PLANNING AND DEVELOPMENT COLLABORATIVE INTERNATIONAL, INC.

The Promises and Perils of Interest Rate Subsidies: A Survey of Eight Selected Programs

Draft Final Report

Prepared for

United States Agency for International Development

Prepared by

Douglas B. Diamond
PADCO, Inc.

Contract No. PCEE-1008-I-00-6008-00
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Executive Summary

Policy-makers in most countries in the world have been frustrated at the inability of lower-income households to access the financing needed to improve their housing conditions. These frustrations have spawned numerous attempts to remedy the situation, involving implicit or explicit subsidies funded in direct or indirect methods. This report reviews eight such programs in detail.

There are a large number of specific observations, conclusions, and recommendations offered throughout this report and summarized in the conclusion. These findings can be briefly stated as follows.

Most interest rate subsidy programs are relatively inefficient at improving the housing conditions of the poor. One source of that inefficiency is the basic design of the program. For example, programs often do not directly address the reasons why the poor do not have access to funds (e.g., political perceptions do not permit charging a risk or servicing premium), but instead simply set up mechanisms to offer low-rate loans. A second source of inefficiency is the use of indirect funding methods to avoid putting the cost explicitly on the budget. A third source of program inefficiency is the choice of delivery or implementation mechanism, e.g., through a government-owned entity.

Despite these frequent weaknesses, interest rate subsidy programs are very common. Based on the analysis of these eight programs, 12 specific recommendations are made to increase the efficacy and efficiency of any interest rate subsidy program that South Africa might consider. This list includes:

- offering cash grants as much as possible;
- avoiding tying the subsidy to only new construction;
- using the private sector as much as possible;
- recognizing when it is inappropriate to make a large long-term loan to a poor family;
- avoiding lending at fixed low nominal rates;
- adjusting repayments for inflation-related changes in payment capacity;
- avoiding incentives to borrow when not necessary;
- avoiding setting up a separate delivery mechanism;
- analyzing why the market does not provide the needed financing;
- minimizing costs by auctioning access to a subsidy;
- avoiding shifting risks to a government entity; and
- considering subsidizing housing-related savings instead.

Section 1
Introduction

This report examines eight programs of interest rate subsidies on loans for housing. It has been commissioned by the National Housing Finance Corporation of South Africa (NHFC) and the United States Agency for International Development (USAID) for the purpose of assisting the Corporation in its own consideration of potential modes of helping lower-income households attain improved housing. In no respect does the report necessarily reflect the views of the NHFC, USAID, or their respective governments.

The initial report of this project provided brief descriptions of 18 different programs of subsidized housing finance pursued in 10 countries. From this set, the sponsors selected eight to be examined and evaluated in detail. This final report provides those detailed examinations in addition to a general discussion of policy issues related to subsidizing housing finance and a summary of the potential lessons for South African policy-makers drawn by the author from the experience elsewhere.

The report is divided into three parts. In this introductory section, a brief overview has been provided of key issues generally present in the design of any program of subsidized housing finance. This overview is for the potential benefit of the sponsors and provides a critical framework for assessing the programs being described. The next part of the report consists of the detailed analyses of the eight selected programs. The last section uses these analyses and the policy analytic overview to highlight major issues in designing and implementing an interest rate subsidy program for the poor in South Africa.

1.1 Issues in Housing Subsidies in General

An interest rate subsidy is one of many different types of housing subsidies. Other types include lump-sum grants for ownership, rent subsidies, tax and cash subsidies to landlords, direct government provision of rental housing, land price and infrastructure subsidies (e.g., sites and service), non-interest-related tax subsidies, and so on — all intended to reduce the cost of housing to some target group. All of these programs share a number of advantages and disadvantages, separate from the advantages and disadvantages of interest rate subsidies in particular.

All of these programs aim at improving an aspect of life that most people consider to be very important: the quality of housing. Along with food and health care, shelter is generally considered a basic need. Moreover, it is often felt that improved housing has a number of social and political benefits that transcend the direct benefits to the family. These include: improved political stability and attitudes toward the community; and upgrading the health, educational achievement, and social optimism of the children. In addition to these sorts of effects on recipients, there may be

benefits to the general public from seeing the tangible benefits (in the form of housing) of its beneficence and by improving the quality of the built environment in the urban areas.[1]

The negative side of all of these programs is that the benefit to the household is almost certainly less than the cost and often times much less than the cost. The problem is that households will rarely place a value on a non-cash benefit, such as housing, that is close to the cost of providing the benefit. If given a choice, they would prefer to spend a portion of a subsidy on things other than housing.

This is not a problem if the subsidy program simply provides them with a housing situation that is essentially similar to what they would have chosen anyway, but at a substantial saving to the beneficiary. In that case, they can take the saving and redirect it in the desired fashion.

However, few subsidy programs are oriented to simply reducing the burden of achieving a housing outcome. Instead, they focus on substantially improving the housing outcome, usually requiring the purchase of a formal sector house and often focusing the subsidy on relatively costly newly constructed housing in particular.[2]

The classic example of this is providing deep subsidies to allow a poor household to acquire a very small formal sector type house. The subsidy may be several times the annual income of the household and they may, if asked, much prefer to upgrade their food and clothing or simply their space per person rather than substantially increase the structural quality of their house. But housing subsidy programs usually do not give them that choice.[3]

In addition to this intrinsic divergence of benefit from cost from the beneficiaries' perspective, there is always an additional net loss due to presence of costs of allocation and administration and extra losses due to the distortions to work effort and other economic activities because of having to raise the taxes used to provide the subsidy.

Given the gap between cost to the society and value to the recipient built into most housing subsidy programs, why does almost every country in the world have such programs? The reason must

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[1] In fact, there may even be psychological benefits to the whole target population, who perceive that, although relatively few of them are going to win the "prize" because it is so expensive, they enjoy the lottery psychology that prefers a low chance of a big prize to a high chance of a smaller one.

[2] There is a persistent myth that subsidizing housing construction is a good way of reducing unemployment. If the macro-economy needs a boost from government spending, there are usually other projects, such as infrastructure, that have a greater long-term return. Moreover, much of the total labor embedded in a house involves either semi-skilled labor that would have been employed anyway or imported materials made with foreign labor.

[3] However, the tension created is revealed by the tendency of the lucky recipients to rent out their high-quality unit for cash, which then can be turned to other uses.

be the "social and political" benefits mentioned above.[4] Ultimately, it is the job of the political system to recognize these benefits and make the tradeoffs between programs that are more "efficient," in the sense of having smaller gaps between benefits to the recipients and cost to society, and those that are very inefficient but appealing for social and political reasons. However these compromises are made, the policy analyst can make suggestions of the type below that are designed to improve the efficacy of the program to the extent possible.

1.2 Issues in Interest Rate Subsidies

Within the range of housing programs, housing policy analysts tend to view interest rate subsidies as a relatively poor way to subsidize housing. This conclusion is captured by the policy dictum, "Separate the subsidy from the finance." There are at least seven reasons for this view.

- In many cases, a subsidy that is only obtainable through borrowing money acts to encourage loan-taking as well as (perhaps) improving housing options. Loans that are not needed or are larger than necessary are the result. The intermediation and servicing of such extra mortgage finance injects an additional unnecessary cost into the subsidy scheme.
- In cases where a special circuit is set up to channel a subsidy to beneficiaries, there are not only the extra costs of administration, but also distortions to the overall financial sector. It has frequently proven to be dangerous for the health and efficacy of the financial sector to have a portion of it subjected to special regulation and subsidy (and sometimes political intervention) in order to subsidize housing.
- Subsidy through the financial system is nearly always partially non-transparent to both the recipient and the government.
- The taint of public subsidy or sponsorship can make it more difficult politically to enforce loan recovery in the inevitable cases of default, thereby increasing the likelihood that others will default and the difficulty of restoring the integrity of the lending and recovery process.
- Transmission of a subsidy through the financial sector restricts (or should restrict) the targeting to those low-income households that are "bankable," usually with incomes from formal sector jobs. Other low-income households may not qualify.
- All subsidy programs involve waste arising from incentives for recipients to "cheat" in revealing their income or other measures of eligibility. Subsidy programs through financial intermediaries generate the additional potential for "cheating" by the intermediary. These "moral hazards" can include distortions of underwriting and loan recovery activities (if credit risk is being subsidized), distortions in the management of other risks (if interest rate risk or other risks are being shifted), or simply fraud.
- The present value of the cost to the government of subsidizing finance is usually as much or more than the extra amount that can be borrowed due to the subsidy. In other words, it is generally cheaper **and** more effective to give a cash grant of the same size as the additional amount that can be borrowed because of an interest rate subsidy.

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[4] These can sometimes be clarified by posing the question, "What are the advantages of this program over simply giving the extra money to the poor?"

Despite these drawbacks, most countries have such subsidies. Often, there are strong pragmatic reasons for doing so; in other cases, program designers did not recognize how costly this approach would be. In the analyses below, an attempt will be made in each case to assess these motivations.

1.3 Other General Policy Prescriptions

As noted above, the political process must incorporate into its housing subsidy calculations the costs and benefits that are external to those immediately evident to the recipient and the budget analyst. In doing so, there are some guidelines that are useful in all circumstances.

Implement inefficient policies efficiently. Whatever the intrinsic efficiency of a subsidy or other housing policy, it should be designed and implemented in a way that minimizes the inevitable waste of resources involved, while still meeting the social and political goals. As will be seen below, it is often the method of delivering a subsidy or other aspects of implementation that is the source of much larger inefficiencies than the intrinsic design.

Corollaries of this dictum are avoidance of indirect tax incentives (which tend to be especially opaque and inefficient) and maximum reliance on the competing private sector entities to implement programs.

Transparency in all aspects encourages better policy-making. Housing programs are notorious for having costs that are not readily apparent. Usually it is only a matter of time before the hidden costs are revealed, but sometimes it is a very long time, as with the social costs of misdesigned public housing projects or low fixed-rate housing loans. In the case of financial subsidies, the beneficiaries may also not perceive the benefits clearly, because of intrinsic complexities. In the case of indirect subsidies through the tax system, both the government and the beneficiaries may misperceive costs and benefits and may misvalue them.

Targeting is difficult but necessary. General subsidies to most of the public are usually very inefficient. For example, the provision of tax deductions for mortgage interest to all homeowners in the United States requires that a substantially higher tax rate be imposed, with significant distortionary impact on the economy. Even when partially targeted, housing programs are also frequently guilty of providing subsidies that increase with the amount of the housing of the beneficiary, i.e., the higher the income, the higher the subsidy (within the limits of the program).

Admittedly, targeting is made difficult by concerns about "cliff effects" (i.e., the loss of eligibility for a major subsidy due to a small change in circumstances) and the fact that the phase-out with income may impose a high effective tax on increases in incomes. Targeting must also be moderated by concern about geographically concentrating disadvantaged populations. Thus, targeting must address the conflicting goals of maintaining political support, maximizing the impact of limited funding, and being practical in a world of imperfect information.

Section 2
Country Studies

2.1 Chile: Government-Sponsored Loans Complementing Lump-Sum Grants

2.1.1 Overview

Chile is famous for being one of the first countries anywhere to take seriously the economists' admonition to give subsidies in the form of transparent and targeted lump-sum grants (something that is far more common today). Other aspects of the complete Chilean system of low-income housing assistance are less well-known, including government-sponsored construction and government-sponsored and -subsidized loans. These components are very instructive of the promises and perils of such programs.

2.1.2 Context

Chile is a country with certain important similarities with South Africa. Visitors from developed countries will find that much of the intellectual infrastructure is of first-world quality. Many professionals have completed graduate training in developed countries (primarily the United States and Spain), often at prestigious universities. Local universities are also of high quality and the standard of competence of senior civil servants is high.

Not coincidentally, there is a relatively large upper-middle-income group. There is a large middle-income group as well. This is reflected in the figure for GDP per capita of almost US$3,000. While Chile has had its extremes of political direction, it also has had more of a tradition of moderate democracy than some Latin countries.

All of this has given Chile a good basis for developing a dynamic private sector, including the financial sector, and a record of market-oriented policies. This has allowed the country to achieve rapid economic growth since the economic difficulties of the early 1980s.

Despite this prosperity, there is a large population of lower-income households, relatively poorly educated and housed. However, the issue is not one of accommodating large-scale migration of poor rural families to the cities. Chile experienced most of such migration during the 1950s and 1960s, which spawned a number of shantytowns and much poor-quality development. Today, more than 85 percent of the population lives in urban areas, with over one-third of the 14 million total people living in the capital, Santiago. Population growth is a moderate 1.5 percent.

