I. Introduction

Under current Russian law, there are severe constraints on the rates of tax per square meter that can be applied to land. However, these constraints do not apply to the leasing of urban land by cities. Thus a system of leasing land provides an opportunity for Russian cities to obtain significant revenues. This source of revenue, unlike almost all other sources of revenue for cities, does not impair incentives for individuals to be productive.

If the rules for leasing are chosen properly, this form of land tenure has the potential to resolve the great controversy that exists in Russia now regarding land relations. Many Russians strongly support the idea that individuals should not own Russian land, because private ownership alienates what ought to be the common heritage of all generations of Russians. On the other hand, many others say that only a system that turns land over to individuals to use as the market dictates can provide the freedom and economic growth that Russia so desperately needs. These two perspectives can be harmonized by leasing land under rules that the lessee can use the land as he or she wishes, and transfer the lease to anyone else, with no restriction on what can be charged. If the rent that the city charges the lessee of a site is the full rental value that the site would have if it were unimproved, then the price at which a lease will be transferred will generally be no more and no less than the economic value of the improvements to the site. Buying and selling leases will not be a way of getting rich from the growth of the community while doing nothing to contribute to it. (In theory, a similar compromise is available based on titles of "private possession" that are subject to a tax of the full rental value of land, but the limitations on the rates of tax on privately held land appear to preclude this option.)

To implement social collection of rent in Russia, a number of administrative decisions must be made regarding the rent collection process. These are discussed in the next section. The subsequent section discusses the sequence of actions that must them be taken to actually implement the social collection of rent

II. Administrative Decisions

A. How frequently will rental payments be due?

Cities need money on a continuous basis, and users of land generally receive money on a continuous basis. Therefore it is convenient to have rent paid fairly frequently. On the other hand, there are some administrative costs of having more frequent payments. We recommend that, like payments for many public services, rent be paid monthly.

B. What process will be used to adjust land rents for inflation?

Until the value of the ruble becomes predictable, rental payments cannot be expected to have any specified relation to actual rent unless the amount of each payment is adjusted for inflation. But so far there is no generally recognized measure of the price level in Russia. One can easily measure the value of the ruble in dollars or other hard currency, but the price of the dollar in rubles does not seem to have been highly correlated with the overall price level. Until there is a generally recognized, reliable measure of the price level, any city that wishes to collect rent (or perhaps a group of cities acting together) will need to devise a measure of the price level. The procedure for doing this is explained in Section III. The administrative decision that must be made is that rents will be revised regularly to reflect inflation, and that the determination of the price level will be the responsibility of a particular official.

C. How will the rent that is to be paid be defined legally?

Rent is a payment for exclusive use of land for a specified span of time. For land to be used most productively, a person who makes durable improvements to land (buildings, etc.) must be assured of use of land for as long as the improvements will last. But land generally has a rental value that varies over time. Thus the amount of money that a person is willing to pay for the use of land for any specified span

of time depends on the conditions under which future use of that land can be obtained. This makes the question of what, precisely, is meant by the rental value of land not trivial. A theoretically attractive answer is that the rental value of a site for a given span of time is the amount of money that the person who can use the site most productively would pay for the use of that site for that span of time when continued use is available for every future time, at a price in each future time of the rental value that the site would then have if it were unimproved. The recursive nature of this definition might seem to pose a problem, but in fact there is a simple procedure that corresponds to this definition. The rent of land is defined operationally as the amount of money that people must pay in the market for the use of land now, when they have the opportunity to continue to use land indefinitely, upon future payment of the amounts that people must pay in the future for the use of similar land. Some of the techniques that can be used to identify these amounts are discussed in Section III.

D. What taxes will be reduced?

It is very important to reduce other taxes when revenue is raised from collecting the rent of land, both because reductions in taxes on labor and capital will stimulate economic growth and because reductions in taxes will make the collection of rent from the users of land socially and politically palatable. If cities did nothing else, they could send rebates to individuals and enterprises for part or all of the portions of taxes on incomes, profits and value added that cities now receive. So that cities that shifted to more productive tax arrangements could receive the full benefits of their actions, it would be good to reach an agreement with the Russian Federation government that, for a city that substitutes social collection of rent for taxes on production, the fraction of the Federation budget that it will be required to supply in future years will be the fraction that it supplied in 1992. In the long run, it may be necessary to devise a rule that is more sensitive to the resources of cities, but that need not be decided now.

