Barter and Arrears in Russia:
Principles of a Solution Strategy

by

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1. Introduction

Widespread enterprise arrears and barter transactions[2] are symptoms a deeply flawed process of industrial restructuring in Russia. Direct subsidies and directed credit to industry have been gradually phased out, but they have been replaced by implicit subsidies such as tax offsets and arrears. Inflation has been reduced, but a persistent fiscal imbalance has induced banks to finance the government rather than enterprises. This mix of policies has created an economy riddled with barter and arrears where illiquid industrial enterprises remain operational, but do not restructure. The non-cash economy has undermined fiscal stabilization and economic growth. This paper explores the causes of non-monetary transactions and lays out key elements of a solution strategy.

The non-monetary share in industrial sector revenues rose from below 10% in 1992 to around 50% in 1998, while overdue payables by enterprises rose from 20% to almost 50% of GDP.[3] Barter and arrears are prevalent in both state-owned and privatized enterprises and in most sub-sectors of industry and construction. State-owned utilities exhibit particularly high shares of non-cash receipts and regional governments collect much of their taxes in kind. Although some foreign trade is conducted in barter, the problem is primarily a domestic one. Many firms earn cash on exports, but are highly barter-dependent on domestic sales.

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[2] Barter is the bilateral or multilateral exchange of goods. Other widely used non-monetary transactions include offsets, promissory notes and debt swaps. Offsets are non-monetary forms of settlement of outstanding debts. Promissory notes (*veksels*) are monetary or non-monetary claims on issuers of such paper. Debt swaps are the cross-cancellations of bilateral or multilateral arrears or debts.

[3] After the August 1998 crisis, these levels have come down somewhat. However, it is estimated that more than a third of industrial revenues are still non-monetary.

Although these problems are not unique to Russia, most other transition countries have not experienced as much barter. The Russian experience is most similar to Ukraine where non-cash payments in industry amounted to 43% of total sales in 1998, while enterprise arrears stood at around 80% of GDP. In most other transition countries, non-monetary transactions are confined to international trade (where barter is common) and transactions with the state or state-owned enterprises (especially in agriculture and infrastructure). However, many transition countries have experienced periodic build-ups of enterprise arrears and in some countries these have led to cross-cancellations of debts.

2. Causes of non-monetary transactions and arrears

The emerging literature on barter has suggested a number of explanations for non-monetary transactions in Russia:

- *Liquidity and credit squeeze in the absence of payments discipline :* Industrial enterprises experienced a sharp drop in liquidity during transition as demand contracted and direct subsidies were reduced. Access to bank credit dried up as a result of a cut in directed lending and a macroeconomic policy mix of monetary tightening and high fiscal deficits that induced banks to finance the government deficit, rather than providing working capital to enterprises. In an environment of weak contract enforcement and poor corporate governance, most enterprises responded to the liquidity and credit squeeze by resorting to barter and arrears rather than restructuring. Non-monetary transactions and arrears became tools for creating new credit for liquidity-constrained enterprises.[4]
- *Non-monetary transactions and implicit subsidies by the state:* The state has contributed to the growth of non-monetary transactions by accepting non-monetary tax and utility payments from enterprises, issuing tax offsets in procurement, and tolerating payment arrears. These practices – prevalent at all levels of government and the state-owned utilities – have fuelled non-cash economy both directly (as non-cash sales reported by firms) and indirectly (through on-sale of goods, eventual offsets of arrears, or through tradable tax offsets). Moreover, tax offsets and in-kind tax payments tend to overvalue the goods received by the state, thus not only granting an interest-free short-term credit to enterprises, but also an implicit subsidy.
- *Rent seeking:* Non-monetary transactions are a fertile ground for corruption and fraud. The overvaluation of goods in tax offset operations is not always a deliberate subsidy, but sometimes the result of private agreements between enterprise managers and bureaucrats.

