Post-Communist Economies, Vol. 12, No. 3, 2000

Barter in the Russian Economy: Classifications and Implications (Evidence from Case Study Analyses)

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Abstract

This article addresses Russia's barter economy. Using interview data, it examines the mechanics of barter settlements and classifies the main types of non-monetary transactions. The major reason for barter is lack of a competitive monetary system. In the 1990s barter represented a specific vehicle to perform settlements. Barter itself is not a way to evade taxes or to defraud enterprises of assets. But barter changed the motivation of enterprises and led to systematic distortion of accounting data. The low transparency of the barter economy creates barriers for investment and restructuring. The barter economy is an insider's economy. The lack of affiliated entity regulation and mechanisms for disclosure of transactions with related parties stimulates insiders to criminal application of barter and monetary surrogates. Barter has become a profitable business for a number of important economic agents including financial intermediaries affiliated with top managers of the biggest privatised enterprises and government agencies.

The extremely high level of barter and other non-monetary transactions in the Russian economy has been the subject of a number of different studies. According to Russian Economic Barometer (REB) data, the share of barter in sales in industry was equal to 50% in mid-1998. Among large enterprises it was even higher—about 75% in 1996–97 according to the estimates of the government's Interagency Balance Sheet Commission.[1] The share of barter is also generally much higher in the turnover of inefficient enterprises.[2] Non-monetary transactions are closely connected with tax arrears and tax payments in kind.[3] As barter increased from 1992 to 1998, the government proved unable to check its growth, despite the adoption of policy measures recommended by Western and Russian experts. It is fair to say that barter is a manifestation of the inefficiency of post-Soviet economies in transition, just as shortage was the visible manifestation of the inefficiency of the planned economy in the Soviet period. Understanding barter is critical to understanding why economic reforms in Russia did not achieve success in the 1990s.[4]

Thus barter poses a serious problem for economic policy. The situation can be

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ISSN 1463-1377 print; 1465-3958 online/00/030279-13 © 2000 Centre for Research into Post-Communist Economies

changed drastically by means of certain policy measures. Such measures, along with the reasons for widespread barter transactions, have been discussed in the economic literature. However, these remedies are not the focus of the present article. Despite the changes in economic policy now in prospect, there will still be a high percentage of barter in Russia for a long time. It follows that, while developing measures to reduce Russian industry's reliance on barter over time, there is also a need for policies that will reduce the harmful effects of barter in the interim. Accordingly, this article considers not the proposed remedies on offer but the mechanics of the barter economy itself. How does it work? How does it create barriers to development and investment at firm level? What are the connections between barter, fraud and crime? Answering these questions should facilitate the adoption of policies appropriate to the barter economy environment, which could increase transparency and reduce the scope for fraud and crime by means of barter and the employment of money surrogates.

The analysis draws on in-depth interviews with Russian managers concerning settlement arrangements. The interviews were conducted in different Russian regions within the framework of the 'Regional Private Sector Assessment Study' Project in 1997–98.[5] The Interagency Analytical Centre (IAC), in conjunction with the Institute for Private Sector Development and Strategic Analysis (IPSSA), performed the research as requested by the Russian Privatisation Centre. The analysis also takes into account discussions with specialists from the International Centre for Accounting Reform (ICAR) in Moscow within the framework of the project 'Barter Accounting: Russian Experience'.[6]

Types of Barter Transactions

Historically, there have been three major methods of non-cash settlement in Russian business practice: commodity barter, offset arrangements and promissory notes or bills of exchange, hereafter referred to as '*vekselya*'.[7] When speaking of barter and offset arrangements, managers of companies generally mean not only a method of transfer but also specific types of transactions. Therefore, it is necessary to develop a classification of transactions in order to achieve a better understanding of barter activity.