If a city can choose the pattern of tax reductions, I recommend that the profits tax and the income tax be reduced together, in such a way that the tax rate on profits is equal to the highest income tax rate. I also recommend that individuals not be taxed on dividends, so that income will not be subject to double taxation. If the profits tax and the income tax can be eliminated, then the rate of the VAT should be reduced. In deciding what tax reductions are possible, it should be kept in mind that every reduction in the rates of taxes on incomes, profits, and value added will raise the rental value of land.

Another way of offsetting some of the financial impact of social collection of the rental value of land is to give every citizen the right to use a certain amount of land without paying any rent. This citizen's exemption might be set at the rental value of the land of a one-person flat in the least valuable part of the city.

E. What entities, if any, will be exempt from paying rent?

By international convention, the land under an embassy or consulate is treated as territory of the nation that is represented there. Therefore it would not be possible to charge rent for such land. Other exemptions may be required by Russian law, but efforts could be made to change such laws.

There is a good reason to have the greatest possible coverage for the rule that rent will be paid for the use of land. When rent is not paid, there is a tendency to neglect the fact that all use of land has an "opportunity cost." That is, the use of land entails giving up the things that could be produced if the land were used for some other purpose. When rent is not paid and the opportunity cost of land is forgotten, there is a strong tendency for land to be wasted. This is the reason for collecting rent even from government agencies. The budgets of city agencies will need to be increased so that they can pay rent, but this just involves the city taking money out of one pocket and putting it into another. If the city sends a rent bill even to itself for the land under the city administration building, then it will be in a stronger position to insist that every other user of land pay rent.

If some entities (such as, perhaps, Federation government agencies) can not be required to pay rent, then it is a good idea to still calculate the value of the rent that would be paid if those entities were not exempt, so that the land cost of all activities will be known. In computing such hypothetical payments, rents

should be computed without the amenity value of the exempt activity. Thus the value of park land would be computed as if the park were not present, the value of school land as if the school were not present.

F. What will be done about those who do not pay their rent?

The first step to assure payment or rent is to specify that there will be penalties and interest for late payments. It may be useful to draw on experience and practices in Russia for other payments, such as electricity, telephone, etc. A penalty of 10 or 20 percent, plus interest at a rate that exceeds the inflation rate (1% per day?) might be appropriate. (There might also be discounts for early payment.) Since the inflation rate is so uncertain, the interest rate should not be written into law, but should set administratively.

The second step to assure payment of rent is to have a plan for following up on those who do not pay. Notices should be sent out informing lessees that penalties have been assigned and interest is accruing.

The third step to assure payment of rent is to have a plan for requiring those who do not pay to stop using land. Private commercial and industrial lessees should be subject to eviction if rent is more than a year overdue, perhaps sooner.

State enterprises of the city should be informed that if they are unable to pay the rent of the land they used, they will be closed. Such treatment of the cost of land will sometimes induce an enterprise to realize that it can be less unprofitable if it renounces its use of some land and lets some else produce something with it. For state enterprises of the oblast and of the Federation government, it may not be legally possible to impose the penalty of closing them if they do not pay, but cities can at least seek to have payment for the use of land treated with the same urgency as payments for materials and electricity.

If an enterprise is unable to pay all of its expenses, including the rental value of the land it uses, then it is wasting resources. Sometimes the solution may be to privatize such enterprises or to change their top managers. At other times the only solution is to close them, a few at a time, beginning with those that have the greatest rate of losses per employee.

For residential land, those who are more than one year behind in their rent might be required to move into flats in the least valuable part of the city. If every citizen receives an exemption of the rent of a one-person flat in this area, then person who are moved to this area will not accumulate further rent debts after they are moved there. If there is a consensus that special help should be provided for some persons who live on expensive land and cannot afford to pay their rent, then the most efficient way to help them is to establish an agency with a budget for explicit rent subsidies, so that the cost of such subsidies will be recognized.

G. What deposits, if any, should be required in addition to rent?

In many rental agreements, deposits are required in addition to rent. These deposits serve two functions. First, they provide a source from which rent can be taken if the lessee does not pay when the rent is due. This makes it unprofitable for the lessee to plan to simply use land until he is evicted and never pay. Second, the deposits provide a source from which deductions can be taken for damage. If there is no deposit, lessees might abandon land, leaving behind structures that had no economic value and were expensive to remove.