[4] Barter transactions typically involve an element of short-term trade credit since most goods require marketing time. A liquidity-constrained firm purchasing an input often seeks to pay its supplier in kind (with its output) as this secures an immediate sales revenue and avoids the need for raising working capital through bank credit. The supplier accepting goods in lieu of cash effectively grants a quasi trade credit to the purchaser of the input. This may be rational if the alternative would be a build-up of overdue receivables. Similarly, offsets are usually a response to rising arrears as firms can settle their debts in kind, effectively an ex-post barter deal. *Veksels* are debt securities that can be used as quasi-money, but their use has fallen sharply since the August 1998 crisis.

In addition, the lack of transparency of non-monetary transactions helps those managers who seek to enrich themselves at the expense of outside shareholders, tax authorities and creditors.[5]

- *Multiplier effects:* Non-monetary transactions have proliferated through a number of multiplier effects.[6] The industrial structure inherited from the Soviet economy is highly concentrated, with strong vertical links. As a result, there are usually few outside options for intermediate goods producers wishing to transact in cash if their main trading partners are engaged in barter. Thus, even profitable firms without liquidity problems can display high levels of barter.

It is possible to synthesize these explanations into a fairly coherent story: Industrial firms experienced severe liquidity problems during transition, but often failed to undertake deep restructuring, resorting instead to arrears and non-monetary payments to keep afloat. The state sanctioned this response by tolerating non-monetary and late payments of tax and utility bills. This continuous infusion of implicit credit and subsidy was the driver behind the rapid growth of barter and arrears until 1998. The lack of transparency associated with non-monetary payments opened up opportunities for corruption and fraud, including tax evasion. Network and thick market effects helped proliferate non-monetary transactions further.

There are a number of reasons why most other transition economies have avoided widespread barter, despite also facing challenges with their old industries. First and foremost, few governments accept non-cash tax and utility payments. In Russia, this practice remains intact, although it has recently shifted to the regional and local level. Second, apart from Russia and Ukraine, most countries in transition have very open economies so that many firms have an option to export their goods for cash. Third, many transition countries have continued to provide credit to industrial dinosaurs, partly transferring their financial problems to the state-owned banks. In Russia, soft lending to industry fell sharply during transition as banks switched into financing the budget deficit. Fourth, other countries have benefited from the growth of new industrial enterprises whereas Russia's poor business climate has deterred foreign investment and prevented the expansion of new domestic SMEs.

Barter and arrears ultimately reflect a failure of economic policy to restructure the ailing industrial sector. The scale of the problems can hardly be exaggerated.[7] The industrial

[5] The hypotheses that barter between private firms allows them to manipulate financial accounts for tax evasion purposes has not proven particularly robust. Although tax arrears and blocked bank accounts may have induced some barter, most firms claim that barter actually raises their tax bill. This is consistent with the observation that barter prices are usually higher than cash prices. The type of fraud connected to barter is probably not clever accounting, but mis-pricing of goods as in the case of tax offsets.

[6] Money surrogates such as veksels are often tradable and can be used for payment in more than one transaction. Furthermore, barter tends to promote the growth of intermediaries which seek out arbitrage opportunities in arranging new barter deals. Finally, once barter reaches a critical level in an economy, there may be "thick markets" in barter, especially for those intermediate goods traded by relatively few firms.

[7] Some observers even argue that most industrial firms in Russia are "value-subtractors". This claim is hard to substantiate, however. First, it is virtually impossible to assess the profitability of any company in the presence

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structure inherited from central planning is highly inefficient. The Soviet emphasis on economies of scale has created over-sized industrial plants, sometimes employing tens of thousands of people and supporting the livelihood of whole towns. This has created high levels of concentration, high transport costs and strong vertical links, all of which inhibit competition. Many firms have excess capacity and have not undertaken any significant investment in decades. As a result, production technology is generally outdated and product quality low, suppressing export prices (as in steel) or preventing export altogether (as in automobiles).

