TITLE: Institutions, Contracts and the Transformation of Centrally Planned Economies: Commodity Exchanges in Russia

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ABSTRACT

This essay explores several central questions of political economy. How can economic institutions be established to support trade when political authority is weak? How can contracts be made credible and enforceable when an impartial, low cost, third-party is generally unavailable?

I explore these questions through a case study of commodity exchanges in Russia. The first commodity exchanges opened in Moscow in the summer of 1990 and proved to be very profitable. By offering brokers the opportunity to buy and sell a wide variety of goods - from helicopters to oil to overcoats - at high prices, but with fast delivery, the founders of the commodity exchanges found a comfortable niche in the transition economy. Like many new economic organizations, the commodity exchanges have recently fallen on hard times. Many small exchanges have consolidated their operations or become retail outlets and the number of working exchanges is now less than 100. One reason for the decline is the difficulty of enforcing contracts concluded on the exchange.

I argue that the institutional design of commodity exchanges in Russia hindered contract compliance by making transactions on the exchange more opaque and by providing weak dispute resolution procedures. One flaw foreshadows the argument. By charging a commission on each deal the founders of the exchange created a market in "off-exchange deals" (vnebirzhevie sdelki) that were not registered on the exchange. As these deals received little public acknowledgement, they were difficult to adjudicate and enforce. This essay reinforces the importance of observability as a means to secure contract compliance. The difficulty of policing opaque "off-exchange" deals and securing contract compliance has contributed to the risky trading environment on many exchanges.

I then examine the institutions that have been established to ameliorate problems of contract credibility and enforcement. Despite weak state-backed enforcement and an uncertain economic environment, the volume of trade on commodity exchanges in Russia at times has reached impressive levels. Traders have displayed considerable ingenuity for conducting exchange with private (non-state) enforcement. Economic hostages, reputation effects, social sanctions, vertical integration, private third-party enforcement and state agents have all been used to increase contract compliance with varying degrees of success. I also survey some of the theoretical questions embedded in the design of these institutions.
Institutions, Contracts and the Transformation of Centrally Planned Economies: Commodity Exchanges in Russia

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Introduction

One of the most visible new economic organizations in Russia is the commodity exchange. The first commodity exchanges opened in Moscow in the summer of 1990 and proved to be very profitable. By offering brokers the opportunity to buy and sell a wide variety of goods - from helicopters to oil to overcoats - at high prices, but with fast delivery, the founders of the commodity exchanges found a comfortable niche in the transition economy. Over the next eighteen months more than 700 commodity exchanges registered with local authorities as private companies, branch ministries, state committees, and local governments aimed to cash in on the boom by organizing commodity exchanges. Like many new economic organizations, the commodity exchanges have recently fallen on hard times. Many small exchanges have consolidated their operations or become retail outlets and the number of working exchanges is now less than 100. Nevertheless, the largest exchanges maintain a prominent role in the economy.

The fiscal health of the commodity exchanges is a reflection of a larger issue in the transformation of centrally planned economies: the creation of secure property rights. Clearly defined and well defended property rights narrow the gap between private and public rates of return for economic activity and are a prime

contributor to economic growth and political stability. Insecure property rights exacerbate the disorder of the transformation of centrally planned economies by encouraging the misallocation of resources and by raising the costs of each business transaction. One consequence of insecure property rights that both state and private actors are trying to mitigate is the difficulty of enforcing contracts. More specifically, how can contracts be enforced if central authority is weak? How can actors make contracts credible and enforceable in such an environment?

I explore these questions through a case study of commodity exchanges in Russia. I argue that the institutional design of commodity exchanges in Russia hindered contract compliance by making transactions on the exchange more opaque and by providing weak dispute resolution procedures. One flaw foreshadows the argument. By charging a commission on each deal the founders of the exchange created a market in "off-exchange deals" (vnebirzhevye

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1 Evidence provided in this chapter is based on a month of preliminary field research conducted in Moscow in June 1992. I conducted 30 hours of interviews with brokers, analysts and political actors working on the exchanges in Moscow. Field research was conducted primarily at the two largest exchanges, The Moscow Commodity Exchange and the Russian Raw Materials and Commodity Exchange. I have also surveyed the relevant Russian language sources. Kommersant, Bizness, Banki i Birzha were especially helpful, as was Birzhi v SSSR: Pervyi god raboty, (Yakovlev, 1992). Two overviews of the commodity exchanges have been published in English. (Cohen, 1992; Zhurek, 1993). This chapter will be integrated into my dissertation which explores the creation and maintenance of institutions to mitigate contracting problems during the transformation of the Russian polity.
sdelki) that were not registered on the exchange. As these deals received little public acknowledgement, they were difficult to adjudicate and enforce. This essay reinforces the importance of observability as a means to secure contract compliance. The difficulty of policing opaque "off-exchange" deals and securing contract compliance has contributed to the hazardous trading environment on many exchanges.

I then examine the various institutions that have been created to ameliorate problems of contract credibility and enforcement. Despite weak state-backed enforcement and a very uncertain economic environment, the volume of trade on commodity exchanges in Russia at various times has reached impressive levels. Traders on the Russian commodity exchanges have displayed considerable ingenuity for conducting exchange with private (non-state) enforcement. Economic hostages, reputation effects, social sanctions, vertical integration, private third-party enforcement and state agents have all been used to increase contract compliance with varying degrees of success. I also survey some of the theoretical questions embedded in the design of these institutions.

In the conclusion, I briefly discuss possible political consequences of the choice of institutions to mitigate contract

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The definition of institutions used here borrows from North, 1990, p. 3. "Institutions are the rules the game in a society or, more formally, the humanly devised constraints that shape human interaction."
enforcement problems.