Government activity in the housing market is driven by several forces. First, the housing sector is a traditional focus of redistributive activities, aimed at smoothing out the distribution of income within the society. This is not unusual in liberal democracies, although it can be argued that redistribution in the form of cash or education is more efficient. Also, as in similar countries, by 1980 the government had already experienced the problems that accompany large-scale direct provision of housing (corruption, very high cost, low quality, poor locations) and government sponsorship of a separate system of subsidized lending institutions (special savings and loan institutions went bankrupt with making loans at fixed nominal interest rates).

One might think that the private market orientation of the governments since 1980 would imply the absence of further intervention in the housing market. However, there is the feeling that housing is a flawed market.

First, past destructive policies toward rental landlords have kept this type of housing relatively depressed, despite the fact that it is the most appropriate housing in principle for many low-income households. Only 17 percent of the housing stock is privately rented, with a greater share at higher income levels than lower ones. This tilt away from rentals is accentuated by cultural norms toward separate housing units. There is a tradition for an owner to acquire a unit for life. Not surprisingly, it is among the higher-income groups that condominium flats, rented or owned, are popular.

Second, given the general sophistication of the governing groups, it is not considered acceptable for low-income households to build in squatter settlements or outside of accepted building standards. This implies that the poor must acquire housing within the building standards of the middle-income formal sector. The end result seems to be that low-income households cope by doubling up rather than being able to access the poorer-quality, but more spacious, housing that would be commensurate with their incomes. This is reflected in the official statistics that show 3.8 million households living in 3.1 million housing units.

Third, the size of the low-income group and the past politics of the country indicate that any private sector lender serving that group would be facing significant "political risk," whereby the normal rules and procedures provided under the law may not be fully enforceable in fact.

2.1.3 Description

It is in this context that the government has developed its housing policies, including a program of subsidized lending. However, at the heart of the program are well-targeted lump-sum grants, not subsidized loans. This is not the place to fully describe the grant system, but, in brief, it consists of three tiers (plus a variety of smaller variants), as follows.[5]

Tier 1: Progressive Housing Program

(1) Incomes under US$85/month
(2) Grant of US$3,700 (94 percent) toward core house of 14 sq. meters on a serviced plot for US$3,950
(3) Minimum savings: US$250
(4) No Loan

[5] All money figures are expressed in US dollars to permit easy comparison across countries. In the case of this program, and the one in Mexico, persistent inflation has made it necessary to express statutory program parameters in terms of some inflation-adjusted figure. In the case of Chile, this term is the Unidad de Fomento (UF). Thus, the reported parameters are legally expressed in UFs, and those figures have been converted to pesos and thence to US dollars at the UF value and exchange rate in 1995, the latest year for which detailed information was available.

Tier 2: Basic Housing Program

(1) Incomes between US$86/month and US$220/month
(2) Grant of US$3,950 (61 percent) toward finished new house of 42 sq. meters, costing US$6,450
(3) Minimum savings: US$310
(4) Loan: US$2,190 from the Ministry of Housing

Tier 3: Unified Subsidies Program

(1) Incomes between US$221/month and US$1,680/month (segmented into three subgroups)
(2) Grant of US$3,640 at lowest incomes, falling to US$1,960 at higher end. Maximum House Price for each group: US$14,000, US$28,000, US$42,000
(3) Minimum savings: US$1,400 rising to US$4,200
(4) Loan: About US$5,000 rising to US$35,840 from State Bank or private bank

There is a formula system for allocating the Tier 1 and 2 subsidies. In fact, only about 20 percent of those who meet the minimum criteria, including the savings requirement, are awarded a Tier 1 or Tier 2 subsidy in a given year. The explicit formula includes family size, income, current housing condition, and size and term of savings effort.

On paper, this system of lump-sum grants could be the end of government involvement. In fact, the major argument for the grants is that it is most efficient to provide all the subsidy in the form of cash, and then let the market provide the houses and the loans. However, that is not the way it has worked out.

On this base of explicit efficient grants, the government has built two additional structures. First, it contracts with private developers for the development of the small core houses and small finished houses. In other words, the private sector bids on providing the houses for Tiers 1 and 2 at a set price, rather than bear the risks of marketing the houses themselves. Such a system is subject to indirect subsidies being incorporated, but the government has made extensive efforts to avoid such. Production of Tier 3 housing (costing more than US$6,500) is completely market-based.[6]

Second, the government intervenes to provide below market finance to all three groups of beneficiaries. In effect, the government provides most of the housing finance for Chilean households with incomes below US$1,680 per month (solidly middle-income) and thus most of all housing finance in Chile.

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[6] It should be noted that because the housing market for middle-income households is dominated by the Tier 3 subsidy program, developers build precisely to the extensive regulatory guidelines for such housing. This has been blamed for a blandness and limitation in the public's choice set, denying the consumer some of the advantages of normal market competition.

How does the government do this and what are the subsidies?

There are actually two separate programs of government-sponsored lending. One consists of loans made directly by the Ministry of Housing and Urban Development (MINVU) to the recipients of the Tier 2 subsidy. As noted above, these loans are for only about US$2,000 and are being made to households with monthly incomes of about US$150 a month on average. The loans are for periods up to 20 years and the interest rate is inflation plus 8 percent. In principle, the loans should be affordable to most of the eligible households, since the payment would be less than US$20 a month.

What are the subsidies here? While stated rates had been lower in the past, more recently the rate has been 8 percent (fixed with indexation of the principle for inflation), and this is nearly the same level as for higher-income lending (variable real rate between 8 and 10 percent). However, this rate is clearly substantially less than the rate private lenders would charge. This is because it does not cover servicing costs or credit risk.

Servicing costs as a percentage of principle are very high for these loans, which are less than one-tenth the size of the usual loan by a private lender. Any difficulties in collecting, which are more likely for this low-income group, would incur costs that are also relatively invariant with respect to the size of the loan. Once a loan is paid down to US$1,000, it becomes burdensome to spend even US$10 for administrative action to collect. Unfortunately, the author is not aware of any analysis of just what the servicing costs have been for MINVU. What is known is that, under pressure from the World Bank, MINVU now contracts out the servicing.[7]

It is very important to emphasize that the loans are properly indexed for inflation (despite inflation now running less than 10 percent) and that MINVU is charging a rate similar to market rates. The subsidy is focused on the extra costs of servicing, which is something that private lenders could have trouble charging for without creating a perception of overcharging.[8]

The second and larger subsidy arises from unremedied delinquency. The delinquency rate on these loans of more than three months' due is more than 70 percent. Analysis of this problem has convinced most observers that the loan program is inherently flawed. The recipients are getting grants of up to 60 percent of the cost of a modest house. They do not accept the idea that the remaining financing, beyond the modest down payment, is really in need of repayment. (There is no organized boycott, however.) This perception has been thoroughly reinforced by MINVU's

[7] Some evidence with respect to this issue is a report that private sector banks offered to take on servicing, but not the credit risk, of medium-size loans (averaging US$5,000) for an up-front fee of US$600 or 12 percent, in addition to normal market rates. At this cost, the extra spread on a loan of only US$2,000 (typical of MINVU loans) would easily be 4-5 percent per year.

[8] It is possible to do so, however. In Indonesia, for example, the government sponsors a lender, the BRI, that makes small loans to rural households and that covers its full operating costs by charging an appropriate premium over rates for big loans in cities. It is my understanding that some banks (the mutual banks) charge higher rates in South Africa in similar circumstances.

effective attitude toward the loans, their modest collection efforts, and absolute rejection of foreclosure proceedings. The larger mystery is why anyone pays on these loans.

It should be noted that the default problem on these loans is not unrelated to other aspects of the overall program. The savings component for the Tier 2 houses is relatively small, so regular payment skills are not required. More importantly, the housing developments are completely associated with the government and are different from what the market would produce otherwise. This has several implications. The recipients perceive the units as basically "public housing" that is being given to them for a small cash payment. Second, because the houses do not meet consumer preferences, the actual value of the houses on resale is less than their price, in the absence of another subsidy. Third, a forced sale of such house, within a community entirely composed of other recipient households, is likely to net a very small price. In these ways, recovery through foreclosure is not necessarily a financially, or politically, attractive option.

The second subsidy scheme sponsored by the government is the lending by the State Bank (Banco del Estado) to recipients in the lower levels of the Tier 3 program. This lending incurs the same subsidies as the MINVU lending for the Tier 2 housing, but on a much lower scale. It is perceived that the State Bank, which is a regular commercial bank but government-owned, is making these loans only because the private sector banks view them as too small and too risky. There is substantial evidence of an implicit subsidy on these loans. There are a number of private lenders willing to make loans on the top level of the Tier 3 subsidy houses, loans in the range of US$30,000. There are also two lenders who are active in the second level, with loan sizes ranging down to US$9,000 (at least one of these two asks for an extra fee up front to cover servicing costs). But only the State Bank is active at the lowest level.

However, there is an important implication of a government institution intervening in this manner. The borrowers realize that they are dealing with a government-sponsored institution that has shown itself to be a toothless enforcer in the past. The result is a relatively higher delinquency rate, despite the prosperity Chile has enjoyed and the high resale value of the Tier 3 houses. The State Bank does not divulge its delinquency profile, but it is known that overdue payments on loans delinquent more than 90 days were 2.3 percent of total principal values in 1996, in contrast to 0.3 percent for private lenders. This could imply about 20 percent of their borrowers being on average one year delinquent. The losses on these loans are borne by the State Bank, along with the uncompensated higher servicing costs, out of implicit subsidies embedded in other bank relationships with the government.

The impacts of these programs on the housing and housing finance markets in Chile are hard to overstate. In 1994, there was a total of almost 120,000 housing units built. Of these, almost 5,000 were recipients of Tier 1 subsidies, i.e., nearly free, with no loan. More than 26 percent were part of the Tier 2 programs, constructed under government contract and receiving significant grant and loans from MINVU. Another 25 percent were in the range of the lowest levels of the Tier 3 programs, generally benefitting from loans from the State Bank. Only 45,000 units were even in the market range of private lenders, of which 37,000 were not involved in any government program.

This pattern is reflected in the fact that 40 percent of the mortgage-backed securities outstanding were issued by the State Bank.

2.1.4 Pending Developments

The government has been engaged in a long debate with donor agencies about how to deal with these remaining inefficient implicit subsidies. The private sector, comfortable with its experience in mortgages in general and with easy access to funds through the Chilean "mortgage bond" system, has started making more loans to households in the top two levels of the Tier 3 housing. The government has endorsed the notion that the private sector could take over lending to the full range of Tier 3 housing, but insists that it will not withdraw lending by the State Bank until this happens. Of course, it is difficult for the private sector to compete with a lender that has shown that it will not foreclose and does not charge for the full cost of servicing.

It has been suggested that one way to resolve this situation would be for the government to contract with private banks to make certain quantities of loans to this target group. To the extent that such loans, made at normal market rates, are unprofitable, the bank would be compensated by the government. But the compensation would be determined *ex ante*, through competitive bidding for the contract, and all risks and rewards would thereafter lie with the bank. In other words, banks would bid for subsidies to make such loans, and the lowest bids for subsidies would win the contract. The banks would then treat the loan like any other loan, and the current politicization of the loan recovery process would be minimized.

The situation with the Tier 2 borrowers has proven intractable and it appears possible that the lump-sum subsidy and the minimum savings or self-help will be increased and the loan portion will be ended.

2.1.5 Responses per Terms of Reference

4(a): Overview of Structure

See narrative above.

4(b): History of Program

In summary, the program has grown and has been refined steadily.

4(c): Interest and Inflation Rates

Inflation is below 10 percent and nominal interest rates are quite low, below 15 percent. But the program has operated during periods of very high inflation. Thus, it is fully indexed and all parameters are expressed in inflation-adjusted forms. The real interest rate on the MINVU program is 8 percent and that for the State Bank loans is "market" rate.

4(d): Functional Details

See narrative above.

4(e): Roles and Responsibilities

See narrative above.

4(f): Targeting and Limitations

See narrative above.

4(g): Tax Incentives

There are no related tax incentives.

4(h): Other Schemes

As noted above, the lending, grant, and sponsored-construction programs are intrinsically related.

4(i): Number of Units

See narrative above.