The initial market reforms aimed at promoting enterprise restructuring– price liberalization, privatization, reduction of direct subsidies, monetary stabilization and cut in directed lending – were meant to introduce competitive markets and hard budget constraints. However, the pro-competitive effects of these reforms were partly offset by new implicit subsidies channeled through barter, offsets and arrears. Local government and public utilities are currently primary sources of subsidy, tolerating arrears and accepting overvalued goods in lieu of cash payments. These new forms of subsidy have fuelled the non-cash economy and supported a vicious circle of non-payment and lack of restructuring.

The persistent failure to impose hard budget constraints on loss-making industrial enterprises reflects a deeply rooted resistance against industrial restructuring that has resulted from a number of factors: vested interests, institutional weaknesses, and social considerations:

- Privatization did not produce effective owners and corporate governance in large industrial enterprises.[8] Instead, it has created very dispersed ownership patterns and a misalignment of ownership and control. Managers have operational control and are not effectively checked by shareholders. This allows them to employ non-cash activities for diverting funds away from outside shareholders and to collude with other vested interests such as local politicians and bureaucrats to prevent market-oriented restructuring. New vested interests such as banks and trading companies have also often benefited from the non-cash economy and blocked reforms.
- Institutional weaknesses have undermined the rights of outside owners and creditors. Courts are currently neither effective nor credible as enforcers of contracts and property rights. Tax authorities are still too weak and disorganized to effectively enforce payments discipline. Moreover, the current structure of fiscal federalism in Russia inhibits an effective top-down implementation of tax policy.
- Social implications are perhaps the most important consideration in industrial restructuring. There is no effective social safety net for workers who become unemployed as a result of enterprise restructuring. Most social benefits are not targeted at the needy

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of barter and arrears. Second, illiquidity is different from insolvency. Many firms have both high receivables and payables, hence they may be illiquid but potentially still solvent. Third, the high corporate tax burden and outstanding tax penalties could imply that many illiquid firms may still be producing positive economic value added, despite showing low or negative after-tax cash flows.

[8] This is evidenced by the fact that privatized firms are at least as exposed to barter as comparable state-owned firms.

and are often tied to the firm or to the pension system. Moreover, the relatively slow growth of new private enterprises has prevented a natural reallocation of labor, which would be particularly important in one-company towns.

3. Economic costs

From the point of view of an enterprise manager, there may be good reasons for engaging in barter: it can be used to offset tax and utility bills; it can help reallocate credit; it may be the common form of transacting in a commodity; and it may help hide activities from shareholders or creditors. However, most of these benefits are of a redistributive nature. The aggregate economic benefits of barter are likely to be marginal, while the economic costs are very large. Beyond the direct costs of marketing bartered goods and arbitrage by intermediaries, there are significant indirect costs.

- Arrears and non-monetary transactions undermine tax collection and fiscal transparency. The resulting erosion of public finances has contributed to the macroeconomic instability of recent years.
- Barter and related price distortions tend to obscure financial transparency of enterprises. This reduces their access to outside finance which in turn reinforces the need for barter, creating a vicious circle.
- Barter tends to lock enterprises into trading patterns and networks that discourage innovation and competition, impeding the enterprise restructuring process as a whole. This effect is particularly strong for industries with strong vertical links.
- An environment of complex barter networks and tax bargaining tends to solidify the power of those managers who are good at negotiating untransparent deals with vested interests rather than those who attempt to enhance market opportunities for the firm.
- Arrears and barter provide a cushion against market discipline and create an implicit tax on profit-making. Large loss-making firms are generally allowed to run up higher overdue payables and pay more frequently with overvalued output than profitable SMEs. The non-cash economy thus provides an implicit cross-subsidy from profitable to unprofitable enterprises, undermining both static and dynamic efficiency in the economy.

4. Principles of a policy solution

The net economic benefits from a reduction in barter and arrears are potentially very large. In particular, it would accelerate the lagging enterprise restructuring process which is perhaps the biggest economic challenge for Russia today. Moreover, it would strengthen the fiscal position and thus allow increased social spending to soften the impact of restructuring.

