Financing Housing in South Africa: An Overview of Issues, Options and Prospects

by Isaac F. Megbolugbe and Eric S. Belsky

Abstract

The housing finance system in South Africa meets the mortgage credit needs of about one-quarter of the population well and three-quarters of the population poorly. The challenge for the South African government is to facilitate and enable the existing market to better meet the needs of the majority. The government proposes to meet that challenge by taking a series of steps. The government plans to move aggressively to restore the order or law and enforce mortgage contracts in areas where that order has broken down. It plans to provide protection for private lenders originating mortgages in these areas until law and order are restored. The government also intends to provide a savings-linked housing subsidy to low- and middle-income households and to create a government-sponsored but shareholder-owned National Housing Finance Corporation to create a secondary market and wholesale funds facility for the housing finance system. The state is planning to enforce a code of mortgage lending conduct for banks and a warranty scheme and code of conduct for builders. A service corporation will be created to help consumers select homes within their budget and help resolve rent and mortgage loan boycotts.

This paper makes the case that housing is important to the national economy and that the housing finance system is central to accomplishing national housing goals. A conceptual framework developed for a United Nations project for Fannie Mae is applied to the South African system. All finance systems must meet similar challenges to solve the central problem of housing finance systems: how to fund housing loans, intermediate the funds between savers and borrowers, and manage the risks associated with mortgage lending through intermediaries.

The South African housing finance system is placed in comparative perspective to reveal its existing strengths and weaknesses. The government's proposed policies and actions to reform and improve the system are evaluated in the light of these strengths and weaknesses and experience from other countries. The analysis suggests that the South African government has developed an effective plan to deal with the most pressing of housing finance issues. However, it also reveals that some issues are not yet fully addressed. These include how to best manage agency, liquidity and system risk. The plan is given high marks for choosing actions that will capitalize on the benefits of the existing system, managing credit and political risk, expanding funding for housing, and creating effective demand among the three-quarters of the population that is now poorly served.

The paper concludes by noting that housing finance systems are always evolving. Seen from this perspective, the historic and monumental steps that South Africa is taking are the first of many that will follow. As the process unfolds, the government will have to create viable exit strategies to withdraw from roles that it will not need to play as the system gets

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more established. Both the public and private sectors are urged to guard against certain hazards, focus on several key issues, and stay flexible and responsive to change.

INTRODUCTION

The future wealth and prosperity of South Africa will depend, in large part, on meeting its housing needs. Decent housing in viable communities situated within commuting range of economic opportunities is central to achieving economic efficiency and realizing the full potential of the nation's human resources. Promoting housing is not only good social policy, but sound economic policy as well. Housing can be a powerful engine for economic development. Producing, maintaining, improving, and furnishing homes creates large numbers of well-paying jobs and uses materials with a high degree of domestic content. For those who purchase a home, it becomes an important form of savings, a hedge against inflation, and a store of wealth that can be tapped for education and small business investment.

Today, South Africa is endowed with considerable resources that it can mobilize to achieve its housing goals. The South African government should be applauded for making housing one of the centerpieces of its development plans. Efforts already underway in the country to meet new and ambitious housing goals testify to a new emerging commitment to housing. The formation of and the work being done by the National Housing Forum and its constituents demonstrate that the nation certainly has the talent to make significant strides towards meeting its housing needs.

Significant impediments, however, also stand in the way of meeting South Africa's housing needs. The polarization of the national income distribution and the current poor condition of the housing stock in which a large share of South Africans live are perhaps the two most apparent and significant difficulties. A host of impediments has given rise to these problems. The most obvious of these are past policies and attitudes that enforced severe discrimination in labor markets and restricted access to social and educational opportunities for non-whites.

The South African Department of Housing and the National Housing Forum have done an excellent job in cataloging the constraints to and opportunities for resolving the country's housing problems.[1] Impediments include problems with the governmental delivery system for housing aid, important gaps in policy needed to encourage greater private investment, deficiencies in the retail mortgage credit delivery system especially in meeting lower-income needs, land planning and tenure problems, and the limited capacity of the housing production sector. Among the opportunities are the participatory policy development process now unfolding, well-developed infrastructure (including a sophisticated financial sector), the opportunity to better target public and private sector resources, the interest of the international community in helping out, and an improving economic outlook. The challenge is to mobilize South Africa's impressive infrastructure, institutions, capital, human resources and material resources to overcome obstacles to achieving its goals.

This paper focuses on one key constraint and one key opportunity, both of which derive from a single source: the housing finance system in South Africa. The system has been characterized as at once sophisticated and lacking. Indeed, there is ample evidence that both views are correct and communicate important information. That the South African finance system is internationally recognized as sophisticated suggests that it is a resource that should be built upon and enabled, not dismantled or abandoned. That it has failed on its own and in partnership with the government to meet South Africa's housing needs suggests that actions must be taken to enhance it.

Housing finance is important because it is the lifeblood of housing delivery systems worldwide. Suppliers require capital to finance housing production and related infrastructure. Consumers and investors, for their part, require credit to finance home purchases and improvements. Few can afford to come up with the cash needed to produce multiple homes for sale, purchase a home or rental property.

Although a top-performing housing finance system is an asset, it is not a panacea. All the impediments and constraints listed above must be addressed if the hope of meeting South Africa's housing needs is to become a reality. Economic growth that benefits a broader segment of the South African population will perhaps be most important. But even that goal will be served by taking the proper steps to mobilize the housing finance and production system.

The next section of this paper attempts to cast South Africa's housing problems in the broader light of the range of possible housing problems encountered around the world. The discussion will serve to illustrate that all countries at all times are challenged with working out solutions to a common set of problems. Though the extent to which each country has been able to minimize specific problems varies, the ingredients that must go into a housing finance system are universal. South Africa's housing finance system is then placed in comparative perspective. Prospects and proposals for improving the system are then discussed, and the appropriate roles for government intervention are described and rationalized.