5: Summary of Strengths and Weaknesses

The housing programs of Chile are considered by many to be among the most successful in the world. They have caused large numbers of new, formal sector units to be built at a low cost for the lowest-income groups, while avoiding many of the problems of traditional programs of government-owned housing. They have also been able to target the subsidies, with the largest subsidies going to the poorest groups, without losing popular support. Although the programs have been quite expensive (MINVU's budget is almost 10 percent of the total government budget), this is not due to inefficient implementation; the programs have been relatively transparent and efficient in delivering subsidies to those most in need of them.

The politics of the system have also worked well. Although the large size of the subsidy has meant that poor households have had to wait a significant time to become a recipient, they view the allocation system as fair and understand that they can accelerate their access through additional savings effort. The requirement that the units be in new formal sector developments meets an apparent need of the political and economic elites for avoiding the development of slums.[9]

Within the context of this overall success, there have been some serious drawbacks. The deep government involvement in contracting for Tier 1 and Tier 2 houses and regulating the characteristics of Tier 3 houses has sharply affected the housing market. The government has taken on a long-term contingent liability for defects in the Tier 1 and 2 houses and severely distorted the

[9] A pending question is whether the government is building up a large contingent liability for long-term renovation of the houses and maintenance of the infrastructure in these areas. It is not clear that the households can afford to keep these areas up to middle-class formal sector standards.

choices of low-income households toward small, formal-standard houses from larger, informal-standard units and also tended to put poor households in sites that are distant from urban centers.

The housing finance sides of the programs must be judged as failures, at least partially (and tend to be viewed that way by policy-makers). The subsidies involved are completely hidden and unbudgeted. With respect to financing by MINVU to the lowest-income groups, it has proven to be impossible to make meaningful "loans." The implication seems to be that, if 50 percent or more of the cost is given in gift aid, it is unrealistic to expect that the beneficiaries will feel compelled to pay off a loan for the rest, especially if the loan is made by the same institution that made the grant.

The MINVU loans have also had the long-term negative effect of corroding whatever possibility that a private sector "credit-culture" could be developed among the poorest groups, for access to other forms of consumer credit.

Even if repayment were forthcoming, it is arguable that the mechanics of making and recovering small loans for a small part of a small house may be too expensive. If the normal real interest rate to cover costs of funds and operation on housing loans is 8 percent, and another 4 percent is needed to cover servicing on a small loan, the total of 12 percent real interest suggests that other means of covering the unsubsidized portion of a small house should be strived for, such as sweat equity in finishing off the unit or subsidized savings schemes.

The problems of a government bank making loans to even lower-middle-income groups have also been made apparent and are hard to resolve. Defaults are higher because of the political exposure of the lending institution and private lenders cannot properly compete with a public lender that subsidizes delinquencies and servicing costs. However, even if private sector rigor were to tame the delinquency problem, there is no easy solution to the higher percentage servicing costs for small loans, at least in an environment where public attitudes are strongly opposed to charging small borrowers more. The goal of assuring access to market-rate finance by these groups is essential, but a better approach appears to be to explicitly subsidize servicing costs for low-income borrowers.

In principle, Chilean policy-makers agree that it is desirable to separate subsidies from finance and they continue to seek solutions to these problems. Their experience may be very useful to South Africa in finding the best path.

2.2 Germany: Contract-Savings through Specialized Institutions

2.2.1 Overview

For more than 60 years, Germany has operated a special system of subsidized housing finance, called the "Bauspar" (house savings) system, centered around a contractual savings scheme. In principle, the system is quite simple. Savers and institutions agree that, once the saver has completed the agreed-upon period of regular savings, he or she will be entitled to a loan of an amount related to the savings. The interest rates on the savings and the loan are agreed to beforehand, and are both below market. The institutions are strictly regulated to assure the safety of

their operations and the reliability of the promises, and also to assure that they channel the below-market funding primarily into the below-market loans.

Such an arrangement offers certainty of interest rate and amount of loan, but imposes a burden of systematic savings. It also creates the possibility that the institutions will have a fairly stable source of funding. On the other hand, in the absence of government subsidy, it offers no net explicit advantage over an independent savings plan at a regular institution, ending with a regular loan. The German government has provided this needed subsidy, presumably to create a system that encourages steady savings habits and the creation of a stable funding pool and that provides what is essentially a lump-sum subsidy to most home buyers.

2.2.2 Context

The Bauspar system arose out of the financial ashes of the German hyper-inflation of the 1920s. It offered the possibility of stability in certain aspects of the housing finance equation, including rate on the loan and assurance that the borrower would be entitled to a loan. It could not, however, assure that a new inflation would not decimate the useful value of the loan or that inflows by new savers would be sufficient to fund the loan as soon as the savings plan was completed. On the other hand, it did appeal to a desire to reward thrift and discipline and create a lock-in effect that would discourage rapid shifts of funds out of the Bauspar accounts in a financial crisis. These presumably were the major reasons why public subsidies were introduced into the system.

Today, the Bauspar institutions are considered to be the "bedrock" of the housing finance sector. More than three-quarters of all new construction of houses involves a Bauspar loan, and one-third of all adult Germans have a Bauspar savings account. Completion of the Bauspar savings program is considered to be a desirable, and usually a required, indicator of the creditworthiness of someone seeking another housing loan. There is also some evidence that the Bauspar program actually stimulates an increase in overall savings activity (not just displacement from other forms of savings).[10] For all these reasons, the Bauspar system is considered by most Germans to be extremely sensible, if not highly commendable. Because of this, there has been an intensive and successful effort to convince neighboring countries in Eastern Europe to create similar schemes.

At the same time that the Bauspar formula is being exported, the actually functioning of the system has changed significantly. Government subsidies have been reduced and most Bausparkasse have become affiliated with large commercial or savings bank. Bauspar loans have never been for more than 25 percent or so of the cost of a house and are thus usually smaller than the other financing required to buy a house. The inefficiencies of having a whole separate set of institutions have been minimized by integrating the Bauspar savings process into the more general financial relationship between a household and its regular bank, from which it will get more of its total financing package.

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[10] A somewhat different Bauspar system operates in Austria. In the Austrian system, the emphasis is on subsidizing savings activity. The effective rates of return on a Bauspar account are higher than from other sources. In the German system, the major benefit from participating occurs once a loan is taken out at a low rate.

2.2.3 Description

The contract concluded between the saver (always an individual, not a household) and the Bausparkasse speaks of an overall amount that will be paid to the saver after meeting the savings requirement. A fraction, usually about 40-50 percent, will come from the savings plus interest of the saver, and the rest will be a loan, made out of the pool of below-market savings from other savers. Thus, loans are usually a little more than the savings goal.

What effectively limits the contract amount is the parameters of the subsidy, discussed below. An individual can effectively have only one contract at a time (i.e., they can receive only one full subsidy). However, contracts can be opened in the name of children as well as spouses, so a family buying a house may benefit from several subsidy amounts. Also, people can and do open several contracts during their lifetime, to get subsidized loans for home improvements or renovations or second homes.

The interest rate on the savings can vary from 2-4 percent, and the contractual loan rate is limited to 2 percent higher than the savings amount. This is the total spread of the Bausparkasse, although there are some opportunities for arbitrage by investing some of the below-market savings in market rate instruments (see below). However, defaults are very rare, both because of the proven payment experience of the borrower and because of the low rate on the loan.[11] Thus, the spread is sufficient.

The savings period was traditionally 7-10 years, not inconsistent with the tendency in Germany for a renter to stay a renter until the renter is in his or her late 30s or even early 40s. The longer the savings period, the longer and larger is the loan entitlement.[12] The minimum savings period is two years.

Very importantly, it is possible to take a market-rate loan from the Bausparkasse while waiting to meet the savings period requirements. Recently, about 30 percent of customers do this. This means that, in the extreme, the customer can get a market-rate loan immediately and conceive of the Bauspar account as primarily a means to the end of getting the subsidy. Once the savings period is over, he replaces all or a part of the market-rate loan with a low-rate loan (that embodies a subsidy that was obviously not needed to complete the housing transaction).

As noted above, the German government provides the subsidies that drive the whole Bauspar system. There are two forms of subsidy: a bonus on savings and a tax credit.[13]

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[11] All housing loans in Germany benefit from relatively low default rates, partly because of a norm of significant down payments and partly because German law does not permit extinguishment of the debt by foreclosure (thus encouraging other resolution of payment difficulties).

[12] However, the average savings period has fallen to 3-4 years, partly reflecting the fact that the aging of the population has caused a shift toward borrowing smaller amounts for renovations and weekend houses.

[13] In addition, the interest on Bauspar accounts is tax-exempt. However, most interest and other earnings on capital in Germany are not taxed significantly.

Under the tax credit program, individual wage and salary earners are allowed a tax credit of 10 percent of savings, up to savings of DM9,360 a year (about US$5,850).[14] This maximum subsidy of about US$585 could imply a subsidy for a married couple of US$1,170 per year on savings of US$11,700. (This used to be more substantial, with a credit rate of 30 percent before 1982.) However, there is an overall limit of DM13,000 (US$8,125) for married couples that applies to the annual savings. Moreover, this DM13,000 limit actually encompasses some other items and amounts saved under the Bauspar program are usually somewhat less.[15]

A second subsidy of a 10 percent bonus is payable into the account on additional personal savings of up to DM800 (US$500) a year, or US$1,000 per couple. (This bonus had been as high as 18 percent before 1982.) However, this bonus applies only to married households with incomes under DM54,000 (about US$33,000) or individuals with half that income. While quite small (US$100 a year), this bonus effectively provides a little extra subsidy to moderate-income households.

This second subsidy is forfeited if the account is closed in less than seven years and the amount not used for housing. After seven years, the funds can be withdrawn for any purpose.

Thus, in total, there are maximum subsidies of up to US$913 to a married couple on savings of up to US$9,125 a year. This may sound quite high, but the average house costs about DM400,000 (US$250,000). Over a savings period of only four years and an annual savings amount of about US$6,000, total savings, bonuses, and interest is less than US$30,000 and the loan might be for US$40,000. In this case, the savings and the loan are only 28 percent of the cost of the house.[16]

It is important to recognize the incentives set up by this subsidy scheme. The subsidies are all a percentage of the savings amount and they are payable just in the year of the saving. Afterward, that amount of savings earns only the below-market return; thus, the total return over the contract period on the initial savings amount declines as time passes. Only additional savings receive any subsidy. As a result, there is a point beyond which the total contract-period return declines to less than competitive alternatives. After that point, the participant is now no longer gaining any net advantage, unless he or she takes a loan.[17]

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[14] These are the limits applicable in 1994.

[15] This tax credit is actually part of an overall provision covering "precautionary expenditures" that also includes insurance and other items. These payments are often made by employers and the overall limit of DM13,000 for a married couple is thought of as the aggregate limit on such tax-advantaged fringe benefits. Thus, the Bauspar program is partly driven by its inclusion under this fringe benefit umbrella.

[16] An advantage of these loans is that they are registered as second liens, yet do not involve any payment of a credit risk premium for this. Despite this junior position, the very low incidence of default and foreclosure keeps losses low.

[17] This is not true from the perspective of choosing a contract period. Choosing a longer saving period entitles the saver to a longer loan period, and thus a greater reward in the form of a low-rate loan. However, once a contract period is set, the saver looks only at the return on additional savings.

For example, a savings of US$5,000 in the first year by a couple will earn a subsidy of 10 percent plus 2-4 percent interest. In the fourth year of such savings, the US$22,000 saved cumulatively earlier (plus bonuses and interest) would earn 2-4 percent, plus the new savings would earn subsidies of another US$500, for a total return of 6.3 percent, or about the market rate. After the fifth year, the return on the accumulated savings and new savings is below market.

The average loan is only for about US$20,000. But loans for the purchase of a house (in contrast to other purposes) average about US$40,000. The average term is 11 years. Since market rates for first mortgages tend to be about 8 percent, the lower rate on the Bauspar loan (usually 5-6 percent) allows a household to borrow somewhat more on net than otherwise, as well as build up their savings for a down payment more quickly.

2.2.4 Problems

One way of conceptualizing the Bauspar approach to housing subsidy in Germany is to focus on the fact that nearly all people buying their first house open a Bauspar account, save a substantial amount, and then take the maximum loan. The subsidies that they benefit from (tax credits, bonuses, and low-rate on the loan [less the loss on interest during the savings period]) could be delivered instead in the form of a lump-sum amount of about US$4,000 (or some combination of lump-sum and direct interest-rate subsidy). What are the advantages and disadvantages of the contract-savings approach to delivering this subsidy?[18]

The major advantage is that the receipt of the subsidy is tied to the accumulation of savings. In most circumstances, it is an essential part of becoming the owner of a house that substantial equity be invested in it, to assure the originators of any loans that the owner has a large stake in retaining ownership and caring for the property. It is also an essential part that owners be able to make regular payments reliably toward housing costs, including loan repayments and maintenance costs. The Bauspar system predicates receipt of the subsidy on all of these behaviors and helps develop habits and perspectives that support such behaviors.