However, a sustainable policy solution has not yet been found. The Russian authorities have tried repeatedly to address the barter-arrears problem, but so far with limited success. Progress has been made by drastically reducing tax offsets at the federal level, but tax arrears and non-cash tax payments remain widespread at the regional and local level. Although there has also been an increase in cash collection by major utilities, cash levels are still very low.

The August 1998 crisis and the subsequent devaluation have alleviated the liquidity problems of some enterprises, but barter and arrears have remained widespread.

What can be done? A ban on non-monetary transactions between private parties is difficult to enforce and may not even be desirable since firms use barter in part as a device for overcoming credit and liquidity constraints and reducing outstanding arrears. Instead, a policy solution should focus on the state's own activities. Given the continued role played by government and quasi-fiscal institutions in fuelling the non-cash economy, it is reasonable to assume that a reduction of non-cash activities by the state would reduce barter in the economy significantly, both directly and indirectly.

However, as long as the underlying anti-restructuring forces persist, it will remain very difficult to implement a policy aimed at hardening budget constraints and reducing barter and arrears. A piecemeal or "eclectic" policy approach is unlikely to be sustainable. Shutting down one channel of implicit subsidy may give rise to another type of subsidy.[9] For instance, eliminating in-kind tax payments will be less effective if it leads to an equivalent increase in tax arrears. Eliminating federal tax arrears and offsets will have limited impact if regional governments and state utilities increase their infusion of soft credit.

The complex nature of the non-payment problem and the underlying resistance to industrial restructuring would therefore suggest the need for a comprehensive strategy, ideally encompassing all fiscal and quasi-fiscal entities and all types of implicit subsidy. This would include federal and regional governments, as well as public utilities. It would also include barter, offsets and arrears. However, since it is difficult in practice to pursue multiple targets, it may be more realistic to follow a less comprehensive approach.

One could eliminate non-cash tax revenues at the federal level directly, while providing the right incentives to sub-national entities by reforming the inter-governmental transfer and revenue sharing system. Similarly, in order to eliminate implicit subsidies channeled through the energy sector, one could actively phase out non-cash transactions of the national utility companies, while inducing regional and local distribution companies to collect cash by forcing them to pay for their own supplies and taxes in cash.

It may be difficult to eliminate barter and arrears simultaneously, as this would constitute a major hardening of budget constraints, probably necessitating large-scale enterprise closures. As an alternative, one could focus on reducing non-cash payments, while keeping arrears from growing further.

Perhaps even more challenging than implementing a package to reduce implicit barter and arrears-based subsidies, is to sustain such a policy over the medium and long term. To avoid policy reversals, one has to reduce the underlying political pressures and institutional

[9] In fact, the rise of arrears and offsets can be seen partly as a response to the cut in direct subsidies in early transition.

constraints that support soft budget constraints. A credible solution strategy must therefore address the underlying problem of industrial restructuring.

5. Key elements of a solution strategy

In light of the causes and policy constraints discussed in the previous sections, it seems that a credible solution strategy to the barter and arrears problem would have to contain two key elements:

- tougher enforcement of tax and utility payments – on time and in cash,
- effective measures to promote industrial restructuring.

The first element would pull the government and public utilities out of the non-cash economy, reducing implicit subsidies channeled through barter and arrears. This would downsize the non-cash economy both directly and indirectly. The second element would help enterprises to adjust to tighter payments discipline, while at the same time weakening the vested interests that threaten to reverse progress in hardening budget constraints.

Enforcement of tax and utility payments

A realistic policy target would be to *eliminate non-monetary tax and utility payments while containing the accumulation of new arrears*. This strategy would address barter and offsets directly and avoid a substitution into arrears-based subsidies, while allowing time to deal with old arrears. The net effect would be a significant hardening of budget constraints, without crippling the industrial sector. The biggest impact would be felt by those enterprises that currently enjoy the privilege of paying their tax and utility bills in kind and those firms that are not liquid enough to keep up with current tax claims, i.e. the biggest loss-makers.

