

Housing Finance in Russia

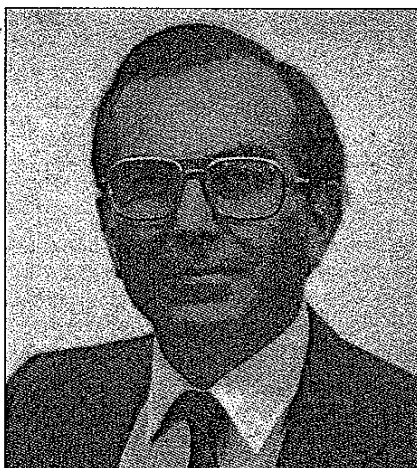
by Bertrand Renaud

INTRODUCTION

The privatization of housing, including the right to sell, rent or otherwise alienate properties, is the prerequisite for the development of housing finance in Russia. The transition to banking services away from the financing mechanisms of central planning represents a major change in Russia. Considerable work is necessary to develop a safe and sound system of banking for the housing and the building industry. This is the most critical element for the development of a demand-driven, competitive housing system that will increase the share of housing investment mobilized from households. The development of this housing finance system itself is an important part - but only a part - of the total development of commercial banking. Proposed housing finance reforms will be shaped by the strategy adopted for the entire Russian banking system, particularly the financial policies regarding Sberbank which has so far been the "bank" of the household sector.

THE SYSTEM OF HOUSING FINANCE UNDER CENTRAL PLANNING

In Russia today, housing finance remains synonymous with the financing of new investments, most of it by state-controlled organizations. The need to finance the purchase of existing housing was a non-issue since exchange only was permitted and sales were prohibited. The financing of hous-



BERTRAND RENAUD is Housing Finance Advisor in the Financial Sector Development of the World Bank. He has been extensively involved with reforms of transitional economies. In 1992, he managed a technical cooperation program between the Government of Russia and the World Bank. He is the coordinator and main author of the 1994 report "Russia, Housing Reform and Privatization: Strategy and Transition Issues".

ing under central planning, which has been in force for more than five decades, is a necessary starting point of reference for the development of housing finance reforms. With privatization and the emerging banking service for housing, the total separation of the financing of housing investment from

the financing of housing maintenance in the flow of funds characteristic of central planning will gradually disappear.

Financing of Housing Investment Under Central Planning

The system which was used to finance housing in the former Soviet Union often served as a model for other centrally planned economies. An administrative planning structure was responsible for determining investment, output and prices. Each year, the specific investment allocations were developed through a top-down, bottom-up negotiation process. First, Gosplan¹ would determine the housing investment budget, including non-state resources. Gosplan would distribute the program for allocating the total housing investment budget to the Union and Republican Ministries; the local governments of each region and sub-region responsible for housing construction and the housing cooperatives. In response, these "clients" were entitled to respond, demanding a greater allocation of resources for constructing housing for their constituents. After several iterations, a final allocation was reached.

Housing investment was classified as a "non-productive investment" and certainly was not a "priority sector". As a result, it received only 15 percent to 17 percent of total investment during the last two decades. This share even fell below the 15-percent level between 1974 and 1983. It rose only after the start of perestroika to

Figure 1 : Russian Federation - Housing Investment by Sources (Billions of Rubles)

	1986	1991	1993 (Plan)	1993 (percent)
Total Investment	18.63	37.00	1,372.9	100.0%
of which :				
State Investment of which :				
1. Central Government	15.59	30.80	114.5	8.3%
2. Enterprise Funds	0.00	19.30	688.8	50.3%
3. Local Governments	0.00	0.00	84.0	6.1%
4. Defence Budget Funds	--	--	206.0	15.0%
Cooperatives	0.69	1.10	--	--
Collectives / Kholkhoz	1.62	20.00	37.8	2.7%
Population	0.59	9.00	96.6	7.0%
Social Organizations	1.45	3.00	--	--
Other Organizations	0.00	20.00	145.2	10.6%