Another advantage is that there is some potential for voluntary cross-subsidization by other savers. This occurs because not all savers choose to withdraw their savings and seek a loan as soon as possible, but instead end up keeping their funds on deposit beyond the *ex ante* optimal period. This is especially the case for those building on an account for home renovations or other purposes in the indefinite future, as is common in Germany. These savers allow the Bauspar to offer loans at low rates for much longer periods than the saver had to save at a low rate. To some extent, opening a Bauspar account is taking a small financial gamble, where many participants end up taking a small loss over their other savings options and some reap the benefits.

The major disadvantage is the same as the advantage, that is, the subsidy is tied to savings. It denies the subsidy to those — relatively rare in Germany — who have circumstances where

[18] It is interesting to note that Germany has moved toward providing a one-time lump-sum subsidy to home buyers as a rationalization of their housing subsidies, but still retained the Bauspar system.

regular savings is not possible. Of course, even in Germany, the bulk of the savings is tied to employer contributions, so the household is not even tempted to not make a payment in a given month. But this system is tied to formal sector salaried employment and an income level that permits putting aside a substantial part of regular pay.

Another disadvantage is the cost of running such a separate set of financial institutions. The institutions must be somewhat separate to maintain the integrity of the savings and to ensure that the funding is all focused on making below-market loans to the customers. But these costs are minimized today by integrating much of the operational aspects of the Bausparkasse into the functions of an affiliated commercial or savings bank, with close supervision to ensure separation of funds and accounts. This is especially evident in Eastern Europe, where the Bauspar generally operate as simply a "window" or service of a commercial bank, with separate accounting, but not separate staffing.

Another disadvantage is that the subsidy is largely not targeted by need. By being limited, it is a smaller part of the financial package for buying a house for higher-income households, but all types of households take advantage of it for saving for and financing later renovation expenditures. This universality of eligibility helps give the system liquid, but could be avoided if lump-sum subsidies were provided on a targeted basis instead.

A final disadvantage is that it is difficult to ever wind down such a system, once started. There are always current savers relying on future savers to participate and thereby fund their low-rate loans. This "wobbly bicycle" aspect of the system has become evident at times in both Germany and France, and required an increase in subsidies to ensure viability.

2.2.5 Responses per Terms of Reference

4(a): Overview of Structure

See narrative above.

4(b): History of Program

See narrative above.

4(c): Interest and Inflation Rates

Since World War II, the system has operated in an environment of low and stable inflation and interest rates. It can operate in an inflationary environment, but it then requires more subsidy to maintain the real value of the savings.

4(d): Functional Details

See narrative above.

4(e): Roles and Responsibilities

See narrative above.

4(f): Targeting and Limitations

Benefits are capped at a relatively low level, and the subsidy is slightly larger at below-average incomes.

4(g): Tax Incentives

See narrative above.

4(h): Other Schemes

Bauspar loans are an integrated part of the housing finance system, which does not otherwise have any subsidies in it.

4(i): Number of Units

Most housing transactions, including renovations, involve a Bauspar contract.

5: Summary of Strengths and Weaknesses

Most of the advantages and disadvantages of the Bauspar system are noted above. In summary, it provides assistance targeted specifically to those who successfully save up funds for a housing expenditure (which is most people in Germany). In theory, this process has the advantage of cultivating regular savings habits and identifying such savers as good credit risks for a regular housing loan.

In practice today in Germany, the Bauspar subsidies and the system they support are more of a historical legacy than a necessary part of the current housing finance or social subsidy systems. Savings and housing decisions would not be substantively different if they did not exist. Perhaps in recognition of this, the subsidies to the system have declined significantly from the past levels and the system has become ancillary to the general housing finance system, not the central element.

Despite this current role in Germany, the concept of subsidizing the equity accumulation portion of the housing purchase rather than the loan is attractive for a developing country, especially through a regular savings plan. The benefits from doing so do not require the creation of a special circuit or the issuance of a low-rate loan. The subsidy can be paid as a complementary grant, targeted by income and contingent partly on the amount of savings and length of savings effort. Such a subsidy could be more transparent and cheaper to administer.

2.3 Hungary: Subsidies as a Percentage of Payment, Channeled through Commercial Banks

2.3.1 Overview

Under the Communist governments since World War II, housing was broadly and deeply subsidized (and rationed) in Hungary, through grants, below-market interest rates, below-market rents, and below-market selling prices. Since the changes of 1989, though, the country has moved toward a less-subsidized, market-oriented housing sector. The private sector of the economy has been rapidly growing as the state sector has been thoroughly privatized. This included an end to state-sponsored construction of subsidized flats for sale or rent.

While production of new public rental housing was ended and most of the existing public rental stock has been privatized, the government has continued to subsidize housing acquisition through loan-related subsidies and lump-sum grants. The loan-related subsidies were motivated by the situation after 1989 of high inflation (ranging mostly from 20-30 percent). The resulting high nominal interest rates were ameliorated through a large government buy-down of the monthly payment on ordinary variable-rate mortgages. Although this subsidy mechanism was able to bring the initial payments down to affordable levels, it still left the borrower subject to uncertainty with respect to future payments and the government subject to a heavy and uncertain subsidy.

The repayment subsidy system was replaced in January 1994 by a smaller and simpler fixed reduction in interest rates.

Fortunately, the general housing situation in Hungary is not bad, with no significant shortages and relatively few people in very substandard housing. Thus, the low levels of construction since 1989 have not been accompanied by a worsening housing situation.

2.3.2 Context

Housing is relatively expensive in Hungary, usually running 5-6 times the annual income of the family. For example, small existing apartments (about 40 square meters) might cost about US$20,000 and new 60-square-meter flats would cost at least twice that, while middle-class household incomes are about US$500-600 per month (net of all deductions). Even combining grants and subsidized loans, such outside financing has traditionally cumulated to only about 50 percent or less of the cost of the house, with the rest forthcoming from household savings, loans and gifts from relatives, and self-construction (it is something of a tradition to "finish out" a house, including its stucco exterior, over a several year period). Despite this, the homeownership rate, even under Communism, was more than 75 percent.

Traditionally, this process of acquiring a home has taken place in smaller towns and villages (Budapest is the only large city, with 2 million people, or 20 percent of Hungary's population), and therefore self-construction over several years was relatively convenient. Since the early 1970s, there has been some assistance available from the state. The assistance broadened in the 1980s as the state decided to reduce its own efforts at building large residential complexes (in the famous socialist panel construction mode). But, as noted, the total of the grant and loan amounts has not

usually exceeded half the value of a new house (this could help considerably with the out-of-pocket costs of materials).

Prior to 1989, home buyers were eligible for a significant but still limited amount of loan (about 20-25 percent of the cost) at a fixed nominal interest rate of 3 percent. In the late 1980s, rising rates of inflation (and thus interest rates) had rapidly increased the fiscal burden of this system and forced an attempt to restrict the rates of interest paid on the retail deposits that backed these loans. From 1989 to today, inflation has varied between 15 and 30 percent and interest rates from 20-35 percent.

The "repayment subsidy" system for mortgage loans began in 1989. This new system was a significant step toward a more market-based approach. Loans were available only at a variable rate based (roughly) on market costs of funds. These rates (ranging from 23 to 32 percent since 1989) were then subsidized according to a system of considerations that reflected family size and whether the house is new. As before, the only restriction to access of these subsidies was a modest barrier against use for luxury houses. The subsidy was then phased out in five-year stages over a 15-year period.

In addition to these loan subsidies, there was a one-time, up-front grant that was targeted according to the number of children in the family (a major social concern in Hungary), but not according to income or house price (except for the luxury limit). Moreover, it was available only if the transaction involved a new home.

This system of repayment subsidies was replaced in 1994 by a simple 4 percent subsidy of the interest rate for the first five years, followed by 3 percent the next five years. However, the lump-sum grant was substantially increased (for families with two or more children) in late 1994 to an amount that was approximately half of the cost of a modest new house. Since this program had not previously had any effective targeting limitations, it quickly became too expensive, and targeting by house size and expense (to middle-class housing norms) was imposed. Such effective targeting was unprecedented in Hungarian housing programs, and reflects the growth of a large upper-middle class that did not exist before and arguably should be barred from subsidy.

2.3.3 Description

There were two types of repayment subsidies for reducing mortgage payments: those available on new houses to families with children and general subsidies. The former were called the "deep" subsidies and were restricted to a loan amount of no more than 400,000 Hungarian forints (HUF), about US$7,000 in 1989, but less than US$4,000 by 1993. The deep subsidy consisted of a proportionate reduction in monthly repayments as follows, with the step-down occurring every five years.

Families with:	Repayment Reductions:
one child	40%, 20%, 15%, 0%
two children	70%, 35%, 15%, 0%
three children or more	80%, 40%, 15%, 0%

The "shallow subsidy" reduced the payments on other lending beyond any available deep subsidy loans by 30 percent for the first 5 years, and 15 percent for the next 10 years. The shallow repayment subsidy was also available on existing homes as well as additional borrowing on a new home, and was not dependent on the number of children. There was no limit on the size of the loan that the subsidy could be applied to, but with interest rates around 30 percent and house price at least 5 times income, the amount that a household could borrow as a share of house price was relatively small.

It is important to note that this type of subsidy to housing loans was not an interest-rate subsidy. It took the form of a payment by the government to the lender for a portion of the full repayment amount, including principal, with the limitation that the subsidy not exceed the full interest due. The distinction was recognized by the public; most borrowers took a term of 10 years, despite the higher payment for them, because it also increased the total subsidy from the government.

An example may illustrate the workings of the subsidy. At an interest rate of 30 percent, the payment on a loan of US$7,000 for 15 years would be US$177 a month. The deep subsidy would be 70 percent of that, or US$124, leaving a payment of US$53 to be made by the household. At an underwriting ratio of 30 percent payment to income, nearly all households could borrow the maximum amount of HUF400,000 (actually, the maximum also varied with number of children). If, instead, 70 percent of the interest rate was paid by the government, the monthly payment would have been US$71, still easily affordable by households making the usual wage of US$300-500. So, making the subsidy a share of the total payment was costing the government an extra 34 percent, without actually increasing the amount that most households were able to borrow. (However, those buying existing houses with the general subsidy could borrow more this way.)

If the same household chose to take the same loan for 10 years instead of 15 years, the full payment would go up to US$185, while the initial subsidized payment would rise slightly to US$55. (The impact of extending the term on a mortgage is very small in cases of high interest rates.) However, the total present value of subsidy payments of US$130 for 10 years vs. US$124 for 15 years is actually higher because of the 30 percent per year discount rate applicable to future payments.

These subsidies were quite popular. In 1993, there were about 11,500 of the deep subsidy loans made for new houses, out of 21,000 new houses completed that year. About 2,500 of the other new homes benefitted from a similar subsidy tied to a savings program. The remaining 7,000 houses may have been built by households with few or no children or have been too large

to qualify. The average loan size was about US$4,000. In addition, 6,000 of the purchasers of new homes took out additional loans benefitting from the shallow subsidy, averaging US$3,000.

Of the estimated 53,000 existing homes sold in 1993, about 28,000 benefitted from either the shallow subsidy or the contract-savings related subsidy. The average loan size was about US$3,000. In addition, 129,000 households took out shallow-subsidy loans for infrastructure hook-ups (many rural houses needed water and sewer or gas connections) averaging US$400.

There was also a separate program of repayment subsides on loans to households for renovation and modernization. The subsidy rate was 30 percent of the payment over the term of the loan, which was 15 years, with the limit that it not exceed the interest due. Most of these loans were relatively small, but there were very many of them, because the net cost of the funds was less than the return on money in a bank account. In 1993, there were almost 70,000 such loans, averaging about US$1,300.

These subsidies were administered through monthly billings by the commercial bank to the Ministry of Finance. All loans with fewer than three payments overdue were eligible, thus assuring the bank a substantial part of its cash flow on loans that were mildly delinquent. The bank also received a commission of 1 percent of the amount due to cover its administrative expenses. All procedures for clearing the qualifications of the household for the subsidy were handled by the bank. (This allows for the possibility of fraud on the part of the bank, but this would have been highly unlikely in the Hungarian banking context.) Of course, the household had to meet all of the normal underwriting criteria of the bank, including a formal sector job with pay-roll deduction.

