield and, therefore, income for the residual claimant. Therefore, the costly identification of residuals may drive agricultural production into governance structures of small-scale farming.

In contrast to this theoretical driving force for governance change towards individual farming, governance structures consist of investments in the past resulting in asset specificity. Therefore, a given governance structure may cause positive network externalities for both the following transaction of the same actors involved and the transactions of 'neighbors' having a similar coordination problem (other actors in the region or sector). Positive network externalities emerge when the return of transacting in the given governance structure increases with the number of transactions conducted via this governance structure.

It is conceivable that there might be economic reasons for re-contracting in the same governance structure resulting in self-reinforcing governance structures, although this governance structure itself may have lost its economic superiority over others due to the new trade-off as introduced above. This trade-off is a result of the shift in the institutional environment (state and public property rights were converted into private property rights). For example, a new policy in transition giving preferences to individual coordination mechanisms of assets may result in faster governance change towards individual farming.

III. The Czech Case

Such dynamic process can help to understand restructuring processes in agricultural transition. For that, we divide the

[8] The most exemplary exception is the Israel Kibbuz, e.g., Schimmerling (1992).

transition period into three phases, i.e., the phase when socialist agriculture emerged (hereinafter called Phase I), the early transition phase (the years between 1989/90 until 1993/94; hereinafter called Phase II) and the on-going transition (hereinafter called Phase III, approximately between 1994/95 until 2001). However, structuring agricultural transition into phases has pure illustrative purposes; institutional and organizational change in 'realistic' transition rather floats over time.

The following description focuses on the Czech case of governance change during agricultural transition and is mainly based on qualitative analyses and literature study (e.g., Stryjan 1992; 1998; Hudečková/Lošťák 1995; Sarris et al. 1999; Brem 2002).[9] It will reveal two insights. First, the institutional environment shows evident impact on the choice of the governance structure in transition. Second, given the new policies on the level of the institutional environment, a time lag characterizes the governance switch from large-scale to small-scale farming. These two insights are in line with the main idea deriving from the theoretical model, i.e., governance change significantly depends upon the policy, the history and the dominance of this governance structure that was existent at time of the decision about the governance choice for a new transaction. Limitedly, however, the model does neither allow deriving bargaining and rent seeking behavior of individuals nor does the model determine the policy choice. The choice of policies is an external factor to this model.

1. Phase I: Emergence of Socialist Governance Structure

During the time of socialist ideology (Phase I), it was hardly possible for individual stakeholders and their family members to

[9] The empirical application of the model to the Czech case is based on the recently finished analysis of farm restructuring. The project was supposed to contribute to the theory of restructuring in agricultural transition. Besides the extensive quantitative study on data gathered through a questionnaire technique, several case studies were conducted in 1999 and 2000 in the Czech Republic for the qualitative part of the analysis.

farm in small-scale farms.[10] As socialist history tells, individual farming was first defied, later banned, and then practically impossible, though many countries did not legally forbid individual farming. As a result, farming was predominantly organized in large-scale collective and state farms. Effective property rights over land and non-land assets belonged to the regime. Individuals who decided to work in agriculture had no alternative to wage-based employment in collective and state farms.[11] Therefore, once s/he decided to work in agriculture, the individual could only gain from his labor input if s/he worked in the socialist farm established on basis of political force. The following paragraphs describe selected factors.

Specific investments: Accumulated over four decades of socialism, investments both in physical assets and human assets have become specific to large-scale farming. For example, cattle sheds keeping several thousands of animals, milking technology for herd sizes of several hundred cows, specialized farms for forage production which are organizationally and physically separated from farms keeping livestock, large forage storage facilities on farms, etc., have constituted specific investments in the governance structure called 'large-scale farming'. Moreover, the field structure of land plots and the infrastructure in the countryside were in accordance with the factory style of crop production.

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[10] At this point, it should be mentioned that the terms small-scale farming and family farming should not indicate farming only for seeking self-sufficiency but for generating income. The term just indicates an organizational type of farming where the entrepreneur and/or his family provide the majority of labor input and owns the entity.

[11] Farming on household plots served additional food supply for the family but was not a promising alternative governance form for deploying assets in agriculture. Even though the household plots contributed much to enrich self-sufficiency of rural families, the regime did not support household farming as autonomous governance mode of farming. It was rather a kind of garden farming with a few animals in the backyard.

