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Forest Enterprises in Transition — Business Behavior in the Tomsk Forest Sector

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Foreword

This report should be seen as an extension of the earlier IIASA Interim Report (IR-98-084) on the institutional embedding of the Tomsk forest sector, “Institutions and the Emergence of Markets — Transition in the Tomsk Forest Sector” (Carlsson and Olsson, 1998b). While that report gives the general background and an analysis of the situation in the forest sector and the relevant “forest institutions” this report is focused on the behavior of forest sector enterprises in Tomsk.

With these two reports on the forest sector institutions in Tomsk, the first study in a series of case studies that IIASA has initiated in different regions of the Russian Federation, is completed. Studies are currently being conducted in the Karelian Republic as well as in the regions of Arkhangelsk, Moscow, Murmansk, Krasnoyarsk, Irkutsk, and Khabarovsk. All these reports deal with institutional aspects of the Russian forest sector.

The research has been made possible through financial support from The Swedish Council for Planning and Coordination of Research (FRN) and the Royal Swedish Academy of Sciences (KVA). We gratefully acknowledge the help of Dr. Alexander S. Sulakshin, who has served as the local coordinator in Tomsk. We would also like to thank Mrs. Olga Cherkashina, who has been helpful in conducting interviews and collecting data. A large number of people have provided valuable information and given useful comments on earlier drafts of the report.

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About the Authors

Lars Carlsson, Ph.D., is a research scholar at IIASA where he is engaged, together with Mats-Olov Olsson, M.A. and Nils-Gustav Lundgren, Ph.D., in a sub-study on institutional aspects of the Russian forest sector within IIASA's Forest Resources Project. Dr. Carlsson is an Associate Professor and Dr. Lundgren is a Professor at the Division of Political Science, Department of Business Administration and Social Sciences, Luleå University of Technology, Sweden. Mr. Olsson, is a research scholar at the Centre for Regional Science, Umeå University, Sweden.

Forest Enterprises in Transition — Business Behavior in the Tomsk Forest Sector

Lars Carlsson, Nils-Gustav Lundgren and Mats-Olov Olsson

1. Business Behavior During the Transition

Russia is in the midst of a process of fundamental socioeconomic transformation. In some respects this transformation has already been accomplished but in most segments of the economy the transformation is more than "troubled" (Lapidus, 1995). The old top-down structure seems to be hard to alter and new, but in essence quasi-commercial, solutions often significantly reduces the degrees of freedom in the fragile "markets" (Lehmbruch, 1998).

Unlike the former Soviet type of command economy market economies are supposedly *free*. This stylized image of the Western economies has provided a foundation for almost a decade of benevolent policy advice armed with the idea of "shock therapy," i.e., a reinterpretation of the Schumpeterian notion of "creative destruction" (Swaan, 1996:229 ff.). However, this vision of freedom might give the impression that Western market economies are more unregulated than they typically are. This is because the institutional aspects of the market are often neglected or misunderstood.

Basically, markets are to be understood as organized and *institutionalized* exchange, but this exchange is never entirely free. Institutions are "the rules of the game" (North, 1991), and without the creation of new such rules — that foster and regulate the behavior of the actors — no real transformation will take place.

> The manner in which people are affected by the market as an institution is not merely that it provides information, or merely constraints, but that it structures the process of cognition of the agents involved and can actually affect their preferences and beliefs. Thus in a subtle way, through the operation of market conventions, routines and rules, the individual in the market is to some extent "coerced" into specific types of behavior (Hodgson, 1989:179).

New institutions that might foster a behavior suited for a market economy cannot be built in a short time. Moreover, they are not likely to be built by means of policy decisions from above. Being one of the corner stones of the Soviet economy the forest sector provides a good illustration of an array of institutional problems that are associated with the current transformation of the socialist economies to well functioning market economies. However, in order to understand the current situation in the Russian forest sector, and how the transition has proceeded so far, one has to adopt a bottom-up perspective. No institutional framework — however carefully planned by central authorities — will work without the compliance of lower level actors. Therefore, in order to understand the institutional framework of the Russian forest sector, we must scrutinize the behavior of the single forest enterprise. By investigating the behavior of forest enterprises a number of problems that currently affect the enterprises are revealed. Finding solutions to those problems is essential for a better functioning of the sector.

1.1 The Purpose of the Study

The overall aim of this study and a sequence of other case studies conducted by the International Institute for Applied Systems Analysis (IIASA) is to establish a foundation for a better understanding of the transformation of the Russian forest sector.[1] In this study, however, we concentrate on the single enterprise. The basic goal is to provide in-depth information regarding positive and negative aspects of the transformation of the forest sector as the process is perceived by the actors themselves, i.e., managers and other stakeholders related to various forest enterprises. This analysis is aimed at contributing information useful for the creation and identification of appropriate options for policy making. In short, one aim is to contribute research that might make the Russian forest sector better suited to generate economic welfare under sustainable management of its resources.

