

# Assessing the Value of Law in Transition Economies

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## CHAPTER 3

### **Law Works in Russia: The Role of Law in Interenterprise Transactions**

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As levels of economic performance increasingly diverge across the countries undertaking the difficult transition from communism, the role of economic institutions is receiving more attention (Blanchard and Kremer 1997; Johnson, Kaufmann, and Shleifer 1997). Among the institutions of prime interest are those elements of the legal system that foster the development of productive relations between producer and customer. In this essay, we examine the effectiveness of these legal institutions in Russia, using data on the microeconomic behavior of enterprises.

Russia has undertaken significant reform of those legal institutions pertinent to the formation and enforcement of interenterprise agreements. Relative to other changes implemented since 1991, these reforms have been less controversial and generally well regarded. Nevertheless, there is still the prevailing view that law is not terribly relevant in the emerging Russian market and even that criminal groups are performing state functions in the governance of relationships (McFaul 1995, 95–96; Åslund 1995, 5–7, 138; Leitzel, Gaddy, and Alexeev 1995; Hay, Shleifer, and Vishny 1996). This essay subjects that prevailing view to a direct test by examining evidence that bears directly on the question of whether law and legal institutions facilitate the transactions of Russian enterprises.

Our essay's case study is Russia, but its results reflect upon broader themes, on ongoing debates concerning the importance of law in ordering transactions. Within the existing literature, one finds a gulf between those who identify an "exaggerated emphasis on court ordering (by the institutions of the state) over private ordering (by the immediate parties and affiliates to a transaction)" (Williamson 1995, 174) and those who observe "a wide consensus to the effect that the institutions of contract law are largely marginal to the processes of business contracting" (Deakin, Lane, and Wilkinson 1997, 105). A prime reason for this divergence in opinion is the dearth of empirical studies that systematically examine the significance of law and legal institutions in the transacting process

(Hillman 1997, 246). This essay joins several recent contributions to the literature in addressing this lacuna (see, for example, Bernstein 1992; Masten 1996; McMillan and Woodruff 1999; Fafchamps 1996, 1997; Fafchamps and Minten 1999; Johnson et al. 1999).

One consequence of the relatively small amount of attention that has been paid to the empirical analysis of transactions is that the methodological basis of such analysis is relatively underdeveloped: there is no consensus on how such studies should be undertaken. Case studies have been of prime importance (e.g., Macaulay 1963; Bernstein 1992; Koford and Miller 1995; Uzzi 1996), as well as historical-theoretical reflections on the development of transactions and institutions (Greif 1989, 1994; Greif, Milgrom, and Weingast 1994; North 1990; Milgrom, North, and Weingast 1990). Empirical studies with larger numbers of firms have most often focused on the choice of contract terms, examining how these terms vary with factors that affect the usefulness of law (Palay 1984; Joskow 1987; Fafchamps 1996b; McMillan and Woodruff 1999; Johnson et al. 1999). Few studies directly address the central question, whether law and legal institutions contribute to the success of transactions. Obtaining an answer to this question in the Russian context is the main contribution of this essay.

Given the absence of a conventional methodology, we proceed on several fronts, progressing from the general and descriptive to the specific and analytical. The following section presents soft evidence, examining what Russian enterprise officials think of their legal institutions. Then we consider the mechanisms that enterprises use to facilitate their transactional relationships, analyzing the relative importance of relational contracting, self-enforcement, enterprise networks, private security firms, administrative institutions, and courts. Next, we examine the value of law and legal institutions in individual transactions, providing evidence within a consistent econometric framework. We examine how transactional success is affected by the legal human-capital of the enterprise, by the way in which the enterprise marshals its legal resources, by the potential for holdup problems, and by factors facilitating the building of relationships.

The results reflect information gained from a survey of 328 Russian enterprises conducted in mid-1997. In each enterprise, surveyors administered different survey instruments to four top managers: the general director, the heads of the sales and purchasing (supply) departments, and the official responsible for legal issues. The sample was drawn from six cities (Moscow, Barnaul, Novosibirsk, Ekaterinburg, Voronezh, Saratov), with each represented equally. The enterprises span ten major industrial sectors.<sup>1</sup> Size ranged from 30 to 17,000 employees, with a median of 300. Most of the enterprises were established during the Soviet era, and about three-fourths (77 percent) are privatized.

Before turning to the evidence, we set the scene with a brief description

of the pertinent Russian legal institutions and legal reforms. Over the past decade, Russia's legislative base has been transformed to respond to the demands of the market, and many new institutions have been created. At the same time, post-Soviet Russia is not a *tabula rasa* with regard to judicial institutions. The Soviet Union had courts of general jurisdiction, which heard virtually all cases except for disputes between state enterprises. The latter were resolved by an administrative agency known as state *arbitrazh* (*gosudarstvennyi arbitrazh* or *gosarbitrazh*) (Pomorski 1977). In 1991, *gosarbitrazh* was transformed into the system of *arbitrazh* courts that exist today. The Soviet heritage has not been entirely helpful in building respect and authority for the new *arbitrazh* courts. *Gosarbitrazh* made no pretense of independence, and although it superficially resembled a court in that it resolved disputes among state enterprises, the primary goal of the decision makers (arbiters) was to facilitate fulfillment of the national economic plan. This historical legacy has sometimes encouraged Western observers to dismiss the courts as an important actor (e.g., Black and Kraakman 1996; Hay, Shleifer, and Vishny 1996).

The *arbitrazh* courts break with the past in terms of their structure, function, and procedures (Hendley 1998b; Pistor 1996). A new procedural code was adopted in 1991, marking the change from administrative agency to court. This code was thoroughly reworked in 1995 as part of the continuing effort to make the *arbitrazh* process more "court-like" (APK). Decision makers are no longer arbiters but full-fledged judges, and the courts' functions have greatly expanded (Hendley 1998a). Cases now submitted to the *arbitrazh* courts run the gamut from garden-variety contractual disputes to complex issues of commercial law and corporate governance (Hendley 1998c). In contrast to the past, decisions are to be based solely on the law: the political and/or economic ramifications are not to be considered.

### **The General Perspectives of Enterprises**

One straightforward way to assess the functioning of Russian legal institutions is to ask enterprise officials questions about the quality of such institutions. At first blush, this approach seems easy to implement. However, the data obtained in response can be disturbingly elusive to interpret. Suppose one-third of Russian enterprise managers have confidence in legal institutions. Is this low or high? Perhaps, one would obtain the same degree of confidence expressed by managers in OECD countries, so that Russia is comparable to other countries in this respect. Perhaps fewer Russian managers have confidence in any other Russian institution, so that legal institutions perform relatively well in Russia.

As the above immediately suggests, the solution to this problem of data interpretation is to take a determinedly comparative approach, to compare Russia to other countries, to compare Russian legal institutions to other Russian in-

stitutions, and to compare the comparative status of legal institutions across countries. The application of this approach, however, is hindered by the paucity of existing survey information on legal institutions in other countries, at least information that can be profitably used given the present study's focus. Nevertheless, we did find in the existing literature a small set of studies that contained both pertinent survey questions and Western responses to those questions. Administering identical questions in Russia allows one to build a useful introductory picture.

### Confidence in Institutions

One question that has been posed in a number of countries elicits information on how much confidence the respondent holds in a variety of institutions.<sup>2</sup> Table 3.1 presents data for four institutions (legal system, the police, the civil service,<sup>3</sup> and parliament). When examining these data, it is important to keep in mind the different sample populations and the varying time periods of the surveys, as noted in the table.

When compared to the U.K. responses, the earlier responses for the legal system for Russia (in 1991) and Poland (in 1989) suggest a surprisingly high degree of confidence in legal institutions. The Russian businessmen in 1997 do have significantly less confidence in their legal system than does the 1991 Russian populace, but this could reflect the overall loss of confidence in all public-sector institutions from 1991 to 1997, which is clearly evidenced in the table. Nevertheless, the views of the Russian businessmen on the legal system are comparable to those of the U.K. general populace. Using the data in the upper-left quadrant of table 1, it would be difficult to make the case that the Russian legal system has egregious problems.

This conclusion is strengthened when cast in the perspective of the survey responses for other institutions. Russian enterprise managers clearly have more confidence in legal institutions than in the civil service, the parliament, and the police. While the Russian responses for the legal system are similar to those of the U.K. sample, the responses for the other three institutions are not. Moreover, the apparent loss in confidence in Russian institutions between 1991 and 1997 is much less for the legal system than for the three other public-sector institutions.