**Commodity Exchanges in Russia**

As noted above, the commodity exchanges have been a prominent offspring of the transformation of the Russian economy. What drove the commodity exchange boom? In contrast to their nominal counterparts in capitalist economies, commodity exchanges in the former Soviet Union were established as profit-seeking institutions by their founders who provided the hall, the personnel to run the exchange, and attracted clients. In return, brokers paid fees to the founders for services provided by the exchange and turned over a small percentage (.5 to 3 percent) of each deal made on the exchange. Most importantly, the founders prospered by selling seats on the exchange. The right to trade on the exchange often sold for several hundred thousand rubles at the old exchange rate of thirty rubles to the dollar and involved trivial marginal costs for the exchange.

In the early days of the commodity exchange, the founders could own seats and compete with other brokers for clients and deals. By owning seats, founders could divert goods to themselves or preferred customers and use their intimate knowledge of the exchange to their advantage. In addition, the commission that they paid to the exchange as brokers went back into their pockets as founders. In March 1991, the Russian Council of Ministers issued

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6 In the United States, exchanges are generally non-profit organizations that are run by the brokers. They establish the rules of the exchange, admit new members according to votes by ruling council made up of the members of the exchange.
rules barring this activity, but enforcement is difficult because many exchanges have created subsidiaries to engage in trade.

Shortly after their establishment, the two most powerful exchanges attempted to corner the market. The Moscow Commodity Exchange (MTB) tried to gain a monopoly on trade involving export licenses, while the Russian Raw Material and Commodity Exchange (RTSB) sought government intervention to have only deals registered on its exchange declared legal. These attempts were rebuffed, but they indicate the drive for profits and rents which drove the creation of the commodity exchanges.7

B. Trading environment

The Russian government currently lacks the legal underpinnings and physical resources to act as a reliable, neutral, third-party enforcement agent for many contracts. Business law is primitive and the physical infrastructure is not well-suited to secure exchange. There is little money for law enforcement and the court system is often viewed as too time-consuming and unpredictable to resolve many basic disputes. Transfers of money and goods often require weeks or months which allows traders to look for better deals even after a contract has been signed.8 Despite the difficulties of engaging in trade in the current setting, many contracts are fulfilled. Prior to the price reform of January 1992

7Even at its peak, the volume of trade on the exchanges never reached more than 4% of total trade.

which curtailed the volume of trade, the commodity exchanges experienced a boom. At the Russian Raw Materials and Commodity Exchange (RTSB) in October 1991 alone, more than 2.3 billion rubles worth of goods changed hands. According to one estimate, 15-20 million tons of grain will be traded on the exchange in 1992. Given the very high number of "off-exchange" deals, the level of activity at the commodity exchanges remains surprisingly high. How are these trades concluded in an environment of weak central authority? Before exploring this question it is necessary to describe the trading environment within the commodity exchanges. As we shall see, the institutional design of the exchanges exacerbated the contracting problems characteristic of a transitional economy.

Trading on the Exchange

Four actors are involved in each trade on the exchange; two brokers and their two clients. Brokers - those who have purchased the right to trade on the exchange - attract clients who are trying to buy (sell) a particular good. Brokers scan their list of clients to see if they can match a buyer and seller with another client of the firm without resorting to the exchange. If this match is made, they can receive commissions from both the buyer and seller. This


Many of these contracting problems exist in other sectors of the economy, however, space does not allow an in-depth analysis of their trading structures. My dissertation aims to explore these credibility questions in inter-enterprise trading and foreign investment as well as on the commodity exchanges.
fortunate outcome is rare. In most cases, the broker and the client sign a contract which specifies the terms of the exchange. Brokers often ask for 3 percent of the proposed agreement as a retainer, a deposit of 15 - 100 percent of the agreement in case of breach, and a letter stating that the client has either the money or the good necessary to fulfill the contract. The broker takes this buy (sell) order to the exchange. When a good reaches the floor that satisfies the terms of the contract, brokers with buy orders place a bid. If this bid is accepted, the brokers for the buyer and seller sign a deal on the spot and register it with the exchange (or not register it as the case may be). Soon thereafter the brokers meet to specify the details of the trade. If they are unable to agree on the details after registering their agreement, they pay a fine to the exchange, roughly equal to three percent of the proposed agreement.

Commodity exchanges in capitalist countries generally deal in a limited number of specified goods that have few quality parameters. Oil, grains, and metals are traded everyday in specified quantities according to standardized contracts. In contrast, the trading board at a typical commodity exchange in Russia may also include cars, computers, winter coats and other non-standardized goods. The wide variety of goods traded on the commodity exchanges creates a number of monitoring problems. Information asymmetry between buyers and sellers about the quality
of goods is a problem.\textsuperscript{11} The wide assortment of goods bought and sold on universal commodity exchanges ensures that brokers will not know the details of all goods traded so they may be fooled into buying substandard merchandise. Moreover, few commodity exchanges certify the quality of goods traded on the exchange due to a shortage of capital and expertise.

Contracts

Three types of contracts are made at the exchange. Spot market contracts are concluded shortly after agreement is reached on the floor of the exchange. These deals are typically finished in one day. After bidding, the buyer inspects the goods and pays the seller, often in cash but sometimes by transferring money into a bank account. Enforcement concerns are minimal because the exchange is made quickly by both parties. This type of primitive trading predominates at many exchanges.