The on-going process of transition and institutional redesign has been described as a problem of “rebuilding the ship at sea” (Elster *et al.*, 1998). If the magnitude of this task is not appreciated much policy advice will turn out to be delivered in vain. In this report it is argued that most of the problems associated with the transformation of the Russian society, its forest sector included, are rooted in institutional features often established during previous eras of the Russian history.

One basic problem with this type of analysis, however, is to decide to what extent a particular change or feature is conducive to the development towards a market economy. In fact, we do not know what the exact or desirable configuration of a post Soviet market economy should look like. Hence, our problem is how to assess a certain kind of development towards an unknown final destination. Nevertheless, to engage in this activity some kind of broad evaluation criteria are needed.

Here it is assumed that a specific institutional configuration is conducive to a sustainable Russian forestry and useful for the whole economy if the following conditions are met:

- Constitutional rules are acknowledged and transparent.
- The structure of property rights is settled, i.e., private actors can acquire property or get the right to utilize property for their own benefit.
- Rules and regulations from official authorities are regarded as legitimate, and apply equally to similar actors.
- The market decides prices of property and goods.
- Decision-making regarding collective choice and operational rules is decentralized.
- Private investors can realize the returns on their investments.
- Rules are enacted aimed at preventing the devastation of natural resources.
- Legitimate authorities take measures against violations of rules.

[1] This study should be regarded as a companion piece to another study that has recently been published by IIASA, “Institutions and the Emergence of Markets — Transition in the Tomsk Forest Sector” IR-98-084 (Carlsson and Olsson, 1998b). That report should preferably be read before or in combination with this one in order better to understand the present work.

By using a number of forest enterprises as the major source of information the basic task of this study is to indicate to what extent the above criteria are met. Being a pilot study our primary aim is to generate hypotheses for further investigation.

1.2 Methodology

The approach of this study is *institutional*, i.e., it studies "systems of enforced norms, routines, conventions, legal rules and traditions in which individual economic activity is embedded" (Gronewegen, Pitelis and Sjöstrand, 1995:6; see also Carlsson and Olsson, 1998a and 1998b). The idea is that specific configurations of the "rules of the game" that pertains to the forest sector are reflected in the behavior of individual enterprises. Such enterprises are ultimately dependent on the forests themselves, and the rules that regulate property rights, accessibility to the resources, management forms, and so forth. At the same time, every enterprise has an "output side." Timber is delivered to processing industries, lumber and particleboard are sold to construction firms, etc. Thus, for the purpose of depicting this timber-to-the-market chain a number of methods have been utilized.

First, many secondary sources have been employed. Second, we have consulted the IIASA Russian Forest Study Database[2] and, in particular, the socioeconomic data contained therein. Third, interviews have been conducted with people related to the forest sector in Tomsk Oblast. Fourth, a special Case Study Instruction has been developed as a tool for the local coordinator to collect and assemble specific information on different aspects of the regional forest sector (Appendix A). Finally, interviews have been conducted with representatives of 26 forest enterprises in Tomsk (Appendix B). In addition, a representative for the Tomsk Union of Forest Industrialists has provided a collective answer that claims to be representative for the union's 45 enterprises. However, it is mainly the result of the 26 interviews that are discussed in this report.[3]

The ambition has not been to make a statistical sample from the total universe of forest enterprises. Consequently, conclusions that are drawn only pertain to the investigated firms. The interviews were conducted with those enterprise representatives who were believed to have the best knowledge about the acquisition of wood (or consultancy tasks) as well as other issues related to the management of the firm. Typically, this person is the managing director, sometimes supported by some other management personnel.

The sample consists of four state owned enterprises, two old but privatized firms and 19 new, private enterprises (the ownership of one of the enterprises is unclear). The activities of the interviewed firms span from forestry and harvesting to processing or various combinations of these activities. In fact, all but three enterprises are engaged in a combination of activities, such as sawing/processing, sawing/harvesting, etc. Three of the enterprises are engaged in the provision of services to other companies

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[2] See description of the IIASA Russian Forest Study Database published on the internet at URL: http://www.iiasa.ac.at/Research/FOR/dbdoc/fsa_menuframe.html.

[3] Interviews have been coordinated by Dr. Alexander S. Sulakshin who also has served as the local coordinator of the study. Dr. Sulakshin is related to Union of Forest Industrialists in Tomsk region (*Soiuzlesprom*). Some interviews were conducted by Mrs. Olga Cherkashina, who is the director and owner of OOO "Anemon", a new small consultancy, timber harvesting and trading enterprise in Tomsk.

(consultancy). Two of the firms are established on a joint venture basis with foreign owners.

Six of the interviewed firms have more than 100 employees — the largest having 807 workers. Thus, it should be noted that our sample of 26 enterprises is dominated by new and fairly small firms — fifteen of them have less than 50 employees.