Source : Ministry of the Economy

cross the 17-percent level in 1987 for the first time since 1968. 1987 also marks the peak volume of physical output in over two decades. This decreed rise in investment share was an attempt to correct the chronic under-supply of housing. In spite of such efforts, the ratio of households to apartment units continued to deteriorate and fell from 1.13 in 1980 to 1.21 in 1990². After 1990, the rapid dismantling of the central planning system has led to a sharp decline of output which fell in 1992 to less than 40 percent of what it was only five years earlier in 1987. These lower investment rates are leading to rising housing crowding ratios and a lengthening of the waiting lists.

Under central planning, Gosplan was operating under the guidance of the Central Committee of the CPSU³ and the Council of Ministers. Every year, Gosplan developed a budget for allocating national income. It would work out investment plans with other state committees - especially Gosnab⁴ which allocated materials and supplies - the Union-level ministries, their industrial associations and their enterprises. This system of allocation and the basic flow of funds through the administrative system in 1990 is shown in Figure 2. That year, roughly 77 percent of

USSR income was allocated to current consumption, while capital investment received the remaining 23 percent. Of the capital investment budget in 1990, "non-productive investments", which included housing, education, and health, received 31 percent of the total. The remaining 69 percent went to productive investments such as industry and agriculture. The total USSR housing investment was approximately 37 billion rubles and represented 54 percent of all funds allocated to "non-productive investments". The RSFSR⁵ housing investment funds amounted to 22.9 billion rubles or 62 percent of the Union total. Figure 1 also shows how a great share of investment funds was controlled by Union ministries and operated independently of the decisions of the Union republics and lower-level soviets. This vertical system of investment has often had a very deleterious impact on the quality of Soviet urban planning and led to a very low spatial and economic coordination of local investments. It has been the subject of major internal debates in Russia for many decades.

It must be stressed that, under the central planning process, monetary resources were neither the only - nor always the most -

critical resource for housing investment.⁶ The allocation and procurement of material resources done by Gosnab has always been equally central to the success of a construction project. In the highly inflationary environment of 1991 and 1992, it had become even more important. Indeed, the banking system existed merely to disburse credits against works in progress for authorized construction projects, a point discussed again later.