Forward contracts include intertemporal agreements that require transportation of the good or transfer of funds from outside the region. In this case the buyer must wait to take possession of the good until it is shipped and the cost and means of transporting the good is a central facet of the contract. The opportunity for breach is much higher in forward contracts than in spot contracts because either party can be exposed to potential loss. The buyer who commits money prior to receipt of the good is

\textsuperscript{11}Often brokers have not seen the goods prior to the sale. Thus, they too know little about the quality of the good. The problem of information asymmetries is much less severe in trades in standard goods such as oil or grain.
vulnerable, as is a seller who receives less than full payment prior to delivery.

Futures contracts, the soul of commodity exchanges in capitalist economies, are the subject of intense study by many exchanges, but technical difficulties have severely limited their use. Some "futures" trades in standard goods like oil and currency have been concluded. *Kommersant*, a weekly business magazine, reports that some producers of oil in Tyumen have contracted to deliver oil in six months time, but have accepted payment up front.12 This deal, however, is not a pure futures contract because the traders do not have the means to hedge or to play on price differentials that would significantly reduce the risk of trade. It is more like receiving a credit at zero percent interest. This deal is notable as an exception and most dealers do not have confidence to trade in futures.13

**Institutional Design of the Commodity Exchanges**

The institutional design of the commodity exchanges provided much quick revenue for the founders, but over time it helped to undermine the growth of commodity exchanges by exacerbating contract enforcement problems. For example, by charging a commission on each deal the founders drove many deals "off the exchange." Brokers realized that they could avoid paying the

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exchange founders a commission on each transaction by not registering their contracts with the exchange. These "off-exchange" contracts benefit the brokers who receive their commission and the client who does not pay a commission to the exchange, but the founders of the exchange do not receive anything from this activity. The number of registered deals is very difficult to determine, however, it has been estimated that for every one deal registered on the exchange, between twenty and forty deals are concluded "off the exchange."¹⁴

What are the consequences of the "off-exchange" deals? By raking a commission from each deal registered on the exchange, the founders increased incentives to make "off-exchange" deals that are not widely publicized, and made it difficult for a broker or firm to gain a reputation for honesty. The institutional design also made punishing dishonest traders more problematic. As contracts concluded "off-exchange" are generally private rather than public knowledge, it is difficult to adjudicate and enforce disputes occurring in these cases.

In addition, the institutional design heightened the conflict between brokers and founders. Brokers complain that their point of view is too often given short shrift by the founders of the exchange; that the personnel of the exchange do not take their criticisms seriously; and that commodity exchanges use their own

¹⁴"Birzhevaya torgovlya niefti: Na gorizont'e pokazalis tipovii kontrakti," Ekonomicheskaya Gazeta, #23 June 1992, p. 8. An MTB official put this figure at about one in twenty. Brokers that I interviewed placed the figure closer to thirty or forty to one.
brokerage service to compete with brokers that trade on the exchange. Given the indifference that many brokers seem to feel towards the exchange, it is no surprise they feel little normative compulsion to register deals on the exchange.

The exchanges have tried several means to limit free-riding and encourage the brokers to work through the exchanges. To encourage brokers to list their deals on the exchange, the commodity exchanges provide their members with some selective benefits, such as access to information about the goods being traded on the exchange and arbitration services. Once this information is provided to a few brokers, however, it quickly becomes common knowledge among the brokers. The exchanges could circulate private inspectors on the floor, but this would not prevent brokers from simply leaving the trading area and making deals in the lobby or in the street.

The Moscow Commodity Exchange has tried to plug these drains on revenue by instituting a system of broker deposits. Each month a broker pays a small fee to the exchange that is returned if the broker registers a minimum number of deals on the exchange. The deposit is forfeited if the brokers continue to make "off-exchange deals." The deposit system was instituted recently and it is


16 "Kuda ukhodyat birzhi?" Bizness, Banki i Birzha, #42 19, 1992, p. 7.
Unfortunately for the founders of the exchange, the tax on exchange activities has also encouraged brokers to make their deals without informing the officials of the commodity exchange. Exchange officials in Ukraine have tried to lower their 75% tax on profits made by middlemen.
difficult to judge its success, however, it should be noted that brokers have long resisted such a move with the threat of moving to other exchanges. One official at the Moscow Commodity Exchange said that the deposit fee was set at a very low level in response to broker resistance.\footnote{Interview with Pavel Mochalov, Vice-President, MTB.} Ideally, the commodity exchanges would like to establish clearing houses that would hold payment until the good arrives and is certified by an independent expert, but this requires more capital and expertise than many commodity exchanges currently possess.

A number of exchanges are attempting to develop western-style exchanges with standardized contracts, futures, and a small number of standardized commodities on the trading board. They are also trying to eliminate barter payments and deals in non-standardized goods. Yet because short-term profit is a function of the number of both deals concluded on the exchange and the number of seats sold on the exchange, this path is rather arduous. Founders are reluctant to discipline brokers because they fear that brokers will take their business elsewhere.