The report is organized as follows: In the next section an overview of the structure of the Tomsk forest sector is given. The section ends with a summary of the current problems in the sector. In section three the result of our survey is presented and discussed. In the final section a number of central conclusions are extracted for the purpose of generating questions and hypotheses for further investigation.

2. Forest Businesses in Tomsk

In what kind of context do the enterprises belonging to our sample operate? Tomsk, an *oblast* in the West Siberian economic region, is typical for the forest districts of Russia. The area is vast — about the size of France — and contains abundant forest lands. Around 18 million hectares, or over 90% of the territory, are forested. The forest sector has problems, however. Since 1988, harvesting in Tomsk Oblast (as well as in Russia as a whole) has decreased significantly. In 1995, harvesting was only about 25% of the 1988 level (Goldin, 1997). In 1994, only 8.3% of the annual allowable cut was harvested (Huber *et al.*, 1997). According to recent estimates the current level of harvesting is only 10% out of a possible level of 26.9 million m^3. This level equals the level of 1936 (Tomsk Oblast, 1997).

In 1997, Tomsk Oblast had 1,074,800 inhabitants, half a million of which constituted the active working force (Huber *et al.*, 1997:27). Although about 23% of the working force in the region is occupied in the forest sector, i.e., in the wood, cellulose, and paper industries, the sector only contributes 4.8% to the regional output (Bradshaw and Palacin, 1997:73). While “fuel and energy” almost doubled its share of the regional output value between 1992 and 1996, forest sector output was significantly reduced (Hanson and Kirkow, 1997:24).

Table 1. Employment by types of ownership in Russia and in Tomsk Oblast, 1995 (%).

	Russia	Tomsk Oblast
State sector	41.2	48.8
Enterprises with mixed ownership	23.1	19.8
Joint venture	0.6	–
Public associations	0.9	0.3
Private sector	34.1	31.2

Source: OECD, 1997, Table 11.

As can be seen in Table 1, around 30% of the employees are occupied in privately owned enterprises. Although this figure is somewhat below the Russian average it is still an improvement with 5% from 1993 (OECD, 1998, Table 11). According to data from the Union of Forest Industrialists of Tomsk Oblast there are 20,937 enterprises in the region, 89.6% of which are regarded as “large” or “middle sized” (by the volume of production). Tomsk is some kind of record holder in privatization and most enterprises (75.7%) are today in the hands of private owners. In West Siberia and in the rest of Russia the corresponding figures are 66% and 53% respectively. By consulting Table 2 it becomes evident that foreign ownership plays a minor role in the region.

Table 2. Ownership of enterprises in Tomsk Oblast, 1997 (%).

State	6.2
Public	4.6
Municipal	5.9
Mixed	6.5
Private	75.7
Joint-venture and foreign	1.1

Source: Data provided by the Union of Forest Industrialists of Tomsk Oblast.

In the whole forest sector, i.e., forestry, forest industries, forest traders, and consultants, the total number of firms is around 200.[4] There are four main groups of forest enterprises:

1. Harvesting and timber processing units (approximately 150 enterprises).
2. Forestry, 29 units belonging to the *Leskhoz* system of the Federal Forest Service (these units are the legal owners of 89% of the forest resources).
3. Forestry and timber processing units (*Mezhkhozles*) belonging to the Ministry of Agriculture (13 units).
4. Traders, consultants and other smaller firms. (Due to constant changes and concealment of information it is impossible to depict the precise number and distribution of these firms.)

The first group of enterprises also includes the 38 founders of the *Tomsk Union of Forest Industrialists.* This is a newly established, but in essence old, corporative organization consisting of bureaucracies, organizations and enterprises from the former *Tomlesprom*, the old forest industrial “family” in the region. The purpose of the organization is to serve as a lobby group and a coordinator of the regional forest sector (see Carlsson and Olsson, 1998b:Ch. 4).

2.1 Transition, from What?

Virtually all forest lands in Russia still belong to the state while most industries are private.[5] In 1995, 58.5% of all forest industrial enterprises in Tomsk were operating at a loss. At the same time around 100,000 people were, and still are, directly dependent on the forest industrial complex (Tomsk Oblast, 1997). The continued existence of such a situation can only be understood and judged in the light of the history of the

[4] Supporting enterprises, such as manufacturers of wood cutting tools or transport companies, are not included in the group.

[5] According to the constitution all forests are jointly owned by the Russian Federation *and* its subjects, i.e., republics, oblasti, etc. Thus, one source of uncertainty is that the ownership situation is unsettled, the present situation also contradicts the constitution which allows all types of ownership. This ambiguous situation seems not to have changed with the new forests code adopted on January 22, 1997.