The goal of this paper is to provide a framework for thinking about South Africa's housing finance system. The framework has the benefit of drawing attention to the full range of issues that must be considered. It has the additional benefit of organizing the issues so that lessons from other countries can be more readily drawn upon to inform the formulation and implementation of South African policy.

THE UNIVERSAL NATURE OF THE HOUSING FINANCE PROBLEM

Housing is an expensive durable good. Few can therefore afford to pay for decent housing up front out of their own savings. Instead, they have to borrow from the pooled savings of others.

At the most general level of abstraction, the housing finance problem is how to fund housing loans, intermediate the funds between savers and borrowers, and manage the risks associated with mortgage lending through intermediaries.[2] More specifically, all nations must address the problems discussed below.

Funding

Housing finance systems require an adequate and reliable supply of capital. Insufficient or cyclical constraints on capital drive up the cost of funds and partly regulate the timing and number of borrowers who can be served. Four pools of funds can be tapped to finance mortgage lending: private equity, private debt, deposits and government or government-directed credit. Savings can come from domestic or international sources.

Loan Origination and Servicing

Housing loans must be originated and serviced. The importance of these functions cannot be over stressed. The specific nature of the policies and operations governing originations determines the costs of producing a loan, who shall receive them and at what price. The nature of the policies and operations governing servicing governs the cost of keeping track of loans and dealing with delinquencies and defaults. A system must develop to originate and service housing loans. A number of alternative systems can evolve to perform these functions. The origination and servicing functions can be assumed by the intermediary that raises the loanable funds or by specialized firms under contract to those who hold the mortgage note. A host of arrangements among public and private sector parties is possible.

Managing Credit Risk

Housing finance systems must develop methods for managing and pricing the risk that borrowers will become delinquent or default on their loans. Credit risk can be managed by restricting borrowers to those who have demonstrated capacity and willingness to repay debts. It can also be managed by collateralizing the loan either with the home itself or some other asset. Managing risk through collateral requires clear title and a legal system which supports cost-effective repossession of property from defaulted properties. If these conditions are in place, credit risk can be further managed by demanding a large downpayment from borrowers to cushion the lender against the probability of default even if house values decline or borrowers lose the capacity to service their debt. A final and important element in managing risk is diversifying it across many areas and borrower types. This reduces the chance that economic or structural problems that affect particular types of borrowers or areas will result in catastrophic losses to a single funding source. Risk can also be reduced in the case of variable rate loans by capping interest rate adjustments. Credit risk can be managed in other ways as well, including indemnifying borrowers against temporary losses of income and savers against default of financial intermediaries.

Managing Liquidity Risk

Housing finance systems also must come up with ways to manage the risk that money loaned for home purchases and improvements will be needed before it is due. Managing this risk is particularly important to intermediaries that are funded with savings that can be called by savers at any time or after short terms. One way to make housing finance more liquid is to standardize the characteristics of mortgage loans and then use them to back securities that are more easily traded for cash.

Managing Cash Flow Risk

Housing finance systems need to address uncertainty with respect to scheduled real or nominal cash flows. Expected inflation, actual inflation, real interest rates, and exchanges rates are all uncertain and drive interest rate risk (the risk of being stuck with interest rates on assets that are below current market rates) and prepayment risk (the risk of being cut out of expected interest payments on principal and of being stuck with cash when interest rates are at the bottom of the cycle). Cash flow risk can be managed by improving estimates of the average weighted life of a mortgage with certain term and interest characteristics. This helps estimate the likelihood of prepayment and the value of a loan with a given set of characteristics. It can also be managed by including prepayment penalties in loan contracts. Interest rate risk can also be managed by more closely matching asset maturities to liability maturities. It can be managed by hedging, using financial instruments that can reliably be expected to move in an offsetting direction if interest rates change.

Managing Agency Risk

Housing finance systems must be able to effectively manage the risk that an intermediary will act in a way that harms the other. Agency risk can derive from several sources. It can stem from fraud of employees, a divergence between the interests of management and that of savers or investors, or the default of an intermediary. This risk can be wholly left to individual parties to manage through individually negotiated contracts and precautions against dealing with shady firms. Risk also can be managed in partnership with government. Governments can pass and enforce consumer protection laws, and supervise financial intermediaries to identify and resolve risks before they get out of hand. Specific manifestations of agency risk include the risk of nonperformance of a third party guarantor of timely mortgage payments and of loan originators selling uncreditworthy loans to secondary market purchasers.

Managing System Risk

Due to the integration of financial intermediaries and markets, housing finance systems must protect against the risk that a failure in one or more institutions will spread throughout the system. One way to protect against this risk is to diversify it by dealing with many partners. Government can also act as a guarantor of last resort or enforce regulations aimed at constraining the amount of credit, agency, and cash flow risk that financial intermediaries are permitted to take on.

Managing Political Risk

Governments can take actions that adversely affect credit, cash flow, agency and system risk. Managing this risk depends on the stability of political institutions, policies, regulations and domestic tranquility. Coping with political risk can be a slippery slope because the more a government intervenes to control this risk, the more opportunities it creates in the market's eyes to back peddle on these interventions.

Deciding Whether to Subsidize Housing

Governments can elect to provide subsidies as part of the housing finance system. Governments often intervene to subsidize housing either to redress inequalities generated outside the housing finance system or to provide incentives and stability to the finance system. Governments can subsidize housing in a variety of ways ranging from: (1) funding mortgage insurance programs that are not actuarially sound; (2) providing tax incentives on the demand or supply side; (3) providing direct subsidies (cash grants or interest rate writedowns) on the demand or supply side; and (4) providing deposit or other insurance to protect financial intermediaries or borrowers against bearing the brunt of credit and other risks. These subsidies can be delivered by the public sector or through the private sector.

