DEVELOPING RESIDENTIAL MORTGAGE MARKETS IN THE RUSSIAN FEDERATION

FINAL REPORT

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This Note was prepared by a team comprising Peter Ellis (ECSIE), Britt Gwinner (FINCF), and Loic Chiquier (OPD).
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1. **EXECUTIVE SUMMARY**

1. A well-functioning housing finance system will be integral to the development of housing markets in Russia, and for ensuring that the quality and quantity of housing is sufficient to meet the population’s demands. There is currently great potential for developing residential mortgage markets in Russia. Personal incomes have returned to the purchasing power they had before the 1998 crisis, and there appears to be strong demand for improved housing conditions, as well as for new housing units. In response to this latent demand, the system of residential mortgage lending in Russia could soon emerge from a pilot phase characterized by limited lending to high-income families by a few commercial banks, and a few subsidized programs for moderate-income families sponsored by regional governments. Thus far, Federal and regional governments have been active and constructive supporters of these developments.

2. This note focuses on the Government of Russia’s program to develop residential mortgage markets, in particular the Government’s program to create secondary mortgage markets. The analysis is based on a wide range of World Bank and IFC work on housing markets, housing finance, and communal services in Russia. It is also based on recent visits by World Bank experts to Russia, which included extensive discussions with the key players in the market, and visits to a number of Russian cities. The note first reviews the current market for residential mortgages in Russia, then comments on some of the salient aspects of the draft law for mortgage securitization. Finally, the note presents an analysis of the Federal Government’s Home Mortgage Lending Agency’s (HMLA) plans to develop the residential mortgage market.

3. The World Bank’s work thus far indicates that substantial policy, regulatory, and institutional advances must be made if mortgage finance is to successfully stimulate the supply of housing. Key observations in order of priority are discussed below.

4. **Weak Housing Markets.** Mortgage finance alone cannot overcome fundamental weaknesses in housing markets. In particular, households must be willing to invest in maintenance of existing units, the construction industry must be able to respond with new housing supply, and it must be easy to trade housing units. Additional legislation and the support of the courts are required to reinforce the rights of creditors to streamline the foreclosure process. Absent a functioning housing market, rapid development of mortgage finance would likely only fuel house-price inflation without contributing to better housing conditions for the bulk of the population.

5. **Sharing Risk.** Current plans for growing the market for mortgage finance place too much risk in the hands of Government. The Federal Government is directly taking on interest rate risk, and regions are completely exposed to the credit risk of the loans they make. Should the regions face a credit crisis, the Federal Government would be expected to support them. Ideally, risk should be priced and shared among banks, regional agencies, and the Federal Government so as to compensate investors, mobilize savings,
reward effective risk management, and spread governmental assistance to the largest possible number of house buyers.

6. **Inefficient Subsidies.** The regional agencies seek to make housing more affordable by offering interest rate subsidies. However, interest rate subsidies create long-term financial liabilities on regional budgets and pose greater risks in the event of economic shocks. Instead, to the degree that subsidies are required, the Federal and Regional Governments should look to a combination of credit insurance and targeted up-front subsidies to boost affordability.

7. **Leveraging Government Resources.** Federal and Regional Governments should better leverage their support for the market. Instead of guaranteeing the entire credit performance of mortgages, regional agencies could take a limited loss position on a portion of the loan principal. The Federal Government could offer credit risk insurance on another portion of each loan, either through the HMLA or another agency. Once the mortgage securities law is passed, the HMLA could offer credit enhancements for commercial bank-issued mortgage-backed securities. This would better leverage the HMLA’s government guarantees, and it would provide an economic reason for Sberbank and other large, liquid banks to lend to moderate income families.

8. **Pricing Credit Risk.** Current high lending rates appear to be driven more by inflation expectations than by credit risk. Lower inflation will prove critical to increasing demand for mortgage finance. To develop credit spreads analytically, lenders and HMLA will have to develop loan performance data sets over time.

9. **Mortgage Design.** Most outstanding mortgages carry fixed rates, and as a result, necessarily have high payments. Fixed rate loans carry higher market risks for lenders and for investors. The HMLA and lenders should explore other mortgage designs, for example, floating rate loans with payment caps that would better allocate interest rate risk between lenders and borrowers.

10. **Incentives to Lend.** Large public and commercial banks, such as Sberbank and Raffeisenbank, may not require the liquidity that could be provided by the HMLA, but they might be motivated to lend to moderate-income households if long-term funding existed, and doubts about the efficacy of the mortgage pledge were relieved through legal reforms. Securitization of loans and/or issuance of mortgage bonds would provide commercial banks with an alternative to funding long-term mortgages with short-term deposits. Credit insurance could serve as an incentive for commercial bank lending during the time it takes the Government to address weaknesses in the law regarding foreclosure.

11. **Draft Law on Securitization.** Passage of a law on mortgage securitization is critical to the development of housing finance markets in Russia. The draft law “On Mortgage Securities” has passed its second reading. While this draft strengthens the role of the Federal Securities Commission in regulation, and allows banks to issue mortgage bonds, it creates restrictions on the issuance of mortgage securities that will slow the growth of the market. The legal vehicles that the draft defines appear to have significant flaws. For instance, the trust vehicle for mortgage participation certificates does not
appear to meet the minimal criteria for a true sale. Regardless of the final form the law takes, substantial work remains with respect to the regulation of securities issuers, and the treatment of securities on the balance sheets of investors. The passage of the securities legislation will only set the stage for implementation of the law, which is an important requirement for providing a level playing field for all market participants.

12. **Financial Standards for Regional Agencies.** The lack of financial standards for regional mortgage agencies poses substantial risk to the system. Aside from the HMLA’s underwriting and reserve requirements for loans it purchases, there are no financial standards for the regional mortgage agencies. For loans that are funded locally, there are no common rules for underwriting, insider lending, concentration, internal controls, or loss reserves. Internationally, there is a long historic list of publicly funded agencies that have suffered losses or failed as a result of weak financial standards.

13. **Contractual Savings.** The proposed scheme for contractual savings could help the development of mortgage finance by assisting households to establish credit records. However, in order to succeed, it must avoid regressive subsidies in the savings phase, be structured to remain liquid in the face of ingoing inflation, and be available to a range of financial institutions as a financial product.
2. THE CURRENT STATE OF RESIDENTIAL MORTGAGE MARKETS

14. The long-term policy goal of the Federal Government is to more than double annual construction of new housing units from 30 to over 70 million square meters. Executive and legislative branches of government at the national and local level have devoted a great deal of attention to developing mortgage markets as a means to finance housing markets, and increasing the efficiency and size of the construction sector so that it may better act as an engine of economic growth and social stability.

15. In spite of these efforts, the mortgage market in Russia is extremely small by international standards. The mortgage stock is estimated at roughly 0.1 percent of GDP, or RUR 29,200 million. This percentage is extremely low when compared with either developed economies, such as the European Union with an average of 53 percent of GDP, or emerging markets, such as Colombia at 12 percent, or Korea at 14 percent.

A. MARKETS FOR HOUSING AND NEW CONSTRUCTION

16. New construction during the 1990s was low by historic measures, and after a decade of deferred maintenance, depreciation is claiming many existing units. New construction averaged 35 million square meters annually between 1991 and 2002, versus 60 million square meters constructed in 1990, and an annual average of 68 million square meters in the five years before 1990. In 2001, 14.1 million square meters of housing were decommissioned, with the dilapidated housing stock growing by 34 percent, to 87.8 million square meters. More than 290 million square meters of housing are in urgent need of capital repairs, yet only 4.5 million square meters are repaired annually.