Russian forest sector and the Russian economy at large. What are, then, the main features of the forest sector in Tomsk? To put it in another way, what is the structure of the “system” that should be transformed into a market economy? Or — if one believes in shock therapy — what is the status of the patient who is supposed to enjoy the treatment?

In Tomsk, as well as in the rest of the Soviet Union, practically all forest resources belonged to the State and were managed through a hierarchical political, administrative apparatus (cf. Nove, 1977; Blandon, 1983; Barr and Braden, 1988; Sheingauz *et al.*, 1995; World Bank, 1997). Today, the Federal Forest Service (FFS, in Russian commonly referred to as *Rosleskhoz*) is organized in 89 regional bodies.[6] It should be noticed, however, that the old system of “dual subordination” still exists in that the regional bodies are subordinated both to the central authority (the FFS) and to the executive authority of the oblast. On behalf of the FFS these forestry committees are responsible for the protection and regeneration of the forests. In total, the Federal Forest Service and its committees are accountable for around 94% of the Russian “forest fund”.[7] In practice they also provide virtually all timber emanating from the Russian forests. Regional committees, like the Tomsk Forest Management, still assign areas for harvesting but nowadays to privatized harvesting enterprises.

At the Federal level the Russian forest fund is divided into 1,831 management units, *leskhozy*. During Soviet times these units as well as the forest industries, sawmills, and state harvesting enterprises (*lespromkhozy*), now privatized, formed an integrated system. Harvesting and forest management, e.g., regeneration, was separated and there were no financial relations between logging enterprises and the *leskhozy*.

In the light of the present difficulties to make the forest sector work according to the principles of a market economy it should be emphasized that a great number of harvesting enterprises (*lespromkhozy*) once were prison camps, in which the cost of labor was negligible. In addition, many of the industries that are expected to become prosperous are not only poorly equipped but carry with them the burden of funding a significant social sector, such as the provision of housing for the labor force, electricity and fuelwood. In addition, most enterprises are staffed with people lacking previous experience of, or education in, market type business management. It is this system that is now disintegrating and that should be replaced by a system working under a quite different type of logic. However, the system that has emerged so far has demonstrated some obvious shortcomings.

- Despite abundant forest resources there is sometimes a shortage of timber while in general the internal and external demand of wood is weak.
- There is a lack of congruence between central and regional levels of decision making related to the forest sector.
- The forest management system is poorly funded, e.g., forest fire protection and regeneration programs are severely affected.
- Even though new rules of forest management and protection are enacted there is a general lack of mechanisms for their implementation.

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[6] The organization recently celebrated its 200th anniversary.

[7] The agricultural sector, the military, and some other authorities also possess parts of the Russian forest fund.

- The timber price is artificially low, transportation fees and taxes are immense, internal and foreign trade is undeveloped.
- Corruption and criminalization of the sector is significant.
- Devastation of forest resources continue.
- A significant part of the firms continue to operate at a loss.
- An increase in the practice of barter, rent seeking and a widespread custom of negotiating for privileges prevent firms from behaving as commercial actors and thus promoting the development of a market system.

How can these problems and shortcomings be explained in terms of the institutional features as those are recognized by the individual enterprises in their daily activities? This is the topic of the next section.

3. Transition to What?

Based on the previous argumentation (see especially page five) it can be assumed that an institutional framework that is tailored to support a transition towards a market economy would have some pertinent characteristics and that these characteristics will be reflected in the behavior of the firms. Thus, one would expect firms to invest with the prospects of more efficiently (profitably) supplying growing markets with wood, especially if the firms have been restructured or if they are newly established or privatized. According to the same logic one would expect that the “rules of trade” compel actors to behave in accordance with widely accepted norms: bills are paid, deliveries made and those who defer will be drawn before a court or forced into some other, “third party” deliberations. Generally, one would also expect rules to be well defined and transparent, and, as a consequence, the behavior of officials and other actors in the forest sector to be predictable. On the more “pecuniary” side we can expect that, under such circumstances, most of the products sold are paid for with money which is used for reinvestments or dividend payments to the owners.

In a similar way, a lack of, or badly tailored, institutions, ill-defined property rights, instability, etc., can be expected to negatively affect the behavior of the firms. For example, due to a low degree of predictability in the economy there might be a general reluctance to invest, especially in old and large state enterprises. As a consequence, production will be affected. In their business relations single firms will also encounter problems with both economic and human credibility. Payments will pose great problems, relations with the banking system will be poor, and so forth. In a recent study of the development of industrial behavior in Russia, Aukutsionek (1998) concludes that the widespread use of barter is more common and more easily maintained by larger enterprises that could rely on old contacts established when the firms were integrated in huge industrial complexes. Through the use of barter production may be maintained, thereby securing a number of social benefits for the workforce and, sometimes, for entire communities. Thus, we can expect a high degree of non-monetary transactions among firms in the forest sector and especially among larger, formerly state owned enterprises.