Meeting Housing Finance Needs

Housing finance systems clearly perform a multitude of tasks, each with its own needs and goals. Trade-offs must often be made in satisfying these needs. For instance, lowering interest rate risks by indexing mortgage loans to real interest rates can increase credit risk by increasing the probability that borrowers will be unable to meet their mortgage obligations when interest rates rise. Measures to manage system risk, such as deposit insurance, can boost agency risk, such as depositories taking undue risks. Funding through depositories can solve the capital supply problem but increase liquidity risk. Of course, done properly all the risks introduced by taking one action can be fully or partially offset by taking others.

All of the above ingredients are necessary to create top-performing housing finance systems. At any one point in time, all are likely to present problems, though some will be more problematic than others. In South Africa, for instance, subsidizing consumers, managing credit risk, tapping savings to fund more mortgages, redirecting and expanding the servicing and delivery system to meet the needs of underserved markets, better managing credit risk, and taming political risk are all significant needs. Tapping savings, redirecting delivery systems and subsidizing consumers are perhaps the most urgent.

MEASURING SUCCESS AT SOLVING THE HOUSING FINANCE PROBLEM

Every nation is faced with solving the housing finance problem as efficiently and cost effectively as possible while ensuring the stability of the financial system and extending credit to as many mortgage borrowers as possible. Success in meeting the housing finance problem can be measured in many detailed ways. A few summary measures of performance, however, best convey a sense of how to define success in meeting the problem:

- **Narrowing the spread between the interest rates on savings and housing loans with comparable maturities.** The difference equals the expected costs of covering risk plus the operating costs and profits of intermediaries. This is an elegant measure of efficiency and cost effectiveness of the system because operating costs measure the efficiency of loan origination and servicing, risk premiums reflect the success in managing risks, and profit margins measure the extent to which the supply of loanable funds is sufficient to cover demand. Although this is a useful summary measure, a better approach is to adjust the spread for macroeconomic forces that influence credit and prepayment risk over time. Making this adjustment acknowledges the fact that economic forces outside the control of the housing finance system can cause volatility in the spread. For example, when those in the market expect a severe recession, both credit and prepayment risk may be rated higher and show up as higher mortgage interest rates.

- **Insulating the household sector from macroeconomic shocks.** Housing finance systems must not only be efficient but stable. There are several ways of defining stability, but in the final analysis a system is not stable unless it has mechanisms designed to insulate savers and debtors from failing confidence in the safety and soundness of the system, rapid runups in interest rates, and severe declines in house prices. More stable systems have mechanisms in place to guarantee deposits (to maintain consumer confidence in the safety of the system), provide fixed-rate financing (to allow borrowers to protect themselves against rapidly rising interest rates), provide and encourage use of hedging strategies (to insulate financial intermediaries from interest rate risk), supply mortgage insurance or set mortgage rates to cover insurance costs (as a cushion against falling house prices), and limit borrowers' liability to collateral securing a loan (to ensure that a collapse in house prices does not result in loss of other household assets). Stable systems are also buttressed by stable inflation and strong legal systems that ensure properties can be promptly attached and disposed in the event of foreclosure.

- **Creating products that allow as many credit-worthy borrowers as possible to qualify for a loan.** A credit-worthy borrower is one who can reasonably be expected to repay a loan. Many aspects of creditworthiness are out of the control of the housing finance system. For example, the system has little or no control over the employment history, savings, income and credit histories of borrowers or the value of housing as collateral. Nevertheless, housing finance systems that are able to serve the largest possible share of creditworthy potential borrowers, given these constraints, demonstrate greater success in meeting credit needs. The top performers are systems that are able to maintain safety and soundness while at the same time lowering downpayments, lowering the cash on hand needed to close a loan, and increasing maximum allowable housing and non-housing debt. Product development and testing aimed at profitably converting borrowers at the margin of qualification into qualified borrowers expands the reach of housing finance systems.

- **Maximizing the share of creditworthy borrowers who obtain loans.** It is not sufficient simply to create products that enable as many borrowers as possible to qualify for a home loan; the system must have a retail system that is marketing and making loans available to as many of these borrowers as possible.

Although most economists would agree that the housing finance system is a poor vehicle for redistributing wealth, some countries, including the United States, choose to subsidize housing for low-income people. If government subsidies to owners and renters are viewed as part of the housing finance system, then a critical additional measures of success can be added:

- **Maximizing the share of households who are able to purchase or rent an affordable and decent home at the least cost and risk to the system.** Many schemes for subsidizing housing have been tested. At a minimum, the goals usually include leveraging public funds as effectively as possible and with the least risk to the government. Others goals, especially social equity through redistribution of wealth, are often also pursued. The success of these efforts can therefore be measured by progress towards meeting the nation's total housing needs for affordable, safe, and decent housing.

SOUTH AFRICA'S HOUSING FINANCE PROBLEMS IN COMPARATIVE PERSPECTIVE

South Africa faces significant housing challenges. Though the magnitude and specific determinants of the challenges are its own, it shares many of them with other countries. South Africa, for instance, has many homeless people. A large share of the housing stock is structurally inadequate. Significant fractions of the population are devoting excessive shares of their income to housing. Markets and borrowers are underserved by housing and mortgage market institutions. But the same can be said for a host of industrial and less developed countries as well. The United States, which is considered one of the best housed nations in the world, has all of these problems to some degree. South Africa also has problems with secure and enforceable tenure and land title in some areas. These problems are often found in Latin American, Asian and African nations where informal sectors and squatter settlements have evolved in the face of rapid urbanization and policies that created a polarized income distribution. But these problems can even be found in the most developed of industrial nations. The squatters in Amsterdam and the *colonias* in the south western United States come to mind.

Housing finance systems play a central, but in no way exclusive, role in meeting these housing needs. They mobilize the capital needed to finance housing construction and consumption, and deliver it to housing suppliers and consumers. They also serve to channel subsidies to suppliers and consumers.

The current housing finance system in South Africa is a paradox. It serves upper-income groups, which are mostly white, well; but middle- and especially low-income groups, which are mostly nonwhite, poorly. Banks mobilize low-cost savings funds and modern banking technology to fully and cost effectively meet the demand of the 22% of households with monthly incomes above R3500. Banks have never directed much mortgage capital to the other 78% of households. What little experience banks have had servicing the mass market have mostly been bad. Poor underwriting, bond boycotts and inflexible mortgage products have combined to create significant losses on loans to lower income households.