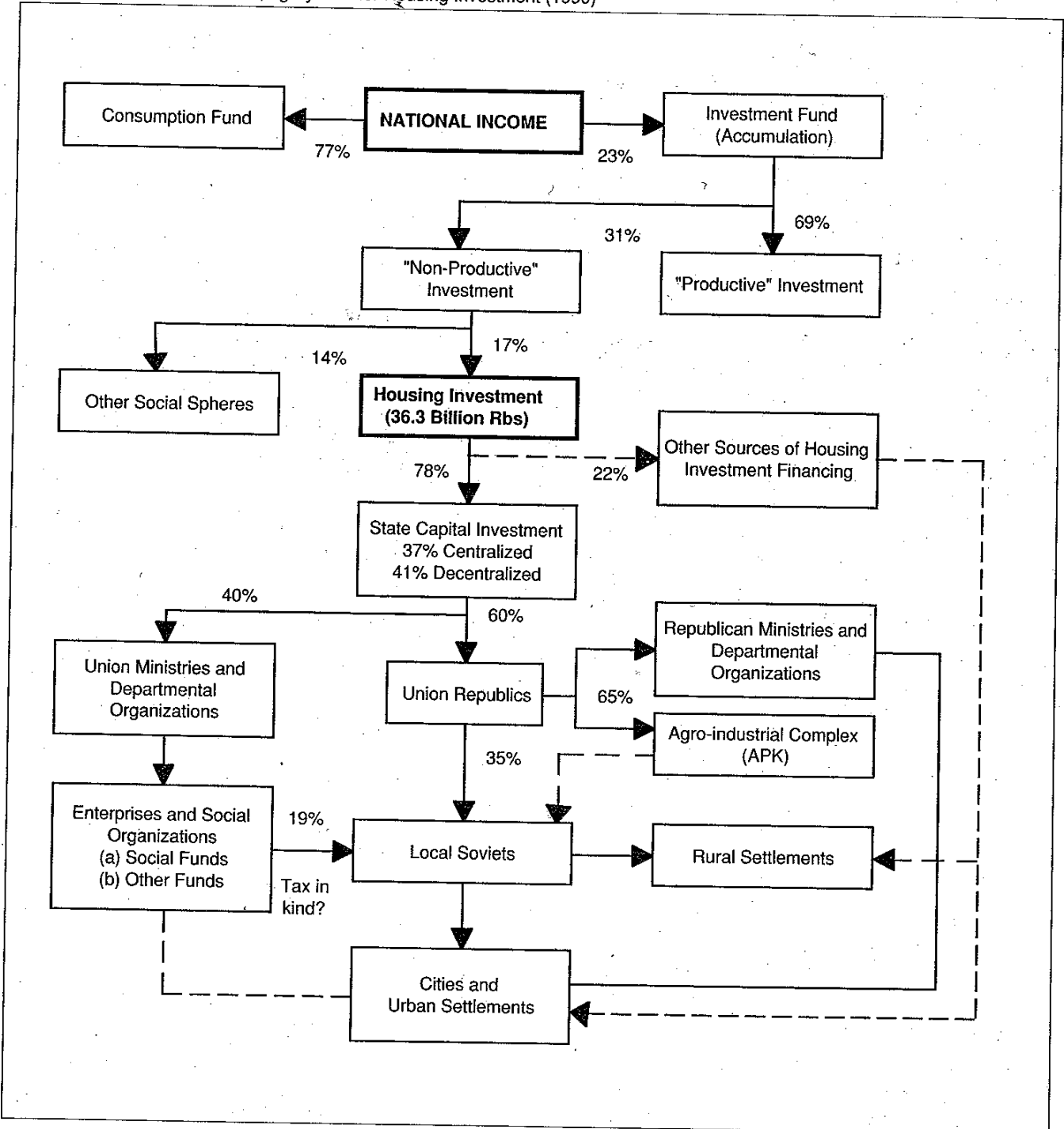
Sources of Funds for Housing Investment

While the process of allocating total housing investment is largely controlled by the Central Government with input from local governments, enterprises and other entities, the sources of funds for housing investment are varied. The main sources of funds for housing investment and their contribution to actual investment in 1986, 1991 and those expected for 1993, are shown in Figure 1 in Rubles. Three features of this financing are important. First, the majority of housing investment funds have always been from the State under the planning process. Second, enterprise funds played no role in financing housing until the enterprise reforms of 1987 which gave more leeway to enterprises in using their investment funds. Third, the contribution of the population has remained very low. Raising the population's share is a priority objective of the Government Housing Reform Program of 1993.

The comparison between the 1986 results and the financing plan for 1993 also shows that major changes are taking place in the financing of investments. The state's share was about 84 percent in 1986 and is expected to decline by a modest amount to about 80 percent in 1993. However, the composition of this public sector financing is dramatically different and greatly more decentralized. The share of enterprise funds has skyrocketed from zero in 1986 to over 50 percent in 1993. The local government share has risen from zero to a more modest share of 6 percent. Defense budgets - at least for 1993 - are expected to play a

RUSSIA

Figure 2 : USSR Central Planning System for Housing Investment (1990)



significant role for housing and to finance 15 percent of total housing investment. The share of financing from the population (including housing cooperatives) remains static around 7 percent. The Russian-style private sector enterprises (business cooperatives) and other organizations rose also from zero in 1986 (when they were still prohibited) to over 10 percent in 1993. The dominant change in housing finance is the extremely rapid decentralization of funding. By now the role of the state central budget has shrunk to the same share as that financed by the population. The dominant financiers of housing are now the employers, both state enterprises or new emerging enterprises. State wages fell in real terms by 55 percent in 1992 leaving very little or no savings for housing finance. They recovered slightly in 1993. Pending further wage reforms and until economic recovery, the direct role of households seems destined to remain limited by the rate of growth of the grey or second economy.