In the following sections we will present the result of our survey, and, thus, get an indication of which one of the two scenarios is more likely to reflect the reality in Tomsk. The fundamental issue to be discussed is to what extent institutional features are reflected in the behavior of the interviewed firms. The analysis starts with some general aspects of the firms followed by a section dealing with the input side of the firm, such as problems associated with the purchase of timber, etc. Following the same logic, the third part of the analysis deals with the output from the firms, while the final part concentrates on institutional problems, such as how rules and regulations are perceived to affect the activities of the firms. In the final section a number of hypotheses for further investigations are formulated.

3.1 Firm Behavior

As has already been mentioned, our sample of 26 firms contains 19 new private enterprises, most of which were found to be comparatively small. It is hardly surprising that many of the newly established firms in the forest sector are small. Nor is it surprising that these enterprises, as our data show, are more frequently involved in service production than old and large state owned firms, which mainly concentrate on material goods production. What might be more notable, however, is that the new and private firms are more involved in export activities than are the old public firms. Out of the ten firms in our sample that do export their products seven are new and private. However, none of these firms have foreign countries as their *major* recipients of goods.

Institutional circumstances are also believed to be reflected in a firm's propensity to invest. Here, the picture is quite clear. Out of six public or formerly state owned firms only two (33%) report that they make investments, while 11 out of the 19 new private firms (58%) invest in their businesses. It seems natural that new firms would invest in order to establish themselves in the market. It is more striking that the other, larger firms in our sample do not behave in the same way in order to become in a better position to face future market demands. Our data give no support for the existence of a clear relation between size of the firm and the prevalence of investments. In total, 60% of the exporting firms make investments compared with 50% of the non-exporting firms. Our data also indicate that the propensity to invest is related to the way in which the firms perceive the prevailing "business ethics." While seven out of eleven firms, which regard violation of contracts a minor problem (or no problem at all), make investments the corresponding figure for problem-ridden enterprises is three out of eight. Thus, it seems like social expectations of "unreliability" are associated with a reluctance to make long-term investments. To be able to better clarify this relation more data is required.

Among the investing firms, only one has financed its investments through bank loans while 12 of the interviewed firms had mobilized their own resources. In fact, only 7 of 26 firms report that they have commercial relations with the bank system. Asked for the reason for this, 70% of the respondents blamed the high interest rates. As a consequence, firms are either forced to find other funding sources or entirely refrain from expanding, or renewing, their enterprises.

It is a well-known fact that larger Russian enterprises are engaged in providing "social" services, such as housing, etc. This is also reflected in our data. Ten of the interviewed firms report that they have such engagements. In fact, only seven report that they have no social responsibilities — nine firms did not answer the question. To rid firms of these responsibilities has often been suggested as a way of making them more competitive. Therefore, one might find it remarkable that new firms seem to have been pulled into this system as well.

3.2 Provision of Wood

Close to half of the interviewed firms (11 out of 26) get their wood directly from the state forests, i.e., via the *leskhozy*, and only one gets its supply from leased land. As a consequence, only one of the firms has something that could be regarded as a long-term contract. If this is a general feature the character of the supply market for timber is more like that of a spot market. About 80% of the firms report that they have a number of alternative suppliers and 73% that they have no problems to procure timber to cover their needs. Among the few that do have problems we find one of the largest processing plants in the region with more than 800 employees. All of the interviewed firms that say they have problems to acquire wood blame this on the financial situation. For example, one of the harvesting enterprises attributes the problems to the fact that its buyers are unable to pay in advance, something that is regarded as an essential prerequisite for running the trade.

Payments are arranged in a number of ways among interviewed firms — through cash on (or before) delivery as well as through barter transactions. Only one of the firms arrange its payments through the bank system, while 45% of the firms are involved in barter trade (9 of the 26 respondents did not answer this question). A majority (79%, i.e., 15 firms) of those who answered the question state that violation of agreements is a problem when purchasing wood. Eight of them consider this a big problem.

3.3 Output From the Firms

Less than half of the firms in our sample (10 out of 26) export their products. So-called "near abroad countries" dominate among the recipients. A few firms sell their products to Asia and Eastern Europe as well. However, the most important trade for the forest enterprises is still the home market. Eight firms regard the home market as their most important market, while fourteen firms have a mixed bag, meaning that they have an equal share regional and "Russian" customers. Only one firm has no local market for its products.

In the questionnaire respondents were also asked whether they regard broken agreements as a problem when they sell their products. The majority of the firms (18) conceive broken agreements as a problem. Eight of them think the problem is serious, while only two firms report that they have no problems with broken agreements. The typical problem is related to payments. Three of the firms report that they are paid in cash upon delivery. One enterprise does not deliver at all before payment is made. The majority of the firms (14) are in one way or another involved in barter trade activities. Only two of the firms conduct their financial transactions through the bank system.