17. The supply of new housing units is constrained by non-functioning land markets, opaque systems for issuing building permits, and monopolistic local construction markets. Municipal authorities are reluctant to sell land, even with the prospect for a future income stream from property taxes. In response, the Federal Government envisions reforms to institute a market-based property tax system. Titling and registration processes are complex, and serious problems remain with respect to the provision of utilities.

18. On the demand side, households are constrained by their inability to borrow money long term at affordable rates. Many new units are financed through developer-run schemes, which tend to be risky and expensive for households. Prospective owners must make sizeable down-payments for partially constructed units, and the pay-as-you-go nature of the financing means that households bear all the risk of the developer completing the project. New buyers must often pay an additional 20 percent of their purchase price to complete the apartment, adding essential features such as electrical wiring and appliances. The replacement of developer financing with commercial bank lending, with consistent and well-developed underwriting and interest charges, would therefore help to make new units more affordable. It would also provide funds for the renovation and maintenance of the existing housing stock.
B. MORTGAGE FINANCE MARKET

19. Chart 1 outlines the major components of mortgage finance in Russia today. The housing stock is now sixty percent private and is becoming a more active object of market transactions, including rental. Recent surveys show strong demand for improved housing conditions, with more than 77 percent of households polled seeking to improve housing conditions, but a limited understanding of mortgage finance (CREA 2003).  

20. Associations of realtors and appraisers appear to be reasonably organized and their services efficient, although weak standards and relatively infrequent transactions make it difficult to determine market values.

21. Existing loans are concentrated at a few banks, with about RUR 6,200 million, and regional public mortgage agencies with about RUR 22,200 million or about 7,800 loans. Mortgage production is concentrated in few major cities, the bulk in Moscow. Institutions finance mortgages with deposits, external sources, and increasingly with funds from a combination of regional agencies and the Federal Government’s HMLA.

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22. The HMLA has placed bonds with commercial banks, thereby establishing one important element of the mortgage finance value chain. However, some critical financing links are missing: neither the federal agency nor commercial banks are issuing and selling bonds to private or public pension funds or to insurance companies. These additional links to long-term investors will prove crucial to developing a significant volume of mortgage finance.

23. The main features of the credit underwriting and servicing standards by banks seem reasonable given the conditions of the primary mortgage market:

- Maximum maturity of 15 years for commercial bank lenders, 20 years for mortgages purchased by HMLA. For commercial banks, there appears to be little marginal utility in extending maturity further given high market interest rates and inflation expectations.

- Minimum down-payment of 30 percent, which is consistent with foreclosure problems, the depreciated state of many buildings, and the scarcity of reference transactions for establishing market values.

- Interest rates are fixed between 21 percent and 23 percent in RUR-denominated loans, and 12 and 15 percent for USD loans. Regional public mortgage agencies underwrite more subsidized mortgages in rubles, between 8 and 15 percent, with an estimated 13 percent weighted average, and with fiscal support of local governments to pay for the differential with market rates.

24. Among commercial banks, Sberbank and Deltabank appear to be the most qualified and motivated to increase their mortgage portfolios, albeit with different lending strategies, commercial targets, credit products and funding sources. Sberbank, however, does not yet appear to fully utilize and exploit its network and retail deposit capacities, as its mortgage portfolio is about RUR 3 billion, in rubles and dollars, which represents 8 percent of its overall retail credit portfolio. Sberbank is Russia’s largest saving bank, with 69 percent of retail deposits, and the only savings bank to enjoy full government backing of its deposits. Deltabank specializes in residential lending, originated USD 40 million in 2001 and 2002, about 1,500 loans, exclusively in USD, directly and through 15 partner originating banks. Deltabank is funded through foreign refinancing lines. Reiffeissen bank, with USD 12 million, and a few Russian banks make mortgage loans, but as a minor part of their overall retail and construction lending programs.

25. At this stage, the credit quality of the portfolio originated by commercial banks appears to be strong, in large part due to conservative underwriting standards, and the targeting of high-income households. For example, in addition to the mortgage pledge, Sberbank requires two co-signers for each mortgage, revealing an implicit lack of confidence in the security of mortgage collateral. This lack of confidence likely stems from the lack of tests of new foreclosure procedures.
26. The capacity to foreclose is central to a healthy set of incentives in mortgage finance. Foreclosure and re-housing remain sticky issues in the development of Russian residential mortgage markets. Barriers against eviction continue to raise doubts about the efficacy of property as collateral for mortgage loans, and for mortgage securities. A set of laws passed after 1998 improved the enforcement and registration of property rights, streamlined subsidies, and permitted mortgage foreclosure. While these laws represent important steps in providing lien holders with the clear capacity to foreclose when borrowers fail to pay, they are limited, and there have been few court tests of them.

27. Collateral rights of lenders remain limited to purchase money loans. This restricts the capacity of borrowers to refinance loans when inflation and interest rates fall. Access to collateral in the case of default is limited by the rights of households, notably those with minors, that prevent eviction. As a result, when borrowers default, lenders are effectively limited to efforts to arrange amicable resale of the house, lease the house to the defaulted borrower, or re-house the family.

28. To facilitate re-housing, some cities, such as Moscow, are able to set aside vacant units. New laws are now under discussion to enable the creation of local public funds augmented by new and/or vacant units, to accommodate defaulted families and thus insure lenders the ability to enforce their lien. Even if this proves workable for lenders, it reduces the incentive of borrowers to pay their mortgage obligation. A perceived weak incentive to pay would reduce the marketability of Russian mortgage securities, both domestically and internationally.

29. The tax regime appears generally favorable to the development of mortgage finance. At the Federal level, Government has provided two important benefits to buyers: (i) an income tax rebate of up to RUR 600,000 on the construction and purchase amount of a housing unit; and (ii) deductibility of interest on mortgages originated by commercial banks. The tax code appears to contain a bias against non-bank financial institutions in this latter tax treatment, which will reduce market competition going forward. The tax regime appears favorable for securitization, with such transactions exempt from VAT. However, some questions remain regarding the tax treatment of the sale of zakladnaya mortgage pledges, and the property tax treatment of assets held by a special purpose vehicle.

30. Proposals exist to lift the ceiling on the deduction of purchase costs. If such proposals are adopted, they should be limited to moderately-priced housing units, and as a result moderate-income families, so as to prevent this tax expenditure supporting upper-income households. Likewise, limits on the deductibility of interest on mortgages should be established to target this tax subsidy to moderate and low-income families.
31. In general, outright purchase of an apartment remains beyond the reach of all but the top twenty percent of Russian wage earners. In today’s market—using officially reported salaries, current interest rates, and current house prices—a single-wage family whose working member earned the national average formal wage of RUR 4,065 per month, would have to save 18 years in order to accumulate the down payment for a moderately priced apartment of, for example, RUR 600,000.² At a note rate of 24 percent, the monthly loan payment for a 20-year, 70 percent loan-to-value ratio loan on such an apartment would be twice the family's monthly salary. However, the situation is more promising than the analysis using official salaries implies. National averages hide the wide variances that exist in salaries and house prices between regions, and within regions, between urban and rural areas. Privatization has already provided many households with an unencumbered apartment.

32. In a promising trend, most mortgages originated to date are for upgrading existing units; for example, to gain an extra bedroom. In more developed housing markets, there is a positive ripple effect from wealthier households moving into new construction and selling their units to other households.

33. If the hypothetical family cited above already owned an apartment that was worth 80 percent of the unit to be purchased, and had accumulated savings of RUR 10,000, they could borrow RUR 90,000 at 24 percent, and have a payment of 45 percent of monthly salary.³ While this would still be high in terms of monthly cash flow, it would be considered feasible in most countries. Of course, if two members of the household worked, the payment would be more affordable. And if credit insurance were available, they might be able to take out a loan with a higher balance, and so require less up-front savings.