As a result, nontraditional retail lenders have developed to attempt to meet the needs of the majority of households. Historically, the South African government has directly or indirectly capitalized most non-bank housing lenders through the Development Bank of South Africa of the South Africa Housing Trust. Nontraditional lenders are not registered under the Banks Act and therefore are not permitted to take deposits, though some are starting to access funds in their own right. The nontraditional capital base is minuscule in comparison with banking capital and depends on the largesse of public and private donors. The technical capacity of these nontraditional lenders varies, but on average is much lower than in the formal sector. Cost of capital and risk are much higher in the informal sector, leading to high cost of capital to exactly that class of borrowers most ill-equipped to afford it. Lacking savings, income, steady employment and access to capital on competitive terms, low- and moderate-income households are disenfranchised from the housing finance system.

Funding

The capital supply within South Africa, at over R715 billion, is clearly adequate to the task of fully funding housing finance needs. However, the system heavily depends on deposits for funding. Banks supply fully 86% of mortgage credit, but control only one-third of domestic capital. Institutional investors (life insurance companies and pension funds) supply only 8% of mortgage credit, but control two-thirds of domestic capital. Domestic and foreign governments combined fund only a small percentage of mortgages.

Dependence on depositories has both costs and benefits. The principal benefit is that it taps savings from the household and corporate sectors. The principal cost is the need to depend on adjustable rate mortgages. Deposits are short-term liabilities. Most countries that depend on deposits to fund mortgages, therefore, also tend to offer only short-term and adjustable rate mortgage loans. South Africa is not an exception. Banks match assets to liabilities by ensuring that interest rates on their mortgages move with market rates. Adjustable rate loans leave borrowers vulnerable to price shocks. The more marginal the borrower, the more a bank must charge to cover its credit risks. Thus, reliance on depositories has hindered the capacity of the South African system to price mortgages low enough for middle- and low-income households to afford and has added to credit risk.

South Africa also has failed to fully develop its deposit base. Banks have focused on upper-income whites and core urban areas. Incentives for people with lower incomes to save have been lacking. A large potential source of funds for capital investment in housing has thus gone untapped.

Loan Origination and Servicing

Lenders in South Africa typically combine all mortgage credit functions; they fund, originate, hold and service mortgages. This integration of functions is common around the world. In some countries, such as the United States, however, these functions are increasingly being performed by specialized institutions.

Banks operate effective retail networks in urban core areas but lack capacity in black townships and rural areas. Nontraditional lenders operate weak retail networks. As a result, only 12% to 15% of the mortgages on the books of South African banks are on properties in the black townships. Nontraditional lenders specialize in underserved markets but ultimately fund the purchase of not more than 12,000-15,000 homes per year. The most active nontraditional lenders have focused on lending for light home improvements such as for additions and improved security. They fund about 7,500 loans with an average size of about R4000 and a two-year term.

Nontraditional lenders are willing to stretch underwriting standards to accommodate the needs of low and moderate-income borrowers, but banks are seldom willing to deviate from their standards. Banks rarely make loans with greater than a 90% loan-to-value ratio or greater than 25% debt-to-income ratios. As noted above, fixed-rate and installment loans are also rare, and terms tend to be short. Administrative costs associated with lending to low- and middle-income households are quite high. Several observers have estimated that lenders must charge 7% in interest rate yield on mortgage loans to cover these expenses.

The weaknesses of the current system far outweigh its strengths. Strengths include a system that handily meets the needs of the upper quarter of the income distribution of households, competitive retail markets that meet the demand of that upper quarter, and economies of scale in origination, servicing and diversification of risk. The primary weakness of the system is its utter failure to meet the needs of roughly three-quarters of the population. Other weaknesses include undiversified and high risks taken on by nontraditional lenders and excessive administrative costs in meeting lower-income markets. Nontraditional lenders have the benefit of a deeper understanding of the lower-income markets and experience innovating products to meet demand at acceptable levels of credit risk. Banks are handicapped by lack of experience, and until recently, interest in lending to these areas.

Managing Credit Risk

The South African housing finance system does a good job managing credit risk for the upper quarter of households but has done an abysmal job for the lower three-quarters. Credit risk is managed for the upper quarter through conservative underwriting and the efficient enforcement of mortgage contracts that entitle lenders to repossess homes on defaulted borrowers. Willingness and capacity of borrowers to pay off their loans are controlled through cautious caps on loan-to-value and debt-to-income ratios, credit history checks and proper valuation of the property securing the loan. Although adjustable-rate mortgages introduce an added risk compared to fixed-rate loans, the risk is priced and controlled for by other underwriting hurdles.

Credit risks associated with the other three-quarters of the population have been weakly managed. Lenders have done a poor job underwriting loans. Property valuations have proven unreliable and sometimes fraudulent. Developers have failed to perform on their contracts. Borrowers have organized bond and rent boycotts to protest government policies. Government has failed to maintain law and order and enforce contracts. As a result, lenders have been unable to take possession of the properties securing loans. Financial intermediaries in South Africa have also been reluctant to experiment with pushing the envelope of traditional underwriting standards to meet undeserved borrowers' needs. Although less dramatic, this unwillingness to experiment has contributed to suboptimal credit risk management. By this we mean that the system has erred on the side of disqualifying creditworthy borrowers rather than on the side of qualifying uncreditworthy borrowers.

To use an analogy from statistics, the housing finance system has reduced type 2 error (the risk that an applicant is accepted when he or she is not creditworthy) at the expense of type 1 error (the risk that an applicant is rejected when he or she is creditworthy). Other nations have done a better job at stretching underwriting standards. Sometimes this experimentation has been motivated by government pressure, sometimes by market opportunities and sometimes by government itself. South Africa could try mortgage instruments and underwriting standards that have been successful in broadening access to mortgage credit in other countries.