### Honesty and Ethical Standards

Some commentators allege that corruption is rife in the Russian judicial system.<sup>4</sup> When applied to the *arbitrazh* courts, these allegations seem to be based more on observation of the general level of corruption in Russia than on any specific information about the courts themselves. Nevertheless, given that ju-

TABLE 3.1. Confidence in Institutions (percentage of respondents reporting various levels of confidence in institutions)

	Legal System				Police			
	Great Britain, general public (1992)	Russia, purchasing managers (1997)	Russia, general public (1991)	Poland, general public (1989)	Great Britain, general public (1992)	Russia, purchasing managers (1997)	Russia, general public (1991)	Poland, general public (1989)
Great deal	4	1.9	10.9	13	18	0.6	7.5	7.2
Quite a lot	31	33	27.3	35.4	50	22.2	27.7	23.2
Not very much	43	48.1	44.5	38.4	22	49.4	44.4	40.3
None at all	22	17	17.3	13.2	10	27.8	20.5	29.3

  

	Civil Service				Parliament			
	Great Britain, general public (1992)	Russia, purchasing managers (1997)	Russia, general public (1991)	Poland, general public (1989)	Great Britain, general public (1992)	Russia, purchasing managers (1997)	Russia, general public (1991)	Poland, general public (1989)
Great deal	4	1.2	9.8	30.5	3	0.6	10.1	26.1
Quite a lot	30	16.7	38.2	48.3	22	14.3	36.8	52.8
Not very much	45	49.5	37.1	19	45	45.7	35.3	18.2
None at all	21	32.5	14.8	2.2	30	39.4	17.9	2.9

Source: World Values Study Group 1994, Survey Research Consultants International 1993, and authors' own survey.

Note: The 1989 Polish survey was conducted in November and December, and the 1991 Russian survey was conducted in January.

dicial institutions can only be effective if they are perceived as having integrity. It seems appropriate to examine whether these allegations reflect the views of Russian businessmen.

Table 3.2 presents the results from our survey and a comparable Western one on the question "How would you rate the honesty and ethical standards of the types of people listed [in the survey question]?" The findings in this table clearly show that enterprise officials view the *arbitrazh* judges as having relatively high ethical standards. (We were not able to find comparable information on Western judges.) The evidence in table 3.2 suggests that the legal system should be clearly distinguished from other elements of the Russian institutional structure when corruption is discussed.

The relatively positive view of the legal system offered in tables 3.1 and 3.2 is combined, however, with evidence of weakness in related institutions that are crucial to the overall functioning of legal processes. The ability of judicial officials to execute their primary functions depends to some extent on the complementary provision of services by a number of other legal professionals, including lawmakers, prosecutors, lawyers, bailiffs, and police. Clearly, the previous tables suggest that some key aspects of the legal system, most notably the lawmakers and the police, are poorly regarded by the business community and the public at large.

### The Problems of Businesses: Crime and Litigation

Conventional wisdom on Russian business would offer the following characterization: criminal groups are of great concern and the courts have no power and therefore enterprises fear crime much more than a suit from an aggrieved trading partner. We examine this conventional wisdom in table 3.3 using the responses to the question "How worried are you, if at all, that you might become a victim of violent crime during the coming year?" Crime is more of a problem for some strata of Russian enterprise officials than for the U.S. general public. In particular, enterprise directors and managers of sales departments, who are more likely to interact with banks and the cash-based retail sector, have relatively strong concerns about crime. However, table 3.4 shows that litigation is perceived as more serious a problem for Russian enterprises than is the activity of criminal groups. These responses are remarkable given that the Russian courts have limited powers to implement their judgments. Thus, while the evidence on problems of crime that appears in tables 3.3 and 3.4 could easily be explained by factors quite irrelevant to the enforcement of transactions, for example, simple criminality, the roughly comparable concern for litigation evidenced in table 3.4 can only suggest that court decisions are important for enterprises.

It has been suggested that the presence of criminal groups in Russian busi-

TABLE 3.2. Perceptions of Honesty and Ethical Standards in Various Professions (percentage of respondents reporting various levels of honesty and ethical standards of different professionals)

	Police		Business Executives		Lawyers		Members of Parliament		Arbitrators Judges	
	Canada (1992)	Russia (1997)	Canada (1992)	Russia (1997)	Canada (1992)	Russia (1997)	Canada (1992)	Russia (1997)	Canada (1992)	Russia (1997)
High	54.1	3.9	23.9	16.4	23.2	15.1	11.1	4.2	19.1	19.1
Average	38.8	33.0	57.6	67.1	46.3	64.8	39.4	34.3	67.3	67.3
Low	7.1	63.1	18.5	16.4	30.5	20.1	49.5	61.5	13.6	13.6

Source: Survey Research Consultants International 1993; authors' own survey.

Note: The Canadian survey sampled 1,027 members of the general public

TABLE 3.3. Perceptions of the Incidence of Violent Crime (percentage of respondents reporting various levels of concern about the incidence of violent crime)

	United States, general public (1996)	Russia, general directors (1997)	Russia, sales departments (1997)	Russia, purchasing departments (1997)
Very	14	15.9	13.7	14.7
Somewhat	34	44.8	43.6	33.4
Not too much	33	24.4	25.3	29.8
Not at all	19	14.9	17.4	22.1

Source: The Washington Post/Kaiser Family Foundation/Harvard University Survey Project 1996. authors' own survey

ness is due to their effectiveness in contract enforcement compared to the courts (Hay, Shleifer, and Vishny 1996; Leitzel, Gaddy, and Alexeev 1995). So how do court and criminal enforcement compare? We asked enterprise officials this question directly, using the term *private methods of enforcement* to describe both legal and criminal forms of private enforcement. An English translation of the question is as follows:

Firms in market economies use different methods to resolve serious disputes. In some cases, firms use courts. In other cases, they resort to private methods of enforcement. For example, the firm might hire a private security service or call on private individuals or groups to assist them in the collection of bad debts. In this question, we ask you to compare the effectiveness of these two methods for resolving disputes in Russia—*Private Enforcement versus arbitrazh Courts*—based on five criteria: speed, competence, low cost, certainty of enforcement, and confidentiality. Please convey your views by choosing a point on a scale from 0 to 10. A '0' means you absolutely prefer Private Enforcement based on the criterion and a '10' means you absolutely prefer *arbitrazh Courts* based on the criterion.

Table 3.5 shows that enterprises generally prefer *arbitrazh* courts to private methods. Along three dimensions, competence, cost, and confidentiality, managers rate the *arbitrazh* courts as significantly superior to private methods.

The evidence in this section has been soft and general, but it strongly suggests that systematic investigation of the role of law and legal institutions in the affairs of Russian enterprises is warranted. Such investigation is the subject of the next two sections.

TABLE 3.4. Comparisons of the Seriousness of Problems from Litigation and Crime (percentage of respondents reporting various levels of seriousness of the problems arising from litigation and criminal organizations)

	Litigation		Criminal Organizations
	United States, small business executives (1993)	Russia, general directors (1997)	Russia, general directors (1997)
Very serious	15	17.7	10.1
Somewhat serious	26	34.8	16.5
Not very serious	27	28.0	33.8
Not at all	31	19.5	39.6

Source: Survey Research Consultants International 1994; 401 small business executives; authors' own survey

TABLE 3.5. Effectiveness of Dispute-Resolving Methods in Russia: Private Enforcement versus *Arbitrazh* Courts

Criterion	Mean Score
Speed	4.72
Competence	6.96*
Low cost	6.94*
Certainty of enforcement	5.01
Confidentiality of information	5.49*

*Note:* Survey respondents were asked to rate the relative effectiveness of private enforcement and *arbitrazh* courts in resolving disputes, using five criteria. The answers were placed on a 0 to 10 scale, a '0' response indicating an absolute preference for private enforcement based on the criterion, '10' indicating an absolute preference for *arbitrazh* courts based on the criterion, and '5' showing indifference.

\*significantly different from 5.0 at the 95% level

## Enforcing Agreements

Contractual disputes between enterprises dominate the types of cases decided by the *arbitrazh* courts (Hendley 1998c). Presumably, then, the comparatively positive assessment of the Russian legal system by enterprise managers reflects the usefulness of the legal system in helping to structure and to enforce agreements between enterprises. In this section, we explore whether this is indeed the case, examining the strategies that enterprises use in their transactions with suppliers.<sup>5</sup>

In the enforcement of interenterprise agreements, law may or may not be germane. When the parties have a long history of mutually beneficial trading, they may rely simply on the integrity of their trading partners or on the disciplining effect of the threat of lost opportunities in the future. Law may play a more meaningful role when the parties are not acquainted with each other or when they have good reason to distrust one another. The capacity of law to serve this function, however, depends on its own legitimacy within society. When law's authority is in question and business partners do not trust each other, they may turn to third parties for enforcement. These outsiders can take many forms, from people with the respect of the community to people who demand obedience at the point of a gun.