The need for a deposit does not arise if the lessee has built a permanent structure whose value can be attached in the event of non-payment. It could be better to require deposits only from those who do not place valuable improvements on land. In any case, if deposits are required, then their value should be adjusted automatically for inflation, and interest at the market rate for dollars should be paid as well.

- H. When, if at all, should payments differ from the rental value of land?
- 1. When there are negative amenities?

Pollution and other harmful consequences of some land uses should be dealt with in some way. At a minimum, the manner in which pollution reduces the rental value of surround land should be estimated, and polluters should be required to pay for this appropriation of the rental value of land.

2. When there are positive amenities?

Some activities, such as high-density commercial centers, raise the value of surrounding land. Just as polluters should be required to pay for the land rent that they destroy, those who create land rent by their private activities must be rewarded for these consequences if they are to be motivated to undertake all such activities that are efficient. However, activities that raise the value of surrounding land generally lower the value of surrounding improvements. These activities may also lower the well-being of individuals who are attached to a particular area and find it difficult to leave but do not value the activities that raise land rents. To keep incentives efficient, the activities that raise land rents should be charged for the reductions they cause in the value of improvements and in the well-being of individuals, as well as rewarded with the increases in rental value of land that they cause.

3. When land is used for restricted activities?

Some activities are profitable because there are limits on the numbers of entities that are permitted to undertake them or on the locations where they may be undertaken. Such limits generally create unjust privileges for those who are allowed to undertake the restricted activities. For that reason it is best to replace systems of limited permission with systems in which all persons are permitted to undertake the same activities, and those who undertake activities with harmful effects are required to pay according to the harm that is generated. Alternatively, rights to undertake restricted activities can be auctioned for limited spans of time. If these way of dealing with restricted activities are not available, then adjusting land rent for permission to undertake restricted activities may be the best available way of dealing with this issue.

4. When land is used for historical structures?

Historical structures are sometimes owned privately, subject to a requirement that they be preserved. In these cases it is generally necessary to adjust the land rent, to take account of the limits on how the land can be used. The general principle that should be applied in these cases is that the historical structure is treated as land. The rental value of the site is the value that land and historical structure would have if the historical structure were in the minimum condition that is legally permitted.

5. When users of land say that they cannot possibly pay their assessments?

If special consideration is to be given to those who say that they cannot possibly pay for their assessments, then it should be given not in the form of reduced rent, but rather in the form of a payment for impoverished persons. Otherwise there is likely to be a vast loss of revenue to persons who are not at all impoverished. The social collection of rent should be separated from the question of who is to receive social support. In many cases it is appropriate to move people who cannot afford their rent to less expensive land.

I. How will the rent for land under privately owned residential flats be collected?

There are two possibilities: allocation of the rental value of the site among the flats, based on area of each flat, the floor on which it is situated, and quality of its view, or assignment of the whole amount to an organization that would be responsible for allocating it among flats and collecting it. The first possibility has the advantage of permitting flat owners to deal directly with the local government, with respect to appeals of their assessments. The second possibility is administratively simpler for the city and has the possible advantage of creating a sense of community responsibility among the owners of the flats.

When a building containing privately owned flats approaches the end of its useful life, another question arises: How will the time of demolition of the building be determined? The rent of the land will grow greater and greater relative to the value of the use of the flats. Some flats may be abandoned while other

owners continue to value their flats. It is good to have an understanding in advance of how this situation will be handled. The best outcome occurs when the owners can reach a consensus that it is time for the building to be demolished. They might have an agreement that if two thirds of them vote to accept an offer from someone who wants to redevelop the site, then all will have an obligation to sell. Another possibility is for the city to offer rent reductions to anyone who is willing to leave on 90-days' notice, with the extra rent paid by those insist on staying, so that all flats will be used until the time of demolition.

J. How will the revenue system be explained to citizens?

It is a good idea to prepare a booklet explaining the revenue system and its economic advantages, and include this with the announcements that people receive of the rent that is owed on their land.

K. What procedure will be available to citizens who wish to appeal their assessments?

There should be an appeals procedure for citizens who believe that their land is over-assessed. Since each assessment should be based on a standard formula, those who wish to appeal should question either the description of their land or the general formula. Appeals based on inability to pay should be directed to a bureaucracy that is concerned with relieving poverty.