2.3.4 Problems

Some of the problems with this program are evident. The program did nothing to buffer the borrower from sharp variations in payments, as nominal interest rates varied with volatile inflation. In fact, the borrower was assured of a large increase in payments every five years. In the actual context of high inflation and payments not indexed for inflation, this was a relatively small concern, however.

Likewise, the government was exposed to large uncertainty as to the amount it would have to pay in the future. This was what hastened the end of the program. It had been conceived as a way to wean the public off of the 3 percent fixed-rate loans that had been on offer, but initially interest rates were 15 percent (and rising). The program architects had not expected rates to stay in the 30 percent range, causing massive charges to the budget for several years. (On the other hand, it should be noted that the officials must have expected pretty high inflation, so that households could handle the scheduled sharp increases in payments after the first five years.)

In addition, this type of subsidy in the context of high inflation did relatively little for the task of financing a house. While the 70 percent subsidy would boost the loan amount for someone making US$400 a month, from about US$4,800 to US$7,000, this was still a small extra amount relative to the overall cost of a new house of at least US$30,000.

In retrospect, the major impact of the program was to encourage borrowing for its own sake. The effective cost of the funds for most households was less than the amount obtainable on a savings deposit. Thus, the loans replaced the option of draining down household (and extended family) cash savings to buy or build housing. This is clear now from the fact that borrowing shrank dramatically, not just in amount but in numbers also, when the subsidies were removed or reduced. This was despite the introduction of an option to defer all interest over 15 percent (10 percent for new houses) to be capitalized and paid later. This option permitted households to actually borrow more than under the repayment subsidy, but left them to bear the full cost of the funds (which was and still is high in real terms because of large government deficits).

Equally convincing has been the massive early repayments of outstanding loans as the first five-year step of the subsidy has ended. Once the effective cost of the funds rose to more than other options on savings, borrowers have paid off the loans.

However, it should be noted that, although the subsidy was poorly targeted and often had no impact on the housing purchase, this inefficient program was implemented efficiently. The bank would evaluate the household for eligibility initially (e.g., number of children and size of house) and bill the amount due from the Ministry of Finance each month. The administrative charges were only 1 percent of the subsidy amount.

The government is now debating taking the next steps toward a more "rationalized" subsidy system, centered around the large lump-sum subsidies already available for large families buying a new house, but revised to be more targeted to moderate-income groups, and less focused on new houses and large families.[19]

2.3.5 Responses per Terms of Reference

4(a): Overview of Structure

See narrative above.

4(b): History of Program

See narrative above.

4(c): Interest and Inflation Rates

During the period of this subsidy program, inflation ranged from 15 to 30 percent and mortgage interest rates from 25 to 35 percent.

[19] Hungary has recently enacted a version of the German Bauspar system, which effectively subsidies housing loans (up to about US$5,000) down to a 6 percent interest rate. Beneficiaries have to save a similar amount over a minimum of four years. It is too early to judge the attractiveness of this system, but this analyst thinks that it will be relatively attractive, but expensive to the government.

4(d): Functional Details

See narrative above.

4(e): Roles and Responsibilities

See narrative above.

4(f): Targeting and Limitations

There was only minor targeting of the subsidy household income. However, it should be noted that, under socialism, there was a very small range of variation in official money incomes, and thus little apparent need to target by income. Instead, "need" was measured primarily by household size and this was incorporated into determining the size of the subsidy (despite the fact that most households buying new houses with 2-3 children were relatively well-off by most measures).

4(g): Tax Incentives

There are no related tax incentives.

4(h): Other Schemes

Construction companies received large subsidies for the cost of construction-period interest on a non-targeted basis.

4(i): Number of Units

See narrative above.

5: Summary of Strengths and Weaknesses

From the perspective of Hungarian policy-makers, the subsidy was necessary at the time to keep the housing market functioning at a time of very high interest rates. A major part of the concern with the housing market was the potential loss of sales by the state-owned construction companies and loans by the state-owned bank. Thus, the main advantage of this subsidy scheme was that it kept the status quo intact for a while longer. Most households that were previously borrowing a limited amount at 3 percent toward a new house could continue to do so despite 30 percent interest rates.

Some of the disadvantages were carried over from the preceding program and some were new. The biggest continuing disadvantage arose from the fact that the subsidy was very inefficient compared to a lump-sum grant. The same amount of funds would have been available to home buyers if a lump-sum of about US$2,000 had been provided and the household allowed to borrow what they could at market rates. The fact is that few would have borrowed at those rates and many in fact only borrowed under the program to get the subsidy, not because the funds were absolutely needed to complete the home purchase.

On the one hand, this was consistent with the goal of keeping the state-owned bank profitable. This was, of course, costly in real resources. There was a large spread of mortgage rates over

government debt rates to cover the bank's operating costs and generate a profit, and thus the government was incurring extra costs in order to have households get assistance by borrowing for housing, rather than providing the equivalent in cash. If it is assumed that those resources would have been wasted otherwise (i.e., the staffing of the bank could not have been reduced or redeployed elsewhere), this increase in cost may not have been large.

The new disadvantage of the new program was that, in a very volatile inflationary economy, the eventual cost to the government was highly uncertain, as were the cash flow burdens on the borrowers. Moreover, the public was not able to judge the value of the subsidy, both because it was complicated to do so and because the value was highly uncertain in real and nominal terms.

The program had a serious implementation problem due to the monopoly pricing position of the main bank making the loans. Since it was able to set its rates unilaterally (but with indirect government control), and borrowers had little incentive to complain, the cost of the program was certainly inflated. However, this may have been partly intentional, to further shore up the profits of the bank.

The program also offered the government the luxury of most interest rate subsidy programs, namely, that of putting off to future years a large part of the costs. In this context, it made the program unsustainable, as total current costs ballooned with each passing year (as well as due to rising market rates). However, the program can be defended as helping the government and the public take the difficult steps toward rationalized and targeted subsidies and away from the blanket subsidies typical of socialism. In that sense, it achieved its objectives, although at a very high cost, especially given the negative impacts of the high budget deficits run in those years.

2.4 Jordan: Government-Sponsored Bank Channeling Indirect Subsidies

2.4.1 Overview

In the early 1970s, the government of Jordan, with the assistance of several Persian Gulf states, set up a commercial bank with the special missions of serving all of Jordan with an extensive branch network and of making loans for housing. Prior to this, Jordan had a history of extensive private banking, but relatively little housing finance and limited branching to smaller towns. The Housing Bank of Jordan was endowed with a number of advantages and subsidies that enabled it to operate on a commercial basis, but also to make housing loans on below-market terms. As of 1997, however, all of these advantages are being removed and competitive entry is being encouraged into housing finance. A number of other options are being considered to preserve some subsidized housing lending.

2.4.2 Context

Jordan has been blessed with large inflows of remittances from expatriate workers. It has also been burdened with sudden inflows of additional people to be housed and general uncertainty about the stability of the economy and the security of investments. These and related factors have influenced the course of development of the housing finance sector. Fortunately, the blessings

seem to have outweighed the burdens so far in Jordanian economic history and most of the populace is relatively prosperous and well-housed.

The housing sector has not depended heavily on formal sector housing finance to accomplish this achievement. It appears that such financing amounts to less than 10 percent of GDP, in contrast to a figure of over 50 percent in the United States. According to one estimate, only between one-quarter and one-half of the new residential and commercial space uses any degree of mortgage financing. In the aggregate, there is a tremendous reliance on financing through cash and intra-family financing. However, this aggregate figure camouflages a financial reality for many individual households without major cash resources that borrowing is the only method that will allow the ownership of a home.

Most lending for housing and other real estate is intermediated through the commercial banking system. A significant additional amount comes directly from government entities, in particular the military, which probably has the largest portfolio of long-term housing loans outstanding. However, there are few public data on the military housing scheme. Beyond the banks and the military, some lending appears to be undertaken directly by private pension plans at a low rate for the benefit of plan participants.

Because of the elevated level of uncertainty in the region, banks place an unusually high value on liquidity. This makes them generally averse to making long-term loans for housing. This was one of the reasons why the Housing Bank was set up. In addition, there was a concern about the fact that, while certain families are beneficiaries of substantial inflows of remittances, allowing them to build sumptuous houses, other households survive at relatively low wages (typical lower-level positions pay US$200-300 a month, but most households contain several wage earners). The government, operating as a benevolent monarchy (and more recently as a semi-democracy), wanted there to be some targeted redistribution with respect to housing. This was also to be channeled through the Housing Bank.

2.4.3 Description

The Housing Bank (HB) was started in 1974 under a special legislative act that granted it a variety of special advantages. Despite this, the HB was technically quite private. There was a complex series of shares with different dividend and voting rights, and the majority of the shares were in the hands of the "public." On net, the government only appointed 4 of the 11 members of the Board of Directors, but three others had indirect ties to the government (including two foreign governments), leaving just four representing the public shareholders. Moreover, the Chairman of the Board (and Managing Director) was appointed directly by the Government of Jordan (GOJ). There was no doubt about the ultimate source of control and support of the Bank, but the bank has always operated in a commercial manner.

Initially, the government's support took many forms. The government could direct the deposits of a variety of government-related entities toward the HB. The government also explicitly guaranteed the deposits in the Bank. It appears that these two considerations have kept the cost of funds to the HB a bit lower than for most other banks.

Of more direct value, the HB was once exempt from all income taxes (but more recently has been exempt only on income derived from housing loans). As important, the HB faced a lower statutory reserve ratio, putting aside only 9 percent of its deposits in the form of cash at the Central Bank, in contrast to 14 percent for other banks. It was also exempt from a variety of fees and taxes and regulatory burdens, including a stamp tax on registering its liens (for which it also got a priority of service) and limits on its concentration of lending.

The net effect of these advantages has been to influence the HB's operations in a number of ways. First and foremost, the HB is the only bank that extends mortgage loans to the general public for terms of up to 15 years (it has extended loans up to 30 years when funded by special GOJ programs). All other banks will not exceed seven to eight years for such loans.

Other banks seem to eschew such terms not because of concern with interest rate risk (the loans are technically at a variable rate), but because of an overarching concern for the potential for major political, economic, and demographic shocks to affect Jordan. This translates into a relatively high degree of uncertainty about shocks to liquidity and quality of collateral on a day-to-day basis, much less 10 to 15 years out. In other words, there is a desire to be able to have a high degree of flexibility to vary the portfolio of assets over time, a flexibility that is substantially less for long-term housing loans. Thus, the fact that the HB offers loans for 15 years is itself a subsidy to the borrower, one that is paid for by the government taking on the risks of keeping the HB liquid in times of crisis.

Based on these indirect subsidies, the HB has long provided an interest rate discount for qualifying low- and moderate-income borrowers for the purchase or construction of a relatively modest house (less than 200 square meters,[20] income less than JD375 (US$535) a month, loan up to only JD10,000 (US$14,300). Until 1992, these special loans carried a rate of 8 percent (8.5 percent for a while), while regular loans were charged effectively 11 percent.[21] In the 1990s, the HB has been making about 1,000 of these loans annually, covering about 10 percent of the housing units built and constituting about one-third of the HB's lending for housing (most larger houses do not involve a mortgage).

During the 1980s, there was special funding for the buyers of homes built by the government-owned Housing Corporation (HC) at rates in the 5 to 6 percent range. These were funded by the Central Bank; the Housing Bank served as a conduit for the funds.

In 1992, partly because of the ending of the low-rate HC funding, the government asked the HB to lower the rates on both new and existing "special" loans and new loans to 7 percent (while

[20] This may seem to be luxury housing in many other countries, but it is not in Jordan. This is partly because the house is expected to shelter an extended family (traditionally, all the brothers live under their father's roof) and partly because a large house is a key indicator of status.

[21] The subsidy from the market rate is not strikingly large, but it meets the perceived political need of providing special recognition and relief to a "deserving" group. To an outside observer, this and other subsidy programs can appear to be as much about giving special recognition as about substantively improving housing conditions.

market rates were 11-12 percent), leaving a 4-5 percent subsidy being provided internally by the HB. Because of this increase in subsidy, the HB announced a formal limit of JD50 million (about 8 percent of its assets) on the stock of these low-rate loans and since then has never actually exceeded JD35 million. But even with the current portfolio of JD28 million in these loans, the internal subsidy is more than JD1 million (or 0.17 percent of its assets) and that is not counting the informal provisions of "insurance" for these loans by the HB. (At its discretion, the HB will write off loans in excess of what reasonably can be repaid, due to death, disability, or property damage.) However, the indirect support from the government is clearly in excess of even these expanded losses.