Direct Barter

Enterprise directors see barter as a specific type of business transaction related to direct commodity exchanges when two enterprises are interested in buying products from one another. For example, an enterprise that manufactures dry mix used in construction agrees to ship its product to its counterparty, which agrees in return to supply pipes required by the first company to repair its water and heat supply system. In this case, the buyer initiated the barter transaction, but the opportunity to perform it was contingent upon the supplier's demand for those commodities which the buyer could offer in exchange.[8]

Another type of barter involves the collection of overdue receivables from customers that have received products but have failed to pay; the unpaid supplier does not particularly want its customer's output but it is anxious to receive at least *something* in payment of the debt, even if it is not money. Such 'forced barter' often arises when a supplier has no discretion in customer selection owing to specific sectoral or regional peculiarities. For example, in order to utilise at least some of its production capacity, a privatised manufacturing company in Udmurtia that operates in the area of land improvement had to agree to execute unprofitable orders with a long deferral of payment and forced barter. In another example, an enterprise received Moskvich cars made in Izhevsk at a price marked up by 30% as consideration for an order that had been executed long ago. The refusal to perform such a barter transaction would have led to no payment at all. These cars were later used for subsequent exchanges.

Finally, an Udmurtia-based wholesale company described another type of barter, when a buyer (another retail company or manufacturing enterprise) offered either cash or barter as consideration. In this case, the supplier can select the more profitable barter settlement scheme. Popular liquid goods, such as foodstuffs (chocolate, beverages, chewing-gum) or occasionally computers, stationery and animal fodder, were often subject to this form of barter, according to the managers interviewed.

Despite the fact that each of the above three examples of barter looks different, there is one feature in common. As noted above, in addition to direct commodity exchanges between counterparties, the nature of all the transactions was one-time or occasional. This was true irrespective of whether the commodity received on barter was consumed directly at the enterprise or was used for subsequent exchanges.

Offsets and Offset Arrangements

The interviews show that, within the framework of barter transactions described by the general category 'offsets', managers of companies usually draw a line between offsets with the government or public sector entities and offsets with other enterprises.[9] Offsets with local government agencies can be performed by the transfer of funds to tailor-made bank accounts of suppliers, which can be transferred immediately to the government. Sometimes regional government offsets are performed by issuing *vekselya* to enterprises that can be used to pay tax arrears or to settle transactions with other companies. For example, *vekselya* issued by the Ministry of Finance of the Republic of Udmurtia were traded in Udmurtia in 1997–98.

Offsets involving the federal government were most often executed by providing an enterprise with some financial documents that could be used to pay tax arrears within a specified period of time. For example, a bread-making plant that supplied part of its output to the Defence Ministry's military units and the Interior Ministry's correctional facilities eventually received such 'securities'. Like *vekselya*, these financial documents could be traded in the market at discounts of 30–40% and occasionally even 50%. In late 1997 the federal government tried to end the use of these offsets (as of 1 January 1998) but this policy did not succeed.

Despite a variety of possible forms, offsets of liabilities to government agencies in 1997–98 accounted for a small percentage of total offset arrangements during that period. Offset arrangements with other enterprises accounted for a much larger percentage of transactions.

Offset arrangements differ from other barter transactions because they are primarily used by large enterprises using relatively stable commodity flow channels. Offset schemes most commonly arise where all the enterprises involved in a barter chain are mutually dependent on each other. Because of these mutual dependencies, a supplier cannot simply refuse to perform a transaction owing to a customer's insolvency. And a customer may not be in a position to change its supplier even if the supplier overprices its products and services: there may be no alternative supplier available or the customer may lack the means to pay the alternative supplier if the latter insists on payment in money.

For example, here is a chain of companies which illustrates a stable commodity flow channel. Company A is a construction materials company that quarries gypsum stone to manufacture dry mix, which it supplies to a large customer, Company B, a cement plant in a neighbouring region. Company B provides regular supplies of cement to a fossil fuel power station (Company C) located in a third region. Company C's customer, AO Energo (Company D), supplies electricity to the first company in the chain, Company A, the gypsum stone manufacturing company. Company A was interested in settling payments with electricity suppliers[10] because non-payments involve disconnection and business disruptions. To prevent disconnection and business disruption, Company A usually initiated offset arrangements and 'worked them over' with all interested parties. Similarly, the company tried to identify in advance potential offset arrangements with other key suppliers, such as railway enterprises, to ensure the current operations of the company. Company A developed agreements on specific offset terms and finally drafted a relevant multilateral contract.