The popular press, both in Russia and the West, has created an image of the "Wild East," where law plays no meaningful role in enterprise relations. The scholarly literature often follows this line, arguing that Russia lacks the neces-

sary legal structure to enforce contracts or uphold property rights (e.g., Eckstein et al. 1998; Åslund 1995; McFaul 1995) and that enterprises routinely rely on private enforcers (e.g., DiPanla 1996; Leitzel, Gaddy, and Alexeev 1995; Shelley 1995). The following evidence examines this conventional view.

### The Set of Strategies

To organize our discussion, we identify seven stylized enforcement strategies, covering the major alternatives available for enterprises in any country.

1. *Relational Contracting.* This strategy assumes that enterprises trust each other to fulfill their contractual obligations, most usually because of a long history of interactions. The relationship is based on personal, not calculative, trust (Williamson 1993). If problems arise, they are addressed through direct negotiations, often on an informal basis or by lower level officials. There is no recourse to outsiders or resort to the courts. The implicit threat that underlies such negotiations is that the relationship will be terminated if compromise cannot be reached.

2. *Self-Enforcement.* A small step away is self-enforcement. Self-enforcement might rely purely on each party's calculation that the other party has a self-interest in completing the deal. But contractual mechanisms can also provide an incentive to perform. Examples include letters of credit, barter, prepayment, and hostages (Williamson 1985). In cases of nonperformance, just as in relational contracting, the frame of reference is generally limited to the two contracting parties. Neither state institutions nor third-party private actors are affirmatively called upon for assistance.

3. *Third-Party Enforcement.* An enterprise can turn to outsiders for help in enforcing agreements, by appealing to individuals or associations that are perceived to have some influence over the trading partner. The assumption is that the trading partner will be concerned about its reputation with the third parties and, fearing ostracism or lost business opportunities, will adapt its behavior.

4. *Private Enforcement.* When an enterprise experiences high levels of default among its trading partners and frustration with other enforcement mechanisms, it might hire private sector enforcement specialists. Such behavior assumes a lack of trust in the trading partner and in the capacity of the legal system to provide acceptable relief.

5. *Administrative Levers of the State.* Moving from private to state actors, an enterprise can ask government officials to pressure the trading partner. Governments have many levers of influence over enterprises and might be willing to use them. Presumably, the nonperforming enterprise will change its behavior rather than risk the state's ire, even if this displeasure would not immediately result in material sanctions.

6. *Shadow of the Law.* Confiscatory remedies are often included in con-

tracts to protect the parties in case of default. Examples are collateral arrangements or penalty clauses. These are not self-enforcement mechanisms in that they are designed to be implemented by court action. When relations unravel, there will be communication that threatens to enforce these confiscatory contractual terms, including the possibility of a lawsuit. Settlement often follows, because it is cheaper than litigation.

7. *Litigation.* In most countries, filing a lawsuit typically indicates a breakdown in the relationship between the trading partners. Litigation is expensive in relationship terms. Harsh words are exchanged, and the trading relationship is sometimes irretrievably severed. Submitting a dispute to the courts implies an acceptance of the legitimacy of the institution and a willingness to abide by its decision.

### The Use and Effectiveness of the Strategies in Russia

We examine information reported by the head of the purchasing department of the Russian enterprises.<sup>6</sup> Our discussion centers on the answers to a question, which began as follows:

During the past two years, how important were the following methods in helping your enterprise to prevent and/or resolve problems arising in relationships with suppliers? First, please tell us whether you used the method. If the method was used, then please evaluate its effectiveness on a scale from 0 to 10. A '0' means either that the method was not used at all or that it was not effective and a '10' means that the method was very effective.

The question then listed twelve methods (see table 3.6), asking the respondent to report on the use and effectiveness of each method individually

Table 3.6 summarizes enterprise responses. In the first column, we list the various methods of addressing disputes that appeared in the survey question and associate each method with one or more of the set of seven strategies. Then we list the percentages of enterprises that used each method in the last two years. The next column summarizes effectiveness, by presenting the mean of the 0–10 scale scores for the enterprises that used the method. The final column combines the information on extent of use and effectiveness, presenting a mean score across all enterprises by assuming that the effectiveness of a method is '0' for those enterprises that did not use it.

*Relational Contracting.* Relationships are important in transactions everywhere, and table 3.6 shows that Russia is no different. The most frequently used methods of solving problems, and the most effective ones, are those relying solely on enterprise-to-enterprise interactions. Foremost are formal meetings

between lower level officials. Presumably, when low-level or informal meetings do not resolve the problem, the discussion is escalated to higher, more formal levels. More than one-half of enterprises (56 percent) prevent or resolve problems by holding formal meetings between the general directors of the enterprises.

TABLE 3.6 How the Purchasing Department Deals with Problems with Suppliers

Methods of Preventing and/or Resolving Problems in Relationships with Suppliers <sup>a</sup>	Percentage of Enterprises Using Method	Average Scale Score for those Enterprises Using Method	Average Scale Score across All Enterprises (assuming score = 0 if don't use)
1 Informal meetings between counterparts in the two enterprises, for example, in a restaurant, <i>banya</i> , recreational facility, or civic organization.	23.01	7.39	1.70
1 Formal business meetings between lower level officials of the trading partners	76.38	7.51	5.73
1.2 Formal business meetings between the general directors of the trading partners.	56.44	8.52	4.81
3 Intervention by other enterprises.	15.34	5.34	0.82
3 Intervention by banks.	5.21	4.71	0.25
3 Intervention by representatives of political parties or movements.	0.31	3.00	0.01
3 Intervention by officials of a business association or a financial-industrial group.	3.99	4.85	0.19
4 Use of private enforcement firms (security firms, collection agencies, mafia, etc.)	2.76	6.22	0.17
4 Use of <i>treteiskie</i> (private arbitration) courts.	1.84	4.33	0.08
5 Intervention by officials of the local government.	10.43	4.41	0.46
5 Intervention by officials of the federal government.	3.37	4.45	0.15
7 Use of <i>arbitrazh</i> courts.	25.46	5.40	1.37

<sup>a</sup>The number in the left-hand column identifies the strategy number in the text with which this method is associated

*Self-Enforcement.* Table 3.6 does not present direct information on self-enforcement, although the formal meetings between high-level officials might be interpreted in that vein, since such meetings always implicitly contain the threat of severing trade relations. Elsewhere in the survey we sought information on the use of instruments that could be characterized as facilitating self-enforcement. We find that almost 8 percent of enterprises could be classified as using hostages: they are in possession of the seller's property during the execution of a purchasing agreement. Five percent of the agreements on which we have data involve letters of credit. More pervasive is prepayment: 74 percent of contracts for material supplies require some prepayment, with 45 percent requiring full prepayment.

*Third-Party Enforcement.* Third-party enforcement exists in Russia, primarily in the form of assistance from other enterprises and, to a lesser extent, banks. Table 3.6 shows that 15 percent of purchasing directors have sought the assistance of other enterprises, and 5 percent have sought the assistance of banks. The use of informal enterprise networks for enforcement has only a weak formal counterpart. The data show the peripheral role of business associations and financial industrial groups in enforcement. Table 3.6 confirms the unimportance of political parties despite the heritage of Communist Party officials as the universal fixers of the Soviet economy (Granick 1961).