The rising role played by the enterprises in facing housing construction in the late 1980's would not have been possible without the passage of the Enterprise Reform Law of 1987. This law lowered the tax burden on enterprises, increasing their retained earnings and, thus, their ability to finance housing construction for their workers. This trends underlines the convergence of changes brought out by various forms of privatization. The remaining financing sources for housing investment were minor with respect to their historical contribution. Added together, they represented just 17 percent of total housing investment in 1991. However, both cooperatives and the population at large represent potentially a much greater source of financing in a market-based housing finance system.

Use of Funds Allocated to Housing

Under central planning, the state allocated housing investment resources to three main categories of clients: Union ministries and other agencies of the Union; Republic ministries and other republican-level agencies; and the local Soviets or Councils. However,

resources earmarked for housing would flow through several layers of government and public entities before reaching the end-users, or "clients". For instance, some of the funds allocated to both the Union-level ministries and agencies and the Republic-level ministries and agencies would be shared with local councils through a variety of complicated sharing arrangements. The basic final distribution of funds for housing investment in Russia between the Union ministries, Republican ministries and Local Councils is shown in Figure 2 for 1990. The allocation between "rayons" and selected "oblasts" is omitted for the sake of simplicity but constitutes an important and potentially contentious local step.

As Figure 2 also shows, the majority of the housing investment budget was allocated through the state. Recently, an increasing percentage of resources has been allocated to cooperatives and collectives, reflecting the larger percentage of total resources mobilized for housing investment that they represented. In 1990, cooperatives and agricultural collectives received 22 percent, or approximately 8 billion rubles, of the total resources invested in housing. However, a large portion of this sum was in the form of allocated material resources. These resources would, in turn, flow to the local soviets and the rural areas.

In 1990, of the remaining 29 billion rubles, 60 percent was allocated to the Republican governments and the remaining balance of the 40 percent was allocated to the Union ministries and other central agencies. The governments of the Republics then allocated the funds earmarked for housing between several different types of clients. Lower levels of government, specifically, the housing construction departments which reported to the local councils at both oblast and city levels, received approximately 35 percent of these funds in 1990. The remaining 65 percent was allocated to the Ministries of the Republic and to the powerful agro-industrial complex. The local councils would then negotiate with the Republican

Government how much of the funds they were to receive from the agro-industrial complex.

The Union ministries and other agencies of the Union allocated their resources simply to enterprises which were under their jurisdiction. However, these Union enterprises would then allocate their funds via an arrangement called "partial participation" to local councils. In 1990, this participation amounted to about 18 percent of the funds allocated to these enterprises for housing. The remaining funds earmarked for housing were channel led through the ministry's own construction group (trust or trust), to an enterprise construction group, or, in rare cases, to a construction cooperative.

Allocation of Housing Units Constructed

The eventual allocation of the housing units which were constructed by the enterprises (both Union and Republic-level enterprises) depended on their source of financing. For instance, if the funds were allocated from the central government, then enterprises would give up between 48 percent and 60 percent - sometime up to 70 percent - of the units constructed to the local soviet. However, if the funds were from the enterprise's own housing funds, then the enterprise was required to give up only up to 8 percent of the units to the local government. In all cases, approximately 10 percent of all the units constructed were given to the builder/contractor who could use them as a means to attract labor in a sector which was notorious for poor working conditions throughout most of the Union.

The Banks Under Central Planning

Russian state banks have not played the traditional market role of a financial intermediary to mobilize funds and allocate them among competing projects based on the banks evaluations of risks. The banking system resulting from central planning existed merely to disburse credits against works in progress for authorized constructions. Worse, most project financing, even

for very durable goods like commercial or residential real estate, was done on a cash basis. As a result, the administrative housing finance system has been extremely disjointed in terms of who disburses, guarantees, receives and supervises the use of credit. The only very minor exception was Sberbank (the Russian National Savings Bank) that holds most of Russia's household savings deposits.