Preparing and conducting such offset arrangements, involving six to seven and even more enterprises, usually requires several months. The offsets are not necessarily related to existing current obligations to the suppliers. This means that, unlike barter as a direct commodity exchange transaction, offset arrangements are more likely to arise in the overall system of financial planning when an enterprise starts estimating its financial flows and understands that it is much better to enter into contracts with major suppliers on potential offsets of liabilities. Inputs received from suppliers under offset arrangements are used directly at the consuming enterprise rather than being deployed in further exchanges.

Veksel' Schemes

Despite differences in legal and accounting execution, *veksel'* settlements are similar to offset arrangements in terms of economic substance. If the sequence of settlements is reversed, the previous example can illustrate this. AO Energo (Company D) gives its *veksel'* as consideration to a fossil fuel power station (Company C) that transfers the *veksel'* to the cement plant (Company B) in settlement for its supplies. The cement plant then uses this *veksel'* to pay the gypsum factory (Company A). The gypsum factory uses the *veksel'* to pay its debt to AO Energo or pays for future electricity supplies. On the whole, *vekselya* can be regarded as a uniform type of debt instrument and they are a logical supplement to offset arrangements. Like offset arrangements, *vekselya* can differ significantly in terms of liquidity.

Other Classifications of Barter Transactions

The above classification is based on the different nature of barter transactions and offset arrangements. However, there are other criteria for classifying barter transactions. ICAR experts note that non-cash methods of settlement can be also classified in terms of their liquidity.[11] Andrei Shcherbakov, president of the Kurs medium-sized machinery plant, says that three types of barter can be distinguished. The first category includes everything that can be executed through paperwork and which does not require storage and maintenance expenses. Additional costs arise only if an enterprise wishes to sell such assets for cash. This category includes reliable *vekselya*, especially those issued by the so-called 'natural monopolies',[12] and tax offsets. The second category, so-called universal goods, includes all types of fuel, highly liquid consumer goods and food products. These goods are liquid, but require special storage conditions, which leads to additional costs. The third category includes everything else.[13] Ultimately there is a buyer for every asset if its quality is satisfactory. But in case of third category goods seller (producer) should cover higher storage and marketing costs.

However this classification is subject to specific needs of a concrete enterprise. From the point of view of every single enterprise the first category may include not only liquid financial instruments but also raw materials for core production of this enterprise. This can be used by the counterparty for making extra profit from buying liquid goods (which normally would be included in the third category) at a low price and selling them to the enterprise as first category goods at a normal or high price.

Thus the unequal positions of the barter participants are an important factor. To this end, one of the participants almost always loses and the other enjoys some gain. Therefore, the underlying principle of the barter chain structure takes this fact into account. It is necessary to consider whether bartered goods belong to the first, second or third category from the point of view of a specific counterparty. Shcherbakov illustrates this with the following example. His enterprise requires regular supplies of steel for its core production. At the same time its products (pumps, fans and electric motors) are not attractive for large metal-producing factories. They can use these products only occasionally for minor repairs. Therefore in the course of a direct exchange transaction a metal producer forces Shcherbakov's enterprise to buy its products at a higher 'barter' price, whereas it requires electric motors to be supplied at a lower 'cash' price. This situation can be changed by adding another counterparty. It is even possible to get an additional profit from a barter transaction if another counterparty is involved in the transaction. The latter might regard pumps, fans or electric motors as important spare parts for its core production; at the same time, its own products or services might be critical for the metal-producing factory. Such a counterparty might be an ore mining and processing enterprise which supplies raw materials to metals factories and has a permanent demand for electric motors to maintain its excavators in operating condition. Another likely counterparty would be a carriage plant which also has systematic need for electric motors and can provide as consideration an offset of services provided by the Railways Ministry. Metals factories regularly use railway services; therefore, such an offset is quite critical for them.