*Private Enforcement.* Two basic strategies for private enforcement exist in Russia, as in most countries, dispute resolution through private arbitration and enforcement by private agents. Private arbitration tribunals, known as *treteiskie* courts, have always existed in Russia (Vinogradova 1997; Pistor 1996; Halverson 1996), but during the past few years, new *treteiskie* courts have begun to sprout. Russian law places no restriction on their use (see Hendrix 1997, O'Donnell and Ratnikov 1996). Enterprises can agree that disputes will be decided by a particular *treteiskii* court, and in the presence of such an agreement the *arbitrazh* courts will usually decline to hear the case, respecting the bargain of the parties (Arts. 23, 85-3,107, APK). Notwithstanding these reforms, the data in table 3.6 indicate that few enterprises are using them.<sup>7</sup>

The popular image of private enforcement in Russia is the notorious mafia. A common wisdom has emerged, even among scholars, that Russian enterprises routinely rely on private enforcement: "Perhaps [the mafia's] main benefit is contract enforcement. . . . Unsavory as the mafia's enforcement tactics are, they give Russian business people the confidence to enter into contracts that would otherwise be too risky" (Leitzel et al. 1995, 28–29). This is grounded in the assumption that the *arbitrazh* courts are unworkable (Shlapentokh 1997, 875; Black and Kraakman 1996, 1926). However, our data show that the assumed futility of appealing to the courts is much overstated. The responses reported in table 3.5 hardly suggest that enterprises would turn to the mafia out of frustration with the *arbitrazh* courts.<sup>8</sup> Moreover, table 3.6 shows only very limited use

of private enforcers to encourage contractual compliance: less than 3 percent of enterprises had used private firms to prevent or resolve problems with suppliers.<sup>9</sup>

*Administrative Levers of the State* The tendency to turn to the state became deeply ingrained over the decades of Soviet power. Enterprises remain in fairly close contact with the state according to our survey data (not reported here) on the frequency of meetings between enterprise and government officials. But this contact does not translate into an effective role for the state in enforcement. Of all the methods listed in table 3.6, the state receives the lowest scores for effectiveness.

*Shadow of the Law* In our question to the purchasing managers, there was no specific element focusing on the "shadow of the law." But other data obtained from the survey shows that for every case that goes to *arbitrazh* courts, there are six disputes that involve threats of going to court. Hence, the data on the frequency of use of the courts and their effectiveness suggest that the shadow of the law is also a common means of contract enforcement in Russia.

*Litigation* Table 3.6 refutes the conventional wisdom that enterprises are shunning the courts. Enterprises clearly regard the courts as a viable option when negotiated settlements prove elusive, and they give the courts a relatively high ranking in terms of effectiveness. It is clear that, apart from direct enterprise-to-enterprise contacts, threatened or actual use of the courts is the most important method of contract enforcement in Russia.

### **What Affects the Value of Transactions?**

It is possible, though unlikely, that the foregoing results reflect a situation where enterprises are merely taking a passive legal stance, invoking the courts as a last option when problems are otherwise intractable. If this were the case, then the legal system would be simply distributing the wreckage of a failed relationship, rather than adding value to transactions. In this section, we ask whether the use of law indeed adds value to interactions between Russian enterprises. We use data on a set of individual transactions, one from each surveyed enterprise. To obtain these data, the surveyors asked each sales manager to focus on one specific transaction in answering a battery of questions pertinent to this transaction.<sup>10</sup>

#### **The Dependent Variables**

The ideal data set to examine the value of law would be one that included measures of the net benefits of a transaction for both parties. Such data are purely an ideal, for two reasons. First, it is nigh impossible anywhere to match data from both sides of a transaction.<sup>11</sup> Second, it is inconceivable in present-day

Russia that enterprises keep books on the costs and benefits of specific transactions.

Aware of the impossibility of obtaining a monetary measure of the net benefits of the specific transaction, we asked sales managers for their subjective assessment of success on the one agreement on which they were focusing. The question was phrased as follows:

Please evaluate how satisfied your enterprise was with this agreement and with the customer's performance under the terms of this agreement. Convey your views by choosing points on scales from 0 to 10. A '0' means that the relationship with the customer was very unsatisfactory and a '10' means that the relationship with the customer was very satisfactory. Indicate a separate score for each of the three criteria indicated below:

Timeliness of payment

Payment received compared to expectations

Overall evaluation of the success of the agreement.

We will denote the score on each of these variables as *timeliness*, *payment*, and *success*.

Not surprisingly, these three variables are highly intercorrelated, but the correlation between *timeliness* and *payment* is the weakest of the three partial correlations, suggesting that these two variables do capture somewhat different phenomena. The *timeliness* variable is almost surely an indicator of whether the agreement is fulfilled without any problems. But this is not the same as *success*: an enterprise might have made risky decisions in order to secure higher profits, and while some of these decisions might have rebounded on the enterprise, it might have finished up better off after recourse to enforcement mechanisms. In the following analyses, we find that *payment* is the weakest of the three variables, perhaps because respondents answer this question without discounting for delays.

There are two building blocks for the econometric analysis. First, the temporal structure of interactions between the enterprises suggests the general structure of the equations to be examined. Second, standard transaction cost analysis indicates which specific variables should be included. We examine each in turn.

### The Equations to Be Estimated

The process pertinent to our analysis begins when two enterprises meet and negotiate over an agreement. They bring to the table a set of characteristics that are predetermined, such as the nature of the good (e.g., whether special invest-

ment is needed for manufacture), features of the enterprise (e.g., legal human capital) and its customer (e.g., size), joint properties of the two enterprises (e.g., previous interactions), and market structure (e.g., amount of competition). The parties then negotiate an agreement, with many different terms (e.g., whether prepayment occurs). The agreement is a function of the predetermined characteristics

Perhaps all will go smoothly, and the agreement will be implemented in a timely fashion. But in Russia today this is far from the norm, and problems are likely. One or both enterprises will then invoke enforcement mechanisms (such as those referred to in table 3.6), resulting in a succession of partial implementations and attempts at enforcement. At the end of this process, the enterprise can look back on this series of events and characterize *timeliness*, *payment*, and *success*, which themselves will be a function of the predetermined characteristics and the terms of the agreement.

Since the agreement is itself a function of the predetermined characteristics, outcomes can be viewed simply as a function of those characteristics. It is the relationships between *timeliness*, *payment*, and *success* and the predetermined characteristics that we will estimate, that is, the reduced forms.<sup>12</sup> Significance of the law-related variables in the reduced form would be sufficient to establish that they are important in practice, even if the reduced form does not give precise information on the stage of the transactional process at which these variables come to be important.

### The Explanatory Variables

The standard transaction cost analysis (Williamson 1985) drives the selection of explanatory variables to be included in the equations. Agreements take time to implement, and one party will incur costs before the other. This exposes one enterprise to the possible opportunism of its trading partner, with incentives to demand renegotiation being spurred by the knowledge that bargaining strengths change once costs are sunk. The possibility of opportunism being costly, the value of the transaction will therefore depend upon factors that increase the potential for opportunism. But problems can be mitigated by the use of law or by the development of a relationship: the transaction is more valuable for those enterprises that are able to use law or that can generate productive relationships.

The transaction cost perspective therefore suggests focusing on three distinct sets of variables, capturing the potential for holdup, the probability of successful relational contracting, and the nature and quality of enterprise legal resources. Given the focus on the reduced form, we use variables that are exogenous to the agreement on which we have data, describing factors that pre-exist the negotiations between the enterprises on this particular agreement. Table 3.7 lists the variables, giving definitions and summary statistics. We be-

TABLE 3.7. Analysis of Transactions: Variable Definitions and Summary Statistics

Variable Name	Variable Description	Mean	Standard Deviation	Minimum	Maximum
TIMELINESS	Respondent evaluation of the transaction's success on timeliness of payment	6.69	3.310	0	10
PAYMENT	Respondent evaluation of the transaction's success on payment compared to expectations	7.95	2.897	0	10
SUCCESS	Respondent evaluation of the transaction's overall success	7.35	2.695	0	10
LAWINSALES	Dummy variable equal to 1 if the supplier has fulltime legal help in the sales department	0.35	0.479	0	1
LAWDEPT	Dummy variable equal to 1 if the enterprise has a law department	0.39	0.489	0	1
LAWDEPT#	Number of employees in the law department as a proportion of total employment (times 1,000)	1.59	4.258	0	42.857
LAWOUTSIDE	Dummy variable equal to 1 if the enterprise retains outside lawyers	0.15	0.363	0	1
LAWUP	Dummy variable equal to 1 if the internal resources spent on legal issues have increased in the 1990s	0.25	0.434	0	1
LAWDOWN	Dummy variable equal to 1 if the internal resources spent on legal issues have declined in the 1990s	0.33	0.469	0	1
LAWCONTRACT	Dummy variable equal to 1 if the supplier's lawyer works on contracts often	0.62	0.486	0	1
LAWKNOW	Number of correct answers on test of enterprise officials' knowledge of law (maximum = 8)	2.29	1.261	0	6