The most challenging aspect of this strategy would be to make enforcement of tax discipline credible after years of inconsistent tax collection, tax bargaining and periodic tax forgiveness. Imposing tax penalties is of little use if they are not enforced. Ultimately, payments discipline will only improve when there is a credible threat of enterprise closure. With an ineffective bankruptcy and judicial system, the government will have to take on responsibility for removing licenses and initiating liquidation or forced restructuring.

A. Tax offsets and procurement rules

- Non-monetary tax collection should be fully eliminated. The use of tax offsets in procurement should be discontinued. To this end, the state should stay current on its own obligations, eliminating expenditure arrears. To avoid further subsidization through mis-pricing of goods, procurement should be based on open tender where possible.
- The termination of non-cash tax payments should ideally apply to all levels of government. However, in Russia’s federalist system, it may prove difficult to force regions and municipalities directly to collect their own (unshared) tax revenues fully in cash. An indirect method would be to streamline fiscal relations between the center and

the regions, improving the transparency and effectiveness of rules governing revenue sharing and transfer and thus curtailing ad hoc bargaining practices.[10] In order to give sub-national governments incentives to improve cash collection of taxes, the fiscal transfer system should be made a) fully cash-based and b) based on tax capacity rather than a region's actual success in collecting taxes on time and in cash. This would leave all benefits of improved collection at the regional level and reduce moral hazard in the fiscal transfer system.[11]

B. Transparent enforcement rules

- The government should implement a stringent new regime of tax enforcement in order to avoid the risk that the elimination of tax offsets would lead to an increase in tax arrears.
- The new tax collection regime should be based on transparent rules and non-payment penalties that apply to all firms equally.[12] The penalty mechanism should put more emphasis on foreclosures and withdrawing business licenses and move away from a system of indefinite accumulation of penalty charges. Other penalties such as blocked bank accounts, asset seizures and tax raids should be applied more evenly across firms.
- Enforcement action should be implemented directly by the state and avoid the discretion of the courts as much as possible. The process should be designed to prevent asset stripping and to prevent the return of incumbent managers in the course of bankruptcy. The resolution of enterprises should thus work either through liquidation or through the sale of core assets to a strategic investor, while bankruptcy through reorganization should generally be avoided (see also Section G below).
- Stricter enforcement of current tax payments could be accompanied by a restructuring of old tax arrears and penalties. This would make it easier for some enterprises to become compliant with current tax obligations, without imposing a one-off shock to liquidity. To reduce moral hazard, the phasing of old tax debts should be structured as a singular program, perhaps as part of a unique tax reform package (see Section D below).

C. Governance of utilities

- Of all fiscal and quasi-fiscal entities, the energy companies are among the most prolific agents of non-cash transactions and thus key channels of implicit subsidies. The federal government may have to reassert management control over the national utilities like Gazprom and UES and increase the transparency of their operations, while phasing out non-cash revenue collection and tax payments.

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[10] For a detailed discussion of the link between barter and fiscal federalism, see conference paper presented by Litwack and Sutherland.

[11] In the presence of information asymmetries, it is generally desirable to allocate the benefits of an activity to the party that has most control and information on the activity.

[12] Otherwise, there is a danger that the existing tendency to clamp down on profitable firms and be lenient on loss-makers will be exacerbated.

- In order to improve cash collection, the government will have to develop clear and universally applicable rules that determine when non-paying customers are cut off from services.
- Local utilities should be required to pay their taxes and supplies from national providers in cash, thus giving them an incentive to increase their own cash collection. They should follow the same rules for cutting off non-paying customers as national utilities.

Measures to promote industrial restructuring

The measures discussed above are likely to reduce the non-cash problem significantly, but are generally vulnerable to policy reversals. A sustainable strategy should aim to weaken the underlying forces that currently hinder restructuring. Measures to harden budget constraints should thus be complemented by *structural measures that facilitate industrial restructuring and shift economic power away from vested interests and towards the new private sector*.