Sergei Nikolaev, head of the Financial Analysis Department of OAO Uralmash-Zavody, suggested a slightly different classification of settlements in terms of liquidity. He thinks that there is a multi-currency system and several types of payment method in the Russian economy: cash, goods and debts. Offset arrangements are just a legal execution of mutual debt repayment.

General Implications of Barter

Interviews and questionnaires suggest that the percentage of non-cash settlements is usually higher in large enterprises that are far from finished consumer goods markets and/or external markets, as well as in companies outside big cities.[14] The role of offset arrangements increases as the percentage of non-cash settlements goes up. Thus, according to the polls conducted by the Russian Government's Centre for

Economic Analysis (CEA), offset arrangements in 1997 accounted for 80% of total barter transactions in large-scale industrial enterprises. Total non-cash transactions reach as much as 70–80% in some industries, such as the electricity, fuel and heavy machinery sectors.

At the same time, there are industries where cash settlements predominate, such as retail and wholesale trade, as well as most of the food-processing industry. It is still possible to sell products for cash even in industries with a high percentage of barter. However, the 'live money' price of such goods is generally less than the book value of the products. Therefore, each market has certain ratios of prices used in different types of settlements. The lowest (nominal) price is established when cash is paid for products. The highest nominal price is typically for barter transactions. It can be 2.0–2.5 times as much as the 'live money' price. Offset and *veksel'* prices are usually between barter and cash prices for similar products. After the financial collapse of August 1998, according to many respondents, the gap between barter and cash prices declined significantly (to 1.5 times) and offset prices even became equal to cash prices in a number of cases.

Interviews with managers and discussions with experts enable us to identify a sharp increase in additional transaction costs as barter transactions became widespread in Russian industry. The reason for the higher transaction costs of barter is that most enterprises that initially forced their products onto suppliers had been suppliers themselves with respect to other enterprises. Eventually, they had to accept barter settlement from their customers. Barter began as a spontaneous phenomenon and turned into a system. This had a number of additional implications.[15]

First, companies that actively used barter settlements lost incentives to cut costs, because a higher price for their products transferred to suppliers under barter exchanges enabled them to 'offset' a larger portion of their liabilities to their suppliers. However, higher prices and lower costs resulted in higher profit tax bills. The latter had to be paid in live money (cash or bank money), the share of which in the gross revenue of such enterprises was very limited. Higher barter and offset prices compared with money prices also resulted from additional risks from short-term opportunistic behaviour on the part of customers, made possible by the lack of information on the quality of future payments. Suppliers recognised that only some uncertain percentage of payments for their products would be made in money and on time, so they started including additional costs related to possible deferral of payment, forced barter etc. in sales prices—in essence, a mark-up in anticipation of the costs that late and/or non-monetary settlements would impose on them. However, such pricing policies on the part of suppliers created additional incentives for consumers to use non-payment and non-cash settlement as cost-reduction techniques. Thus, negative expectations on the part of both suppliers (with respect to payment) and customers (with respect to price) came to reinforce the reliance on non-monetary settlement.

Secondly, companies were confused by the system of multiple prices for the same product denominated in cash and non-cash rubles, *vekselya*, different offset arrangements, tax exemptions, barter etc. These were all denominated in 'rubles', but the rubles in question were not of equal value: a ruble in cash was worth more than a ruble *veksel'* or a rubles' worth of offsets or bartered goods. On the one hand, firms were not able to calculate their actual costs. On the other hand, being always able to force their products onto suppliers, they could not adequately assess the real demand for their products. It was also difficult to understand which products the market actually required. Therefore, both efficient and inefficient enterprises tended to adopt a survival strategy, i.e. they tried to maintain the production of old, mature goods. This resulted in inefficient utilisation of inputs—creating, in some cases a 'value destroying' effect,[16] when actual [cash] proceeds from the sale of finished goods were lower than input acquisition costs—and falls in production. Entire industries were going through recessions instead of outsting inefficient enterprises.