Teamwork: The large-scale animal holding facilities allowed organizing shift-work conducted by teams. The separation between crop production and animal husbandry resulted in teams of workers specific in their tasks. Since crop production was often organized in special farms separated from animal husbandry farms, the information flow between those farms and the exchange of intermediate products (e.g., forage, slurry) occurred either between the management of different farms or, if one farm had both types of production lines, only via the management within the same farm but not between the workers of different types of production lines. The socialist model of agriculture interrupted the horizontal and vertical integration of crop farming and animal husbandry.

Task-based labor organization: Employees were trained and experienced in specific tasks such as driving tractors and harvesters, engineering in maintenance or breeding, construction, administation, management, service, etc. Regarding entrepreneurship, the state farm and the collective farm were organized hierarchically where managers decided upon the party's planning and, preferably, in accordance with it. Since the manager's authority and managerial skills controlled the internal fate of the farm, s/he determined the set up and operation of daily work and the farm's future development. This was not the duty of blue-colored workers.

Vertical integration: Farms distributed their products to the wholesale company on the district level. This state-owned firm, located in each district, had to take up all agricultural products from the farms. Farms were supposed not to process primary products themselves (except a portion for self-supply of members and employees). Therefore, the regime ascertained in advance and by law the technologically separable interface between production and processing in the vertical agro-food chain.

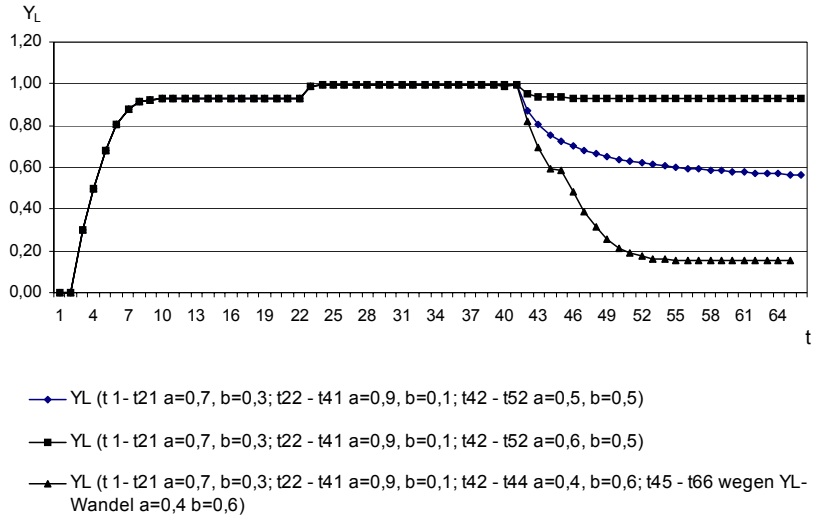
Information flow and social life: Basically, there were no direct

informational links of teams or individuals working between crop production and animal husbandry. This does not mean that individuals did not meet each other and did not socialize. In contrast, social life on farms, particularly on collective farms, was usually well developed, especially on the village level. By managing parties and festivals in the village, the farms contributed to strengthen social life. In this respect, social life on socialist farms and social events behind the daily work were embedded in the governance form of socialist farms. However, information flow concerning the production (intra-firm exchange of information) went along the hierarchical lines from the farm's bottom to the top.

To summarize, transactions in socialist farming were coordinated in governance structures described as the large-scale type with its inherent labor division (specific tasks per employee) and 'restricted' information flow among the individual stakeholders (especially the blue-colored workers). The individual stakeholder was part of a bureaucratic machine in which the state farm or the collective farm constituted a large-scale agricultural firm of the socialist type. This firm can be characterized as a 'branch' of the overall state bureaucracy in the agricultural sector. Within the sector, both human and physical assets were specific to large-scale farming, deployed in the corresponding agricultural firm of the socialist type. All people involved were trained and experienced in that system.

Until its formal end in late 1989 the socialist system provided increasing returns for each additional transaction, e.g., hiring labor, investment decisions, oduction in animal husbandry and crop production, output distribution, social life in the firms and villages, etc. The impact from socialist policy in the model aforementioned, therefore, can be considered as very high, while the impact from a new, non-socialist policy favoring family farming was undoubtedly very small during that time. For any new transaction governing existing agricultural assets, large-scale farming was the only reasonable solution for the individual stakeholder.

FIGURE 3. Relative Portion of Large-Scale Farming in Socialism and Transition Simulated by means of a Dynamic Process Model



Source: Brem (2003).