D. Corporate tax reform

- Corporate tax reform could be an important complement to tighter enforcement. The overly complex corporate tax system has fostered corruption and penalized SMEs which do not have the political clout to negotiate their tax bills.
- The aim should be to simplify and modernize the tax system by reducing the number of taxes, while also lowering the overall corporate tax burden. This would help the new private sector to grow, absorbing labor from old industries. It would also allow marginally profitable companies to restructure while paying their current tax bills in time and in cash. It would thus help to avoid large-scale closures of industrial companies and make tight enforcement of tax discipline more realistic and credible.
- Tax reform would be even more effective in reducing barter if it was accompanied by improvements in the accounting system, including a shift towards full accrual-based accounting for VAT and excise taxes.

E. Social safety net reform

- The current social system is highly ineffective in redistributing money and alleviating poverty. There is no effective safety net for workers that become unemployed in the process of industrial restructuring. Many social benefits are effectively linked to the firm, housing in particular. The general goal of any reform should be to shift benefits away from the firm and towards individual cash benefits that provide a safety net for the unemployed.

F. Making subsidies to declining enterprises explicit

- Given the distortions created by barter and arrears, explicit support for declining enterprises would be preferable to the implicit subsidies they are currently enjoying. For socially sensitive enterprises, implicit subsidies channeled through quasi-fiscal entities should therefore be replaced by explicit budgetary subsidies. These subsidies should be time-bound and phased out according to a predetermined schedule.

- Explicit subsidies should be made fully conditional on the elimination of implicit subsidies. Any financial support should therefore be automatically revoked if the recipient company does not pay its tax obligations or energy bills in time and in cash. The general rules for cutting off non-paying customers from energy supplies and withdrawing business licenses from tax delinquents (see Sections B, C above) should also apply to those enterprises receiving explicit budgetary subsidies.
- In order to restrain the influence of vested interests in the allocation of explicit subsidies, there should be clear rules under which firms qualify for support. This group could include socially sensitive firms, especially in one-company towns or in northern territories. The allocation process should be centralized and transparent.
- Explicit subsidies to declining enterprises should not take the form of price support or production subsidies, but be targeted at restructuring and potential externalities. Qualifying firms should be required to implement an agreed plan for downsizing. The subsidies should not increase with the scale of financial difficulties, but should be paid for liabilities such as a) redundancy packages for workers, b) lump-sum grants to cities for taking on the social responsibilities of the enterprise, c) partial financing of decommissioning outdated capacity and investment in more productive technology, and d) subsidies for environmental clean-up and cleaner technology.

G. Direct restructuring of large insolvent enterprises

- Those enterprises that cannot service their current tax and utilities bills, even if they qualified for explicit budgetary subsidies, should either be liquidated or fundamentally restructured. The absence of an effective capital market and bankruptcy system strongly inhibits market-based approaches to enterprise restructuring. It may therefore be necessary for the state to exert direct control over the liquidation and restructuring process of large insolvent enterprises.
- In the case of large enterprise restructuring, the goal should be to replace current managers and shareholders, ideally by strategic investors, which would help de-politicize the firm. Existing debts to the tax authorities, the public utilities and to other creditors can be converted into equity to bring about the necessary ownership and management change. This may require an interim stage where the state holds shares in trust and a restructuring administrator controls operations until an investor is identified and the company is re-privatized. The state should refrain from taking an active role in the restructuring process itself and should leave strategic decisions to the eventual investor.
- In order to attract a strategic investor, the state will have to take on a number of social, environmental and financial obligations of the firm. In this respect, it is more effective to sell the core assets of a company as opposed to selling its shares, as this helps to ring-fence the investment against old liabilities.

Accelerating the process of enterprise restructuring is arguably one of the greatest economic challenges Russia faces today. Without progress in this area, any effort to eliminate barter and non-payments could be short-lived. Apart from the direct initiatives to kick-start the restructuring process described above, it is important that the government also embark on longer term structural reforms that improve the business and investment environment in general. This would require further efforts to reduce red tape and bureaucracy, tackle corruption, reduce barriers to trade and FDI, and restructure the banking system.