3.4 Production and Employment

Among the three firms in our sample that existed ten years ago all have reduced their production by 20–50%. Among the firms that existed five years ago six out of eleven have reduced their production. Only four of the firms report an increased production. A similar pattern can be found with regard to employment. During the last five years five out of eleven firms have reduced their work force. Although the general problems in the economy affect all firms, some enterprises have been able to retain their production as well as their work force. Others, however, have been forced to reduce their volume significantly. Why this difference of behavior?

Although our material is very limited we have tried to test some plausible explanations. One obvious explanation would be that firms that invest also increase their production. Our data show that 67% of the investing firms increase their production compared to 20 % of the non-investing firms. Another related observation is that 75% of the enterprises that carry the burden of providing social services show a decline in production while all firms that report an increase in production (only two however), over a period of five years, are free from such engagements.

It can also be assumed that a commercial environment characterized by stability and trust is likely to promote economic activity and, thus, affect production. It should therefore be emphasized that all of the firms in our sample which regard broken agreements as a big problem show a significant decline of their production. The two firms that do not regard broken buying agreements as a problem have both increased their production. The picture with regard to broken selling agreements is even clearer; eight out of twelve firms that report a problem have reduced their production during the past five years. As a comparison, the single firm which does not experience such a problem has increased its production during the same period.[8]

When it comes to changes in employment the picture is about the same, i.e., problems with broken agreements seem to be associated with decline in production, while investments are positively associated with higher employment. Since production changes often depend upon changes in employment it can be assumed that production growth is associated with increased employment, at least when it comes to rather new firms that we can assume are in a stage of building up their activity. On the other hand, one would think that a more "capitalistic" behavior should result in a growth in production combined with a reduction of the work force, i.e., increased efficiency. Our data show that this is the case for two firms only. In all other firms in our sample employment reductions are accompanied by a shrinking production.

3.5 Problems and Institutional Features

One indicator of a possible movement towards a modern market economy is the extent to which enterprises solve their problems through the engagement of a third party. This type of solution is presumed to reduce transaction costs. For example, to what extent are individual enterprises members of branch organizations aiming at regulating inter-firm relations and relations with and other actors in society? A similar question of relevance concerns the extent to which legal third-party solutions (such as Arbitration Courts) are utilized when business conflicts occur.

Eight of the firms in our sample are members of the Union of Forest Industrialists (*Soiuzlesprom*), but, as already indicated, this organization should be seen as a corporativistic entity rather than a third-party agency. Most firms are not members of any branch organization. When it comes to third-party enforcement our data indicates that most firms do *not* employ any legal solutions (incl. arbitrage) as a way of solving conflicts. Only four firms regularly use this kind of solution. However, from our earlier investigations in Tomsk (cf. Carlsson and Olsson, 1998b) we know that new, private firms often have a straightforward way of dealing with broken agreements; they simply do not continue doing business with firms that do not pay. This is a practice used by four of the firms in our sample. However, most firms have to rely on different

[8] When the figures for Tomsk were calculated we also had data from some other regions available, totally 53 interviews. By adding these interviews the relation between trust and production was further confirmed.

kinds of negotiations. One firm uses "non formal enforcement", which simply seems to be another expression for taking the law into one's own hands, i.e., a kind of Mafia solution. Joskow and Schmalensee (1997:99 ff.) argue that the Arbitration Court system, which was introduced in the beginning of the 1990's, does not function for complex commercial disputes. As a result actors prefer to employ private enforcement mechanisms. This fact is reflected in our material.

In our questionnaire, respondents were asked if they believe that there are rules and regulations that are obstacles for the activities of their firms. The vast majority of the respondents gave affirmative answers to this question (19 "yes", 2 "no", and 5 "no answer"). Asked to clarify the answer 16 respondents mentioned the tax legislation, two refer to the forest legislation, and two to the enforcement of business legislation. Only one enterprise thinks that rules connected to technology/equipment are the main problem. Asked for other obstacles for business success 17 respondents refer to technological and related problems, such as the skill of the workforce and the maintenance of equipment.

It is obvious that firms in Tomsk are faced with a multitude of problems. Therefore, it might be interesting to know what they regard as the most binding restriction for their operation. Here the picture is very scattered, as is indicated in Table 3.

Table 3. Perceived restrictions for some forest sector enterprises in Tomsk.

The most binding restriction for operating the firms	**Number of firms**
The general economic situation	2
The tax legislation	3
Transport costs	1
Business tradition and ethics	3
Technology	2
Skill and competence	2
Enforcement of laws	1
Lack of capital	4
To find a market	1
Other	2
No answer	5
Total	**26**

As can be seen in Table 3, the respondents refer to a number of different problems and more data is needed to clarify the picture. However, it should be emphasized that only one of the respondents thinks that the main problem is to find a market for the enterprise's products. This indicates that the problem picture is rather complex. For example, it can be assumed that there are a number of factors that reinforce each other and together produce effects that make potential markets difficult, or even impossible, to exploit (cf. Carlsson and Olsson, 1998b:47 ff.).