Thirdly, the employment of multiple units for measuring enterprise performance ('live money' rubles, offset rubles, barter rubles etc.) led to serious distortions of the information available to outside investors and creditors. Without access to primary financial and management accounting data that are available to managers and leading shareholders, outsiders were unable adequately to assess the actual financial position of enterprises on the basis of their official financial statements. The non-transparency of the accounts of enterprises in the system of barter settlements restricted the flow of credit and investment to the 'real' sector of the Russian economy.

Fourthly, the desire to simplify barter exchanges led first to offset chains (as a rule constructed around electricity companies and the Ministry of Railways) and then to the use of different *veksel'* schemes. That meant the appearance of several 'currencies' in which one and the same good could be valued simultaneously. This complicated multi-currency system offered great possibilities to play on 'exchange rate differences' among different goods and money surrogates.[17] Successful implementation of such operations required good knowledge of the state of many interrelated goods markets. Precisely for this reason such deals are usually conducted not by industrial enterprises (as in the case of Shcherbakov) but by specialised intermediary companies. In general, by 1994–95 earning money on the execution of barter, offsets and tax exemptions had become a profitable business. The intermediary's profit for one deal requiring 1.5–2 months preparation could be up to 35–40% of the sum involved.

The peculiarities and risks of this business lie in the low liquidity of the goods and money surrogates used by intermediaries for constructing barter chains. The risks could be reduced only by having very close personal ties with top managers of large manufacturing companies and federal and regional authorities 'making' money surrogates. Finally, these people were responsible in every case for the proportions and period of time in which *vekselya* or offsets could be exchanged for money or for goods and services with high liquidity. As a result, by the middle of the 1990s there was a specialised business network in Russia made up of intermediary companies specialising in organisation of barter exchanges, offsets and *vekselya* realisation, top managers and leading shareholders of big manufacturing companies, and civil servants who carry out tax offsets. All the participants in this network had an interest in preserving the existing impure and inefficient system of non-monetary transactions. All of them enjoyed good dividends from this system. At the same time, these 'operators of commodity and financial flows'[18] had enough power to oppose measures aimed at normalisation of the payment systems.

Fifthly, as surrogates replaced cash in settlements between large manufacturing enterprises, a growing problem of tax non-payment emerged. It is worth saying that, according to surveys of manufacturing enterprises, tax payments used to be the first priority for directors.[19] Companies were ready to increase their payables to suppliers and their wage arrears in order to pay taxes on time. However, sooner or later there came a crisis, when the total money revenues of enterprises were less than their total tax liabilities, wage arrears and cash payments of at least part of their key supplier accounts. Giving first priority to tax payments would have meant suspension of production, because workers would have stopped working and suppliers would have stopped shipping their goods. Eventually enterprises were not able to pay all their taxes. This resulted in tax arrears as well as fines and penalty fees accrued on enterprises.

Finally, enterprises ended up having huge taxes payable that they were really unable to pay off. The enterprises' priorities changed with respect to both the order of payments and their investment policies. Tax payments became the last priority, even for those companies that could have paid taxes, as managers in healthy companies saw no reason to pay taxes if others were not doing so. The amount of taxes paid and the form of payment (live money, surrogates or payment in kind) were largely driven by the nature of interrelationships between companies and local authorities. Local authorities, unlike the federal government, were able to assess the actual financial position of each specific enterprise and exert more efficient influence on its managers. At the same time local authorities that needed to maintain social stability in their enterprises had no interest in suspending their production. Therefore they were ready to protect these enterprises from the federal government's fiscal pressure and to accept a large portion of tax payments in non-monetary form.

Huge overdue taxes payable resulted in a preference for short-term projects in investment policies. This trend was due to a bankruptcy risk initiated by the government. Given the pervasiveness of non-payments, bankruptcy procedures could not be filed against all debtors. Nevertheless, each individual enterprise faced potential bankruptcy, so there was a permanent risk of property redistribution. Therefore owners of all debtor firms preferred to invest (if at all) in projects with a short payback period; some chose not to invest at all, or even sought to withdraw their funds entirely. The latter trend was reinforced by the fact that tax authorities can extract tax payments from accounts without the account-holder's approval; this led to increasingly complex methods of settling transactions with suppliers and customers, which were increasingly performed via small intermediary firms affiliated to top managers and major shareholders of enterprises.