Managing Liquidity Risk

The South African system has few protections against liquidity risk. The best protection against illiquidity is to develop standardization in mortgage products, underwriting and credit enhancements. Standardization makes it easier to sell off assets in a pinch because the market can rapidly price the loans. The process works even better when the standardized loans are pooled and used to back bonds. This enables the risk to be diversified, and the mortgage assets to be converted into commercial paper. In general, a strong secondary market, whether public or private, is needed to lower liquidity risk.

Liquidity has not yet been a problem in South Africa, but problems could develop. Loss of faith in an institution could cause depositors to withdraw funds and force lenders to rapidly liquidate their mortgage portfolios. Difficulties in shedding assets quickly at fair market prices would then result in default.

Managing Cash Flow Risk

Recall that there are two primary forms of cash flow risk: interest rate and prepayment. The housing finance system in South Africa manages interest rate risk by using adjustable-rate mortgages. These mortgages reset to current interest rates, thereby cushioning lenders from a mismatch between their assets and liabilities. Borrowers are therefore forced to assume the risk of a sharp upturn in rates. This is an effective tool for lenders, but adds to credit risk. There are many other methods to manage interest rate risk that do not add to credit risk, such as hedging using counter-moving financial instruments. These methods, though, are typically not as effective.

Prepayment penalties are not allowed in South Africa. The risk of prepayment must therefore be priced and folded into the required mortgage yield. South Africa is not alone in banning prepayment penalties. Prepayment penalties are banned in several states in the the United States, for example. But other countries, such as Canada, permit prepayment penalties and restrictions. These penalties and restrictions lower the probability of prepayment but can elevate the probability of default (credit risk). Other countries have evolved other methods to manage prepayment risk. In the United States, for instance, cash flows on pools of mortgages are often split up into different securities to more efficiently allocate prepayment risk.

Managing Agency Risk

Managing agency risk has not been as much a problem in South Africa as in many other countries. The consolidation of the functions of funding, originating and servicing in a single agency limits the number of counterparties involved, and, with it, the probability of agency risk. The housing finance system in South Africa, however, has not been immune to agency risk. The two most significant risks have derived from the behavior of appraisers and developers. Both have engaged in activities that contributed mightily to the credit risk of lenders operating in the underserved markets. Distorted collateral estimates and shoddy workmanship have left lenders with overvalued assets.

Managing System and Political Risk

The South African financial system is fairly well protected against system risk. Although deposits are not insured by the South African government, the system is supported by the South Africa Reserve Bank as the lender of last resort. In addition, South Africa has an informal "too-big-to-fail" policy which effectively means that large mortgage lenders (which make 86% of the loans) are covered.

Political risk currently is high in South Africa. Local government control in many areas is uncertain. The direction of national policy is taking shape but is still up in the air. Confidence in the stability of the regulatory and political environment in South Africa will be essential to creating a workable housing finance system.

Deciding on Subsidies

Until recently, the government of South Africa has opted not to subsidize housing on a large scale. Some funds have flowed from the government to low-income housing projects. But funds have been limited. The government is clearly on the verge of reversing its traditional hands off role in redistributing wealth.

Overall Performance

The South African system has to be given low marks on overall performance. The potential is there but has not been realized for a large segment of the population. Contracts cannot be enforced in many areas. Large segments of the population cannot afford and lack access to mortgage credit. Lenders who ventured into underserved markets have growing inventories of properties in possession and of unforeclosed but defaulted loans. Savings of three-quarters of the households have not been fully mobilized. Long-term fixed-rate financing has been unavailable.

Although South Africa benefits from a comparatively sophisticated private housing finance system that meets the demands of white borrowers well, that system has done a poor job of serving all South Africans and has been weakly supplemented by nontraditional lenders. Lower income South Africans have had few opportunities to gain access to mortgage credit as a result of apartheid policies, a lack of market or public incentives and inducements to lend to low-income households.

Seen from this perspective, the South African housing finance system has done a poor job and could do a much better job:

- mobilizing and encouraging household savings to fund home loans;
- tapping into institutional investors (insurance companies, pension funds, etc.) to supply capital;
- creating products that allow the maximum number of borrowers to be classified as creditworthy;
- developing a retail network that serves all South Africans; and maximizing the share of creditworthy borrowers who get loans.

MEETING HOUSING FINANCE NEEDS IN SOUTH AFRICA

The South African government, in partnership with the private sector, stands ready to tackle many of the most pressing housing finance needs of the nation. Those involved have rapidly reached consensus on many central issues and have already produced fairly detailed blueprints for mobilizing the housing finance sector. Work began only a few years ago when the National Housing Forum was established in 1992. By late 1994, the National Housing Forum and the Department of Housing were able to develop a detailed white paper outlining a coordinated approach to addressing the housing crisis in South Africa. The government also was able to reach a memorandum of understanding with key mortgage lenders in the country. Task force teams formed in late 1994 had already completed work on the more detailed blueprints by April 1995. These blueprints served as the topic of discussion that same month at a workshop attended by technical experts from around the world. The government is now poised to fully implement its ambitious plans.

Facilitating Private Delivery of Mortgage Credit

The plan calls for government to facilitate and enable private markets. The goal is to limit the government's roles in the system. Interventions are being selected that have the least chance of disrupting functioning markets while at the same time have the greatest chance of restoring failed markets. In choosing this path, the government rejected a direct interventionist approach. Instead, the government has opted to rely on the private market and current institutions as much as possible to overcome problems with the current system. Even in evaluating alternative subsidies, the government has shown a strong sensitivity to minimizing market distortions.

The choice of an enabling role makes great sense in South Africa. Unlike some countries that have opted for direct intervention, South Africa has a well-capitalized set of financial intermediaries that can contribute to meeting housing goals if the proper incentives and risk safeguards are put in place. Creating a public sector retail lending capacity would be ill-advised because it would expose the government to the full brunt of credit risk, cost a great deal to set up, duplicate efforts and get the private market off the hook from stepping up to the plate with its own resources and talents.