² The CREA study estimates the savings capacity of Russian households to be about 15 percent of salary (CREA 2003).
³ At a savings rate of 15 percent, a family earning RUR 4,065 a month could save RUR 10,000 in 16 months.

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### What Determines Affordability?

The affordability of home ownership is a function of four factors:

- **House prices** – Prices are a function of land values and construction costs. Restricted supply in Russia contributes to high prices. Few units were built during the 1990s. The maintenance of existing units has been lacking, and many units have depreciated dramatically.

- **Mortgage terms** – Inflation and residual risk from the crisis of 1998 keep interest rates high. Fear of inflation and the lack of long term pricing benchmarks keep mortgage maturities relatively short. Recent reductions in inflation have made it possible to consider mortgage finance at market rates; continued reductions would make prospects dramatically brighter. Transaction costs, such as notary fees, are high.

- **Salaries** – Salaries have only recently regained the real purchasing levels that they had reached prior to the 1998 crisis. Recent surveys have shown widespread dissatisfaction with existing housing arrangements. As salaries rise in real terms, so should housing consumption, including housing financed by mortgages.

- **Subsidies** – The Russian Federation has instituted generous tax subsidies for the purchase and finance of apartments. Regional governments have provided deep interest rate subsidies to a limited number of borrowers.
34. Formal salary figures understate income, as many families are provided with state transfers, and more importantly, may earn income from undeclared sources. Some studies have estimated Russia’s unofficial economy to constitute between forty and forty-five percent of GDP in the mid and late 1990s, and informal earnings to compose more than thirty percent of household income. It will be important to develop means to address the “gray” income segment, particularly to the degree possible to bring gray income from legal activities into reported income. Gray market transactions can distort housing markets, for instance, in the case of sales at understated prices that are accompanied by unreported cash payments. Savings from undeclared sources also distort the lender’s analysis of the ability of families to sustain mortgage payments.

35. Mortgage product design is important to the development of the market. Most mortgages currently offered in Russia carry high fixed rates for relatively short terms. To compensate for high and uncertain inflation levels, fixed rates must necessarily be high, making for less affordable payments. High payments increase the pressure for interest rate subsidies, and many regional mortgage agencies, for example, have sought to increase affordability with inefficient and expensive interest rate subsidies.

36. Fixed rate loans convey greater prepayment and market risks to lenders and investors. In order to avoid losses due to interest rate changes, lenders must match the maturity of their liabilities with the maturity of the fixed rate loans that they fund. For example, if lenders finance 20-year maturity loans with 5-year liabilities, then they risk losses should rates rise at the time the liabilities mature. The Federal Government, through capital and bond guarantees, would then be exposed to risk of loss. Conversely, investors face loss of income and unexpected return of principal should interest rates fall, and refinancing become more feasible.

37. More flexible and affordable floating rate mortgage products should be developed to avoid the inflation gamble. Acceptable and transparent indexes would be needed, and it would be necessary to include payment caps and limits on increases in adjustable rates in a given time period. Such a development would create other commercial, financial and regulatory challenges, but market risks would be better managed.

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5 Sberbank has recently begun to offer an adjustable rate mortgage that is linked to the Central Bank’s refinance rate, currently 18 percent.
3. PENDING LAWS FOR MORTGAGE FINANCE

38. The development of housing finance markets, where households can take out mortgages and encumber their property, requires solid legal foundations. In addition to a smoothly working primary market for mortgages, a secondary market that helps to keep the price of long-term funds low should also work effectively.

A. DEVELOPMENT OF MORTGAGE SECURITIES

39. The growth of sound, market-oriented mortgage securities represents a critical step not only for financing housing units, but also for reforming pension funds and capital markets. Securitization helps lenders that are equity constrained, and so could present a vehicle for involving more commercial banks in mortgage lending. Securitization helps lenders to manage interest rate risk. For pension funds seeking investment vehicles, mortgage securities represent both a complement and alternative to government securities.

40. Investors in mortgage-backed securities would include: (i) privately managed pension funds; (ii) insurance companies, if corresponding investment limits are raised; (iii) banks; (iv) investment funds; and (v) mutual funds. Out of the estimated surplus of pension funds, within five years about RUR 120 billion could be invested in mortgage securities.

41. The draft Federal law “On Mortgage Securities” that passed its second reading would create the legal environment for two new funding instruments: (i) mortgage certificates of participation, and (ii) mortgage-backed bonds. The former are akin to pass-through mortgage-backed securities, as they are known in international practice. They require the issuer to transfer a portfolio of mortgages to a kind of trust vehicle, referred to in the law as a “mortgage security trust management contract,” which then issues mortgage certificates of participation. Mortgage-backed bonds, as defined in the law, permit an issuer to issue bonds without selling collateral, in a form of on-balance sheet securitization.

42. Permitting a range of issuers and a range of possible instruments leads to greater competition and lower cost mortgage finance. Mortgage bonds and securities tend to develop faster as a means of financing housing units when issued by a variety of institutions, including both specialized lenders and diversified banks. While specialized institutions have been successful in many countries, the law should not limit issuance of securities to them.

43. There should be no measure in law that restricts issuance of either MBS or mortgage bonds to government-sponsored entities. Government established or sponsored monopolies have a long and mixed history in a number of countries. They are more exposed than competitive private banks to policy interference and moral hazard. Government monopolies generally offer more explicit and/or implicit public guarantees and related contingencies. Any government guarantee should be offered in a transparent
and limited manner. Special circuits for housing finance have slowed the entry of private
banks into mortgage finance as part of their retail activities in both Mexico and the
United States. Such an outcome in Russia would be detrimental to the objective of
producing more housing units.

44. Mortgage securitization necessarily involves a degree of information asymmetry
between the originators of individual loans, who know the most about their credit quality,
and investors in mortgage-backed securities, who know the least. In other countries, this
asymmetry is overcome in a number of ways, including standardization of collateral
documentation and requirements, detailed disclosures of the quality of the pool, mortgage
credit insurance, and mortgage pool insurance. By securitizing its loans, the originating
bank sells credit risk and interest rate risk to investors, who are comfortable with their
exposures because they have information and insurance to mitigate the risks.

45. The current draft law appears to turn these relationships on their head by
restricting the issuance of mortgage certificates of participation to “commercial
organizations licensed to engage in the management of investment funds, mutual
investment funds, and non-state pension funds.” This restriction essentially requires
some of the investors in mortgage certificates of participation to act as issuers.
Investment managers are among those furthest from the origination process, and tend to
have the least information regarding the credit quality of the individual assets. Moreover,
the management of mortgage collateral and the administration of mortgage-backed
securities is a significantly different business from managing mutual funds. The
transaction intensity of the mortgage business requires specialized knowledge and
automated systems that investment managers are unlikely to possess.

46. The current draft law prohibits the issuance of “derivatives of mortgage
certificates of participation.” Unfortunately, this appears to eliminate the issuance of
multi-class securities based upon mortgage certificates of participation. Multi-class
securities are a valuable tool for developing mortgage securitization, as they permit an
issuer to enhance the credit quality of portions of the issue, thereby making them more
appealing to institutional investors. While an overall pool might be rated below
investment grade, a multi-class structure permits the creation of a senior bond that may
receive a triple-A rating with minimal external credit enhancement. Other markets, such
as the United Kingdom and Colombia, have used such structures to either reduce or
eliminate the involvement of governmental insurance or guarantee schemes for mortgage
securitization. As a result, such structures allow cheaper funding to flow to mortgage
lending with less risk to the government.