Figure 3 shows a possible dynamic process for which the parameters a=0.7 and b=0.3 for the socialist period on the emergence and development of the large-scale governance structures are assumed (the formal model comes from Brem, 2003; a and b denote relative preference for either governance structure, provided by policy choice). The figure represents the share of large-scale farming in the agricultural sector. The parameters seem plausible for the second half of the socialism era in the Czech Republic because the socialist policies stipulated transactional increasing returns for large-scale farming. In the end of socialism, the farm structure was characterized by its share from "yesterday" (in the computer simulation of Brem (2003), the value equals to 98 percent corresponding with the share of state and collective farming in the agricultural sector in 1989). Then, by the end of 1989 or even some years before - when the communist regime attempted to introduce market-like reforms-the institutional change of transition converted parameter a and b.

2. Phase II: Socialist Legacy

When studying the literature on policy recommendations in early transition, utopia characterizes many forecasts and recommendations on policy reforms regarding agricultural restructuring. Both policy-makers and experts often dreamed of a rapid structural change in the agricultural sector resulting in the western family-farming model. As we know today, that did not happen. One explanation could be that the experts often did not consider the transaction cost problem behind switching the complete existing nexus of contracts, while they modeled the change of single contracts. Looking at initial conditions, i.e., history, policy change, and share of governance structures including the inherent asset specificity and informal institutions, the model may help to explain the stability of 'combined' farming and the limited share of family farming in the early period of transition (Phase II). In the Czech case, the emergence of farm structures similar to Western Europe can be characterized as an illusion, although the new institutional setting did not penalize family farming[12] (nor did it disfavor the continuation of large-scale socialist-like farming). The following aspects will explain in more detail.

Share of Governance Structures: As Figure 1 has presented, large-scale farming was dominant at the end of socialism. In addition to the fact that only state and collective farms contributed to agricultural production, the whole agricultural system as described in the previous section was set-up and experienced in that planned agricultural economy (agricultural education, universities, investment industries, etc.).

Policy Change: In the Czech case, the individual stakeholder has benefited from transacting via large-scale farming during transition because the policy, such as the laws on privatization

[12] In contrast, one could argue, that the investment program of the Czech government supporting farms smaller may disfavor large-scale farming.

and decollectivization as well as the new Commercial Code and the Law on Physical Entities, kept the farming in large-scale form to a high level of relative benefit. The reason for these benefits is that the stakeholder's preference for large-scale farming was caused by relative share of large-scale farming, representing accumulated specific assets while small- scale farming needed new investments before having accumulated relative high share. However, the policy change has only converted the relation of preference, whereas the structure of large-scale farming, at time of starting transition caused by the economic value of irreversible investments in specific assets accumulated over the socialist time, was still the same at the start of restructuring.

History: Four decades of socialism resulted in physical structure, human knowledge and experience, and social networks specific to large-scale farming. The economic explanation is that the stability of a governance structure is not only determined by its share of contracts for labor, land, and non-land assets in a sector. In addition, the relative share of large-scale farming condenses indivisibility and comparability of assets over a period of four decades, too. Both physical and human attributes of contracts are interrelated. Credible commitments, trust, tacit knowledge, routines, and perception are inseparably linked to the governance structures inherited from socialism. Human and physical assets are coherently kept in the relative share of large-scale farming for which reason stakeholders may have decided to a large degree in early transition to continuously transact via large-scale farming governance.

3. Phase III: Late Restructuring

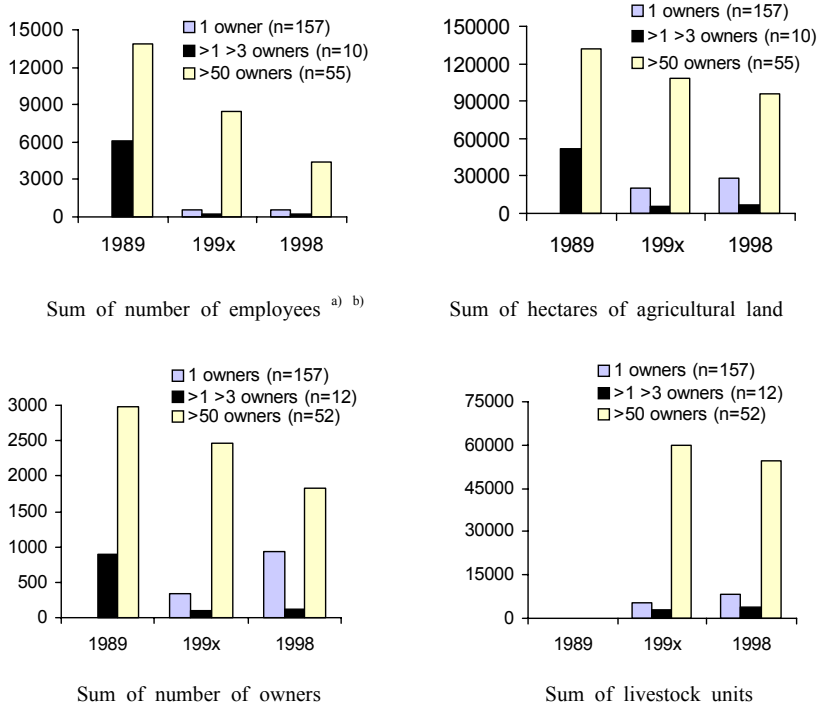
The independent variables in the model are history, policy, and the relative share of governance structures. However, analyzing the transition as a process reveals the problem of interdependent causal relationships between those variables. Moreover, the model does not reflect aspects of bargaining conflicts among