Continued

TABLE 3.7. - - Continued

Variable Name	Variable Description	Mean	Standard Deviation	Minimum	Maximum
PROTOKOLS	Percentage of supplier's contracts using protocols of disagreement	20.58	28.210	0	100
FREEZE	Dummy variable equal to 1 if the supplier has ever been successful at freezing a company's assets	0.25	0.434	0	1
NEWRELATION	Dummy variable equal to 1 if supplier and customer did not trade before year of transaction	0.33	0.473	0	1
PROXIMITY	Dummy variable equal to 1 if the supplier and the customer are located in the same oblast	0.49	0.501	0	1
BADTIMES	Percentage of supplier's full-time employees that are on a reduced workweek	27.25	34.720	0	100
NEWPRIVATE	Dummy variable equal to 1 if the supplier was never state owned	0.12	0.328	0	1
STATEOWN	Percentage of supplier shares owned by the state	19.42	35.195	0	100
EMPOWN	Percentage of supplier shares owned by employees	56.42	37.142	0	100
EMPCONTROL	$EMPOWN \times BADTIMES/100$	15.76	25.58	0	100
GOVSUB	Dummy variable equal to 1 if the supplier received direct subsidies or credits from the state in the last year	0.02	0.164	0	1
TAXSUB	Dummy variable equal to 1 if the supplier received tax exemptions or tax relief in the last year	0.28	0.451	0	1
BANKSUB	Dummy variable equal to 1 if the supplier received cheap bank loans or debt forgiveness in the last year	0.06	0.240	0	1

CUSTOMMADE	Dummy variable equal to 1 if the good was custom-made for the specific needs of the customer	0.52	0.500	0	1
CUSTOMUSE	Dummy variable equal to 1 if the customer needs significant special investment to use this supplier's product	0.26	0.440	0	1
SUPPWEAK	Dummy variable equal to 1 if more than 20% of supplier sales are to this customer	0.19	0.399	0	1
CUSTWEAK	Dummy variable equal to 1 if more than 10% of customer costs are for this product	0.26	0.440	0	1
OTHERCUST	Dummy variable equal to 1 if the supplier has other customers for this product	0.93	0.252	0	1
OTHERSUPP	Dummy variable equal to 1 if the customer has other suppliers for this product	0.68	0.465	0	1
BIMONOP	Dummy variable equal to 1 if the supplier has no other customer and the customer has no other supplier for this product	0.04	0.203	0	1
COMPETITION	Dummy variable equal to 1 if the supplier has four or more potential or actual customers for this product	0.93	0.245	0	1
LARGE	Dummy variable equal to 1 if the enterprise is the largest in its region	0.33	0.472	0	1
AGE	Age of supplier enterprise	48.45	28.161	1	198
NEWPROD	Dummy variable equal to 1 if the product was introduced after 1991	0.29	0.457	0	1

gin by describing the law-related variables because these are the ones that are most distinctive to this study and provide the results that are of greatest significance in interpreting events in present-day Russia.

### The Legal Human Capital of the Enterprise and Its Internal Organization on Legal Matters

The statutory and institutional basis of the law affecting transactions between enterprises has changed vastly since 1991 (Hendley 1998a,b,c; Pistor 1996). So has the environment in which enterprises interact, especially the transactional hazards that they face. Echoing the divergence of opinion among Western observers, enterprises have made varied judgments about the importance of law in the new environment. As a result, decisions on law-related restructuring will vary. Moreover, there will also be diversity in internal organization on legal matters that was inherited from the previous system. All these variations give us much opportunity to study whether law matters to Russian enterprises.<sup>13</sup>

The variables described in this section fall into three natural categories, how legal inputs are procured (if at all) by the enterprise: the enterprise's emphasis on legal activities, especially those legal activities pertinent to transactions, and the legal human capital of the enterprise.

An enterprise might choose to station lawyers in the sales department, have a legal department, use outside lawyers, combine these options, or do nothing. The three dummy variables capturing these possibilities are *LAWINSALES*, *LAWDEPT*, and *LAWOUTSIDE*. (When all these dummy variables are zero, there is no regular use of legal expertise). Crude measures of the amount of resources devoted to these activities are the proportion of the labor force in the law department, *LAWDEPT#*, and indicators of whether the resources committed to law have recently risen or fallen (*LAWUP* and *LAWDOWN*).

Given that restructuring is crucial and that there is much guesswork in deciding which way to commit the enterprise, the presence and amount of resources might be less important than how resources are utilized. For example, enterprises that did not restructure would not pay attention to contractual matters since labor issues dominated before 1991. To gauge the enterprise's commitment to using the law to solve transactional problems, the survey asked the respondent for the legal questionnaire<sup>14</sup> to report on the allocation of time on different legal issues. The variable *LAWCONTRACT* reflects whether this respondent often spent time "designing or revising sales contracts."

The nature and quality of legal human capital obviously affects the output of legal work. Variations in human capital could be especially important in an environment where just six years inattention could have led to woeful ignorance on the most basic legal issues. To create one measure of the quality of legal capital, we "tested" survey respondents on their knowledge of elementary aspects

of contract law, asking questions about the treatment of collateral, the priority of the government on the claims of bankrupt enterprises, and the form of legal contracts. Three enterprise officials (the general director, the sales director, and the procurement director) were asked questions on contracts assessing how well the new legal knowledge had permeated the enterprise. *LAWKNOW* measures the composite "test score" for these officials. It is undoubtedly a crude measure of legal human capital, but vastly better than using educational attainment or years of seniority in an environment where most lawyers were educated and gained their experience in a country and a legal regime that no longer exist.

An additional indicator of human capital is the extent to which an enterprise uses old, apparently dysfunctional, procedures (*PROTOKOLS*). *Protokols* of disagreement (*protokoly raznoglasiia*), as the name suggests, signal an enterprise's disagreement with the terms proposed by a contractual partner. For example, if a seller (S) sends its form contract to a potential buyer (B), then B might respond by sending back a *protokol* of disagreement in which B proposes alternative wording to objectionable sections of the contract. S may respond with its own *protokol*, and the process can go on indefinitely. The final terms of the agreement can be determined only by winding through the original contract and all *protokols*. This procedure was used during the Soviet period as a means of enabling individual enterprises to adapt the form contracts mandated by industrial ministries. Under current Russian law, enterprises have almost complete contractual freedom. Moreover, the increased availability of computers provides the means to tailor contracts. The use of *protokols* is therefore an indicator of the degree to which legal activities remain stuck in the old routines.

In contrast, the successful use of petitions to freeze a defendant's assets (*FREEZE*) is an indicator of aggressive application of new opportunities. During the Soviet period, the law did not allow such petitions. All industrial enterprises were state-owned, and judgments tended to be small and easily collected, making the seizure of assets superfluous. Petitions to freeze a defendant's assets were introduced in the first post-Soviet procedural code for the *arbitrazh* courts in 1992, and current law allows plaintiffs to make such a petition at any point during a case (Arts 75-76 1995 APK). Since the law leaves the decision to grant a petition largely to the judge's discretion, obtaining such an order requires an understanding of the informal norms of the *arbitrazh* courts and an ability to convince the judge that the defendant is likely to abscond with its assets if the order is not issued.

It is worthy of emphasis that none of the explanatory variables introduced above specifically measures aspects of the agreements under study: they all refer to general enterprise characteristics. Thus, for example, when we later show that *FREEZE* has a significant effect on transactional performance, that result does not reflect an attempt to freeze the assets of the partner in the specific agreement included in the data set. Rather, the result must reflect the fact that

more successful transactions are conducted by enterprises with the ability and insight to make use of new legal opportunities.

### Relationships

Long-term relationships might reduce transacting problems (Macaulay 1963; Williamson 1985). One direct way of examining whether this is the case is to analyze the effect on transactions of the length of time that the parties have previously interacted (McMillan and Woodruff 1999). We do so with the variable *NEWRELATION*, hypothesizing that new relationships are inherently more risky than old ones. To the extent that geographical propinquity facilitates personal relationships, this suggests also examining the variable *PROXIMITY*.

A crucial element affecting the sustainability of long-term relationships is the expectation of continuity: each party must expect that the other will survive the current sea of troubles and that a sufficient number of key enterprise personnel will remain in place for personal trust to be pertinent in the longer term. Such expectations depend upon several factors. First, there is the simple fact of economic viability. Second, enterprise ownership might affect the probability of weathering harder times. Third, ownership influences whether key enterprise personnel are rapidly replaced. Fourth, outside help might be available to secure survival during bad times. The following paragraphs introduce the pertinent variables for the reporting (selling) enterprise. The central hypothesis in those paragraphs is that the customer knows the value of these variables and uses this knowledge to judge whether to behave as if a longer-term relationship is viable.