Many countries have followed the path of using the government as an enabler of private markets. In fact, most of the wealthiest developed nations have private housing finance systems that are strongly buttressed by government institutions and programs.

History, however, has taught that the participation of government in a supportive role introduces a significant measure of agency risk because government must form partnerships with borrowers, originators, servicers and investors. Counterparty risk multiplies and must be effectively managed.

Key Elements of the Plan

The government's plan is aimed at mobilizing savings, directly subsidizing households, developing a retail system that serves all South Africans, restoring order to low-income markets, nurturing nontraditional lenders, reducing credit risks, making private lending to low-income borrowers profitable and providing a wholesale loan capacity.

Specifically, the government intends to:

- Subsidize households with monthly incomes below R3500 according to a progressive scale.

- Link receipt of subsidies to a predetermined amount of savings that can be accumulated over a certain amount of time and must be used as a downpayment if the subsidy is used to purchase a home.

- Restore law and order in areas where it has broken down and enforce mortgage contracts in those areas.

- Capitalize, in a 50.1/49.9% partnership with private investors, a shareholder-owned National Housing Finance Corporation (NHFC) that as its first order of business will provide a wholesale loan facility for subsidized loans and cultivate a retail network through technical and nonfinancial support for nontraditional lenders.

- Capitalize a Mortgage Indemnity Scheme (MIS) that will purchase loans from lenders in areas where the property securing the loan cannot be attached and disposed of upon foreclosure in a timely manner.

- Deal with the problem of Properties in Possession (PIP) by working with occupants to surrender title to properties and providing an adjudication process through which lenders can be reimbursed all or half the costs associated with PIPs if they are located in MIS areas, and the problem does not stem from lender gross negligence.

- Create a service company (SERVCON) to help borrowers select accommodations that fit their budgets (rightsizing) and aid in the solution of illegal occupation of PIPs.

- Create and enforce a code of conduct for mortgage lending that will require banks to apply credit criteria for granting loans to individuals, and area criteria used to determine security value, in a nondiscriminatory way.

One of the centerpieces of the strategy is the creation of the NHFC. Its primary responsibilities will be to help develop nontraditional lenders and to develop a wholesale capacity by providing credit enhancements to loan pools in the form of carefully thought-out underwriting standards and pool guarantees. Retail institutions will work with the NHFC to agree upon mutually acceptable underwriting standards. Fixed-rate and installment products will be developed, along with possibly other new product types.

The NHFC will charge lenders a fee to underwrite loan pools that it guarantees. To guarantee the loans, the NHFC will charge a premium that is sufficient to cover credit risk and return a profit to NHFC. The premium will not fully cover all credit losses. Instead, lenders will retain some top-loss exposure. Lenders will also be able to purchase guarantees on loans that they intend to hold, or sell their loans to investors in the form of mortgage-backed securities guaranteed by the NHFC.

The NHFC be will able to issue its own paper, raising capital in the corporate debenture market, to purchase loans on its own behalf. The creation of this authority will entail either registration under or exemption from the Banks Act. Although the initial focus of the NHFC will be on subsidized loans, it is possible that it will someday evolve to assume a broader role in the housing finance system by securitizing and standardizing unsubidized loans as well.

Final decisions have not yet been made on the exact mix of measures that will be used by NHFC to develop a retail network. For instance, the issue of whether or not the NHFC should make equity investments in nontraditional lenders is still under debate. Mechanisms for funding innovations and experiments in retail mortgage lending have also not been worked out.

MIS and SERVCON will be owned by the government, wholly in the case of the MIS and in partnership with banks in the case of SERVCON. NHFC will represent the government's interest in SERVCON. At the very least, NHFC will provide management services to MIS. Its role in MIS will be finalized after negotiations with potential shareholders are finalized.

The Plan in the Context of Universal Housing Finance Problems

Taken together, these proposals should go a long way to addressing the problems with the current system. However, some new problems may be created, some old ones exacerbated, and some left unaddressed.

Funding. The proposals to develop a wholesale lending facility and to fund a savings-linked subsidy plan are both excellent methods to improve the cost and supply of mortgage capital. Boosting the institutional savings rate among low-income households by tying subsidies to such savings will expand the nation's deposit base, but only for a short time. Once the funds are withdrawn to purchase a home, they are lost again from the system. The NHFC, however, could significantly and permanently expand the supply of funds for mortgage credit. If successful, it will help facilitate the creation of a secondary market for mortgage loans. This would substantially reduce the dependence of the South African housing finance system on depositories as the end-investors in mortgages. The NHFC could help tap the two-thirds of the nation's capital stocks held by life insurance companies and pension funds for mortgage purposes.

The importance of focusing on the needs of institutional investors in the design of the NHFC cannot be stressed enough. These are the investors who borrow long and so can lend long. The larger role that these investors play, the easier it will be to fund fixed-rate loans. Also, the heartier their appetite for mortgage-backed securities (MBS), the lower will be the cost of mortgage capital. In the United States, pension funds are the major source of capital and also are large investors in MBS. Considerable effort has gone into assuring that MBS meets the exacting standards of these most cautious of capital sources.

In designing the NHFC and its products, as much attention as possible should be given to evaluating the demands of the broadest possible range of potential investors in MBS. Experience with the secondary market in the U.S. has revealed that different investors have different demands of financial instruments. Some seek preservation of principal at all costs (no credit risk). Some value predictability of cash flow above all else (no cash flow risk). Some seek long-term instruments and some short. With innovation in the structure of MBS and derivatives, all these needs can be met. The goal of course is to maximize demand for the supply of mortgage loans so as to drive down the cost of mortgage funds.

Loan origination and servicing. Government proposals aim to expand the reach of bank retail outlets to encompass underserved markets. Banks have traditionally shunned these markets for several reasons. First, too few households had enough resources to afford a home to make it worth developing a retail capacity to service the paper-thin demand. This problem is powerfully addressed by the proposed infusion of nearly R3 billion a year on housing subsidies to enable these households to afford formal housing.