47. The draft law defines two legal special purpose vehicles (SPVs) for allowing the
mortgage collateral pool to stand alone as a legal entity. When changes to the
bankruptcy code prove infeasible, SPVs and/or specialized subsidiaries can be an
effective vehicle for issuing mortgage bonds, as they have in France. However, such an
arrangement can raise the costs of issuance because it requires more legal work and
overhead to set up and maintain. Apparently, in Russia, a property tax of 2 percent is
levied on assets held by a corporation, including an SPV. Should this be the case, such a
tax would raise the cost of issuance of either a mortgage bond or a participation
certificate.
48. The first SPV, the “mortgage agent,” appears to be designed to support the issuance of mortgage bonds by banks. It is created as a joint stock company with the ability to issue mortgage-backed bonds, and no capacity to employ people or enter into contracts other than the issuing of bonds. However, while the draft law clearly states that only banks or mortgage agents may issue mortgage-backed bonds, it does not state which legal entities may create mortgage agents.

49. Even if banks are to be permitted to create mortgage agents, the law is unclear regarding their status in case of failure of the bank that creates them. Perhaps measures in other Russian laws support the bankruptcy isolation of such a legal entity. However, if this is not the case, then without changes to the bankruptcy code that permit the isolation of collateral for mortgage bonds in the case of bankruptcy by the bond issuer, mortgage bonds are unlikely to emerge as a viable vehicle for funding mortgage lending. This is unfortunate, as mortgage bonds could be a valuable instrument for regional agencies and commercial banks, as demonstrated by the quasi-mortgage bonds already issued by the Irkutsk and Moscow agencies.

50. The second SPV is the “mortgage security trust management contract” (MSTMC), which is the legal vehicle for mortgage certificates of participation. The MSTMC creates pro rata ownership interest in the collateral pool for investors in the certificates. It is not clear that creation of the MSTMC as defined in the draft law will constitute “true sale” as accepted in international practice. True sale establishes the criteria by which the securitization’s collateral assets are recognized as being removed from the balance sheet of the selling institution and transferred to the SPV, or other trust vehicle. If the MSTMC fails to establish true sale, then as a vehicle it is wholly inadequate to establish a viable security. To be securitized, the SPV has to stand alone as a legal entity.

51. In the current draft, the transfer of assets to the MSTMC is not clearly defined. Instead, there are a number of restrictions on the manager of the MSTMC that would imply that the collateral could potentially be commingled with the manager’s assets. For instance, the draft law states that the collateral assets are to be listed in a balance sheet separate from that of the manager’s. If the MSTMC existed as a separate legal entity, with owners separate from the manager, then it should not be possible to list the MSTMC’s assets in any place but its own balance sheet, and such a restriction would be irrelevant.

52. Regulation should address the risk of a given economic activity rather than the nature of the issuing institutions. Mortgage lenders should not be exempted from general banking regulations and oversight about their lending assets, such as reporting, provisioning, capitalization, insider lending, risk concentration, and on-site inspections. The regulatory structure should prevent future problems, such as regulatory arbitrage, where economic actors seek to game inconsistency in regulations to gain easier treatment for the same economic activities.

53. It would be more appropriate to adjust the banking regulations of the central Bank of Russia (CBR) to the specifics of residential mortgage lending by adjusting for difference in risks with depository institutions. The CBR could then grant banking
licenses to mortgage agencies, even if they decide to remain specialized. Regulations dealing with mortgage securities issuance could then be developed by the Securities Commission.

54. The draft law provides for regulation of the issuance of mortgage securities by the Federal Securities Commission. As the law becomes effective, the Central Bank and Securities Commission should jointly adjust their regulations and standards to the specifics of mortgage loans and securities held by specialized institutions and universal banks. Lenders should be permitted to set their loss provision in terms of expected loss and default rates, which are lower for residential mortgages than for corporate credits, which lack the collateral of the borrower’s primary residence. Mortgage securities, which are currently treated as junk bonds for loss provisions, should be treated in terms of the quality of their collateral’s underwriting and servicing standards. Likewise, prudential capital requirements should reflect the risk of retained mortgage loans and the collateral that backs mortgage securities.

55. Disclosures should be extensive and obligatory. The information disclosure proposed in the draft law does not sufficiently detail the nature of the risks of security classes purchased by investors, such as credit risk and prepayment risk. The lack of such information will inhibit market acceptance, because it restricts the possibility to accurately price and monitor the securities. The final law should provide clear regulatory powers for the relevant government authorities to require and standardize such information.

56. Third party security ratings by recognized private sector rating agencies are important to the development of transparent and efficient capital markets. Rated securities are, by definition, subject to an established process for financial reporting and scrutiny, both at the time of issue and on an on-going basis. In developed economies, regulators use ratings and agency information as an important third-party evaluation of the health of the financial system.

57. A requirement for agency ratings should be provided either through: (i) a requirement in the mortgage security law for the rating of each new issue by two agencies; or (ii) via a requirement that pension funds buy only securities with investment-grade ratings. Such a requirement is important for institutional investors, and essential for less sophisticated investors such as retail investors, which are targeted by some regional mortgage agencies, and for mutual funds, which are likely to mobilize public savings.

B. CONTRACTUAL HOUSING SAVINGS AND CREDIT SCHEMES

58. Another important piece of draft legislation relates to new contractual housing saving schemes. International experience would suggest that great care must be exercised in their design. Under such a scheme, households would open special saving accounts offering a low interest rate, but granting them a contractual right to a low-rate mortgage after a given saving period. The credit amount would be linked to accumulated savings so as to preserve the liquidity of the system. While a given account may only finance a limited part of a given purchase, it would help to build equity and demonstrate
financial discipline on the part of the saver. As such, it would act as a positive scoring factor for any bank making a complementary mortgage loan.

59. In a similar vein, contractual savings schemes can be a means of managing the issue of legal, but undeclared income. To the degree that an individual or couple may sustain a given monthly allocation to savings, they may establish their capacity to sustain a comparable mortgage payment, even if it seems high in terms of reported salary.

60. To maximize the production and financing of housing units, this and other savings schemes should be developed for a range of institutions, including commercial banks licensed to take deposits. International experience with housing finance and financial diversification do not support the assertion that specialized institutions are required to develop this savings and housing product. Countries that emphasized specialization in the past, such as Germany, found it productive to promote competition among a range of institution types, and to allow specialized institutions to be acquired by larger, more diversified banks. In Russia, existing banks can tap existing networks of customer relations, and deposits.

61. In a relatively high-inflation economy such as Russia’s, contractual savings plans are particularly difficult to manage. The Federal Government should study expected impacts of the proposed scheme on: central and regional budgets, on households and their housing affordability, on financial sector stability, on housing policy outcomes, and on alternative cost-effective ways of achieving the stated goals.

62. In developing this savings scheme, specific reserve and liquidity requirements need to be tailored by the Central Bank of Russia, and linked to housing credits granted in the early phase of the program. Conditions for advance credits and rules for waiting lists need to be detailed. The following as general points should be considered:

   (i) Raise reserves to a sufficiently high level particularly during the start-up phase, where savings are collected but loans are not yet disbursed, and keep a tight control of the evolution of the liquidity. If necessary, adjust some features, such as saving and credit rates and minimum savings period.

   (ii) Encourage floating contractual rates rather than artificially low fixed rates. Low fixed rates may create temporary and dangerous illiquid phases, if there are not sufficient new entrants.

63. In general, there is a temptation to excessively subsidize the saving phase in order to maintain positive liquidity. Such a savings subsidy would be regressive, would not be directly linked to housing, and would risk a rapidly growing fiscal commitment on the part of the Federal Government. In the Czech Republic, subsidies for savers have gone largely to higher income households. While consuming a large portion of the state’s housing budget, they have produced few new housing units.