Some of the excess subsidy has been channeled into an unofficial second tier of subsidized lending. This tier was for loans up to JD30,000 (US$43,000) (and house size less than 400 square meters), so-called "high-income loans." These loans constitute another 5 percent of the total assets. The rate on these loans has tended to be about 1 percent lower than the rates offered by other banks or for larger loans made by the HB. While not mandated officially, it appears that this tier exists to give the HB a stronger political position.

There are no firm figures on total mortgage lending in Jordan or even on the amount of new housing being built, but it appears that the HB makes most of the housing loans (about US$30 million a year, in a country of 4 million people). Only in the lending for luxury housing have the other commercial banks been able to compete. At the same time, the HB has developed into the second largest commercial bank, offering a full range of commercial banking services.

This commercial orientation of the HB has been beneficial with regard to its origination and servicing of housing loans. It has managed to avoid the pitfalls of other government-sponsored housing lenders as being perceived as primarily subject to political influence in its making and recovering on loans (in contrast with the State Bank in Chile). No official delinquency figures are available, but it is understood generally that the HB applies its underwriting criteria and collection procedures without political considerations.

2.4.4 Recent Developments

After operating a subsidized lending window in this manner for 20 years, the GOJ has been making major changes, as part of a general effort to improve the efficiency of its banking and financial markets. After several years of debate, all advantages to the HB were removed in March 1997. It is now treated similarly to other commercial banks, except for two key provisions: the lower statutory reserve and tax exemption on profits in proportion to its "housing-related" portfolio. The gap in the statutory reserve ratio was narrowed and is scheduled to be eliminated, while the tax advantage is also to be eliminated, as soon as agreement is reached on a replacement to pay for the costs of existing and future "low-income" lending for housing.

The discussions about preserving the special low-income lending program (but not the discount for "high-income" loans) have focused on a tax credit to be available to all banks for qualifying loans, whereby a certain spread would be payable by the government through reduced taxes on general earnings. For example, if there is a pool of US$1 million in such loans outstanding during

the year, an amount equal to 4 percent or US$40,000 would be deductible from the annual tax bill. There are a variety of complexities to such a program, but it has the big advantage of giving all banks an equal and significant incentive to make such loans.

2.4.5 Responses per Terms of Reference

4(a): Overview of Structure

See narrative above.

4(b): History of Program

See narrative above.

4(c): Interest and Inflation Rates

Inflation has been running in the 4-6 percent range, since an upsurge in the early 1990s. The interest rates on deposits have been 8-10 percent and market rates on housing loans have been 12-15 percent.

4(d): Functional Details

See narrative above.

4(e): Roles and Responsibilities

The subsidy program has been promulgated jointly with the HB, Ministry of Finance, and the Central Bank.

4(f): Targeting and Limitations

See narrative above.

4(g): Tax Incentives

Tax exemption to the HB has been an important source of indirect subsidy. Extension to all banks of tax credits based on low-income lending is now being examined.

4(h): Other Schemes

There is a government-sponsored enterprise building low-income housing on a full cost recovery basis (but with a variety of favorable regulatory exemptions). These programs are a major source of business for the HB subsidized program.

4(i): Number of Units

See narrative above.

5: Summary of Strengths and Weaknesses

This indirect subsidy program has been effective in meeting its objectives. It has given lower-income households access to housing loans on a preferential basis, both with respect to a rate that is about one-third lower and a term that is longer than commercially available. The net effect is to expand these households' ability to borrow for housing by about 50-100 percent (limited by the cap of JD10,000). It has also been useful politically as a signal of concern with respect to housing, one that is particularly important in a society that values housing highly and that has a huge gap between the housing options of those with large foreign remittances and those with only domestic earnings.

There have been a number of weaknesses. Not surprisingly, the HB is known to be very restrictive in its underwriting of the low-rate loans. It does not receive any incremental subsidy for issuing more of these loans and it faces greater concern about political interference in the foreclosure on this special class of loans (but it has been careful to prevent this from crystallizing into a perception that the borrowers are exempt from such actions). The net effect is to possibly limit the access of some of these households to housing credit and to deter the development of a normal competitive market to serve this clientele.

The most significant weakness is the completely non-transparent mode of funding the subsidy (tax and regulatory breaks not directly linked to the subsidized lending). Not only does this mean that the effective cost to the government is very high, relative to the benefits to the recipients, but it has permitted the HB to extend shallow subsidies to middle-income households and thus deter competition in this segment of the market also. The generally favored position of the HB has also distorted the development of the larger market in commercial banking services.

In this sense, the program has been both significantly better than many common alternatives, such as a public sector "housing bank" or a deeply subsidized program that primarily encourages borrowing for its own sake, and significantly worse than some other approaches, such as subsidies to all banks directly related to low-income lending or simply lump-sum subsidies.[22] While it has been sustainable, the long-term cost and distortionary effects have become too significant and a new subsidy mechanism is being sought.

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[22] The issue of lump-sum subsidies in Jordan is tricky. There is such a significant portion of the population benefitting from large foreign remittances that a major portion of a lump-sum subsidy program could go to households not really in need of assistance. A shallow subsidy loan program, where the cost of the loan is below market, but not less than what can be made by borrowing the funds and reinvesting them in a bank deposit, will tend to discourage participation by those with no effective need. In this respect, it is notable that the limitations for the current subsidy encompass income, house size, and loan size.

2.5 Malaysia: Required Cross-Subsidization within the Banking Sector

2.5.1 Overview

Malaysia requires that all private banks have a certain portion of their portfolio in housing loans for houses of up to a certain maximum price. The central bank sets a rate for such loans that is above the cost of funds, but below the full market rate for housing loans. It appears that the net subsidy, though, is usually very small.

At one point, as the cost of funds rose, the government introduced a direct subsidy to cover the loss on these loans. Otherwise, the implicit loss in profit has been made up on other loans. There does not appear to be a transparent accountability and enforcement in this regard, but the business culture of the country seems to make this approach work.

2.5.2 Context

Malaysia is one of the Asian countries that has had incredibly strong economic growth since the early 1980s. Economic growth has averaged more than 8.0 percent annually since 1990 and inflation has averaged less than 4 percent. As in Thailand and Indonesia, this growth has been accompanied by even a faster growth in formal sector housing construction and housing finance. This acceleration is due to the twin engines of urbanization and income increases, motivating a switch from traditional informal, self-constructed housing to large-scale formal development and finance.

Malaysia has a number of government-sponsored entities active in housing finance, most notably the Treasury Housing Loans Division, which had been the largest type of housing lender until it was surpassed by the commercial banks in 1993. The Treasury Housing Loans Division makes loans only to civil servants, using primarily budget funds and at a preferential rate of 4 percent.

The private lending sector consists of finance companies as well as commercial banks. The finance companies were traditionally focused on the short-term finance of consumer durables, especially automobiles, while commercial banks emphasized loans to commercial entities for operating or development purposes. However, both became more active in the housing market during the 1980s as a matter of business as well as government policy.

Government policy in this area goes back as far as 1976, when both the commercial banks and finance houses were required by the Central Bank to channel at least 10 percent of incremental lending volume to individual housing loans. This requirement was replaced in 1979 by a directive to allocate specific proportions of total loans outstanding to housing. Finally, in 1984, the directive was further modified to state a specific number of housing loans to be made by each sector, distributed according to the relative size of institutions.

The 1984 directive did not differentiate by income level of the borrower. With the rapid growth of interest in housing lending during the 1980s, the directive became moot and was discontinued in 1990. Soon thereafter, however, political pressures built up to force institutions to serve

"lower-income" groups.[23] The Central Bank promulgated new guidelines requiring a certain total number of loans on houses of a price below RM100,000 (about US$40,000).

2.5.3 Description

The guidelines set by the Central Bank cover both the price of the houses and the incomes of the household. The numerical guidelines appear to apply solely to the price of the house. During the most recent period for which information is available, 1995-96, the numerical requirement was a total of 100,000 loans, over two years, on houses under RM100,000. Three-quarters of this goal was allocated to the commercial banks, in recognition of their share of total lending. The same earlier quota for 1992-94, was more than met, with 125,000 such loans closed, for about one-third of the total volume of housing loans by private lenders.

In addition to the quota motivating active marketing to the target group, the lenders are required to give a preferential interest rate to those households buying these houses if they have monthly incomes less than RM2,800 (US$1,100). The preferential rate is set at the lower of the "base lending rate" of that institution plus 1.75 percent, or 9.0 percent.

It appears that this preferential rate is actually only slightly lower than the normal market rate. The normal spread of housing loans over government debt rates is about 3.0 percent, and the base lending rate is never less than the government borrowing rate. Thus, it is unlikely that the preferential rate is ever more than 1.0 percent less than the normal market rate.

The small spread between the preferential rate and the market rate is evidenced by the reaction of the government when normal market rates rose temporarily above 9 percent during 1993, hitting 9.88 percent during the year. When this happened, the government declared a 1.0 percent subsidy to be paid on the outstanding stock of preferential loans. Since this pushed the net yield on such loans to 10 percent, above the normal market rate, it is unlikely that, at other times, these loans are a significant drain on the institutions.

2.5.4 Problems

It appears that, as opposed to the cross-subsidization that is pursued in India and Zimbabwe, the Malaysian program has little financial substance and is primarily for political consumption. In that sense, it has the advantage of appeasing the public while not damaging the financial sector. One common side effect of such programs is that lending to the target group is eventually reduced rather than increased, because the restricted rate setting eliminates any incentive for lenders to lend more than the minimum amounts. Another side effect is that the cross-subsidy acts as a hidden tax on higher-income borrowers, who therefore do not use mortgage finance as much as they would otherwise.

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[23] None of this sort of lending had much to do with truly lower-income households, who would not be in the market for a formal sector house, but rather the lower ranges of a relatively prosperous urban middle class who were not already able to access a Treasury Housing Division loan.

Malaysia may be able to have its cake (offer a "subsidy" program) and eat it too (not provide much subsidy) because its financial house is being kept in such good order. Nominal loan rates are under 9 percent, which is usually about the inflation-adjusted real rate in developing countries with indexed lending. When nominal rates are over 18-20 percent, and affordable loan amounts are very low, the political pressure to adopt deep subsidies are much greater and the distortive effects, especially if the subsidized rate is less than the inflation rate, are much greater.

2.5.5 Responses per Terms of Reference

4(a): Overview of Structure

See narrative above.

4(b): History of Program

See narrative above.

4(c): Interest and Inflation Rates

Inflation has generally been below 5 percent and nominal interest rates quite low, below 10 percent.

4(d): Functional Details

See narrative above.

4(e): Roles and Responsibilities

See narrative above.

4(f): Targeting and Limitations

See narrative above.

4(g): Tax Incentives

There are no related tax incentives.

4(h): Other Schemes

Malaysia is famous for having relatively expensive housing, so it is surprising that there is not more pressure for subsidy.

4(i): Number of Units

See narrative above.

5: Summary of Strengths and Weaknesses

This program of announced "quotas" for "below-market" loans seems to be effective and cheap as a tool for political purposes, but not for making housing more affordable. In this respect, it

points up the potential for having significant political gains from a housing subsidy program without bearing a significant cost in either administration or distortions of the market.

2.6 Mexico: Government-Funded Lending through the Commercial Banks

2.6.1 Overview

Mexico, like Chile, has a multi-tier housing subsidy program. The largest difference is that Mexico has emphasized subsidized finance, rather than lump-sum grants. Most of this finance is directly from government-related institutions. However, an important component, the funding from FOVI, has been channeled through the commercial banking sector. This program is very instructive of the potential for this approach.

2.6.2 Context

Mexico is a cousin to Chile, with respect to the presence of a substantial sophisticated upper-middle class and a tradition of moderate democratic governments. However, more of the population consists of very low income households and Mexico continues to have a high rural birth rate that feeds a high rate of rural-to-urban migration. The result is more pressure on urban housing markets and extensive development of shantytowns outside of major employment centers.

The overall GDP per capita is about US$2,500 and the population growth rate is about 2 percent.