Sberbank

Historically, Sberbank raised household deposits, which were automatically channeled to the government to finance its deficit. In the last several years, the Government of Russia allowed the bank to expand into other activities, and granted Sberbank's management greater independence. Sberbank is rapidly developing new types of activities, such as lending to enterprises and households, and developing a deposit base from enterprises. It helped create the interbank market, where it is the main lender. It has over 100,000 shareholders, the majority of them employees, but its shares are not yet tradable. The CBR⁷ is the largest shareholder and its chairman is also the chairman of Sberbank.

Sberbank still retains its near-monopoly on raising household ruble deposits, over 90 percent of a total of 570 billion rubles. Although most of the new 1,700 banks are now authorized to take household deposits, Sberbank has retained this position for the following reasons:

- Its network of over forty thousand branches and offices accounts for more than 90 percent of total bank branches, making Sberbank the only bank present in most of the Russian territory as well as in most neighborhoods in larger cities. It has about 200,000 employees.
- Sberbank is the only bank that has an explicit GOR guarantee on deposits.
- Sberbank offers household services such as transfer of payments for utility fees, taxes, and pensions.

- It is commonly assumed that the government will compensate Sberbank depositors for the erosion in the value of deposits due to inflation, since this has occurred in the past.

Sberbank interest rates paid for household deposits are still determined in close consultation with the CBR and the Ministry of Finance. Interest rates for households in 1992 were 20 percent per year on demand deposits and 100 percent for time deposits of over one year. This rate was raised from 60 percent as of April 1993. For deposits of over 100,000 rubles Sberbank paid 80 percent, 90 percent and 100 percent for three, six and 12 months, respectively. Interest rates for enterprises are negotiated on a case by case basis and are presently over 100 percent. Unfortunately, monthly inflation in Russia has been fluctuating between 10 and 20 percent since 1992. Due mainly to these highly negative interest rates, in 1992 nominal deposits increased by less than 100 percent, which implies a steep reduction in their real value. For the same reason, the share of time deposits has fallen from 46 percent in January 1992 to 28 percent in January 1993. Deposits from enterprises grew from almost zero in 1991 to about 50 billion rubles in January 1993, or almost 10 percent of total Sberbank deposits.

A NEW BANKING SYSTEM FOR THE RUSSIAN REAL ESTATE INDUSTRY

New Commercial Banks in Housing Finance

The Russian commercial banking system has emerged less than five years ago and is still changing very fast. Some commercial banks are already carrying out housing finance activities, ranging from simple construction loans to the management of large projects in which they integrate development, financing, and construction activity. To date, however, these activities have been sporadic and quantitatively insignifi-

cant. That is, no commercial bank has focused on housing finance. Such banks prefer to concentrate on highly profitable foreign currency transactions and short-term trade finance. However, since 1992, within the last year, so-called mortgage banks have been chartered with the goal of specializing in building projects, to cover development, financing, and construction activities. None of these mortgage banks is yet operating actively, although their proposed activities are based on well-known financial techniques.

Impediments for Housing Finance

Housing finance could be described as a form of retail banking. It is therefore affected by the expectations of the population. A new financial culture is developing rapidly in Russia, particularly in metropolitan centers like Moscow and St Petersburg, yet there remains considerable confusion regarding the status, objectives, and future of the Russian housing finance system. The following is a short list that illustrates some sources of this problem:

- Housing is not yet considered to be an *economic sector* of the Russian economy. Instead, it is treated as one - and at that, an economically unimportant one - of the outputs of the investment goods industry. In other words, housing output has often been just a residual element of the Russian central planning system.
- The term "housing finance" is often misinterpreted in Russia to mean "housing subsidies". Even when the discussion is properly directed to issues of finance rather than subsidies, the connection of housing finance to banking institutions (or financial intermediaries more generally) is only vaguely understood. Indeed, in many cases there is not a precise understanding of the process of financial intermediation.
- Discussions of the short-term problems of housing finance are inevitably dominated by the effects on the housing sector of the hyper-inflation. These housing sec-

tor effects include a severe fiscal crisis for the government organizations that maintain the existing stock, as well as the frustration that arises when government agencies are unable to create even the appearance of action - let alone actual activity - regarding solutions to the inadequate quantity and quality of the Russian housing stock.