stakeholders in the firm for the restructuring outcome. Despite these shortcomings, the model allows discussing empirical evidence for the late transition period in the Czech Republic (Phase III).

Governance Share: The Czech case of agricultural restructuring shows a declining importance of large-scale farming for the benefit of individual farms. However, this process significantly depends upon the decollectivization/privatization policy and the initial condition: the redeployment of state farm resources occurred into corporate farms and individual farms (Figure 4). Stakeholders mainly chose this restructuring path during the events of privatization and restitution of land and non-land assets. The number of farms increased dramatically in the early transition due to the split-ups of small individual farms and corporations, primarily from state farms. In stark contrast, stakeholders of the former collective farm redeployed their resources primarily in the direct successor farm, which simply converted to the legal form 'Cooperative'. Here, stakeholders seem to be more reluctant to re-contract labor, land, and non-land assets in governance structures of other farm types.

Besides other factors (e.g., intra-firm characteristics among the stakeholders, cf. Brem 2001), the governance change is significantly determined by privatization and decollectivization policies in early transition whereas governance change in late transition took place in a reduced way. In the event of transforming collective farms, almost each member of the farm has received a piece of land and non-land capital (decollectivization). Moreover, s/he was also compensated for labor contributed to the farm during the socialist period. As a consequence, the individualized assets of the farm were very small in size and, therefore, any physical separation became prohibitively costly. In contrast, in the case of state farms, applicants (privatization) and claimants (restitution) received viable units of the whole farm. They could individualize this farming unit by means of starting their own farming business.

FIGURE 4. Development of Governance Structures for Labor, Land, Capital, and Livestock Input by Ownership Categories



a) The missing ownership categories are not shown for better lucidity: we observe an increase over time in the category ">10 >50 owners", which can be explained by the move of individuals from the category ">50 owners" ; the category ">3 >10 owners" shows a decline. For the year 1989, the category "1 owner" is missing data; owners in 1989 are actually those people (stakeholders) who were entitled to become owners in transition due to the individualization of property rights.

b) 'Sum' indicates the summarized number of the items in each category shown. The respondents were asked in 1999 to give the respective number for the last year of socialism (1989), the year of registering the farm after the release of the Commercial Code and the Law on Physical Entities (199x; it varies among the respondents), and the year 1998 (comp. Brem 2002 for detailed description of the survey and data).

History: It is difficult to measure the impact of history on the importance of current governance structures a decade after starting reforms. However, in line with the arguments in this article, it has become clear over the course of transition that history loses its importance for the governance choice at present. The economic explanation is that the investments of the past have to be re-invested. There is much evidence from the interviews that the decisions concerning new investments (both in technology and human capital) are increasingly determined by the context situation at the time of the investment decision. However, this leads also to the problem of complementary input factor discussed in the following section on perspectives.

Ⅳ. Discussion and Perspectives

This little analysis unfortunately neglects many other important aspects in transition. For instance, the problem of asset specificities raises the question of the complementary investments into the asset structure what can lead to path dependent processes in transition. Even if one single asset is completely depreciated and questioned whether or not to be reinvested, there are still other assets in use. If there are complementary issues in the asset structure, the stakeholder might prefer to invest in large-scale farming assets if s/he also wants to exploit other deployed assets.

For example, many stakeholders decided in early transition to continue farming in the large-scale farming governance form that was not disrupted into many small farms. As we showed, the explanation might be that the stakeholder intended to continue the transaction via this governance structure until the deployed assets are exploited in terms of their depreciation. In the first years of operating in the new institutional set, this strategy was easily possible as elaborated in the model and the descriptive section. Moreover, it was rational because the foregone benefits caused by the overwhelming moral hazard problems may have been smaller than the loss of assets and income if the farm's stakeholders had decided to change radically.