*BADTIMES*, the percentage of employees on a short workweek, captures the economic viability of the enterprise. Over the past few years, many Russian enterprises have been unable to pay their workers on time. Wage payments are frequently delayed for months. Some enterprises have responded by limiting the workweek to two or three days. Hence, this variable measures the basic financial circumstances of the enterprise.<sup>15</sup> But not too much importance should be attached to the results for this variable in the context of relationships, since it might simply proxy the overall ability of the enterprise to produce profitable transactions.

Our ownership measures reflect the postprivatization environment. *NEWPRIVATE* firms have the greatest variance in performance: although they might perform much better than old state enterprises on average, their average survival probability is surely lower. A simple categorization would split privatized enterprises into those controlled by the state, by outsiders, and by employees.<sup>16</sup> We therefore include in our regressions *STATEOWN* and *EMPOWN*, with outsider ownership the omitted category (since these three ownerships sum to 100). We assume that state ownership leads to an implicit state guarantee of survival. Earle and Fstrin (1996) note that employee ownership could have some advantages in sharing the pain of hard times and therefore that a partner might

forecast a higher survival probability for such an enterprise. In addition, stability of personnel is likely to be greater for employee-owned enterprises.<sup>17</sup>

Control might be more important than ownership, however. Some employee-owned enterprises are controlled by managers or outsiders while others are truly under the control of the employees. Since direct measures of control are unavailable, we use a constructed interaction variable:  $EMPCONTROL = EMPOWN \times BADTIMES$ . Both elements of this variable are correlated with employee control, the first through ownership and the second because an outsider-controlled enterprise will reduce employment by firing whereas an employee-controlled enterprise will spread the pain across many employees who are placed on a shorter workweek. The interaction of these two effects is likely to lead to a variable that is more highly correlated with employee control than either of the two component variables separately.

The last set of indicators of survival probabilities reflects the enterprise's relationships with institutional actors. The soft-budget constraint is notorious in the history of Russia, and it is likely to be one factor on the minds of potential trading partners who are worrying whether an enterprise has an incentive to preserve a long-term relationship. The three variables that we use, *GOVSUB*, *TAXSUB*, and *BANKSUB*, indicate whether the enterprise has had access to direct subsidies from the government (including directed credits), relief from the tax authorities, or help from banks. Given institutional arrangements in Russia, the bank variable could also be an indicator of factors other than simply soft budgets. Enterprises in debt, especially those with tax arrears, might find it difficult to execute business operations because the bank will be under orders to send to creditors all funds flowing through the enterprise's primary bank account. A good relationship with a bank might help an enterprise escape this problem, implying that the last of these three variables might simply capture the ability of the company to conduct its transactions smoothly.

### Indicators of the Potential for Holdup

Certain features of goods or of markets make a transaction intrinsically prone to opportunism. If parties perceive such problems before they negotiate, they can suitably structure agreements to lessen them. But these agreements might entail extra costs, resulting in a transaction that is less satisfactory than a zero transaction cost agreement (one implementable only by angels). Therefore, variables reflecting the potential for holdup will be related to the ex-ante costs of abating opportunism and inversely to the success of transactions (Here, *ex ante* is taken to imply that the costs are anticipated before any aspect of the agreement is implemented.)

It might not be possible, nor indeed profit-maximizing, to remove the potential for holdup completely. If opportunism does occur during implementa-

tion, then one party might gain at the expense of the other or internecine struggle might ensue, reducing the value of the transaction to both parties. Because our dependent variable reflects the value of the transaction to only one enterprise, our interpretation of the regression results will admit the possibility that one party can gain from opportunism even in the presence of a decline in the aggregate value of the transaction. Hence, in interpreting the regression results, one must assess which variables indicate the possibility of ex-post benefits of holdup for the reporting enterprise and which indicate ex-post losses from holdup, *ex post* here referring to events after the beginning of implementation of the agreement.

When a good is custom-made or when the customer must make special investments in order to buy from a specific producer, the potential for holdup increases. We use two variables to capture this phenomenon, *CUSTOMMADE* and *CUSTOMUSE*. When the supplier (the enterprise evaluating the success of the agreement) custom-makes the product, the ex-ante and ex-post effects of holdup mutually reinforce each other, both imposing costs on the supplier. In contrast, when the customer invests specially in this transaction, the two effects can be in opposite directions for the supplier. Thus, one would expect our data to show a stronger effect for *CUSTOMMADE* than for *CUSTOMUSE*. If this is the case, then it is evidence that holdup is actually happening.

A similar story applies to the degree of dependence of the enterprises on this particular transaction. One indicator of such dependence is the relative importance of the interaction for the two enterprises. *SUPPWEAK* and *CUSTWEAK* measure whether the transacting parties conduct a large share of their trade with each other. When a particular customer is important for a supplier or when a particular supplier is important for the customer, the party that is deeply dependent on the other incurs large costs if the transaction does not take place, either because the supplier has capacity dedicated to this transaction (Williamson 1985) or because the customer will find it difficult to replace a supply source quickly (Joskow 1987).

A similar analysis applies to the existence of other customers and other suppliers (*OTHERCUST* and *OTHERSUPP*). If the supplier has many other customers then there is a greater potential for holdup problems, but if holdup actually occurs it might benefit the supplier. In contrast, when the customer has other suppliers, the ex-ante bargaining effect and the ex-post possibility of actual holdup combine to decrease the likelihood of a successful agreement for the supplier.

The variables described above examine the effect of increases in dependence on only one side of the transaction. Kranton (1996), however, shows that mutual dependence can lead to a viable, long-term relationship. This prediction is examined using the variable *BIMONOP*.

The competition variables described above all measure actual number of trading partners rather than potential ones. Of course, these two could be iden-

tical since there must be reasons why a supplying enterprise does not sell its goods to a customer enterprise that is buying the same good from elsewhere. This is all the more likely in Russia where legacies of the old system, transportation problems, and weak transactional infrastructure all combine to produce thin markets. Nevertheless, for completeness, we do examine a potential competition variable on the supplier side: *COMPETITION* examines the amount of competition in the market in which the supplying enterprise sells.

### Other Variables

A few variables are included in the analysis as controls, to forestall omitted variable bias. Foremost among these are regional dummies, designed to capture both institutional and economic variations across regions. We also include variables measuring the enterprise's *AGE* and whether the enterprise is the largest in its region (*LARGE*) in order to capture any political-institutional effects that result from an enterprise's veneration or its muscle. Finally, *NEWPROD* is a dummy variable indicating whether the good that is the subject of the transaction is newly produced during the era of reform. With the old system inadequately catering to the needs of consumers, it is quite likely that agreements on the exchange of new products are, *ceteris paribus*, more successful than agreements on old products.

### The Results

Given the nature of the *timeliness*, *payment*, and *success* variables, ordered probit is the natural econometric tool. (The reader unfamiliar with this technique can skip this paragraph and the next. The main message of the results lies in which of Table 3.8's coefficients are significant, on which we comment fully in the text.) Suppose that  $Y_i^*$  is a continuous latent variable measuring one of the three aspects of transactional performance for enterprise  $i$ . Then:

$$Y_i^* = X_i\beta + \epsilon_i$$

where  $X_i$  is a vector of observations on  $X$  for enterprise  $i$ ,  $\beta$  is a parameter vector, and  $\epsilon_i$  is an error term. Then, if  $Y_i$  is the response of enterprise  $i$  on the pertinent survey question, ( $Y_i = 0, 1, \dots, 10$ ),  $Y_i$  is related to  $Y_i^*$  in the following manner:

- if  $Y_i^* \leq \alpha_0$ , then  $Y_i = 0$ ;
  - if  $\alpha_{j-1} < Y_i^* \leq \alpha_j$ , then  $Y_i = j$ ; for  $j = 1, \dots, 9$ ; and
  - if  $\alpha_9 < Y_i^*$ , then  $Y_i = 10$ ,
- with  $\alpha_0 < \dots < \alpha_9$  parameters.

We estimate the parameters  $\alpha_0, \dots, \alpha_9$ , and  $\beta$  using ordered probit methods.