- Discussions of the medium-term problems of Russian housing finance are also frustrated by the absence of accounting structures that could provide a useful framework. The need here covers both flow of funds tables and sectoral balance sheets that highlight the housing stock as an asset.

Thus the framework for discussing housing finance reforms is a critical prerequisite to practical and meaningful discussions. This framework has three key analytical elements: housing, services, housing prices and housing finance.

Housing Services and Housing Prices

The distinction between housing services (the use of space) and the housing stock (the asset) is central to the development of a market-based housing system in Russia. A family renting a flat, a traveler using a hotel room, a shopkeeper renting some business space, a political party renting a theater are all obtaining comparable if different real estate services. The rental rate is the cost to be paid for such services. The valuation of a property is directly based on the flow of rents expected in the future. Control policies which interferes with the setting of rents are likely to depress the value of a property to a point where it cannot be maintained and might even be abandoned.

Housing Prices and Housing Finance

Housing finance is the means by which an individual can obtain the resources to pay the price of a housing unit. The reason why housing finance is very important is that the price of a housing unit is very high com-

pared to the annual income of a household. In a balanced market economy the ratio between the price of a housing unit and the annual income of its occupants is usually 3-4. The development of housing finance in Russia is severely impeded today by two types of major disruptions. The old central planning distortions due to the low-wage system and shortages, and the current macroeconomic instability. The free transfer of housing can greatly correct the old distortions. However, macroeconomic stability is an absolute necessity for the development of housing finance. What the population needs is a housing price that is moderate compared to its purchasing power and a cost of housing finance that is affordable i.e. which lead to moderate monthly payments to income ratios. Current Russian macroeconomic policies do not permit that to happen.

Macroeconomic Impediments to Housing Finance in Russia

In Russia's unfolding transition to a market economy, macroeconomic issues are a major obstacle to the development of a sound housing finance system. It is not an exaggeration but a mere fact of financial development to state that macroeconomic stability is a necessary condition for the establishment of market-based long-term finance for the Russian housing system.

High and Volatile Inflation

Uncontrolled inflation is the most visible result of macroeconomic instability. The tenfold increase in prices during the first quarter of 1992 could have been a one-time adjustment, after which prices would have stabilized. The continuing increase in prices during the second and third quarters of 1992, however, rejects this interpretation. Russia now appears to be threatened with a high rate of inflation arising from high rates of money supply growth which are required to finance large government budget deficits.

As just mentioned, a major cost of hyperinflation in Russia is its impact on real interest rates. In some markets, such as the inter-bank loan market, nominal interest rates tend to track changes in expected inflation, so the implied real rates of interest are positive. This has required short-term nominal rates as high as 100 percent. Of course, actual inflation may either exceed or fall below these nominal rates, causing either the lender or the borrower to face an unexpected loss. These losses can cascade through the economy as one group of agents after another fails to fulfill its obligations.

The effect of high rates of inflation on real interest rates becomes even more distorting in loan markets in which nominal interest rates fail to respond to changing inflation. As one example, if the housing investment portfolio of Sberbank is dominated by loans with low, fixed, nominal rates of interest. As a result, even if it wished to, the bank could not pay positive real rates of interest on its deposits, which naturally creates a strong disincentive for consumers to deposit funds in the bank.

Output and Real Income Contraction

The major decline in output creates an equally severe decline in per capita real income. In a market economy, most housing would be rendered unaffordable by such a severe decline in real income. In Russia, this is certainly true for newly produced units that are priced at market levels. However, since rents on most existing housing are negligible, these units can remain affordable as long as the subsidies continue.