**Responsibility**

The enforcement problems of the commodity exchanges would perhaps be less damaging if the founders were able to establish a sound dispute resolution procedure. Yet, the commodity exchanges do not assume responsibility for enforcing contracts and the Arbitration Commissions which they have established are weak.
Responsibility for breach of contract rests with the client, not the broker or the commodity exchange. Most breaches involve client-broker or client-client relations rather than broker-broker relations. Brokers try to maintain a good name and are often paid only upon conclusion of the deal so they have a strong incentive to see that each agreement is completed. Clients, on the other hand may continue to look for a better deal while they wait to receive their money (good). Brokers not only worry about default by counter-agents, they often worry about whether their own client will fulfill the contract. Note that clients do not deal directly with other clients. Brokers guard the identities of their clients to prevent them from making direct contact and circumventing their services. ¹⁸

Arbitration commissions exist at all exchanges and in theory brokers can be fined or dismissed for violations. But their decisions do not carry much legal weight or respect. Arbitration commissions are also limited in their powers. They generally cannot issue subpeonas to force recalcitrant clients to appear and as a result few disputes are settled by arbitration commissions. ¹⁹ The

¹⁸Brokers are not completely at the mercy of their clients. In addition to requiring a deposit, brokers can also offset their losses by selling the good at a higher price than stipulated in the contract and pocketing the difference. If a client is unaware of the latest price on the exchange, they can easily be duped. If brokers have sufficient capital they can also buy a good at a reasonable price on the exchange, then locate a buyer and resell it. This type of trade is increasingly popular because it offers a higher return for the broker.

exchanges are reluctant to ban troublesome brokers because they will lose a potential source of revenue. The large number of exchanges ensures that a broker dismissed from one exchange can ply his trade elsewhere.

**Contracting and Opportunism**

In the absence of effective, low cost, third-party adjudication and enforcement, one would expect brokers to be reluctant to trade. Nevertheless, a number of means of improving the security of exchange exist. Economic hostages, reputation effects, social norms and sanctions, vertical integration, private third-party enforcers and state agents have been used to ameliorate enforcement concerns with varying degrees of success. Currently some private agents seem reluctant to "bring the state back in" to aid in adjudication and enforcement. Despite the difficulty of securing trade privately, many actors seem willing to resolve their disputes without resorting to the state. This trend may change depending on the efficacy of the institutions that are created to address concerns about dispute resolution and contract enforcement.

**Economic Hostages**

Oliver Williamson argues that many economists understimate the importance and pervasiveness of self-enforcing agreements, such as the use of hostages, in the conduct of exchange in capitalist

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He notes that hostages in the form of mutually asset-specific investments or money deposits can provide credible commitment and reduce opportunism. One type of economic hostage that has taken hold in the transitional Russian economy is a deposit of money or goods held by the trading partner that will be forfeited in the case of a breach. Brokerage houses often require deposits as insurance against breach of contract by their clients. Clients are reluctant to produce the deposit out of fear that a broker may not return it. Deposits also increase transaction costs for the client. Capital-starved clients may be unwilling or unable to find these resources. Brokerage deposits range from 15 to 100 percent of the proposed deal, and if this sum increases confidence that the deal will be concluded then the deposit is a worthwhile investment. Brokers have found success with this system of deposits but calculating a deposit that is large enough to deter opportunism by the seller, but small enough to discourage expropriation by the brokerage house is difficult in an economic environment of high uncertainty.

One means of getting around the unjustified confiscation of prepayment is available to firms with close ties to banks. The buyer-firm may ask the bank to send a notice to the seller that the

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22Brokers both inside and outside of the exchange not only about whether their trading partner will fulfill the contract, they also worry about whether their client will live up to the bargain.
money for the good has been released and is enroute, when in reality the bank is holding the money until it receives notice that the good has been received. This gives the buyer time to query the seller about the delivery of her goods without the risk of losing her prepayment. Over time this tactic can bring a rejoinder from a delivery company that is willing to employ the same means of deception. The seller can send a notice that the good is enroute, but that the company has not received payment and will not make final delivery of until payment is made. This tactic, however, is limited to firms that have close ties to banks, offers security for only one side of the deal and, as noted above, creates a second-order contracting problem.\textsuperscript{23}

Reputation Effects

Some authors have argued that reputation effects can support cooperation if actors believe that they will trade repeatedly for an indefinite future.\textsuperscript{24} These reputation effects can help to mitigate enforcement problems by increasing trust between the parties to an exchange. Michael Taylor presents a formal model which notes that when parties interact repeatedly in a prisoners dilemma situation it is in neither party's interest to defect.\textsuperscript{25}

\textsuperscript{23}Interview with Commodity Exchange Analyst. June 1992.


\textsuperscript{25}Taylor, 1976; 1987.
The logic is simple. If the parties know that they will continue to meet for an indefinite future violating an agreement diminishes the cheater’s long-term gain. The reputation for fair dealing can be a valuable commodity, if it can be easily verified. Unfortunately little work has been done on how agents garner reputations.

A reputation for honest trading is only helpful when it becomes known and believed by a wide range of parties. Paul Milgrom, Douglass North and Barry Weingast note that reputation became a successful means for reducing opportunism in trade during the Middle Ages (a period which also lacked reliable third-party enforcement) with the rise of the Law Merchant, a type of private judge who registered every contract and provided information on the past behavior of merchants trading in that city. In contrast, the institutional design of the profit-seeking commodity exchanges has driven many brokers to make deals that are not registered with the exchange. Given the brokers’ preference for "off-exchange"

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[27] This is a reflection of the larger criticism of theories based on social norms which often fail to account for the emergence of specific types of norms. For example, why does a norm for "pact sund servanta" (The deal must be kept) arise and not "caveat emptor" (Let the buyer beware)?

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deals that are not widely publicized, it is difficult for a firm to gain a reputation for honest trading on the exchange.\textsuperscript{30}

Brokers and clients on the commodity exchanges face additional difficulties in gaining a reputation for honesty. First, public trust in the commodity exchanges is low. Some brokers worked on the black market in the past and there is a current of public opinion that sees the commodity exchanges as a haven for former "economic criminals."\textsuperscript{31} One often heard complaint about the exchanges is that they do not produce anything and therefore are of little value to society, a legacy of the Marxist conception of value. The notion that middleman activities play a productive role in society does not seem to be broadly or deeply held.\textsuperscript{32} The public image of the commodity exchanges has also been tarnished by the low quality of some goods that are traded. Some have come to view the exchanges as a dumping ground for low quality or even stolen goods. In any event, the commodity exchanges are not generally held in high esteem.\textsuperscript{33}

\textsuperscript{30} The structure of the trading environment in other sectors of the economy may be more conducive to the use of reputation as a means to reduce enforcement concerns.