64. It should be possible to use the accumulated savings for purposes besides buying a house. For instance in Thailand, after 18 months of saving, a household is considered
to have proven its capacity to make a regular payment, and so it is entitled to a mortgage loan at a reduced interest rate. The household may use the savings balance to buy the home or for some other purpose entirely.
4. DEVELOPMENT OF THE MORTGAGE FINANCE MARKET

65. In order to develop a sustainable, efficient mortgage finance system it is necessary to mobilize savings via commercial banks and private investors. In providing support to the Russian market via the HMLA, the pressing need for short-term results must be balanced against the long-term health of the market. To “prime the pump” of mortgage lending, the HMLA should identify obstacles to the development of mortgage lending by the private sector and propose solutions.

A. ROLE OF HMLA

66. The HMLA has emerged as an important participant in the Russian mortgage system. In theory, the federal agency is capable of playing a number of roles in supporting the market, including:

- Advocating for legislative reforms and judicial support for stronger primary mortgage markets. Such reforms range from improved policies for land use to a more efficient foreclosure process.

- Promulgating standards for underwriting and for mortgage products. Such standards do not exist in Russia, and they are crucial to the development of mortgage markets. In efficient, liquid mortgage markets, mortgages are traded as commodities, making funding cheap and plentiful. Such a treatment is possible only if mortgages are made substitutable via identical financial terms and underwriting criteria. To the degree that all originators use standard terms, it will be possible to more quickly develop a market for mortgage bonds and participation certificates. Such a market would provide liquidity to mortgage originators and, over time, can be expected to reduce the cost of mortgage finance to homeowners.

- Providing liquidity. While liquidity is not an issue for certain large banks, such as Sberbank and Raffeisen bank, in an economy as large and diverse as that of the Russian Federation, local financial markets may be limited by local economic circumstances. The HMLA can overcome local capital shortages by providing liquidity to local public agencies and smaller private banks. In undertaking this role, the HMLA should not undermine mortgage programs of existing, liquid banks.

- Demonstrate the potential for mortgage finance. It can be argued that some potential lenders will only be convinced to lend once they have seen the business undertaken profitably. The HMLA could set an example with a risk-based framework for pricing that commercial banks can emulate profitably.

- Take the risk of setting prices in a difficult environment. The Russian market lacks historical mortgage performance data on which to base prices for credit
risk. There is a lack of benchmarks for pricing long-term bonds. The federal agency can play a crucial catalytic role by taking the initiative to establish a reasonable pricing structure so that the process can begin. Arguably, this government-backed entity is in the best position to take this risk. It will be necessary to revisit this pricing structure over time and adapt it to changing circumstances. The federal agency should not use its early mover advantage to establish a monopoly on mortgage securitization.

- Insure against credit risk. Doubt exists as to the efficacy of mortgages as collateral for loans, and as a result, the ability to price a mortgage loan. The HMLA could provide insurance products that counter uncertainties about the credit risk of mortgage loans. The federal agency intends to examine offering timely payment pledges for the performance of mortgage securities. From an economic standpoint, there is little difference between insuring the credit performance of pools of mortgages, and insuring the performance of individual mortgages. In either case, the federal agency depends upon the underwriting of the originators and the collection capacities of the servicers. As a federal entity, the HMLA is in a unique position to diversify its credit risk across all regions of the Russian Federation.

67. For the time being, the HMLA plans to act as liquidity facility for regional agencies, and as a standards promulgator. The agency received state guarantees for bond issuances of RUR 2 and 4.5 billion respectively through the 2002 and 2003 budget laws. The HMLA used part of the 2002 allocation to back a 5-year RUR 1.1 billion general obligation bond issue at 10.5 percent coupon in April 2003. These bonds were sold to commercial banks.

68. The federal agency intends to use the proceeds of its bond issuances to refinance “primary agents,” the role of which will be to service portfolios and manage credit risk.6 Primary agents will be agencies sponsored by regional governments as well as commercial banks. The agreements signed to date have all been with regional public agencies.7

69. The federal agency has been purchasing fixed rate ruble-denominated mortgages with a note rate of 18 percent. Eventually, these are to be funded by mortgage securities issued at 15 percent, preferably as pass though certificates. The differential would be shared between the federal agency, which would keep 1 percent, and prime agents, which would keep 2 percent. (In April 2003, the federal agency reduced the mortgage note rate on purchased mortgages to 15 percent.)

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6 In case of default, the prime agent would pay for any missing credit installment during six months and proceed with foreclosure as instructed by the federal agency. Afterwards, the federal agency retains the option to have the agent purchase back the defaulted loan. The federal agency may refrain from exercising this option in the case of a catastrophic economic regional crisis.

7 Discussions are under way with commercial banks.
70. Planned lending volumes of the start-up program are a small fraction of the demand for housing and of Gosstroi’s goals for new construction. The federal agency intended to buy RUR 2 billion of loans by the end of 2003. Assuming an average apartment size of 60 square meters, and an average mortgage balance of RUR 350,000, the agency would have bought about 5,700 loans, for a total of 340,000 square meters, as compared to the government’s target of 70 to 80 million square meters of housing constructed annually. Little of the federal agency’s funding is likely to go to new construction in the coming year. Most of these mortgages finance trade-ups, where a family finances the move to a larger apartment.

71. The short-term bond issue poses interest rate risk for the HMLA. The 5-year general obligation bonds that were issued in April fund the purchase of 20-year maturity fixed rate mortgages. Such an issue creates interest rate risk for the agency. If inflation, and as a result interest rates, were to rise substantially by the time these bonds mature, the agency could be forced to replace them at a loss. If inflation falls more than expected, the fixed rate mortgages underlying the bond could prepay, and investors, in this case the state pension fund, would lose expected income.

72. If it is necessary to issue additional bonds before the law on mortgage securities is passed, the federal agency should structure such bonds to match the cash flows of the mortgages that it funds. Such quasi-mortgage bonds have been issued by regional agencies in Russia as a means to better manage interest rate risk. In efficient markets, there is no long-term profit to be gained in speculating on either currency or interest rate movements. As a result, most financial market participants avoid taking interest or currency risk.

73. Where government-backed credit institutions have taken such risks, they have lost substantial amounts of money. For example, as Argentine lenders did with dollar-denominated mortgages in the 1990s, or U.S. savings and loan institutions did by funding long-term fixed-rate assets with short-term liabilities in the 1970s. To minimize the risk of financial loss from changes in interest rates, mortgage conduits such as the HMLA generally hedge against interest rate risk by matching the duration of asset and liability cash flows. An institution with duration-matched cash flows will neither lose nor gain market value when interest rates move. The easiest way to match duration is to match the cash flows of assets and liabilities. If the HMLA fails to match the duration of its cash flows, for instance, by funding long-term assets with short-term debt, it faces refunding risk when the debt matures.

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8 They are only quasi-mortgage bonds because in the absence of a mortgage securities law, as there is no ability to segregate the collateral that funds the bonds in the interest of the investors in the case of bankruptcy of the issuing agency.

9 The exceptions, of course, are market makers such as investment banks.

10 Duration here refers to the sensitivity of the present value of the cash flows to changes in interest rates.
74. Once the mortgage securities law is passed, the agency intends to issue a mortgage-backed security. This issue would take the form of a straight pass-through, as the current draft legislation does not envision a multi-class structure, and in any case, the government guarantee would obviate the credit enhancement that a multi-class structure provides. Such an issue, whether in the form of a mortgage bond or participation certificate, could provide the agency with a substantially better method for managing interest rate risk.

B. HMLA AND MORTGAGE MARKET DEVELOPMENT

75. As the Federal Agency succeeds in placing significant volumes of mortgage bonds or participation certificates at rates that fail to compensate for risk, it will distort the market for mortgage finance, and it will further distort the market for long-term high quality investment vehicles. A bifurcated market is likely to emerge, with: (i) government-sponsored low-cost mortgages for a very small portion of the population, with attendant rationing problems; and (ii) higher-cost mortgages for wealthier clients financed by private funds. Additions to the supply of lower cost mortgages would be restricted to the annual guarantee authority that the government grants the federal agency. To date, this guarantee only represents a tiny fraction of market demand.