Second, credit risks in these markets have been unacceptable. This problem is being addressed in a number of ways. The creation of the MIS insures lenders against future losses when they stem from a breakdown of law and order. Plans to more aggressively adjudicate PIPs will lower losses of past defaults in MIS areas. Other measures established to help control credit risk include plans to enforce a 10% minimum downpayment, creation of a risk-sharing NHFC guarantee, the introduction of a fixed-installment loan and planned experimentation to demonstrate the bankability of loans to low-income borrowers.

Third, lenders operated under the apartheid system and developed an institutional resistance to serving nonwhite markets. This problem is addressed by the proposed code of conduct and the establishment of conditions that should make lending to these markets a clearly profitable business.

Apparently, only scant consideration has so far been given to reducing administrative costs associated with loan origination and servicing. In the United States, servicing rarely costs more than a half a percent in mortgage yield, and origination fees typically are only 2% or 3% of the loan amount. This compares with 7% in mortgage yield for the two functions in the South African subsidized market. As the government develops its plans further, it might consider investigating how other countries have trimmed these costs. These include automation of key functions, standardization of loan documents, and separation of origination and servicing functions to encourage economies of scale and specialization.

In general, the prospects for specialization in origination, servicing and fund raising appear to have been understudied. Although such arrangements can introduce greater agency risk, they can create costs savings if properly managed.

Credit risk. The government intends to take aggressive steps to better control credit risks. Markets have collapsed largely because credit risk has not been controllable. Breakdown of law and order produces an unworkable environment for private lending. The government is right on target with its strategies to restore law and order, improve the legal system that creates and enforces property rights and that enforces mortgage contracts, and indemnify lenders who can get caught in areas where government has failed.

Building on a base of law and order and of protection for lenders if the system breaks down is just the start. Several other government proposals should succeed in bringing credit risk to heel. These include the proposal to educate borrowers, the rightsizing services to be provided by SERVCON, the minimum 10% downpayment requirement, the added cushion provided by the government subsidy, the proof of ability to save, fixed-installment loans, the NHFC guaranty and the creation of more uniform underwriting standards.

The success of the government plan depends not only on banks individually getting comfortable with pricing and controlling credit risk but of secondary market investors getting comfortable with the notion that broad classes of mortgage products have comparable risk profiles regardless of who originated them. The NHFC will have to build up that comfort level by exerting a powerful unifying influence on underwriting standards, origination practices and servicing standards.

One potential contributor that has not been well addressed by government proposals is improper valuation of property. Yet accurate property valuation is as important to the functioning of markets as enforceable contracts. Without accurate valuations of properties it is impossible to assess the credit risk associated with making a loan. If the property is overvalued at loan origination, it starts out underwater. Some observers believe the poor record of bank lending in underserved areas is due to overvalued appraisals. Given the importance of valuation, it appears that the South African government and private lenders should devote more effort to evaluating current appraisal and appraiser standards. Early indications are that the NHFC intends to do just that. Staff working on its creation already have begun discussions to eliminate subjectivism in valuing properties in traditionally underserved areas.

Controlling and pricing credit risk is an ongoing job. Fannie Mae, which is considered perhaps the most sophisticated housing finance facility in the world, constantly strives for ways to improve its credit risk management practices and experiment with new products that deepen the mortgage market. The government proposal to encourage innovation and experimentation in mortgage lending will help to control and price new risks before they are assumed on a large scale.

Liquidity risk. The proposals being considered do not explicitly target liquidity risk as a concern but nevertheless should have a positive effect on managing this form of risk. Standardization of loan products and underwriting should be outcomes of NHFC's role in the system. As discussed above, this facilitates liquidity by making a heterogeneous product more homogeneous.

The South African government has not faced liquidity problems in its housing finance system but should be wary of the possibility that liquidity problems could later emerge. About 40% of the assets on South African bank balance sheets are residential mortgages. The important role that the NHFC could play in guarding against liquidity risk should therefore not be understated.

Cash flow risk. The South African housing finance system will open itself to greater cash flow risk if fixed-rate loans with longer terms are introduced. To fund these loans without excessive risk requires either investors who borrow long or a form of bond funding that efficiently allocates prepayment and interest risks across investors with different risk tolerances.

The United States is one of only a few countries with extensive experience in this type of lending. When and if long-term fixed-rate mortgage loans are introduced on a broad scale, the U.S. experience could prove valuable in managing the cash flow risks inherent in this kind of lending.

Agency risk. Proposals to expand the role of the national government could increase its exposure to agency risk because lenders may sell the NHFC loans with poorer credit quality than the ones they retain in portfolio, and mortgage correspondents may also sell them poor loans. The government intends to manage that risk in part by keeping lenders on the line for a portion of any losses incurred. Further, lenders will be expected to cover the top part of losses. Such a risk-sharing approach is sensible but is only one of several ways to guard against counter party risk. It does not, for example, address counter party risk in mortgage correspondent relations with banks or the NHFC. Mortgage correspondents originate loans for a fee but do not actually fund mortgages. Therefore, risks cannot realistically be shared with them. Quality control monitoring systems are also important in identifying bad agency risks associated with particular mortgage correspondents before they get out of hand.

The government has focused on controlling agency risk associated with builders and developers. They will be held to higher standards and their workmanship warranted. The government has not focused on agency risk stemming from dealing with appraisers because most appraisals are done by bank staff rather than outsourced and also because appraisers are fairly well self-regulated through professional certification standards. In general, the South African government will probably have to give more thought to the overall regulation, monitoring and supervision of private parties. Experience in most countries has shown that regulations are required to effectively manage agency risk. Regulations must be carefully crafted, however, so that they do not impose unnecessary costs on agencies and private parties.