\textsuperscript{31} Reprtedly, Vice-President Rutskoi was among the first politicians to criticize the exchanges.

\textsuperscript{32} Surprisingly, a liberal member of parliament also held this sentiment. Personal interview, June 1992.

\textsuperscript{33} One indication of the depth of this sentiment is the public relations campaigns that the exchanges run to increase their respectability. The RTSB Annual report prominently features a list of the charitable donations which it has made.
A second problem in gaining a reputation for honesty is the lack of information on brokers' past behavior available to clients. Few brokerage houses have been in operation for more than two years and most have a short track record of trading. Given numerous changes in name and leadership, it is difficult to assess the past record of a potential trading partner. It is unclear to whom a reputation attaches. Does a reputation for honest trading accrue to an individual manager or to a firm? If a firm's name or profile changes, does its reputation change as well?

The short shadow of the future in the transitional economy also complicates obtaining a reputation for honest dealing by repeated interaction. The high rate of insolvency of firms in some sectors of the Russian market and the current unstable economic environment reduce the probability that parties can expect to meet in a potential future trade. Each side can worry less about their reputation for being a reliable trading partner and opportunism becomes more attractive. Moreover, the turnover among brokers is quite high. No official statistics are available, but many brokers that entered the field during the boom of 1991 have parlayed their personal contacts into work in other fields.

Social Norms

The prospect of future interaction is not the only basis on which norms in support of cooperation can develop to reduce opportunism. The density of social relationships is often seen as a key determinant of cooperative behavior. Mark Granovetter argues that the degree of opportunism is often reduced when trading
relations are embedded in personal ties which provide information about the past behavior of a potential partner. With this type of trade the relationships become an end in themselves rather than a means to improve exchange. Michael Hechter argues that groups with members that are highly dependent and maintain strong obligations are much more likely to engage in cooperative behavior than those with little dependence and weak obligations. Importantly, some authors have linked the density of social and economic organization to economic performance. Robert Putnam, for one, argues that the differential growth rates among regions in Italy can be accounted for by varying degrees of density in social relations. Regions with dense social relations, measured by levels of membership in civic groups, experienced higher rates of economic growth than


35 Michael Hechter, Rational Choice Foundations of Social Order, Theory Building in Sociology: Assessing Theoretical Cumulation, volume 3. eds, Jeffrey C. Alexander, Jonathon Turner. (London: Sage Publications) 1988. For example, white collar workers in Japan are dependent on their firm for advancement because of the social stigma of changing jobs. Workers' obligations to the firm are easier to monitor due to the hierarchical nature of social relations in Japan. In contrast, white collar workers in the U.S. are less dependent (greater opportunities for advancement by changing companies) and their obligations are more difficult to monitor due to the less hierarchical nature of American society. According to this logic, white collar workers in the U.S. are more likely to engage in opportunism. Hechter's example is illustrative and not based on empirical research.


those with weak social ties. Putnam speculates that dense social relationships, many that have no clear economic facet, can foster trust relationships that facilitate secure exchange.

On the Russian commodity exchanges, social norms in support of cooperation are weakly developed. Turnover among brokers is rather high and many brokers make only brief appearances on floor of the exchange. In contrast, some brokers work on the floor of the exchange daily and have developed a sense of community. These brokers occasionally will pass on information about clients and prices that is useful to fellow group members. It is also likely that brokers who worked in the state supply system under the command economy rely heavily on their personal ties to find reliable trading partners. Nonetheless, clients - the actual buyers and sellers of the goods - interact infrequently and seem to have little interest in the beneficial reputation effects of social ties that could be developed on the exchange. Often brokers will conclude deals knowing very little about their partner. Brokers have tried to increase their sense of professionalism and burnish their reputations by creating Brokers Guilds with a code of ethics. At this time however, the influence of these guilds on the trading floor is minimal.

The role of social norms in promoting trade invites further research and the findings will likely vary across sectors of the economy, yet, one can speculate that in many instances potential buyers and sellers in the Russian rely heavily on personal ties to
secure exchange. A network of personal contacts exists among many groups who have traded goods in the pre-reform Soviet economy and these ties are valuable in the initial period of reform. Trusted customers often return the favor of dealing at low prices and managers are loath to abandon this reciprocal relationship. A study conducted by a pro-industry think tank found that enterprise managers often have a three-tiered pricing system; one price for traditional customers, a second price (often 100 - 150% higher) for new customers and a third (even higher) price for deals on the exchange. Personal links can account for the disproportionate influence that former bureaucrats may exercise in some sectors of the economy.

The relationship between personal ties and exchange is complex. Each manager must determine if it is more profitable to deal with traditional trusted customers at lower prices or seek new clients at a higher price. A quote from the survey of enterprise managers cited above captures the ambiguity of the situation: "Executives look for sound reasons to break traditional ties so as

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38This will be a central question of my dissertation.