76. The HMLA is forced to structure and price long-term bonds in a market that lacks comparative benchmarks and risk-based securities pricing. In efficient capital markets, investors price bonds in reference to a real rate of return for a given term to maturity, plus a spread to compensate for expected inflation, and additional spreads for risks, such as the risk of issuer default. The first two factors, the real rate of return and expected inflation, are usually the two components of the yield of government bonds, generally referred to as the benchmark risk-free rate of interest.

77. In Russia, Government issues are considered high quality, but are not free of default risk. Maturities of government bonds are relatively short—two years or less. On the one hand, institutional investors such as banks and pension funds are required to hold a certain portion of their assets in high quality securities. On the other hand, there is currently a shortage of high quality paper. High demand distorts the pricing of relatively high quality government paper, leading to negative real returns on the paper.

78. As a result, observed yields on long-term bonds in Russia appear to be driven as much by lack of supply as by inflation expectations and credit risk. For example, the longest maturity government bond traded in early 2003, the two-year OFZ, had a coupon yield of 14 percent, but traded at quite a

<table>
<thead>
<tr>
<th>Table 1: Indicative Russian Ruble Interest Rates</th>
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<tbody>
<tr>
<td>Central Bank refinance rate</td>
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<tr>
<td>OFZ two year coupon rate</td>
</tr>
<tr>
<td>Corporate loans 1 to 3 years</td>
</tr>
<tr>
<td>Personal loans 1 to 3 years</td>
</tr>
<tr>
<td>Mortgage loans 10 years</td>
</tr>
<tr>
<td>Long term deposits</td>
</tr>
<tr>
<td>Target Inflation Range 2003</td>
</tr>
</tbody>
</table>

premium, yielding 9.68 percent. This is in spite of the fact that inflation in 2002 was 15.1 percent.11 At current prices, these bonds would produce a negative real yield, even if inflation were to drop to 10 percent in 2003, as some more optimistic observers have forecasted.

79. Current interest and inflation rates would point to higher yields than those realized by the HMLA or the government. As can be seen in Table 1, investors can earn 16 percent on six-month deposits. Banks, such as Sberbank, lend for ten year fixed rate ruble mortgages at 23 percent. The Federal Government’s target for inflation is between 12 and 14 percent for 2003. If the government were to achieve the upper end of that range, then HMLA bonds at 15 percent would provide a real return of only 1 percent, while bonds at 12 percent would provide a negative real return to investors.

80. The HMLA could better extend its reach by leveraging its resources through credit enhancements to bank-issued mortgage backed securities, or through credit insurance. If banks were able to reduce risk through credit enhancements, they would be more likely to lend to moderate-income families. Such a credit enhancement could come from the federal agency in a variety of forms, including insurance for the performance of pools of securitized loans, and/or credit insurance on individual loans, each covering some fraction of the loan balance. The resulting high quality private-issue paper should be afforded the advantages of government paper in terms of satisfying bank liquidity requirements and being eligible as repurchase collateral. Under such a program, the influence of the HMLA could be spread over a much wider portion of the market.

C. FEDERAL AGENCY CONTRACTS WITH REGIONAL AGENCIES

81. The federal agency has focused its efforts on refinancing regional public mortgage agencies by buying their mortgages. As of April 2003, the HMLA had purchased 108 mortgages for a total of RUR 49 million. By September 2003, the HMLA had signed agreements with 46 regional agencies. Eventually, the government plans to contract with agencies in each of the Russian Federation’s 89 regions.

82. Under the current program, the fiscal impact of credit risk could quickly exceed regional resources. At present, loan sales by the regional agencies to the federal agency are with full recourse. Should a mortgage default, the federal agency may call upon the regional agency to replace the loan and bear the cost of the default. Since the regional programs are currently small, the fiscal impact of such defaults is currently minimal. However, should the programs develop on a large scale, the impact on regional budgets could be sizeable, especially given the limited resources of the regions.

83. Table 2 presents an illustration of the potential impact of large lending programs on the budgets of four regions. Under the current approach, any sizeable lending program quickly outstrips the entire regional budget in three of the regions, with Moscow being the exception. If the lending programs in Samara, Orenburg and Irkutsk were to

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11 The government had expected 14 percent. Source: Goskomstat, as reported in “Russian Economic Report February 2003.” The World Bank, Moscow Office.
grow to finance 20 percent of demand, the volume of loans would be more than twice the entire annual regional budget. Should an economic downturn hit, and 20 percent of these borrowers default, the cost could be more than double the entire housing budget in Orenburg. In Samara, it could exceed regional expenditures for education and social assistance combined.

<table>
<thead>
<tr>
<th>Table 2: Potential Impact of Lending on Regional Budgets</th>
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<tbody>
<tr>
<td><strong>Moscow</strong></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Number of Households Seeking Housing*</td>
</tr>
<tr>
<td>Total Regional Budget 2002**</td>
</tr>
<tr>
<td>Regional Housing Budget 2002**</td>
</tr>
<tr>
<td>Average Loan Size**</td>
</tr>
<tr>
<td>Total volume 20% of Demand**</td>
</tr>
<tr>
<td>Cost of 20% defaults with LGD 50%**</td>
</tr>
</tbody>
</table>

*Includes 77% of moderate income households **Thousands of RUR; LGD is Loss Given Default

Sources: Bank staff computations, CREA, Goskomstat

84. These are rough estimates, based in part on CREA’s recent survey, which showed that 77 percent of households would like to improve their living conditions. It should be noted that should these same households be faced with the cost of purchasing apartments at prices that fully reflected cost, they might choose to remain in their existing units. However, even if actual demand is half or less than that indicated by the CREA survey, volume could still quickly exceed the resources of many regions.

85. Instead of allocating credit risk solely to the regional governments, the system should divide the risk among participants. Such a division of risk could provide economic incentives to better manage risk. For instance, the originating bank could be required to take the first loss position of thirty percent of the loan balance. The HMLA could offer loss insurance on the next 20 percent of the balance for an economically sound fee, and the regional agency could offer insurance for the remainder of the loan, also for an economically sound fee. This is just one possible arrangement; the order of loss could be different. Any allocation could easily be structured to minimize moral hazard risk on the part of the originating bank and regional agency. The key is to insure known risks with economically sound fees, and to provide incentives for each participant to manage risk carefully.

86. Public programs should maintain strict financial standards. In most countries, public agencies target their efforts to either starting new markets where private sector institutions perceive excessive risk, or to addressing underserved populations, which are not profitable enough for private sector institutions to serve. Such goals, though, do not
obviate the need for transparency, financial controls, and capital requirements. With respect to financial standards, public agencies should be run like banks. It is normal to have lower expectations regarding profitability and growth for public agencies, and to adjust for banking rules that reflect the needs of depository institutions. However, there is no reason to have different standards for financial safety.

87. The regional agencies need prudential capital and other financial standards. Internationally, there is a long historic list of publicly-funded agencies that have suffered losses as a result of weak lending standards. Recent examples include agencies in the Philippines and Mexico. Most such losses have required substantial financial aid by national governments. Aside from the federal agency’s underwriting and reserve requirements, there is currently no consistent set of financial standards for the regional agencies. For the loans the HMLA purchases, it imposes underwriting and servicing standards, and a capital requirement of 10 percent of the volume of loans that each agency sells to the federal agency. For loans that are funded locally, there are no restrictions with regard to underwriting standards, insider lending, concentration rules, internal controls, or loss reserves. The Samara and Orenburg agencies retain no loss reserves beyond the 10 percent for loans sold to the federal agency.