Mexico has a history of booms and busts, somewhat correlated to the six-year cycle between presidential elections. The situation had been aggravated by a reliance, until recently, on the oil sector to provide most foreign exchange earnings and by pursuit of protectionist policies and heavy government direction of the economy. Presidential administrations since 1982 have attempted to pursue economic liberalization measures to provide prosperity. The process has had its failures, but overall is credited with creating a much larger middle class and a much more resilient economy.

The most recent shock to the economy was the result of certain imbalances that had built up in 1993 and 1994, which resulted in a precipitous devaluation of the *peso* at the end on 1994. The Mexican housing finance system suffered a severe shock itself from the turmoil. Most of the damage was caused by a severe liquidity crunch, very high real interest rates, and falling real incomes. Although the mortgages made under the program discussed here were less adversely affected, the general collapse of the housing market and of bank lending froze most lending under the program in 1995-96. Thus, the focus of this discussion will be on the way the program operated prior to the recent dislocations.

2.6.3 Description

Overview

There are several tiers and types of government housing subsidy programs. Serving the very lowest levels are a number of direct lending and subsidy programs operated by public housing agencies at both the state and central government levels. These agencies serve those households, primarily employed in the informal sector, with incomes less than about US$300 a month. They

are estimated to make up two-thirds of the population (many in rural areas). Assistance takes the form of project-specific blends of grants and loans, for housing supplied through sites-and-services, core housing, and renovation, with or without self-help contributions. The loans made by funding from the central government's funding arm, FONHAPO, are made at explicit interest rates set at 3-4 percent over the inflation rate and repayments are indexed to the minimum wage rate. However, not much is known about the specifics of these loans, especially the recovery rates, because the loans from FONHAPO are made to local agencies that guarantee repayment in any case. The available evidence, though, is that recoveries are reasonably good.

The broad lower middle class, with monthly incomes between US$300 and US$600, are the target of two additional government programs, FOVISSTE and INFONAVIT. One is based on a tax on wages of 5 percent paid by all formal sector employers that finances loans to contributors. This system was considered highly inefficient until recently, since it was highly subsidized (loans made at a fixed nominal rate of 4 percent), allocation to beneficiaries was in the hands of local union officials, and the whole apparatus was subject to waste and corruption. Recent reforms have raised the interest rate to 4 percent in real terms (more precisely, indexed to the minimum wage) and added transparency to allocation and flexibility to the housing options eligible for the funds. However, the program has chronically poor recoveries.

The other government program is operated by an agency called FOVI (Fondo de Operacion y Financiamento Bancario a la Vivienda). It is targeted to the same income group, but is intended to be operated in a truly commercial fashion, through the private banking sector. It traces its roots back to 1963, when it was set up with USAID assistance to channel long-term donor funding to home mortgages made through the banking system. Until recently, it was operated under the auspices of the Central Bank and the government made routine contributions (through the Central Bank) to its capital.

Since 1988, the World Bank has been making substantial contributions to FOVI's funding. In return, many of the operational aspects of FOVI have been reformed to more efficiently serve its primary purpose of encouraging private sector lending to lower-income households. These reforms will be evident in the details of its operations.

Details

FOVI operates as a source of long-term refinance to commercial banks for mortgages made on qualifying houses (newly constructed in specific developments). Until recently, the end loans were made at a floating market-related rate, the average cost of term deposits to the banking system, or CPP (which moves at about the same level and manner as the Treasury bill rate). In Mexico, such a rate was usually higher than inflation, but substantially lower than the market rate on loans to higher-income borrowers. Typical levels for these rates for cost-of-funds were 3-5 percent real, but 10-15 percent real on end loans to regular borrowers. Thus, the funds were relatively very attractive to households, but still had some burden relative to keeping funds in a savings account or other consumer durables.

In 1996, the rate on FOVI funds to the banks was raised to a fixed rate of 5 percent real. This was still lower than the real rate on other funds in the system, but only by 2-3 percent.

The repayments of the borrowers are to be adjusted according to changes in the official minimum wage.[24] Since this has a tendency to lag behind actual wages, especially during times of economic difficulty, borrowers will generally not find it difficult to keep up payments. Of course, that means that the repayment period will extend if the balance is going up faster than the repayment. FOVI originally provided a guarantee that, if the term extends beyond 20 years, it would pay off the remainder. However, the loans were relatively conservatively underwritten for pay-off in 12 years, so there have not been such accumulations of capitalized interest that could not be repaid within the 20 years.[25]

Other than this assurance, however, all credit risk used to rest with the commercial bank. The funding went to the bank from FOVI, and FOVI expected to be repaid on its loan to the bank according to scheduled amortization. However, FOVI has recently agreed to reimburse up to 50 percent of losses after foreclosure in the case of default.

There are also three tiers of housing within the FOVI program. The tiers are defined by cost of house and underwriting parameters, not size of house or household incomes. The details here are for the year 1992.

Type A houses can cost up to 100 Minimum Wages (MW) or about US$13,000, which could buy only a 33-square-meter finished house in 1992. At normal underwriting standard of à 25 percent payment-to-income ratio, a regulated initial payment rate of 0.9 percent a month, and a minimum down payment of 10 percent, the minimum income for the maximum loan on the price Type A house would be about US$425 a month. Lower or higher incomes are not excluded, as long as the underwriting criteria and house price maximum are met. Thus, the effective range for Type A loans is from US$300 to US$500.

Type B houses are broken into two sub-tiers. B1 houses are between 100 and 130 MWs, or US$13,000-17,000, and require a minimum down payment of 15 percent. The target income group is US$500-700 and the typical house size would be about 50 square meters. Type B2 houses are between 130 and 160 MWs, or US$17,000-21,000, and require a minimum down payment of 20 percent. The target income group is US$700-900 per month and the typical house size would be about 65 square meters.

As noted, FOVI offers definite attractions to would-be borrowers. They are able to buy a new house with relatively little savings and at a relatively low interest rate, and make reasonable

[24] FOVI actually provides further that, every fifth year, the payment will rise by an additional 3 percent as well. This is to reflect likely increases in real wages over time as well as increases in wages of the borrower associated with seniority in a job.

[25] In 1993, this provision was changed to allow for underwriting assuming pay-off in 20 years and a guarantee of pay-off at 30 years.

payments geared to changes in their incomes over a period as long as 20 years. The question is whether there are also certain attractions to the commercial banks.

One of the definite attractions is the protection offered by the guaranteed pay-off after 20 years (now 30 years). This does not apply to defaults, but does offer substantial comfort not available otherwise where loans are inflation-adjusted and payments are geared to wages. The alternative of indexing the payments to inflation assures pay-off on schedule in the absence of default, but also encourages default during recessions or periods of high real interest rates. On the other hand, the greater build-up of capitalized interest makes it more likely that the house price will be less than the loan principal.

The financial return to the commercial bank derives from two fees that the banks are entitled to deduct from the stream of repayments. The largest is for credit risk. The fee is 3.0 percent annually for loans on Type A houses and 2 percent annually for Type B loans. These are substantial fees, but there are substantial risks, related both to the relatively small down payments, especially on Type A houses, and to the fact that foreclosure and eviction involves a tedious court process with judges that tend to favor borrowers. On the other hand, it should be emphasized that all borrowers are subjected to normal underwriting processes and tend to be stable households with a record of steady employment in the formal sector. The borrowers are not selected by FOVI based on social welfare criteria.

In addition to the risk fee, the bank is entitled to deduct 1 percent of each payment for servicing costs (actually a flat US$1.30 per month for Type A loans). At the beginning, this payment is a relatively small 0.15 percent per year of principal, in contrast to the 2.0-3.0 percent for risk. However, since the real level of the payment tends to stay constant over time, while the principle shrinks, the servicing fee rises as a percent of principal as the loan balance declines. This makes sense, since the servicing costs are relatively fixed.[26]

Finally, banks are also permitted to charge an origination fee to the borrower. This fee has averaged 3 percent over time and is a significant addition to the overall return on such loans.

Another attraction of FOVI funding for a bank is the fact that the accrued interest (scheduled to be deferred due to indexation of the principal and thus capitalized on the loans, which is an unavoidable consequence of indexed lending) is automatically funded by FOVI out of the cash flow on the outstanding loans. This means that FOVI funding is truly long-term in real terms. In the absence of long-term bonds with a deferral feature for the inflation component of nominal interest rates, lenders have to bear the risk of having deposit bases that could shrink substantially in real terms during a major economic shock. Because commercial banks adopted the FOVI indexed mortgage design for their regular loans after 1991, but without the funding, they discovered this drawback in the last two years.

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[26] Concern that the servicing fees are too low motivated FOVI recently to permit lenders to charge a fixed commission for servicing as well. It is not known how common this has become.

A final important feature of the FOVI scheme is that FOVI allocates its funds through an open auction to developers. The developers of new housing projects catering to the target income groups submit bids for the FOVI funds, in conjunction with the commercial bank that is going to provide construction finance and the end loans. Why should developers pay a premium for these funds? Basically, the funds convey a subsidy to the buyers of their houses. This subsidy is important for assuring the ease of marketing new houses to a group of households with incomes lower than normally would be buying new houses. Similarly, the subsidy is important to the bank, which would not normally be able to make loans to this target group.

It cannot be known *ex ante* whether the subsidy is too high or too low to overcome the desire of lower-income households to buy cheaper used houses and whether the fees and advantages to the banks are too high or too low to compensate for the extra costs and risks of lending to this group. In principle, the auction system allows FOVI to capture any excessive subsidy. When the auction system was started in 1989, premiums as high as 18 percent were offered. This encouraged FOVI to decrease the share of Type B2 houses that developers favored, until the premiums were reduced to less than 1 percent on average in 1991. In principle, FOVI could accept bids at less than 100 percent of face value, which would then allow it to increase subsidies according to what was needed to encourage a certain level of housing activity.[27]

What is not known in this regard is whether developers make side payments to the banks to secure their lending services. It strikes this analyst that banks should not have an overwhelming interest in making loans that provide spreads that are substantially lower than the spreads made on higher-income lending. However, there are two possible mechanisms to raise the return to banks to the competitive minimum required to secure their participation. First, there is the origination fee that they are free to set as they wish (but will face resistance to from their developer partners). Second, they can accept implicit or explicit side-payments from developers.

Developers can then attune their bids for the below-market loans taking into account all the relevant considerations, including what market loan rates are at the moment, what the demand is for their houses, what origination fee the bank will charge, and how much the developer will pay the bank either directly or through the rate on its construction loan. Without these mechanisms, it cannot be assured that private banks would undertake to use the FOVI loans.[28]

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[27] The idea of auctions to determine the optimal level of subsidies is very useful and will be suggested later in this report. It is in use elsewhere in Mexico in the development of government-owned land for low-income housing. Housing agencies specify the composition of the housing costs and sizes, and developers compete with respect to price for the land, designs of the houses, and what public amenities they will provide. It helps that Mexico has a well-developed and entrepreneurial private construction sector.

[28] FOVI's long history cannot provide such assurance. For much of that history, its loans were at very attractive low, fixed nominal rates. (Fees permitted banks in the past are not known.) Then, from 1982 to 1991, participation by the banks was assured because the major commercial banks were owned by the government. After privatization, interest in FOVI funding persisted during the boom years of 1992-94, but dried up in 1995-96, along with the rest of the mortgage market.

FOVI funding is not a major component of the overall housing finance market. In the early 1990s, before the commercial banks were fully privatized and freed of lending constraints, FOVI was providing about 10 percent of all housing funding, but about 25 percent of what the commercial banks were lending. By 1993, with the commercial banks now having tripled their housing lending, FOVI was less than 3 percent of the total market. However, it is currently a major source of funding, since unsubsidized lending is moribund.

Between 1990 and 1994, FOVI financed about 30,000 units per year, which was less than 10 percent of new construction during the period.

Pending Developments

Apparently, FOVI has recently been removed from the control and funding by the Central Bank and shifted to direct budget funding by the Ministry of Finance. This was mandated by legislation designed to increase the autonomy of the Central Bank. However, there is discussion of taking it the next step to privatization, perhaps along the lines of FannieMae and other government-sponsored but privately owned secondary market institutions in the U.S. FOVI could then possibly raise funds by issuing bonds (probably with an implicit government guarantee) and provide long-term refinance to the banks. Subsidies could be introduced to the funds in a number of ways, including annual capital contributions or initial lump-sum buy-downs of the rate on the funds.