39Rossiskaya Gazeta, June 26, p. 3 and June 27, p. 3 1992. For an English-language version, see Current Digest of the Soviet Press, V. XLIV, #26 1992. Another quote from the same study reinforces the point. "(Over the past two years there has been) a tendency to shift from informal associations based on personal ties and business ethics toward contractual structures, in which, however, informal relations continue to play a significant role."
not to draw condemnation within their circle and not to deprive themselves of similar benefits." Contrary to reports of economic conspiracies by former communists in the bureaucracy, this behavior may be a rational response to a situation of great uncertainty. Personal ties that provide information about past behavior may be used to reduce the fear of opportunism. With the increasing turnover in occupations and the development of personal ties in new sectors of the economy, it is likely that the importance of these old ties may decline.

Vertical Integration

One method of increasing the security of contract in the current environment is by avoiding the commodity exchange and establishing hierarchical trading structures through vertical integration with another firm. Williamson argues that moving an exchange from the market and placing it within the firm helps to reduce opportunism and the problems of uncertainty by promoting convergent expectations between trading partners. Hierarchical trading structures also attenuate the problem of information

41Ibid.


"Many have noted that placing a transaction within the firm creates new enforcement problems. Whereas with market-based transactions one worries about reneging, with hierarchical transactions one worries about shirking and influence costs. See Paul Milgrom and John Roberts, "Bargaining, Influence Costs and The Organization of Economic Activity," in eds. Alt and Shepsle, 1990."
asymmetry. By placing an exchange within the firm the two parties have less incentive to conceal information that would give one side an advantage. As noted above the problem of information asymmetry has been a problem in the commodity exchanges. Moreover, disputes between entities within a firm may be resolved quickly by fiat, rather than by resorting to the courts, a costly and time-consuming step. As Williamson notes: "Hierarchy is its own court of ultimate appeal." 

Evidence on the use of vertical integration to mitigate concerns about dispute resolution and enforcement is very cloudy at the moment in Russia. A plethora of organizational forms exist and relations between them are obscure. For example, Michael Burawoy and Kathryn Hendley spent three months in Moscow studying Rezina, a rubber factory trying to cope with the great uncertainty of the economic environment. One of their research goals was to analyze the networks of cooperatives organized at the factory. They concluded "try as we might to disentangle the details of this network, we could not. Some cooperatives were empty shells or accounting devices, some were mainly connected to ventures outside

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4Williamson, Ibid. p. 274.

Rezina, others were merely fronts for dispensing overtime.\textsuperscript{47}

By and large, the use of vertical integration seems to be quite high. Some have argued that the decline in the number of cooperatives in Russia since 1990 is due to the tendency to place a cooperative within the organizational structure of a larger enterprise.\textsuperscript{48} The relationship between cooperatives and state enterprises in many cases is almost symbiotic. In 1989 roughly "eighty percent of cooperatives were physically located within state enterprises or operated under the umbrella of one."\textsuperscript{49} These cooperatives are usually included in the output plan and market their goods through the enterprise.\textsuperscript{50}

The creation of hierarchical relationships between trading entities seems to create something of a paradox for the deepening of market reforms. As economic reform increases uncertainty in the economy, vertical integration may become more attractive. Yet, increasing vertical integration reduces the prospect for successful marketization as large firms maintain their near-monopoly status while new entrepenurial firms may lose the efficiencies of specialization that made them successful. Although the use of

\textsuperscript{47}Ibid. p. 379.


\textsuperscript{50}Ibid pp. 40 - 41.
vertical integration as a means to mitigate adjudication and enforcement concerns is difficult to evaluate at the moment, it seems to be an option in some sectors of the economy.

Social Sanctions

Aggrieved parties to an exchange may also resort to social sanctions to punish a perceived breach of contract that are not backed by the legal system and the enforcement power of the state. Gossip, ostracism, even force may be useful tools to help remedy a breach in the absence of reliable state enforcement. In his study of dispute resolution in a close-knit community of ranchers and farmers in Shasta County California, Robert Ellickson found that social sanctions were available to aggrieved parties that did not want to resort to the state for enforcement. Sanctions ranged from gossip to castration of a prize bull that repeatedly strayed into a farmer's field despite numerous appeals to its owner. The type of sanction chosen depended on the costs of applying that sanction and the severity of the offense.

Typically, inflicting punishment is costly and subject to the free-rider problem. Incentives must exist to make decentralized punishment by individual actors attractive. In the early days of the commodity exchanges brokers tried to create a "black list" of unreliable clients, however, the attempt was unsuccessful because the cost of maintaining such a list was considered prohibitive by the brokers. The dilemma of collective action is pertinent to this

failure. All brokers benefit from information about the trading practices of clients and brokers, but it is not in anyone's particular interest to bear the costs of creating and maintaining the black list. Few brokers were willing to familiarize themselves with the details of each case to determine that a breach occurred or that a client was at fault. The possibility for deception was high. Moreover, this solution to the enforcement problem was exacerbated by the prevalence of "off-exchange" deals which receive little publicity. Brokers are therefore unlikely to know that a potential partner has a record of dishonest trading, that a breach has occurred or be able to assign fault in a particular case.

The critical role of the Law Merchant in reviving trade in Medieval Europe may again be relevant to current practices in Russia.\textsuperscript{52} Prior to the creation of the state as a means of third party dispute resolution and enforcement, the Medieval Law Merchant, a private agent who registered each contract, played a vital role in providing adjudication services. Importantly, the traders, not the Law Merchant, provided enforcement by refusing to trade with those who had violated past agreements. This punishment strategy is more attractive if there is a sufficient number of traders to reduce the costs of ostracism. In sectors of the economy that are dominated by a few large actors that produce goods with high rates of substitution, the costs of refusing to deal with a violator may be great.