System risk. Planned interventions in the housing finance system do not directly address issues of system risk. Nevertheless, actions taken to better control credit risk, including the creation of the MIS and of a code of conduct for mortgage lenders, should lessen already relatively low system risk. As noted earlier, South Africa has a central bank that serves as a lender-of-last-resort for private banks, and large mortgage lenders in South Africa are considered "too big to fail." Therefore, the state already has mechanisms in place to deal with system risk.

Political risk. The South African government recognizes the importance of minimizing political risk. It has already taken several steps to minimize these risks in designing its proposals. First, it targets control over law and order, enforcement of property rights and enforcement of mortgage contracts in its overall strategy. Second, it has worked extensively with industry trade groups to weaken the chance that these groups will later lobby to dismantle parts of the plan. Third, it aims to make changes that will benefit broad segments of society so that back pedaling will be more difficult.

Subsidies. The government's proposal for subsidizing housing sends a clear message to all involved that it is serious about meeting the housing needs of all South Africans. The design of the subsidy meets accepted ideas about the most efficient way to use government to redistribute wealth for targeted purposes. Most policy analysts believe that direct subsidies to housing consumers are the most effective because they are the least likely to distort markets. Linking the subsidy to savings brings additional benefits as described above.

One danger of the subsidy scheme is that it could lead to speculation in land markets or create supply constraints. Both would lead to escalating house prices and drive up the cost of needed subsidies. These concerns have been noted, but precautionary measures to deal with these potential problems do not appear to have been developed.

CONCLUSION

The South African government stands ready to begin the process of reforming, facilitating and enabling its hobbled housing finance system. All housing finance systems are constantly changing and evolving. The actions about to be taken by the South African government, though historic and monumental, are best seen in this light of evolutionary change.

The challenge ahead is significant. Mobilizing South Africa's financial, human and material resources to meet its housing needs through judicious use of government intervention will not be easy. Although the South African government has clearly prepared an excellent road map to take the housing finance system where it needs to go, the bumps along the road cannot all be anticipated in advance. Many of them can, however, and appropriate steps to avoid them should be taken.

Rather than review all the benefits of the proposed approach to facilitating the housing finance system, we conclude this paper with some observations about some of the possible bumps along the road that the government may want to pay more attention to. Some of these are bumps that other nations have hit as they travelled the road to improving their own housing finance systems. Some are ones that will be more or less unique to South Africa.

First, the government must carefully manage its own and the public's expectations about how fast housing goals can be met. The South African government is proposing changes that will have profound impacts on the housing finance system and its capacities to meet the housing needs of all South Africans. But these changes will not happen overnight or without some setbacks. Some rapid progress can be expected, but closing the gap between the systems for providing credit to higher income whites and lower income nonwhites will take time. Even if long-ingrained attitudes change overnight, the understanding it takes to close the gap will take some time to fully develop. Change must therefore be paced, planned and orderly.

Transforming those nontraditional lenders who can evolve into banks, for instance, will take time. It will also take time to build up the retail capacity of formal lenders in underserved areas; banks will have to invest in infrastructure, technical capacity and changing attitudes. The NHFC will have to create new investor markets for mortgages and MBS by marketing its products, creating a retail supply network and developing its own internal infrastructure. A regulatory framework will have to be created and enforced over time to manage agency risk, and to provide the proper sticks and carrots to ensure private sector participation in underserved areas and the secondary market.

Second, the government will need to stand ready to manage change. One way for it to do so is to build in an explicit experimental component into the NHFC. The NHFC will need to experiment with underwriting, best approaches to building a retail capacity among private lenders, and methods for standardizing loan documents, underwriting, servicing and methods for mitigating credit losses. Experiments can help evaluate options. They can help establish a baseline against which the effectiveness of changes can be evaluated. They can inform the choice of mid-course corrections.

Third, the government will have to craft a regulatory framework to manage agency and system risks, and develop systems for supervising regulated entities and monitoring regulatory compliance. One of the surest ways that best intentions can go awry is by creating regulations that are too onerous or that are too lax. History is replete with examples of programs that were good in theory but flawed in execution. Too onerous regulations can stifle private sector initiative. Too lax regulations can leave room for fraud and abuse on a grand scale. A complex set of checks and balances among agencies involved in the housing finance system is essential. This includes checks and balances for the NHFC itself.

Fourth, the government should plan now its exit strategies for interventions that are required in the short term but not the long term. The MIS is one such program, and the fund to transform nontraditional lenders another. Once created, such institutions tend to have a life of their own. It is particularly important that management and other incentives be provided for completing work in these and other areas as soon as possible so that they can be phased out quickly and orderly. Work has already begun to plan these exit strategies.

Fifth, the government may want to give more thought to the overall deepening of the financial system. History has shown that the more highly evolved the financial system, the better integrated financial markets, and the larger the capital base, the better is the housing finance system. Perhaps not enough thought has gone into developing strategies that create this deepening. It can include measures to protect against system risk (such as deposit insurance), measures to raise funds for public projects on capital markets rather than out of tax revenues, and tax incentives to encourage savings.

Sixth, the government should continue, as it has, to think through more carefully about how best to manage homeownership demand and ensure an adequate supply of rental housing. Experience has shown that a supply of rental housing is needed to dampen volatility in house prices and encourage labor market mobility. The transactions costs associated with buying and selling homes are great. Homeownership can therefore create disincentives to move. Moreover, not everyone can afford to own a home even with a large up-front subsidy. Owners must also be capable of making repairs and improving their homes. Poorer households often lack the income or savings to do so.

If the South African government addresses these issues with the same wisdom that it has addressed many others, we can expect that the actions taken by the South African government will soon be held up as examples of how to do it right.

NOTES

[1] Department of Housing, *White Paper: A New Housing Policy and Strategy for South Africa,* December 1994.

[2] The definition of the housing finance problem and conceptual model which follows are taken from a working paper written by Douglas B. Diamond, Jr. and Michael J. Lea for Fannie Mae's Office of Housing Research. The paper is entitled *Sustainable financing for housing: a contribution to Habitat II.* It is available on request from the Office of Housing Research at Fannie Mae.