Opportunities for Insider Abuses within the Framework of Barter Deals

Obviously, there can be discrepancies between financial statements and actual events in any economy. However, if cash settlements prevail in an economy, such discrepancies are less likely to happen. The likelihood of discrepancies increases when barter and monetary surrogates account for a significant percentage of settlements between enterprises. Russian accounting practitioners believe that the result of this is to make financial statements useless for creditors, potential investors, small shareholders and government agencies. According to one specialist, 'the balance sheet does not provide any information; it is usually requested out of politeness. The real financial situation of the enterprise is shown by the accounts of subsidiary firms or "black cash"; these do not appear in the enterprise balance sheet'.[20]

Thus, widespread barter transactions lead to serious distortions in financial statements. These no longer provide a true and fair view of the firm's situation and activities. On the whole, non-cash settlements give rise to breaches of ownership rights and to tax evasion. However, it is worth admitting that the latter processes are also likely to occur in a purely cash-based economy. Therefore, before trying to analyse the opportunistic behaviour of managers and shareholders, it might be useful to consider the major areas of insider abuses.

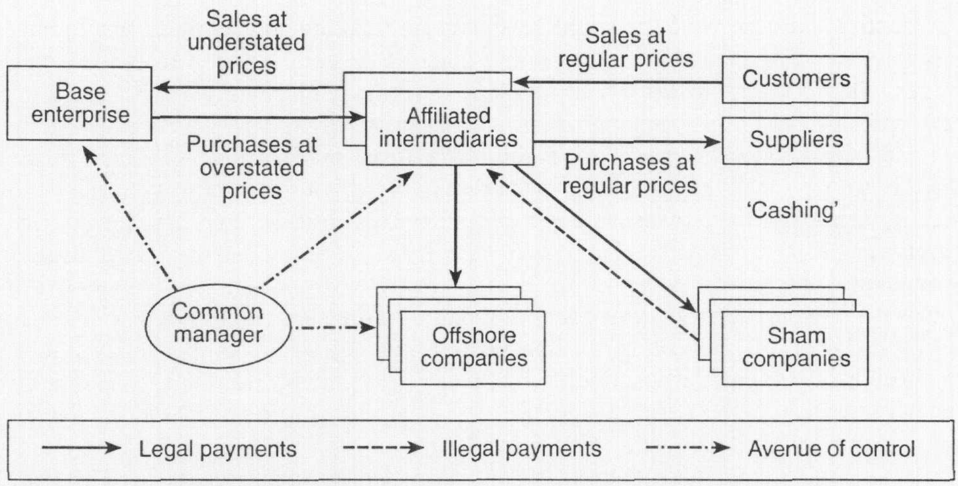

Figure 1. The general scheme of non-cash settlements with management abuses.

> Option 1. A managing owner (or owners) manipulates prices in the course of certain commodity and financial transactions and shifts funds from one associated enterprise to another (for example, from a Russian legal entity to a firm located in a foreign offshore zone). This harms the financial performance of the first enterprise and reduces the domestic tax base, but the owner's interests are not hurt. In the developed countries, such cash transfers between two related companies are lawfully possible as part of transfer pricing.

> Option 2. One of the owners involved in the day-to-day management of the enterprise manipulates prices in the course of certain commodity and financial transactions and shifts funds from the enterprise, which is partially under his control, to another, which is wholly controlled by him. This produces worse financial performance for the first enterprise and reduces the domestic tax base—and the interests of the other owners suffer.

> Option 3. A manager who is not among the owners of the first enterprise takes similar steps. This undermines its financial performance, deprives the state of revenue and harms the interests of all owners.

Obviously, option 2 is a combination of options 1 and 3. It is still shown as an independent scheme because it is the most typical in the current Russian environment. Figure 1 illustrates the overall rationale behind this option, showing the general principles of siphoning financial resources from major enterprises. Given Russian practices for the past few years, almost all settlements with suppliers and customers are performed via affiliated intermediaries. The base enterprise that siphons off cash regularly overstates its input prices and understates its sales prices. The difference between distorted and actual prices goes to the bank accounts of intermediaries that are affiliated with managers and large shareholders of the base enterprise.