\textsuperscript{52}Milgrom, North and Weingast, 1990.
Private Third-Party Enforcement

Sanctions other than gossip or ostracism are available to Russian economic agents. The resort to force by individuals or private hierarchical agents is also a possible means to ensure compliance with an agreement in an environment of weak central authority. John Umbeck found that during the California gold rush the six-shooter was the main guarantor of property rights. Threats of force may violate the written law of the land but may serve as a means of contract enforcement. Donald Black found that many "crimes" are actually retaliatory acts of self enforcement by parties who have perceived a breach of formal or informal contract.

The rise of legal and extra-legal enforcement agencies in Russia indicates that this option is increasing in importance. In the spring of 1992 the Russian Parliament passed a Law on Private Security Agencies and more than one-hundred legal security agencies are currently active in Russia. The number of illegal enforcers is undoubtedly much higher and organized crime seems to be engaging in this activity. The largest legal security agency in the former


\footnote{"Private Detective Work is Now Legal," Izvestiya, p. 1. March 14, 1992.}
Soviet Union is named Aleks. Formed in 1989 by the Isaakov brothers who worked in the Soviet Militia (police force), it has gathered a broad-based clientele by its promise to return any reasonable damages. Aleks provides body guards and security guards -- complete with camouflage uniforms and truncheons -- who will accompany goods to prevent diversion from their proper destination. The firm has benefitted from good ties with both the old and new municipal administrations. Aleks’ headquarters are located in a building with the district soviet and the former Communist Party branch of the Soviet region (Sovetskii Raion) in Moscow. The president of Aleks also claimed that prior to the introduction of the Law on Private Security Agencies, his firm alone was granted access to the radiowaves, permission to carry weapons, and the right to work with foreign companies.

Aleks has an economic security division that acts as a credit and collection agency. Through its ties with state and cooperative banks, Aleks claims to be able to determine the creditworthiness of Soviet firms, an important service in an information-poor economy. They claim that they do not threaten violence against those who breach contracts with their clients. Their usual method of

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56 Little is written about Aleks in the Soviet press as the founders of the firm cultivate an image of detached mercenary professionalism. Much of the information on Aleks was obtained during interviews with the President and Vice President on June 19, 1992. When possible the information was corroborated with secondary sources in Moscow.

57 One observer noted that “Aleks is like a protection racket, only it works in the opposite direction.” (Eto peket, no v obratnyuyu storonu.) Personal interview, June 1992.
operation involves collecting material about the incident that is then presented to the alleged violators, and in the words of the president of the firm, "they usually make the right choice." The company boasts that it has always fulfilled its promise to return any damages to its clients.

As always, enforcement is costly and the fees charged by Aleks are beyond the reach of most firms. The president of Aleks declined to specify their rates noting only that they are generally three times less than those charged by a Western security firm.\(^5^8\) If force is necessary to bring compliance, many options other than expensive legal security agencies exist. In many cases it is cheaper and more effective to hire someone to throw a rock through an offender's plate glass window (and force them to scour the country in search of plate glass) or to expropriate the good than to hire a legal security agency or to take the matter to the state for adjudication and enforcement.\(^5^9\)

In addition to high costs, private third-party enforcement fosters more vexing problems. Given the nature of the work and the means of payment, it is difficult for a private enforcement agent to gain a reputation for probity. For example, actually inflicting punishment is costly and often dangerous. If an economic actor gives an enforcer a payment prior to a resolution of the problem,

\(^{58}\)Interestingly, the president of Aleks also claimed that his firm provided security services for the government.

the enforcer will have little incentive to actually deliver the punishment. The economic actor who is considering making this payment can foresee this logic as well. Realizing that she has little leverage over the enforcer once this payment is made, she will be reluctant to make the initial payment. Exchange will not take place due to fears of breach and both the economic agent and the enforcer will suffer. Thus, the enforcer has an interest to garner a reputation for probity but, as noted above, this is difficult.

Aleks alleviated this problem by initially engaging in activities that were easily monitored such as transporting goods and guarding warehouses. According to several sources they have generally been able to parlay this reputation for probity into other less directly verifiable areas such as credit checks and financial research.

A more intractable problem associated with private third-party enforcement is overcoming the potential for extortion. If private enforcers are more efficient that state enforcers, there is immense potential for corruption and extortion. Dependence on private enforcement agents allows the enforcer to ratchet prices and exaggerate threats with impunity if they possess a monopoly on the use of violence. A Ministry of Internal Affairs official commented that in Ekatarinamburg "no honest business man can do anything unless he pays unofficial taxes to crime groups who in turn control
many of our officials through bribes."

Rendering payment to third-party enforcers creates a potential for extortion, but for the moment private security and enforcement services may well be cost effective. The growing criminalization of the economy is evident in many respects. The sale of locks and security alarms is booming in Moscow and the steel curtains that are used to protect storefronts in large American cities have recently made their appearance in the capitol. As noted above we may want to distinguish between crime as retaliation for breach and crime as deviant behavior. Nonetheless, until a more cost-effective means of enforcing agreements arises, force, including force provided by legal and illegal private security agencies, will remain an attractive option.61

State-backed Enforcement

One way to ameliorate the problems of adjudication and enforcement is to rely on the state for these services. North and Thomas argue that the state emerged as a means to provide the public goods of adjudication and enforcement at lower rates than can be provided privately. Yet, "bringing the state back in" to strengthen enforcement involves a trade-off for the actors

60Ibid. p. 40.


involved. A state that is made strong enough to enforce contracts, is also made strong enough to anull them. Actors who fear an arbitrary use of state power may be unwilling to devote the resources necessary to strengthen the state's enforcement capability. A strong social demand for a state role in adjudication and enforcement would buttress a central justification for the state.