4. Conclusion

Gaddy and Ickes (1998) have launched the notion of “virtual economy” to underline the fact that the greater part of the Soviet economy is still intact.

> The new system can be called Russia’s virtual economy because it is based on an illusion about almost every important parameter: prices, sales, wages, taxes, and budgets. At its heart is the pretense that the economy is much larger than it really is. This pretense allows for a larger government and larger expenditures than Russia can afford. It is the real cause behind the web of wage, supply, and tax arrears from which Russia cannot seem to extricate itself. (Gaddy and Ickes, 1998:1)

This type of economy might continue to work only if it is insulated from market competition. Today, such an insulation from the market is achieved through an extensive use of barter, which effectively breaks the market based price signals and allows the use of fictitious prices of goods and services quite separated from their market values. This practice maintains the “pretence” of value creation while industry is in fact mainly a “value destructor.” However, this “virtual economy” will not be possible to maintain in the long term.

What Gaddy and Ickes mention, but do not give much attention, is the fact that after the “market revolution” a new truly private sector (as distinct from the “in name” privatized large state companies) has emerged on the Russian scene. This sector mainly consists of new, small enterprises, such as the ones included in our sample of enterprises in Tomsk. These firms are, to a greater extent than the old State enterprises, subject to the laws of the market. They are dependent on the realization of their products (to meet a demand and sell for money) and they have to manage their companies (make investments) in order to survive on the market. The importance of this new market sector should not be underestimated. On the other hand, our data indicate that the development of these new groups of enterprises might be halted already in the first phase after their establishment. For example, commercial relations to the bank system seem to be poor, or absent, and the involvement in the social sector might be significant.

Based on a limited number of interviews no general conclusions can be made. However, a number of questions and hypotheses could be raised that deserve further investigation:

1. Neither the supply of timber nor the problem of finding suitable markets can explain the current situation in the forest sector. To the extent firms regard such problems as obstacles for their development these are embedded in a complex of other obstacles.
2. New, private forest enterprises invest relatively more than older established firms, although the need for renewal is greater in the latter category?
3. Firms that are involved in exports are better off than those who mainly operate on the Russian market?
4. Business ethics is correlated with performance. Many experiences of violations of rules are negatively correlated with the general propensity to invest as well as the development of production.
5. New, private enterprises experience the lack of third-party solutions as more problematic than old established firms. This has to do with the fact that the latter are more involved in deliberations with the bureaucratic structure surviving from the Soviet period. Thus, negotiations for privileges are more common in this group of enterprises, barter trade flourishes, and so forth.

6. A significant number of firms are involved in the provision of social services. Especially when it comes to new enterprises it is not clear to what extent these engagements are caused by ambitions to support the enterprise's own work force. It might as well be an indication of a conscious "export" of problems from the public sector raising more hurdles for the development of the firms.
7. Despite the fact that the present taxation policy might be regarded as a major problem for the forest firms it is the combination of taxes, fees plus a number of other institutional features, that creates a state of unpredictability. As a consequence firms are prevented to benefit from the existing resources.
8. Finally, it can be assumed that significant differences exist between different regions of the Russian Federation in terms of the relations described above. For example, the organization of trade and previous experiences of export might have a more decisive effect on the development in central parts of the Federation compared with more remote areas. In addition, one should not omit the possibility that more personal variables, such as skills or business ethics, differ significantly between regions and that these circumstances affect the performance in the forest sector.

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Appendices

Appendix A

Case Study Instruction

What data should be compiled about
public authorities and organizations
relating to the region's forest sector?

This *"Case Study Instruction"* is one of a number of instruments used in the collection of data in the IIASA project studying the institutional aspects of the Russian forest sector. The data compilation in the part of our study that concerns public authorities, organizations, etc., should be guided by the questions listed in this document. (To illustrate what kind of information we consider important and interesting we have separately listed a number of comments to the questions.)

Information provided with the help of this instruction should be based on the knowledge of the study's regional coordinator, but it should also (as far as possible) be based on official sources as well as on the knowledge and opinions of individuals (public officials, experts) contacted in the course of the study. All sources used should be explicitly recorded. The guiding principle is that it should be possible for a critical person to control the basis of our reports.

Much of the information we need about specific regions might be retrieved from the extensive project database situated at IIASA. Only data which is not readily available at IIASA is compiled through this field work.

Questions relating to this instruction should be addressed to:

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and/or
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or via telefax: +43 2236 71313

Questions to guide the data collection on the structure of the forest sector, public authorities and organizations in a specific region

1. What does the region's forest sector look like in relation to other sectors in the economy? Describe its position and development.