However, machines and buildings (assets deployed from the socialist farm) had to be replaced by new ones since they have been used up and/or become obsolete over time. The stakeholder has to decide whether to reinvest this asset that fits with the rest of the deployed assets or not to invest. The latter solution has the consequence that the stakeholder must either use services from the market (e.g., leasing the tractor from a leasing company) or cease farming. The former solution of 'reinvesting' yields in reinforcing the governance form "large-scale farming" since the reinvested asset fits into the same magnitude of other assets deployed in the farm (e.g., milking machine for 1000 cows). As a result, the agricultural structure does not change rapidly to the small-scale farm.

This process can be called 'self-reinforcing' governance under complementary asset input. While the analysis on early transition focuses more on the environment (policy design) and the share of a given nexus of governance structures, the question concerning complementary assets concentrates on the firm's internal reinforcing problem due to the reinvestments. However, empirically it is difficult (or even impossible) to draw any statement about this reinforcing process as it may occur in the future. Simply, it is very difficult to evaluate the impact of today's policies on future governance change because firm-internal characteristics like inside-ownership, participation in decision-making processes, managerial innovation and the like are not taken into account in this model.

What one can forecast, however, is that the switch of a given coordination mechanism into another one, which is forecasted to be more efficient, is a costly process of getting rid of inefficiencies from the past. Because of the trade-off between switching costs and foregone benefits of the non-used alternative, the existing governance structure can be self-reinforced by its inherited specificities. As these specificities are caused by the physical and the human factor related to a given governance structure as coordination mechanisms, transition in CEEC may reveal for other cases of sudden change on the institutional level

that governance change (i.e., the organization level) won't occur quickly on a voluntary basis. As long as the stakeholder is not forced to transact in any prescribed governance structure, accumulated human assets will impact significantly on his/her decision about governance change.

Ⅴ. Lessons for a Possible Transition on the Korean Peninsula

Our analysis reveals that transition policies should reflect the gradual nature of firm restructuring on a accumulated level because not all stakeholders may decide to re-coordinate their individual transactions in the same new governance forms. Based on such a gradual process of incentive setting, policies on institutional and organizational change should be implemented on a step-by-step basis. There is not necessarily a need for converting the overall economic and institutional system overnight into an artificial system labeled market economy, which would then not have had enough time to let develop incentives and enforcement mechanisms appropriate for these governance structures. Thus, we propose a gradual therapy, rather than a Big Bang approach.

A main shortcoming having affected many CEECs countries was that decision-makers applied a given transition policy-making process as used in other countries simply as a template for their own country's case, regardless of whether it was on a state level, local level, or company level. Consequently, this over-simplified transfer often did not work because of the differences in the original governance structures and institutional structures, particularly in informal institutions such as embedded culture and norms.

Most often neglected by the CEEC's and the FSU's policy designers was the fact that transition may take up to one generation and even longer. This is what our model suggests. It would be utopian to design a transition policy for a country like North Korea on the basis of a time schedule of just a couple of

years or even less. Now, being in the 14th year of transition in the CEEC and the FSU, it is clear that it is impossible to reverse in a few years what socialism, communism and resource degradation have destroyed for over half a century.

The most illustrative example is the eastern part of Germany which was the former socialist country the German Democratic Republic. Although Germany has now been unified for 14 years after November 9, 1989, the eastern part of Germany lags behind the western part in terms of economic factors, like unemployment, growth, and business activities. Other countries in the CEEC, the FSU, and Asia can demonstrate even more significantly that the change from socialism and communism towards an economy based on market principles is long, burdensome and complex. It is no exaggeration if we believe that it takes up to two generations until transition will have turned into a sort of normal progress in the continuously social and economic development of a country based on market economic and democratic principles. We presume that this will be also the case for a North Korean transition process.

What makes contractual change so painful in transition? We expect that in North Korea, too, stability and inseparability of existing contractual arrangements in the agricultural sector including an informal context of long-lasting values and norms lead to self-reinforcing governance structures (as responses of institutional arrangements between stakeholders). Since a firm can be characterized as a nexus of internal and external contracts, large-scale agricultural firms having emerged from socialism undergo gradual restructuring during transition if the firm's stakeholders amend the input of labor, land, and non-land assets by a stepwise 'contract-by-contract' strategy over time. The decision, a dichotomy on the transactional level such as whether to continue to deploy one's assets within the same contractual setting or shifting into a new governance structure, may to result in gradual restructuring on the firm level and, even more obviously, on the sector level. As long as assets are specific and still deployable, self-reinforcing processes can result in less

structural change than many would expect in a world without these dynamic processes behind the existing coordination mechanisms.

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