Domestic Saving

Little domestic saving will occur in Russia, as long as budgetary explosions, high rate of inflation, negative real rates of interest, and massive declines in output continue. Furthermore, the institutional infrastructure creates strong disincentives to save. For example, the legal system does not yet deal adequately with land ownership, bankruptcy, and other aspects of a commercial code.

Also, strong social taboos regarding eviction make foreclosure proceedings difficult to carry out. All these factors limit the supply of equity funds for housing construction. However, the body of new housing related laws passed in December 1992 and the new constitution of December 1993 are directly favorable to housing finance.

Construction Finance in Russia

By 1992, new units were being privately constructed and then sold directly or through public auctions usually in dollar prices for a small segment of the population. Existing housing units were being privatized and sold through real estate brokers. There is also private activity to rehabilitate existing units and to complete unfinished building projects. However, the absence of an organized market for construction finance creates an inefficient system in which the volume of private construction activity is severely limited.

Inefficiencies in Construction Finance

Inefficiency in construction finance can be measured by the ratio of the market price of existing units to the construction cost of new units.⁸ When the ratio exceeds 1, profitable investment opportunities exist, since new units can be sold at prices above their construction costs. In efficient markets, new construction forces the ratio back toward 1. This has not yet happened in Russia. In mid-1992 prices, construction costs were approximately 20,000 rubles per square meter or 1 million rubles for a standard unit of 50 square meters in total space. Auction prices for completed units of this type, however, were rarely less than 1.5 million rubles and may approach 2 million rubles. Thus the Tobin Q value is between 1.5 and 2.0, pointing to unused investment opportunities. The same pattern prevailed in 1993. In 1994, however, this value appears to decline to 1.2 - 1.5.

Agency Problems

Agency problems in construction contracts are significant in Russia today. Given the

time needed for construction activity, there is a risk in any economy of non-performance by one or another of the parties to a construction contract. The current inflation in Russia magnifies these problems, since someone may abscond with the valuable stockpile of building materials, or the investment funds intended for the building project may disappear or be diverted to other uses. In addition, the enforcement of private contracts is new in Russia, and therefore remains much more problematic than in other countries. Agency problems of this sort can be reduced by creating - in one way or another - close connections between the various parties to the transaction: the developer, the construction firm, and the investor (or final demander). In the extreme, some of the parties might become vertically integrated. The solutions to these agency problems are likely to provide a unique character to the Russian housing finance system.

Long-Term Real Estate Financing in Russia

Besides macroeconomic problems contingent upon stabilization of the Russian economy, long-term lending in Russia today faces serious problems arising from default risk, and affordability concerns.

Default Risk on Long-Term Mortgage Loans

The current Russian situation is unique because severe limitations are placed on the remedies available to lenders once default does occur. In this regard, it should be recognized that given the lack of vacant housing units, eviction is tantamount to making a person homeless, and therefore is extremely rarely carried out. Although the legal aspects of this problem may be rectified by the new mortgage law (and subsequent improvements to it), fundamental issues remain regarding how the courts will judge eviction cases. It is therefore likely that prudent lenders will continue to design loan contracts to minimize the likelihood that default, foreclosure, and eviction will

actually occur.

Affordability Issues for Long-Term Mortgage Loans

The ratio of average housing prices to average annual family incomes in Russia today is at least 15 to 1. If the house purchase is to be financed with subsidized loans at a 20% annual interest rate, the debt service to income ratio is still 3 to 1, obviously an impossible situation. In the U.S. and many other countries an initial ratio of 0.25 would be considered normal. Even using price level adjusted mortgages, with real interest rates on the order of 5 percent, borrowers would need to allocate most of their income to housing.