TABLE 3.8. Factors Explaining the Degree of Success on Transactions.  
Ordered Probit Regressions

Dependent Variable	Timeliness		Payment		Success	
	Estimate	t-statistic	Estimate	t-statistic	Estimate	t-statistic
<b>The Nature of Legal Inputs</b>						
LAWINSALES	-0.231	-1.45	0.189	-1.11	-0.280*	-1.78
LAWDEPT	-0.240	-1.24	0.033	0.16	-0.275	-1.43
LAWDEPT#	0.018	0.85	-0.015	-0.69	0.019	0.86
LAWOUTSIDE	0.071	0.34	0.369	1.61	0.024	0.12
LAWUP	0.055	0.33	-0.102	-0.57	0.048	0.29
LAWDOWN	-0.330**	-2.13	-0.196	-1.19	-0.290*	-1.91
LAWCONTRACT	0.595***	3.84	0.381**	2.30	0.522***	3.42
LAWKNOW	0.161***	2.78	0.024	0.40	0.092	1.61
PROTOKOLS	0.006**	-2.31	0.000	0.05	-0.007***	-2.59
FREEZE	0.188	1.07	0.488**	2.56	0.335**	1.93
<b>Factors Affecting Relationships</b>						
NEWRELATION	0.065	0.43	0.017	0.10	-0.247	-1.63
PROXIMITY	-0.096	-0.62	0.185	1.11	-0.051	0.33
BADTIMES	-0.011***	-2.64	-0.011**	-2.45	-0.016***	3.92
NEWPRIVATE	-0.455	-1.58	-0.367	-1.21	-0.443	-1.58

STATEOWN	0.003	1.20	0.003	0.87	0.008***	2.90
EMPOW'N	0.000	0.09	0.002	0.67	0.002	0.53
EMP'CONTROL	0.013**	2.23	0.005	0.76	0.022***	3.76
GOV'SUB	0.233	0.40	-0.884	-1.47	0.356	0.66
TAXSUB	-0.202	-1.20	0.041	0.23	-0.102	-0.61
BANKSUB	0.889**	2.19	0.779*	1.76	0.149	0.40
The Potential for Holdup						
CUSTOMMADE	-0.246*	1.69	-0.232	-1.48	-0.310**	-2.15
CUSTOMUSE	-0.130	-0.79	-0.016	-0.09	-0.107	0.67
SUPPWEAK	-0.140	-0.79	-0.283	-1.51	0.037	-0.21
CUSTWEAK	-0.316*	-1.92	-0.386**	-2.23	0.501***	-3.11
OTHERCUST	1.538**	2.34	1.970***	2.87	2.304***	3.42
OTHERSUPP	-0.106	-0.64	0.084	-0.47	-0.148	-0.90
BIMONOP	1.278*	1.74	1.506**	1.96	1.976***	2.65
COMPETITION	0.541	1.52	0.220	0.60	-0.036	-0.10
LARGE	-0.444***	-2.64	-0.552***	-3.08	-0.361**	-2.18
AGE	0.003	1.13	0.005*	1.74	0.005*	1.73
NEWPROD	0.220	1.24	0.476**	2.45	0.530***	2.97

Note: Regional dummies are included as regressors but the results are not reported

\* \*\* \*\*\* indicate 10%, 5%, 1% of significance respectively.

Table 3.8 lists the estimates of the probit coefficients and their accompanying  $t$ -statistics, omitting the intercepts  $\alpha_0, \dots, \alpha_6$ . In discussing these results, we focus on the most important ones rather than reiterating all that is to be found in the tables.

### Legal Human Capital and Internal Organization on Legal Matters

*Ceteris paribus*, whether the enterprise has access to legal resources, and where these resources come from, are not important factors in transactional success. (The omitted category from this set of dummy variables is no formal legal advice at all.) But recent changes in the use of legal resources are significant, although in an asymmetric way. Although increases in legal inputs (*LAWUP*) do not significantly improve transactional success, decreases (*LAWDOWN*) have a negative effect. This suggests difficulties in restructuring an enterprise's legal operations: while enterprises lose if they reduce preexisting legal operations, expansion of legal activities does not produce gains. Although this essay's emphasis is not on restructuring, this result is notable since we have identified an asymmetric adjustment effect, which some have suggested is a cause of the decline in economic activity in transition countries.

By far the most significant results of this essay, both statistically and economically, are those on the variables that measure levels of legal human capital and how that capital is used. There are four such variables. Of the twelve estimated coefficients in table 3.8, eleven have the predicted signs and eight are significant at the 5 percent level (and the results are even stronger if one ignores the equation that performs badly, the payment equation). These results suggest that time invested by lawyers in contract work pays off (*LAWCONTRACT*), that better knowledge of law among enterprise officials results in a greater likelihood of payment being received on time (*LAWKNOW*), that an enterprise that keeps to the old methods of contracting does less well (*PROTOKOLS*), and that an ability to adapt to the new, as indicated by previous success on freezing assets, helps to secure payment (*FREEZE*).

The pattern of results across the three different dependent variables reinforces the perception that table 3.8 presents strong evidence on the role of law in Russian enterprises. *FREEZE* has its largest effect on securing payment but not on timeliness, indicating that the ability to freeze assets is most relevant after a relationship has soured. Work on contracts (*LAWCONTRACT*) has an effect across the board implying that careful attention to contract issues can both prevent problems and protect the enterprise when problems occur. Knowledge of the law that is held outside the legal department (*LAWKNOW*) has more importance in preventing problems (timeliness) than in making sure payments are finally received, which is natural since officials in the sales department are less

likely to play an important role after a transaction has soured than when it is in process.

Table 3.8 provides little evidence on the numerical significance of the results. In a separate statistical exercise (not reported here), we have examined the size of the effect of the four legal-human-capital variables (*LAWCONTRACT*, *LAWKNOW*, *PROTOKOLS*, and *FREEZE*). One summary statistic is evocative. An enterprise making the "right" decisions on these variables would have scored 36 percent better on timeliness, 17 percent better on payment, and 27 percent better on success than an enterprise making the wrong decision. Although this statement is based on very crude calculations, it does speak volumes about the extent to which law and legal institutions can be valuable for the Russian enterprise.<sup>18</sup>

Are these results reflective of one-sided gains in the transaction, in which the enterprise that is better prepared on legal issues is able to obtain disproportionate benefits, or are they indicative of an increase in the aggregate value added from the transaction? We cannot know the answer to this question for sure, because our data do not allow us to address this issue directly. But we suspect that the gains are mutual. Note that the legal variables have their strongest total effect on timeliness, which is the best indicator of a transaction that has proceeded smoothly. Note also that *LAWCONTRACT*, *LAWKNOW*, and *PROTOKOLS* all have an effect on the general quality of contracting, as well as on the value of the contract to the reporting enterprise. A clear and enforceable contract reduces transaction costs for both sides by coordinating expectations during implementation and by reducing the costs of disputes. Since *arbitrazh* court cases rely almost completely on the documentary record, any improvement in the legality and the clarity of a contract increases enforceability for both parties.

## Relationships

The variables capturing the possibilities for forming long-term relationships do not appear to be as important as the law-related variables. While the effect of the supplier's present plight (*BADTIMES*) is negative and highly significant, this variable might be proxying the enterprise's generally poor performance as well as the effect on relationships of the expectation of a diminished survival probability.

The most interesting results on relationships are those relating to ownership and control. For these variables, eleven of the twelve signs are as predicted. State ownership has a significant positive effect on the overall success of the transaction, and employee control has a significant positive effect on both overall success and timeliness. Given the general expectation that state-owned and employee-owned enterprises would have poorer performance on enterprise restructuring than outsider-owned ones, these results suggest that transactional

success is enhanced by a higher expected survival probability and a lower expected turnover of personnel. The results here suggest that the effects of privatization on the expected survival of an enterprise could be an important factor in general enterprise performance in the early years of transition. As in the case of law-related internal restructuring, this is an issue that is not a focus of our essay, but nevertheless its results appear to highlight an important phenomenon.

Only one of the subsidy variables (*BANKSUB*) has any statistical significance, on timeliness, probably indicating the advantages of a friendly bank in the practical aspects of securing payment. The sign of *GOVSUB* is consistent with the logic of the previous paragraph.

Surprisingly, given the general tenor of the results in table 3.6, the dummy variable reflecting length of relationship (*NEWRELATION*) is not significant, nor is the proximity variable.<sup>19</sup> One variable bearing on the ability to form relationships, *BIMONOP*, is significant, but consideration of this result is postponed since it is more informative in the context of the variables capturing the potential for holdup.

### The Potential for Holdup

The sign and significance of the custom-made variable indicates that holdup problems are a reality in Russia, especially when one considers these results in comparison to those on the custom-use variable. The larger negative effect of *CUSTOMMADE* than *CUSTOMUSE* indicates that the selling enterprise is gaining from ex-post holdup in some circumstances. Nevertheless, it is important to note the negative (albeit nonsignificant) sign on the custom-use variable. This indicates that the ex-post advantages from holdup do not outweigh the ex-ante contracting problems of selling a custom-use product.