2. How is the forest sector organized in terms of public authorities and organizations?

3. What is the enterprise structure in the region's forest sector?

4. What other organizations exist in the region which are related to the forest sector? What are their duties and what principles govern their interactions with other organizational structures?

5. What are the most central features of the federal and regional legislation that applies to the forest sector in the region?

6. According to qualified assessments, which components of the forest sector regulations cause most problems for the region today? Why? What changes in the forest legislation are considered necessary in order to make it work more efficiently?

7. To what extent do the various organizations that you have discussed in questions 1-6 currently function in accordance with official intentions?

8. Considering the organizations discussed above, to what extent do leading representatives hold positions in several organizations? Where (by whom) are the most important decisions relating to the activity of these organizations taken?

9. What is the political structure in the region?

10. What aspects have been insufficiently covered in the answers to the earlier questions?

Appendix B

Questionnaire used in the interviews with the Russian forest sector enterprises

Interview no.

Interview conducted by:
Date:
Name and address of enterprise:
Respondent:

SECTION A: GENERAL DESCRIPTION OF THE ENTERPRISE

1. Name of the enterprise?

2. What year was the enterprise established?

3. Give a short description of the enterprise.

4. Type of enterprise?
Forest owner/possessor/forest service
Harvesting enterprise
Processing industry
Consultant
Other type, describe

5. What are your main products?
Today:
One year ago:
5 years ago:
10 years ago:

6. What is the actual production volume of the enterprise?
Today:
One year ago:
5 years ago:
10 years ago:

7. Who is the legal owner of this enterprise?
The state, specify:
Private person/persons, namely:
The enterprise is a corporation
owned by other companies, namely:
Other, namely:

8. Number of employees? (Counted as full time personnel)
Workers, today:
Workers, 5 years ago:
Workers, 10 years ago:
Administration, now:
Administration, 5 years ago:
Administration, 10 years ago:

9. Do you have any engagements and responsibilities related to activities other than "production"?
Housing.
Provision of consumer goods:
Schools:
Health care:
Child care:
Other:

10. Do you currently make any investments in your enterprise?
No
Yes, describe content and scale

11. How are your relations to the "banking system" – can you borrow money, from whom and on what terms? Describe:

SECTION B: INPUT SIDE OF THE ENTERPRISE

12. From whom do you acquire timber/wood?

Provider:	% of total volume:
Provider 1:	
Provider 2:	
etc.	

13. On what terms is the timber/wood normally acquired?

FOR CONSULTACY FIRMS:

12 b. From whom do you get your orders/tasks/assignments?

Client:	% of total volume:
Client 1:	
Client 2:	
etc.	

13b. On what terms do you get your orders/tasks/assignments? Describe:

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14. Do you have any alternative supplier(s)?
Yes
No

15. Can you acquire a sufficient amount?
Yes
No, what is the explanation?

16. How is the timber/wood paid for?
Payment upon delivery:
Payment before delivery:
Other arrangement, namely:

17. How are payments arranged?
Via bank; name of bank:
Payments are done by the enterprise itself:
Other construction, namely:

18. What will happen if either part breaks the agreement or does not fulfill its duties?

19. Do you regard violations of agreements as a problem?
Yes, a big problem
Yes, but a small problem
Not really a problem

20. Describe how a typical purchase transaction is performed.

SECTION C: OUTPUT SIDE OF THE ENTERPRISE

21. To whom do you sell your 'products'? Name and type of customers in order of importance (as a percentage of total volume), name all.

Customer:	% of total volume:
Customer 1:	
Type:	
Customer 2:	
Type:	
etc.	

22. Can you describe how a typical sales transaction is performed?

23. What will happen if either part breaks the agreement or does not fulfill its duties? Describe

24. Do you regard violations of agreements as a problem?
Yes, a big problem
Yes, but a small problem
Not really a problem

25. How do you get paid for your products?
Cash or equivalent upon delivery
Cash or equivalent paid before delivery
Other arrangement, namely:

26. How are payments arranged?
Via bank; name of this bank:
Payments are done by the enterprise itself
Other construction, namely:

SECTION D: INSTITUTIONAL ASPECTS

27. Is this enterprise member of any branch organization or equivalent?
No
Yes, namely:

What are the arguments for this construction?

28. Are there rules or regulations that apply to your enterprise which you regard as an obstacle for your activities?
No
Yes, describe:

29. Are there other problems which you regard as obstacles for a successful business? Describe
No, only minor:
machinery/technology:
equipment/supply/maintenance:
personnel/skill/competence:
other:

30. What is the single most binding "restriction" on the activity of your enterprise? Describe

31. Generally speaking, do you find the formal legislation regulating Russian forest enterprises adequate and efficient?
Yes
No, explain why.

32. If it would be possible to change anything related to the Russian forest sector, what would you change?

33. Other comments of relevance?