Actors seeking to gather resources to lobby the state for adjudication and enforcement face a collective action problem. Most traders would favor impartial, rapid adjudication and enforcement by the state, but no individual has the incentive to supply the resources needed to achieve this end. An economic actor may find it more attractive to hire private enforcement that will work on her case specifically, rather than pay taxes or lobby to provide the public good of enforcement.

The structure of the commodity exchange sector has mitigated the collective action problem somewhat because the largest exchanges control a large portion of trade. The largest exchange, the Russian Raw Materials and Commodity Exchange (RTSB) handles

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roughly twenty percent of all trade in Russia.\textsuperscript{65} Aided by this small group of wealthy founders, the commodity exchanges have begun to engage in partisan political activity. One of the main actors in this movement is Konstantin Borovoi, the former head of the largest exchange in Russia, RTSB. In the summer of 1992 he has left the exchange to found and lead the Party of Economic Freedom and has become a prominent political actor.\textsuperscript{66} One success of interest group lobbying by commodity exchange founders is the recently passed "Law on Commodity Exchanges." The Law does contain some restrictions on the rent-seeking activities of exchange founders. It bans the founders from engaging in exchange and bars them from holding seats on the exchange or diverting goods prior to preferred buyers. Second, the Law provides incentives for commodity exchanges to register as non-commercial organizations. The Moscow Ferrous Metal Exchange has already taken this step to reduce conflicts with brokers. These statutes aim to bring the Russian commodity exchange in line with current Western practices. Nevertheless the two major commodity exchanges, the MTB and the RTSB, submitted the draft legislation that provided the basis for the Law. One official noted that the Law includes 90 percent of the provisions drafted by the two major commodity exchanges. Thus the Law is congenial to the interests of the founders of the commodity exchange.

\textsuperscript{65}Zhurek, 1993.

\textsuperscript{66}"Prichudi bogatikh: Borovoi reshil stat' partiniim," Kommersant' #19 May 4-11, 1992.; Also "Brokeri na Bariikadakh," Novoye Russkoe Slovo, Yeknet 8-9, August 1992.
exchanges. Those aspects of the law that are not so congenial have yet to cause much worry among the representatives of the commodity exchanges. One MTB official noted that the Law has "not yet changed trading on the exchanges in any way." 67 Another confided that the "laws can usually be gotten around one way or another." 68

As in all cases of third-party adjudication and enforcement, incentives must be provided for enforcers to enforce. One branch of political economy emphasizes the state as the guarantor of property rights. William Riker and Itai Sened note that state actors play a key role in granting property rights. 69 In their analysis of a property rights struggle over airport landing slots, a key variable was the degree to which state actors benefitted from securing property rights for private actors. In their case, state bureaucrats received a payoff, a higher budget and broader responsibilities, for securing landing rights for economic actors.

In the Russian context, however, it is not yet clear that it is in the interest of state actors to recognize and guarantee property rights for private actors in the commodity exchanges. In view of the negative opinion of brokers, cooperative owners and

67 Personal Interview with MTB official, June 1992.

68 Personal interview with commodity exchange analyst, June 1992.

others working in the new economic structures in Russia, many politicians have been unwilling to go to bat for entrepreneurs in the private sector of the economy. In addition, the Party for Economic Freedom and other parties that share their platform have yet to draw a broad base of support that would sanction state actors who oppose them or reward state actors who support them. Lobbying the state may be a more favorable approach for enterprises with strong ties to the state.

State actors at the local level may provide limited support for the security of property rights held by the exchanges. The founders of most exchanges include agents of local governments who receive a packet of shares in the exchange. Workers in the exchange noted that the local government bodies play a passive role in the operation of the exchange and were made founders only "so there would not be any problems." Nonetheless, by receiving shares in an exchange, the local government also receives a stake in the profitability of the exchange. This may give it an incentive to protect the property rights of the founders of the commodity exchange.

Conclusion

In conclusion, the institutional design of the commodity exchanges in Russia exacerbated a number of problems for brokers trying to make contracts credible and enforceable. The decision to charge a commission on each trade pushed many transactions off the exchange register and complicated contract enforcement. Moreover, the weak dispute resolution procedures provided by the exchanges
have done little to improve contract compliance.

Despite the flawed institutional design of the commodity exchanges, brokers have used a variety of means to mitigate serious adjudication and enforcement problems. Economic hostages, vertical integration, reputation effects, social norms, social sanctions, private and state-backed enforcement are currently being used with varying degrees of success to reduce opportunism. The weakness of a low-cost, neutral third-party enforcement agent (such as a well-functioning state) has complicated exchange so that the trading environment on the floor of the commodity exchange is often quite risky. Nonetheless, traders have shown considerable ingenuity in using private ordering to secure trade.

Moving beyond the perspective of the commodity exchanges, it may be warranted to speculate about the political consequences of different institutional responses to contract enforcement problems. If the central government is unable to enforce contracts, regional governments who have even fewer resources will be forced to pick up the burden. Regional governments within Russia may seek to increase their degree of autarky and to provide for their own contract adjudication and enforcement. If their resources are insufficient to provide secure exchange, one would expect an increase in private enforcement, both legal and illegal. As noted above, private enforcement has a number of deleterious consequences for political institutions, such as increased opportunities for extortion and a lack of impartial adjudication. The race between private and state enforcement will be a key determinant in shaping the nature of
political units within Russia. Those organizations - the central government, regional governments, private security agents, organized crime or any combination of the above - that are best able to resolve the problems of adjudication and enforcement will likely emerge as the most powerful actors in Russia.