The results for the variables capturing dependence on the trading partner (*CUSTWEAK* and *SUPPWEAK*) show that certain features of markets produce interactions that have high transaction costs. When the customer is dependent on the supplier (*CUSTWEAK*), the transaction is significantly less beneficial for the supplier despite the potential that such dependence holds for supplier gains from ex-post opportunism, indicating very high ex-ante costs from the potential for holdup.

Why might such costs be very high in present-day Russia? In the old Soviet system, decisions on the scope of internal organization did not follow the calculus of market-determined transaction costs. These decisions have not been negated after only six years of market activity. Therefore, our data set must contain transactions that would not have been observable in a settled market economy because they would have been between separate divisions of one organization. Such transactions would likely be those where the dummy variable *CUSTWEAK* equals one, because a relatively large purchase by a customer is

likely to be a crucial input into its production process. Obviously, a similar argument does not apply when the transaction is relatively large for the supplier (*SUPPWEAK*). Hence, the relative sizes and significances of the *CUSTWEAK* and *SUPPWEAK* variables suggest that our results reflect the costs of decisions that were made on firm boundaries under the Soviet system.

The results for the variables capturing the presence of other customers and suppliers (*OTHERCUST* and *OTHERSUPP*) suggest the existence of ex-post gains from holdup. This result is consistent with the argument in Blanchard and Kremer 1997 that expanding opportunities cause transactional disorganization. However, a more prosaic interpretation is also possible. An enterprise with more opportunities can probably extract a better deal ex ante from each of its partners. Although we do control for competition in general (*COMPETITION*), the positive sign on *OTHERCUST* could simply represent the bargaining strength of a firm that has been relatively successful in attracting many customers.

The foregoing results highlight the large costs that arise when the nature of the product or of market structure leads to a transaction that is particularly prone to opportunism. However, as Kranton (1996) argues, the likelihood of opportunism might decrease when both parties perceive a mutual dependence. It is an increase in dependence on one side only that leads to the costs of opportunism. When enterprises are truly stuck with each other, they have more incentive to build a working relationship. We examine this prediction with the variable *BIMONOP*, which has a significant effect.

### Conclusion and Reflections

The most important results of this essay appear in the preceding section where the effect of law rings clear, a very surprising result given the tenor of the existing literature on Russia. The institutional environment rewards enterprises that pay attention to the legal side of their operations. Better transactional performance occurs when the legal staff works extensively on contractual matters, when enterprise personnel possess larger amounts of legal human capital (as evidenced by legal knowledge), when old practices (*protokols* of disagreement) have been forsaken, and when new ones (freezing assets) have been adopted.

We interpret these results as providing evidence that law and legal institutions add value to the Russian economy. They add value, rather than simply redistributing it, because many law-related transactional activities simultaneously provide benefits for both trading partners. For example, a clear, enforceable contract reduces transaction costs for both sides; it coordinates expectations during implementation and makes the outcome of disputes more predictable. Moreover, improving the legality and clarity of a contract increases enforceability for both parties.

These results break new ground in several ways. First, we provide a new methodology for examining how law, relationships, and the potential for holdup affect the success of transactions, a methodology that focuses on economic activity at the level at which law operates, the individual transaction. Our implementation of this methodology shows that the search for effects of law must delve below the surface of the operations of the enterprise. Had we simply used the quantity of legal inputs in our regressions, we would not have detected any effect of the enterprise's use of law. Rather, when the institutional landscape is difficult to fathom and law is changing very quickly, quality of inputs and the way they are applied, not quantity, are the significant law-related variables.

Second, our results show that Russian legal-economic institutions do have an effect.<sup>20</sup> We find the strength of these institutions echoed in the transactional performance of enterprises that are able to use them. Nevertheless, our results also show that opportunism occurs frequently: the results for custom use, for customer dependence, and for the number of alternative customers provide clear evidence on that score. This is not surprising. Even if transactional problems were completely solvable by good legal practice, which we doubt, many enterprises could not find the solutions. There are many enterprises that have not restructured their legal operations, that still use *protokols*, that work little on contracts, and whose personnel are not conversant with current law. These features of our results suggest potential sources of economic growth in Russia. The enterprises that have been successful in using law to facilitate transactions provide a demonstration effect for unstructured enterprises.

Last, our results provide one pixel of a picture whose significance goes far beyond Russia and beyond transition. To gain a better understanding of processes of legal and economic development, it is crucial to assess how quickly effective capitalist institutions arise and what factors determine the success of new institutions. This essay shows that the *arbitrazh* court system is an example of a relatively successful institution in present-day Russia. The institutional reforms that led to the present court system were much less politicized than many other reforms, much more driven by the concerns of professionals within the legal system than politicians, suggesting themes in the literature that go back at least as far as Weber. These reforms involved the transformation of an old system, *gosarbitrazh*, rather than creating a new institution from a tabula rasa, an issue much contended in the early debates on transition. Whether these were important elements in determining outcomes is a subject for further investigation. The importance of such an investigation is justified by the results in this essay, which show that the law and legal institutions pertinent to contract enforcement constitute a relatively bright light in what is often regarded as a dismal scene, the development of capitalist institutions in Russia.

## NOTES

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1. The industrial sectors are (number of enterprises in parentheses): food processing (67); textiles, clothing, and leather (60), fabricated metal (34); machinery and transport equipment (23); electronics (34); chemicals and petroleum (33); construction (18); wood products (8); paper and printing (5); and other (46).

2. The question was simply "For each of the following, how much confidence do you have in them?" A great deal, quite a lot, not very much, none at all."

3. The civil service was referred to as state administration in Russia.

4. See the references in the Hendrix essay in this volume.

5. This section is drawn from a much more extensive examination of enterprise strategies (Hendley, Murrell, and Ryterman 2000), which examines interactions with both customers and suppliers and includes extensive information on matters not included here, such as the nature of contractual terms.

6. When the enterprise did not have a formal department for obtaining supplies, the person who carried out the relevant duties in the enterprise answered the survey.

7. Halverson (1996, 92) notes that "in spite of the many domestic arbitration tribunals that have been established in Russia during recent years, these tribunals are seldom utilized by Russian businessmen." According to Hendrix (1997, 1080), about 500 cases are filed each year with the International Commercial Arbitration Court in Moscow, the busiest of the *treteivskie* courts. The caseload has remained at this level since 1992. By contrast, the *arbitrazh* courts decided more than 340,000 cases in 1997, more than 11 percent of which were heard in Moscow (see *Sudebno-arbitrazhnaya* statistical 1998).

8. In the pilot study for our survey (Hendley et al. 1997), enterprises sometimes reported that the mafia simply implemented the judgments of the *arbitrazh* courts.

9. If one assumes that the mafia specializes in debt collection, one might conclude that this result reflects our focus on supplier relationships rather than customer problems. But even if the assumption is correct, the conclusion is not. More than half of the contracts that we studied involve prepayment, so that supplier nonperformance is the most likely cause of a breach.

10. The respondents were asked to pick one agreement that envisaged consummation in the six months before the survey. Respondents were specifically instructed that they could choose either a successful or an unsuccessful agreement.

11. A partial exception is Palay 1984 in a very nonstandard market.
12. In the literature, the usual focus is on the relationship between the terms of the agreement and the predetermined characteristics. For example, Joskow 1987 examines contract duration. Johnson, McMillan, and Woodruff 1999 examine trade credit. However, a variable can add value to transactions without influencing the structure of agreements. For example, when lawyers are useful in litigation but contracts are standard, the legal human capital of the enterprise might not alter agreements, but can affect *T, P,* and *S*.
13. Note that the effects of legal variables need not be explicit in contracts nor in court appearances. Bargaining can occur in the shadow of the law, and better prepared enterprises might never need to emerge from the shadows.
14. Often the head of the legal department, or if there was no such department, the person responsible for legal affairs.
15. Because much activity is unofficial in Russia, the use of profits would be ineffective as an indicator of viability.
16. See Earle and Estrin 1997 for a more sophisticated point of view.
17. Outsider-controlled enterprises are more likely to sacrifice present transactional success for more long-run efficiency.
18. Detailed results are available from the authors.
19. Contrast McMillan and Woodruff 1999 and Johnson, McMillan, and Woodruff 1999.
20. Johnson, McMillan, and Woodruff (1999) come to a similar conclusion for a set of five transition countries, including Russia.

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