88. Interest rate subsidies will quickly exhaust regional budgets. Most of the regional programs are targeted towards moderate-income households. However, those that address affordability do so with interest rate subsidies, arguably one of the least efficient and most opaque subsidies available. Interest subsidies will consume a cumulatively growing portion of each regional government’s budget. As more loans are originated, increasing resources will be required to maintain the combination of previously obligated and current subsidies.

89. Economically, it is more efficient to grant cash to households than to manipulate the price of goods and services to make them affordable. Interest rate subsidies distort the market for housing finance by distorting its primary pricing mechanism, the mortgage interest rate. To the degree that subsidies are deemed necessary, it would be more efficient for them to take the form of lump sum, up-front cash payments, for instance in the form of down-payment assistance, or credit insurance to allow for higher loan-to-value ratios on mortgages.

90. At higher interest rates, the cost of a down payment subsidy is about 80 percent of the cost of an interest rate subsidy in present value terms. Table 3 presents a comparison of the cost of interest rate and down payment subsidies, using two assumed market rates for mortgage interest. In each case, the down payment subsidy was selected to attain a mortgage payment as low as that which the interest rate subsidy provided. At relatively lower market interest rates, the initial cost difference between the subsidies is small, but the mortgage with a market interest rate is not trapped on the balance sheet of the originating institution.

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12 In this case, each subsidy would be sufficient to deliver an affordable monthly payment for a moderately priced (RUR 488,000) apartment to a household earning RUR 5,000 a month.
91. The mortgage that carries a market interest rate may serve as collateral for a mortgage security at a yield that is attractive to investors without any further subsidy. So, the regional agency will have assets that it can sell at market rates to the federal agency, or any other entity that securitizes mortgages. Liquidity in the system would then be driven by investor demand rather than by the region’s long-term commitment to support below-market interest rates with future cash flows.

<table>
<thead>
<tr>
<th>Table 3: Interest Rate and Down Payment Subsidies Compared</th>
</tr>
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<tbody>
<tr>
<td><strong>Market Loan Rate = 19.6%</strong></td>
</tr>
<tr>
<td>Present Value of Subsidy</td>
</tr>
<tr>
<td>Unsubsidized Loan</td>
</tr>
<tr>
<td>With Interest Subsidy</td>
</tr>
<tr>
<td>Down Payment Subsidy</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>231,012</td>
</tr>
<tr>
<td>50,241</td>
</tr>
<tr>
<td>Savings with Down Payment Subsidy</td>
</tr>
<tr>
<td>Monthly Loan Payment</td>
</tr>
<tr>
<td>5.703</td>
</tr>
<tr>
<td>2.652</td>
</tr>
<tr>
<td>2.688</td>
</tr>
<tr>
<td>Mortgage Note Rate</td>
</tr>
<tr>
<td>19.6%</td>
</tr>
<tr>
<td>7.0%</td>
</tr>
<tr>
<td>19.6%</td>
</tr>
<tr>
<td>Government Down Payment</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>180,771</td>
</tr>
<tr>
<td>-</td>
</tr>
</tbody>
</table>

Assumes: Loan balance RUR 342,000; Buyer’s Down Payment RUR 146,571; Loan Term 20 years

92. In Russia today, interest rate subsidies represent up to a 20-year commitment of resources. Regional agencies are unlikely to be able to marshal the resources to subsidize such a long-term commitment for a significant volume of borrowers. For example, assuming the market mortgage rate were 15 percent, should the Samara region wish to subsidize just 10 percent of households to the degree illustrated in Table 4, the nominal subsidies would consume RUR 100 million in the first year, about four times the entire housing budget for 2002. If it is currently difficult to fund interest rate subsidies at the regional level, it is not clear how regions can be expected to support growing volumes of such subsidies in the future. It would be more efficient to make one-time up-front payments, and look to other solutions for affordability at a large scale, such as a nationwide credit insurance program to raise LTVs and reduce credit spreads.

13 The nominal subsidy here is the difference between the market interest rate and the rate charged on the loan for 45,000 units, or 10 percent of those which may be expected to seek such a subsidy. Such a difference should be scored on the budget in present value terms as foregone revenue. Source for budget data: Moody’s Analysis, Samara Oblast, December 2002.
93. Regional agencies that were started in recent years have not yet developed meaningful volume. As can be seen in Table 4, in one year of operation, the Moscow agency has originated 60 loans and the Irkutsk agency has originated 80 loans. Moscow plans to sell mortgages to the federal agency. Irkutsk does not plan to sell to the federal agency or use its standards; it plans to look to other sources for liquidity, including additional bond sales. Other agencies, such as those in Samara and Orenburg, have essentially been lending budgeted funds at below-market interest rates. Thanks to ongoing budget support, each of these regions has originated a greater volume, particularly Orenburg, with 1,500 loans originated since its establishment in 1996. However, even this volume is small in comparison to the potential demand in the region.

94. The regional public agencies vary in terms of their financing sources. Some, such as the Irkutsk and Moscow agencies, are capitalized by the local government, and fund their lending programs with a combination of capital and general obligation bonds that are structured like mortgage bonds.\(^{14}\) To date, the management of these agencies has shown restraint in incurring credit and market risk, and leverage.

95. The Samara agency plans to change its approach to financing in the near future by issuing a short-term general obligation bond. It expects to pay a coupon rate of 22 percent on a three-year maturity issue of RUR 20 million. Given that none of its mortgages earn more than 18 percent, this issue will provide an instant loss for the agency.

<table>
<thead>
<tr>
<th></th>
<th>Samara</th>
<th>Orenburg</th>
<th>Moscow</th>
<th>Irkutsk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Balance</strong></td>
<td>RUR 342,000</td>
<td>RUR 455,000</td>
<td>RUR 9 million</td>
<td>USD 12,500</td>
</tr>
<tr>
<td><strong>Maximum Maturity</strong></td>
<td>25 years</td>
<td>20 years</td>
<td>USD 10 years RUR 20 years</td>
<td>3-10 years</td>
</tr>
<tr>
<td><strong>Maximum Loan-to-Value Ratio</strong></td>
<td>85%</td>
<td>70%</td>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td><strong>Interest Rate</strong></td>
<td>15%-18%</td>
<td>7%-18%</td>
<td>RUR 18% USD 18% plus change in USD/RUR rate</td>
<td>10% principal in RUR, indexed to USD</td>
</tr>
<tr>
<td><strong>Maximum Payment/Income</strong></td>
<td>35%-40%</td>
<td>30%</td>
<td>30%-50%</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Number of Loans made to date</strong></td>
<td>350</td>
<td>1,500</td>
<td>60</td>
<td>80</td>
</tr>
</tbody>
</table>

\(^{14}\) These quasi-mortgage bonds are similar in financial structure to Danish mortgage bonds in that they match fund the bonds with identified pools of mortgages. However, they lack the legal basis to isolate the mortgage collateral in the case of agency bankruptcy, and so the bonds remain general obligations of the agencies.
96. Underwriting will become more standardized with sales to HMLA. Such standardization is critical to the development of mortgage securities. Moscow and Samara will adapt their terms and underwriting requirements to the federal agency standards. Orenburg already has adapted its standards for the four pools that it has so far sold to the federal agency. Some regional agencies, such as Orenburg, may be expected to originate a mix of loans, some for sale to the federal agency with conforming standards, and others for retention, with non-conforming standards. Some agencies will remain independent of the federal agency and fund through other means. For instance, Irkutsk maintains that its origination standards are already quite similar to those of the federal agency, but since it plans to offer only U.S. dollar loans, it is not concerned with conforming more closely to federal agency standards.