However, under cash settlements, such price manipulations can be easily detected as part of market price analyses for similar goods or services. In this respect, barter, *vekselya* and netting arrangements facilitate insider price manipulations, because, given the same nominal price level, various non-cash vehicles that are different in

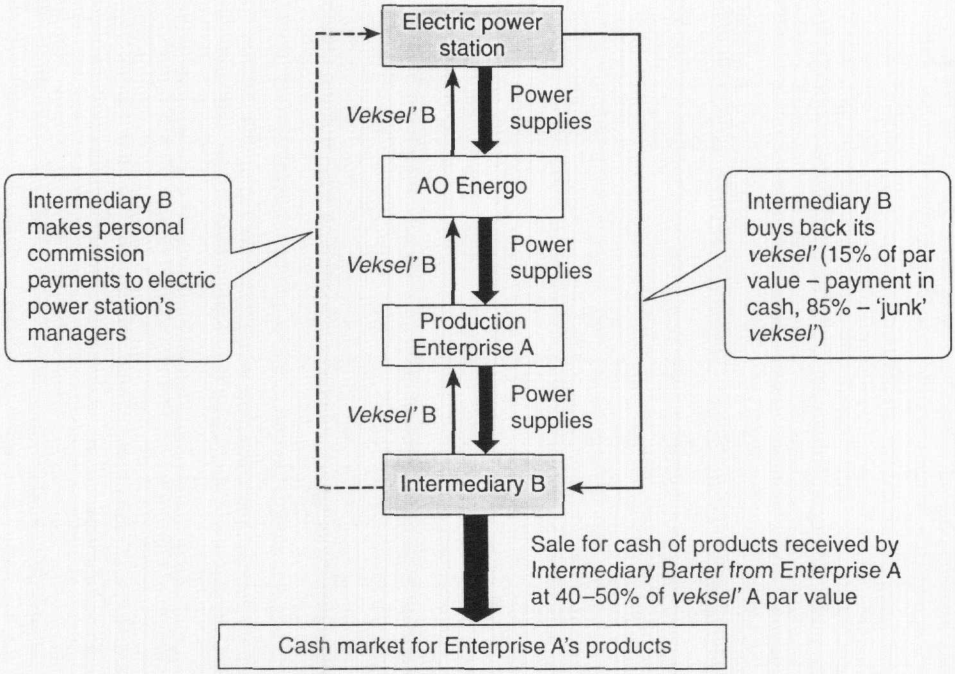

Figure 2. The practice of fraud using monetary surrogates.

terms of liquidity can be used. This makes it difficult to assess the true financial position of enterprises involved in non-cash settlements.

Figure 2 illustrates potential management abuses in the process of *veksel'* settlements. The underlying scheme is as follows. Intermediary B enters into an informal arrangement with the management of the power station whereby the latter will accept at par the intermediary's *veksel'* issued to Enterprise A in settlement of debts of AO-Energo and Enterprise A. Then intermediary B redeems the *veksel'* by paying 15% in cash and 85% in the so-called 'junk' *vekselya*.[21] Enterprise A in turn provides intermediary B with products that can be sold on the market for 40–50% of their *veksel'* price. In return for their assistance in executing the deal, the power station's managers are also likely to receive certain commissions from intermediary B, often in unreported cash. This results in the deterioration of the power station's financial position owing to the redistribution of its financial assets in favour of intermediary B and the station's managers as individuals.

Conclusion

Summarising the above analysis, the following are the major features of the Russian barter economy.

1. Barter exists within a specific macroeconomic environment. The major reason for barter is lack of a competitive monetary system. So, barter will disappear only if it becomes unprofitable for most economic agents. This means a close correlation and interdependence of money and barter segments in each commodity market.