Long-Term Lending Through Depository Intermediaries

Advanced market economies provide a variety of models for long-term housing finance systems on which Russia's system could eventually be based. In the short-run, however, investment funds in Russia are scarce, which limits the feasible sources of long-term funds for real estate loans. Indeed, for most of the existing banking institutions, long-term real estate lending has little appeal relative to the attractions of short-term investment banking opportunities. Among these institutions, Sberbank stands out as the one bank which simultaneously has access to a large pool of funds, has indicated interest in long-term real estate lending, and, if necessary, could be further motivated by the government to focus on such lending. Indeed, as mentioned earlier, the bank already has developed some experience and expertise in real estate lending.

The potential for acquiring price-level indexed assets could make long-term real estate lending a better deal for Sberbank than the mandatory lending it is subjected to. In mid-1993, Sberbank paid 60 percent (annual rate) on its retail deposits, reflecting the allocation of a large part of its portfolio to assets yielding low nominal interest rates compared to monthly inflation rates be-

tween 15% and 20% per month. Long-term real estate loans, in contrast, could reasonably be indexed against inflation (measured either by housing prices or a consumer price index). Based on such earning assets, the bank could offer depositors - at least on long-term funds - a positive real rate of return. The financial sector policies followed in Russia and for Sberbank in particular will have a very significant impact on the development of its housing finance system.

However, Sberbank is the only bank mobilizing households deposits in Russia. Its liabilities are guaranteed by the Government. Its role should therefore be evaluated from the broader perspective of the development of the Russian financial system, and not narrowly with reference to the financing of housing. The primary role of Sberbank should be to provide households with a safe window to deposit their savings, access to the payment system, and a limited source of credit. At present, housing finance services represent a marginal volume of financing by Sberbank under very negative real interest rates. In order not to jeopardize Sberbank's financial soundness, all forms of lending to households should be limited to a fraction of its total deposits until macroeconomic stabilization is durably achieved. Mortgage lending to households should be allowed only for a small share of the asset portfolio in order to allow Sberbank to develop its loan origination and loan servicing capacity. Sberbank should lend only at variable interest rates and at a level high enough to insure full loan recovery in real terms after adjusting for inflation. If the Government wishes to develop a sound housing finance system capable of growth, it should not provide housing subsidies mandated to the financial system, but only from fiscal resources.

CONCLUSIONS

There are several key strategic issues that are worth emphasizing. First, the development of the housing finance system is the most critical element - the leading edge - of a market-based housing system. Second,

macro-economic instability makes the development of market-based, long-term housing finance currently impossible. Third, when macro-economic instability will be controlled, the development of a safe financial system in Russia will be a high priority. In the early stages of recovery there will be few reliable financial assets in which household deposits can be invested. Well structured residential lending will be among these few assets. What should be started now on a limited basis is the development of a loan origination and servicing capacity, as well as training of bank personnel in the asset/liability management inherent to residential mortgage lending. ■

NOTES

¹ Gosplan - The Soviet-time abbreviation for the State Planning Committee (Ed.).

² Deliberately or not, Soviet statistics tended to be difficult to interpret. In particular, crowding ratios must be used with care. Some statistics refer to "households" and include both one person and families as households. Others refer to "families" and count only households with two or more people.

³ CPSU - Communist Party of the Soviet Union (Ed.).

⁴ Gosnab - abbreviation for the former State Committee of Supplies Distribution.

⁵ RSFSR - Russian Soviet Federation of Socialist Republics.

⁶ The dual monetary system of the "credit plan" for investment and the "cash plan" for household expenditure is well known. "Credit ruble" values were assigned to transactions, but only to balance the books, not allocate resources. The credit rubles could not be exchanged for the "paper rubles" used for the consumption purposes of households. Credit rubles remain the main unit for bank lending to state enterprises. It was this *joint alloca-*

tion of funds and physical resources which formed the core of the old housing finance system under central planning. The distance from this system to pure barter under today's high inflation is very short indeed.

⁷ CBR - The Central Bank of Russia.

⁸ This ratio is sometimes referred to by market analysts as Tobin's Q which is a general measure of the disequilibrium in a variety of asset markets.