97. The HMLA is fostering ruble lending, which is important for reducing credit risk. Although the U.S. dollar is a primary vehicle for savings by Russian households, U.S. dollar lending raises currency risk that households are not able to hedge, leading to substantial risk of payment shock should the ruble depreciate sharply. As inflation has fallen, many regional agencies have adopted ruble lending.

98. As can be seen in Table 4, Samara and Orenburg offer only RUR loans, the Moscow agency offers loans in both USD and RUR, and the Irkutsk agency offers only USD loans. While the Samara and Orenburg agencies have as their goals to serve moderate-income families, the Irkutsk agency consciously targets the upper twenty percent of the income distribution of its market. The Irkutsk agency has expressed interest in making ruble loans once inflation has stabilized at a lower level.

99. Regional budget capacity is limited. Given the resource limitations of the regional governments, these programs cannot achieve any meaningful scale as long as they are funded from budget. If the entire Samara regional budget were devoted to mortgage lending, it could hope to accommodate only a tenth of the households that might be expected to wish to upgrade their living conditions. Regional agencies need to lever their budgeted resources in order to address significant numbers of borrowers.

100. There exists limited means to lever agency balance sheets. Leverage may come from two sources: (i) issuing bonds; and (ii) selling mortgages to the federal agency. Bond sales are limited by: each region’s financial standing; the willingness of each region to back agency issuances; and by the lack of legal structures, since the mortgage securities law has not been passed. Financial standing may be inferred, in part, by the presence of an investment-grade rating. However, even rated regions, such as Samara, can expect to pay more for general obligation issues than what they earn on mortgages. Neither rated nor un-rated regions can issue true mortgage bonds or mortgage-backed securities until the State Duma creates the legal means to do so. In the meantime, some agencies, such as Irkutsk and Moscow, have issued bonds that are structured like mortgage bonds but that lack the essential legal protections that would make them more valuable than general obligations. At the least, the lack of legal structure raises the cost of such bonds; it can also be expected to reduce the demand for such bonds, although both Moscow and Irkutsk have been oversubscribed for each issue to date.
101. The government of the Russian Federation is limited in its capacity to incur contingent liabilities. As a result, the potential of the HMLA’s program is limited to its annual allocation of guarantees for bond issuances. If the volume of federal government guarantees does not grow, it will necessarily be divided among ever more regional agencies as more contracts are signed. This may lead to substantial dilution of an already small program. For example, in 2003, the Samara agency has committed to sell RUR 100 million of loans to the federal agency, or about 300 individual loans. While this represents a boost in annual production for the regional agency, 300 loans pale in comparison with the 542,000 moderate-income households in the region who might be expected to take out a mortgage.

102. Unless the federal and local agencies adopt a different pricing and guarantee structure, their contribution to housing finance will be limited. The pricing of mortgages should be adequate to produce a yield on a mortgage security that is attractive to private-sector investors. The guarantee structure may take different forms than a simple government guarantee on the performance of the bonds.

103. Spreads and fees should be revisited as data allows, and to the extent possible, be left to competition. At this stage, there is little historic cost data on which to base servicing and origination fees. Actual servicing and origination costs vary according to portfolio scale and investments in technology. Further, it is not clear that many agencies or banks track the cost data that would enable them to determine the cost of originating and servicing loans. Prior to the federal program, servicing fees varied among regions, ranging from 1 percent in Irkutsk to 1.5 percent in Orenburg. Agencies have typically kept 0.5 percent to compensate them for administrative costs and credit risk.

104. Under the federal program, the prime agents will retain a 2 percent annual fee to cover all costs and risks. This does not appear adequate to compensate for the investments in systems and personnel required to start the mortgage system. As such, it could represent a barrier against further growth and competition.

105. Setting a fee of 1 percent for the federal agency represents yet another estimate as to the actual costs to the government of buying mortgages and servicing bonds backed by them. In countries with well-developed mortgage finance systems, servicing spreads are as low as 0.20 percent per annum. It will take time for Russian market participants to make the technology and staff investments to attain such a level of efficiency; market participants now suggest that costs are a good deal higher than those which have been achieved in more developed markets. The HMLA should gather the data required to establish the actual cost to the government of administering loans and the bonds that they back.

106. Investments in technology and staff are important to regional agencies. Irkutsk, Orenburg, Moscow, and Samara all contract with local banks to originate and service loans, manage cash transfers, and administer mortgage-backed bonds. Even so, each regional agency will need to invest in automation and staff to run their businesses safely. Even if origination and servicing are contracted to local banks, it will be necessary to monitor the performance of these service providers and to effectively manage the transactions with the federal agency. It is not clear that all regional agencies will receive
sufficient fiscal support at a larger production scale to pay for the costs related to: (i) infrastructure investment to monitor underwriting and servicing; (ii) setting aside capital to cover credit risks; and (iii) maintain fiscally expensive credit rate subsidies.

107. The HMLA plans to levy a financial sanction if prime agents fail to provide their contracted volume of mortgages. Such mandatory volumes run counter to the role of a liquidity facility. Rather than setting a price and quantity, the federal agency should consider letting regional agencies make offers at market rates, and buying if the offered rates permit the creation of securities that meet investors’ requirements for yield. A liquidity facility should manage its debt issuance to minimize its risks while being responsive to the varying funding needs of its clients as primary lenders. Production requirements may exacerbate moral hazard risks for the federal agency, or for regional agencies.

D. CREDIT INSURANCE.

108. If targeted and structured appropriately, a nationwide credit insurance scheme to cover retail borrower default could contribute significantly to affordability. While credit insurance cannot overcome difficulties with foreclosure, it could serve as an incentive for commercial bank lending during the time it takes the Government to address weaknesses in the law regarding foreclosure.

109. Credit insurance can make higher loan-to-value (LTV) loans possible by absorbing a portion of the credit risk that leads lenders to require a large down payment. Such a program would share credit risks with primary lenders, such as Sberbank and Raiffeisen bank, and provide these latter with incentives to enter more substantially and aggressively into mortgage lending. Credit insurance for the long term can provide bankers with an important incentive to lend at greater terms to maturity. This function would be a useful complement to the liquidity provided by the federal agency and to the servicing and credit risk management provided at a local level by primary agents.

110. Credit insurance requires historical data by origination cohort on such items as delinquency and foreclosure frequencies, cure rates, time to foreclosure, and loss per foreclosed loan. This data forms the basis of analysis to correctly and transparently price the insurance product, and adequately reserve for losses. Such data does not yet exist in Russia on a broad basis.

111. Any credit insurance program will require three broad stages, the first of which would involve analysis of existing data, and the development of data and underwriting standards for future data collection. The second phase would involve writing insurance at some necessarily arbitrary price levels, and the collection of data upon which to base more robust prices. This database would form the basis of the third phase, the development of a private mortgage credit industry. The first two phases could take five years or more. At some future date, it could be possible to reduce the risk to the Government by buying reinsurance on international markets.
112. A credit insurance project, necessarily at the federal level in order to diversify geographical risk, promises to contribute to the development of mortgage markets, provided that it would:

- Operate according to professional and prudential insurance standards;
- Present proper governance and regulation features and avoid creating a monopoly;
- Provide limited insurance coverage to lenders, for example, preclude excessive first loss level;
- Impose and monitor prudential underwriting and servicing standards;
- Properly price the insurance premium and adjust it to reflect changing market conditions;
- Be properly scored on the Federal budget, to reflect the contingent liability to the Government.

E. Conclusion

113. Recent legal and policy initiatives have prepared the ground for mortgage finance in Russia, as evidenced by the limited volume of loans that have been extended to wealthier households. With additional legal, policy, regulatory, and institutional reforms, mortgage finance could contribute significantly to the development of the Russian economy and a higher standard of living for Russian households.