2. Barter's dominance poses serious measurement problems for companies. Owing to the prevalence of non-cash settlements, balance sheets are increasingly reporting 'junk': there are wildcat assets, the carrying amount of inventories is generally overstated, and existing receivables and payables are often large-scale debts of only one counterparty. At the same time a huge barter market cuts cash prices down and the money market cannot always fairly set prices for assets. This information distortion contributes to the low transparency of the barter economy. Only insiders can evaluate the actual financial position of enterprises in the barter economy—and sometimes even they are unable to do so. Therefore widespread barter transactions really create additional incentives for economic crime.

Nevertheless, all our respondents stressed that barter is an objective economic transaction. It is not a way to evade taxes or to defraud an enterprise of its assets. It only represents a specific vehicle to perform settlements. Tax evasion and fraud are applications of this vehicle. Thus, the criminal aspects of barter depend on the general motivation of the managers and leading shareholders of real sector enterprises. Do they face incentives to behave honestly or opportunistically? Thus, the underlying issue is in part to motivate managers and owners to look after the long-term welfare of their firms—to invest efficiently rather than to siphon off assets. There is also the question of the opportunities, as well as the incentives, for opportunistic behaviour by insiders. In respondents' opinion the lack of regulation of relations among affiliated entities and of mechanisms for affiliated transaction disclosures reinforces the incentives for criminal application of barter and monetary surrogates. Enterprises' assets were not dissipated: there has instead been an intensive reallocation of resources. However, this has not been a reallocation from inefficient enterprises and uses to more efficient ones, which is what the success of economic transition requires, but from outsiders to insiders. Unfortunately, it is not yet clear that the Russian government is ready and able to bring an end to this 'reallocation'.

Notes

1. MBK (1998); Karpov (1998).
2. Aukutsionek (1998); Karpov (1998); IAC-IPSSA (1998); Kaufman & Marin (1998).
3. Karpov (1998); Gaddy & Ickes (1998 a, b); Commander & Mumssen (1998).
4. Makarov & Kleiner (1999); Yakovlev (1999). Stiglitz (1999) is also very important for this issue.
5. See IAC-IPSSA (1998).
6. ICAR (1999).
7. Yakovlev & Glissin (1996); Karpov (1998); Yakovlev (1998); Commander & Mumssen (1998).
8. The distinction between 'buyer' and 'seller' is problematic, since neither party is paying in money. The party initiating a transaction might be thought of as the seller, as in this case, but most barter takes place within established relationships.
9. IAC-IPSSA (1998); Yakovlev (1998).
10. However, it is worth noting that AO Energo cannot disconnect all non-payers that force barter instead of cash because this would lead to a sharp fall in electricity sales and loading of AO-Energo's co-generation power stations. Therefore barter and cash percentages are generally determined on a case by case basis depending on the position of AO Energo, the specific customer's market position and, of course, local politics. In other words, this is subject to bargaining.

11. See ICAR (1999).
12. In conventional Russian usage, the term 'natural monopolies' refers specifically to the three great infrastructural monopolies—the electricity monopoly RAO EES Rossii, the gas giant RAO Gazprom and the Ministry of Railways. This contrasts with the meaning of the term found in any Western economics text (minimum efficient scale of production equal to or greater than the size of the market).
13. For more detailed description see Voronovitsky & Shcherbakov (1998); Shcherbakov (1999).
14. Yakovlev & Glissin (1996); IAC-IPSSA (1998); Aukutsionek (1998).
15. See discussion in Commander & Mumssen (1998); Yakovlev (1999).
16. See Gaddy & Ickes (1998b).
17. One example was given by Shcherbakov at the ICAR workshop.
18. This is the term used for this category of participants in the market by Karpov in his last report on the financial state of Russian enterprises (see Karpov, 2000).
19. Dolgopyatova (1995); IAC-IPSSA (1998).
20. See ICAR (1999).
21. This type of *vekselya* includes those which are not quoted and cost only 0.5% or 1% of their par value. However, according to current accounting rules, Russian enterprises can report them at par. Experts believe that this results in lots of 'junk' on the balance sheets of most Russian enterprises.

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