L. How often will the rent of land be reassessed?

Assessments should be computer-based and should be up-dated annually, based on the latest information regarding the rental value of land. This is in addition to the monthly adjustments for inflation.

M. What should be done about leases that some cities have already signed, giving the use of land at low rents?

If such leases are legally valid, it may be possible to induce those who have them to agree to sign new leases, by making reductions in taxes on profits and value added contingent on paying the full rental value of land to the city.

- III. Actions
- A. Devise an initial function to estimate land value as a function of location, infrastructure and amenities.
- B. Obtain the relevant data on infrastructure and amenities.
- C. Create a map that divides the city into "blocks," shows the boundaries of each parcel of municipal land, and identifies each parcel by block number, parcel number, and X and Y coordinates.
- D. For each parcel, compute the value per square meter and the size. Multiply these to obtain the value of the parcel.
- E. Create a list that shows the person or entity responsible for each parcel.
- F. Notify every person or entity that is responsible for a parcel of municipal land that he, she or it has a legal, transferable lease or title of possession to that parcel of land. At the same time, include notification regarding the assessed rental value of the land and the assessment appeals procedure. Also include a booklet explaining what taxes will be reduced and how these tax reductions will promote economic growth. If persons or private entities receive title to improvements in this process, then it would be good to requires purchase of the improvements, by payments spread over a number of years.
- G. Allow people to appeal their assessments.
- H. Create an office of land titles that will be responsible for recording changes in the identities of the persons or entities that are legally responsible for land. Implement the "Torrens" system of land titles. As

soon as land rent is collected, require that rent be paid up for land to be transferred.

- I. Implement inflation adjustments. Choose a "market basket" of between 20 and 50 goods and services, representing typical purchases. Land rent should be excluded from the basket, since the index is to be used to adjust rental payments. If the market basket includes goods that have prices that are determined by government decisions rather than by competitive markets (such as transit fares), then it will be important to limit the quantities of these goods to amounts representing their actual shares in spending. Two weeks before a rental payment is due, determine the prices of the goods in the basket, and therefore the total price of the basket. Multiply all assessments by the ratio of this total price to the total price at the time of the previous adjustment.
- J. Send out the rent bills.
- K. Follow up on those who do not pay.
- L. Revise assessments on the basis of market data. There are four ways that market data can be used to improve assessments:
- 1. The assessor can watch the market for voluntary transfers of land.

If parcels of land with no improvements, or with improvements that are demolished immediately after sale, are regularly sold for significantly positive amounts of money, or if improved parcels are regularly sold for significantly more than the replacement cost of the improvements, then the assessor can conclude that people expect future assessments to be significantly less than the full rental value of land. A rise in assessed values is justified, but to determine how much of a rise in assessments is justified, one would need to know the span of time over which people expect assessments to be low. Since this cannot be readily determined, other methods are needed.

2. The assessor can acquire land and auction it on a rental basis.

The assessor would hold auctions in which people would bid the amount of rent they were willing to pay for particular sites for some initial period (say three years). Each auctioned site would be transferred to the highest bidder, who would be required to pay the amount that was bid for the specified period. After that, the winning bidder would continue to have possession of the land, contingent upon payment of the assessed rental value of the land, which would be revised regularly, based on similar auctions of other sites and other information.

3. The assessor can hold an assessing contest.

The assessor would acquire perhaps 100 parcels that would be auctioned on the rental basis described above. These would be divided randomly into two groups. After the first group had been auctioned, the assessor would announce the results and invite people to participate in an assessing contest. Each participant in the contest would submit an "assessing function," a formula that could be used to assign an assessed rental value to any parcel of land. After the entries had been submitted, the assessor would auction the second group of parcels. The person who submitted the function that most nearly predicted the results of the second set of auctions would be given a prize, and that formula could be applied to assign assessed rental values to all parcels.

4. The assessor can enter into contracts with people who want land.

Suppose that a person wants to obtain a parcel of land on which to build, say, a new restaurant. The would-be owner of the restaurant would sign a contract with the assessor, agreeing to pay a specified amount of money for a parcel of land with specified characteristics, if one becomes available. The assessor then has a basis for asserting that any parcel of land that possesses the specified characteristics has a rental value at least as great as what the would-be restaurant owner has offered.

By combining these four ways of using the market for land, assessors can make reasonable estimates of the rental value that all sites would have if they were unimproved.

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