It is worth noting that apparently most banks have had lower delinquency problems with their FOVI portfolios than for their regular loans, during the economic difficulties in 1995-96.[29] This speaks well for the mortgage design and the escape valve of the flexible term to maturity, which supposedly is still unlikely to require the promised bail-out of borrowers and banks after the 20-year (now 30-year) limit. At the same time, the FOVI fund remains close to sustainable in real terms, since all loans from 1987 to 1996 were made at the CPP, which averaged high enough over inflation to cover the 2-3 percent paid out in fees to the banks, and now are made at a fixed real rate of 5 percent (but FOVI is now taking half of the default risk).

2.6.4 Responses per Terms of Reference

4(a): Overview of Structure

See narrative above.

4(b): History of Program

In summary, the program has had a long history (since 1963), but has needed constant refinement to make it more efficient.

[29] Unfortunately, with the collapse of the housing market after the devaluation, house prices have declined up to 50 percent in real terms and default rates have apparently jumped as much from the negative equity position of borrowers as from repayment difficulties. This problem has struck the FOVI portfolios as well, especially since the down payments on FOVI loans are so low.

4(c): Interest and Inflation Rates

Inflation has recently decreased is back below 20 percent. But the program has operated during periods of very high inflation. Thus, it is fully indexed and all parameters are expressed in inflation-adjusted forms. The real interest rate on the FOVI loans is 5 percent, which is substantially lower than on market-rate loans (around 12 percent).

4(d): Functional Details

See narrative above.

4(e): Roles and Responsibilities

See narrative above.

4(f): Targeting and Limitations

See narrative above.

4(g): Tax Incentives

There are no related tax incentives.

4(h): Other Schemes

As noted above, the funds are auctioned to developers of new low-cost housing. Some of this housing is developed with implicit and explicit subsidies provided by local governments, often in the form of low-cost land.

4(i): Number of Units

See narrative above.

5: Summary of Strengths and Weaknesses

In some ways, the FOVI program is a model for an interest rate subsidy program. The subsidy is channeled through regular commercial banks, which compete for the funds through an open auction. The rate on the loans is expressed in real terms and is almost high enough to cover all operating costs and risks (except the real market cost of funds) and to maintain the real value of the fund. The lenders are paid explicit fees for undertaking servicing and the risks of non-recovery. The banks are relieved the one risk that they can not easily manage, that of maintaining liquidity in the face of significant build-up of accrued and capitalized interest.

There are certain drawbacks, however. A prominent one is the focus of the subsidy on new, formal sector housing. The argument for this is not that employment will benefit, but that the very rapid growth of urban areas is resulting in sprawling areas of low-quality informal development. By the nature of the informal development, mortgage finance is generally not applicable. It is felt that the quality of urban development, as well as the housing and housing finance opportunities of lower-income households will benefit substantially from increased formal sector construction aimed at this income group.

Another drawback is that the subsidy is primarily in the form of low-rate finance. The program would be more efficient if more of the subsidy was in the form of a grant together with a market-rate loan. Then households would try harder to come up with their own funds and would strive to pay off the loan as early as possible. This would also permit fund-raising by FOVI in the bond market, complemented with on-budget payments to cover the cash grants.

Another possible drawback is that banks and developers are choosing the recipients, rather than using some policy-determined indicator of need. This means that those in greatest may not receive the subsidy, but it also means that recipients tend to be capable of repaying the loan and bearing the financial responsibilities of owning a formal sector house.

2.7 United States: Low-Down-Payment, Low-Rate Loans through Private Lenders

2.7.1 Overview

In 1968, the U.S. government decided to apply the sorts of subsidies then in use for low-income rental housing to private ownership for the same type of low-income households. The program was named "Section 235" after the section of the legislation that authorized it. It required almost no down payment and a repayment burden of 20 percent of income. The financing was done through private lenders, with the loans guaranteed by the government, and the difference between market rates and the rate to the borrower being paid over time.

The program was suspended four years later, because of a very high default rate and abandonment of the properties. It was concluded that the absence of significant equity and the burden of repairs and maintenance were encouraging participants to default and abandon.

2.7.2 Context

The Section 235 program was the culmination of more than 20 years of active intervention by the federal government to assist with housing low-income households. The first housing program, supporting publicly owned rental housing, was actually begun just before World War II, but remained relatively small until the late 1940s. In 1949, a new push was begun to remove slums from urban areas ("urban renewal") and build new public rental housing for low-income households. These programs were pursued aggressively through the 1950s, but by the 1960s their flaws were very clear. The urban renewal program had destroyed well-functioning (though run-down) urban communities, and replaced them with either subsidized middle-class neighborhoods (subsidized through low land price) or large-scale apartment blocks, often in undesirable locations, housing large concentrations of low-income people, at a very high cost.

Some major innovations were then introduced in the early 1960s. One of these was the use of deep interest rate subsidies for privately owned, moderate-income rental housing. The first such program was authorized for elderly households in 1959. It was extended in 1961 to provide rental housing for households too high for public rental housing projects, but not considered to be enough for good-quality private rentals. The subsidy was initially relatively small, only the difference between the average rate on outstanding government debt (about 3.125 percent at the

time) and the market mortgage rate (around 5-6 percent). The loans were made by private lenders to private developers who then rented to qualifying families.[30]

After 1965, the subsidy expanded, both by fixing the rate at 3 percent and by an increase in market rates toward 7 percent. Despite the larger subsidy, it was found that the average income for a household needed to pay the rent was about the median income (partly because these were almost all new projects). Of equal concern to Congress was the way the program was being funded. Although the loans were being made by private lenders at market rates, they were being purchased at par by the government. In other words, the private sector was only providing the service of originating the loan. The funding was coming out of the regular government budget (which actually overstated the amount of subsidy).

In 1968, this approach to assisting low-income housing was replaced by two major new programs. One was the Section 236 program for rental housing, using private rental development like the earlier program, but with a 1 percent loan with the difference between that and the (fixed) market rate to be paid annually to the lender (and loan repayment was guaranteed). This now hid the future cost of the program, greatly reducing the immediate burden on the budget. The deeper subsidy also meant that incomes as low as 60-80 percent of median could afford the rents.[31]

A parallel program for home ownership was Section 235. The theory was to push the option of home ownership as far down among lower-income households as possible, rather than offer subsidies only to renting. There was also the hope that owner-occupants would help stabilize the social and economic fabric of declining central-city neighborhoods. The program was passed shortly after riots had erupted in slums in several American cities, so the focus of housing assistance had started to swing toward central city areas.

2.7.3 Description

Using the same funding technique as Section 236, Section 235 had private lenders make loans at rates between 1 and 3 percent, the rate depending on what a monthly repayment equal to 20 percent of income could cover. The 20 percent share was chosen rather than the 25 percent norm for the rental programs because of the extra maintenance costs expected to be borne by the household. In addition, the participant had to make no down payment toward the price of the house and had to pay purchase and borrowing fees of only about 1 percent of the cost of the house. The government guaranteed recovery on the loan to the lender.

Apparently, the participating lenders billed the government monthly for the interest rate differential. It is not known if there was an additional fee paid to cover the costs of administering the

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[30] As has often been the case in U.S. housing policy, the creation of this program coincided with an interest in boosting construction during a recession. Thus, though the program provided for rehabilitating run-down buildings, 90 percent of the funds went to (more expensive) new construction, usually in new areas of the cities.

[31] Some special tax advantages of these projects added further subsidy.

program. There was no special compensation for servicing relatively small loans. In other words, the beneficiary did not have to have any substantial savings or make any investment in the house.

The typical recipient of this subsidy had an income of about 80-100 percent of the median in that city. As in the case of earlier programs, the Section 235 program permitted application of the subsidy to renovated houses as well as new construction. Since the mortgage amount was limited to US$15,000 (about US$70,000 today after adjusting for inflation), it was best suited for existing houses after minor renovations to meet program standards.

The incentives set up by the program were clear and persuasive. Builders, renovators, real estate brokers, and lenders all had large incentives to build or buy up and renovate houses that could then be sold at a profit to moderate-income households that just needed any source of a regular income and a small amount of cash. Lenders did not have to look too hard at creditworthiness, buyers did not have to look too hard at quality of workmanship or relative value of the home, and, in some cases, government building inspectors were bribed to not look too carefully for construction flaws or other problems. Moderate-income households also had an incentive to deal with brokers and lenders who were knowledgeable and active in the program. Suddenly, a whole new market had opened up, with the government taking most of the risk and covering inflated fees.

As a result, almost 400,000 units were subsidized under this program in just four years (about 3 percent of all houses sold during the period). Together with the Section 236 program, these subsidies caused new housing construction to hit all time peaks of more than 2 million units a year.[32] But the majority of Section 235 houses were existing units in stable urban areas that needed some renovation to bring them up to the program's standards.

2.7.4 Problems

Section 235 and 236 programs had a massive impact on American housing markets between 1968 and 1972 because Congress could approve large amounts of commitments while putting out small amounts of cash (just the difference between 1 percent and the market rate of 7-8 percent on those loans already originated). However, by the end of 1972, it was clear that future outlays for these programs were going to be quite large.

Other serious problems also had appeared in the Section 235 program. Defaults were running at very high levels. In addition, recipients were often walking away from their house after it developed some kind of mechanical or structural problem that was too costly for them to repair. The abandonment of houses was hurting the social and physical environment of the neighborhoods where these homes were concentrated, further reducing the value of the other homes in the area.

In retrospect, it was recognized that there were several flaws in the design of the program. These included the following.

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[32] This major impact on housing construction prompted a later study (Murray, 1983) as to whether such subsidy-induced construction adds to the overall housing stock or just displaces construction that would have occurred without subsidy or later in time. The study concluded that the net effect of such subsidies is small.

- **Almost no cash investment:** Requiring a larger up-front cash payment can deplete the financial resources of lower-income households or deny their participation, but owning and operating a house in the U.S. requires the financial capacity to accumulate such cash resources (or good credit standing) to deal with major repairs.
- **Moral hazard:** No one (buyer, lender, broker, or builder/renovator) had strong incentives to gauge quality, value, or creditworthiness. Buyers were novices at judging workmanship. The only "monitors" were government inspectors, who were even bribed in some instances.
- **Low resale value:** Any subsidy program is designed to provoke behavior that would not occur without the subsidy. In this case, if new or renovated homes are sold with the benefit of a subsidy, and further purchasers are not eligible for the subsidy, the resale value of the unit will tend to be less than the initial value. This encourages default and reduces proceeds in case of foreclosure.
- **Deferred burden on budget:** The programs previous to Sections 235 and 236 had placed the entire amount of a subsidized loan on the current budget, an overstatement of the cost. These programs placed only the current interest rate differential on the budget, a great understatement. The true burden was in between, the present value of the future subsidy payments.

In early 1973, the President suspended all new housing subsidy commitments and ordered a review of policy on low-income housing. In 1974, new subsidy schemes were set up, but Section 235 was restarted on a small scale in 1976 with a provision for a significant down payment and a repayment of the subsidy out of the profit at time of resale.

2.7.5 Responses per Terms of Reference

4(a): Overview of Structure

See narrative above.

4(b): History of Program

See narrative above.

4(c): Interest and Inflation Rates

The interest rate on loans was 1-3 percent at a time that inflation was running about 4-5 percent and market interest rates were 7-8 percent.

4(d): Functional Details

See narrative above.

4(e): Roles and Responsibilities

See narrative above.

4(f): Targeting and Limitations

See narrative above.

4(g): Tax Incentives

There are no related tax incentives, other than the usual deduction for mortgage interest in calculating income taxes. However, such a deduction would probably not be taken for such low-income people paying such low interest rates.

4(h): Other Schemes

There were no related subsidy schemes.

4(i): Number of Units

See narrative above.

5: Summary of Strengths and Weaknesses

This program was a good example of how an appealing concept can be a disaster in practice. The program had some distinct advantages. The loans were being made by private lenders on existing houses, avoiding the problems and costs of government lenders making loans on new houses (as in Chile). The interest rate was fixed in nominal terms during a period of reasonably high inflation, so that the real burden of payments would be declining. The program would support the strengthening of inner-city neighborhoods falling into mostly rental status.

However, the incentives were wrong and a certain amount of common sense was missing from the program. It is desirable to use the private sector to deliver subsidies, but only if it is operating with all of its usual concerns. The same incentives for real estate brokers and renovators to cheat exist in normal markets, but the overriding concern of the consumer to get good value for money and of the lender to avoid loss in case of default counteract them. This program removed any incentive for the lender to worry about default and greatly diluted the consumer's concern with quality.

The program also demonstrated that, at least in the U.S., there is a limit as to what kind of household can become a homeowner. These limits are correlated with income, but not exclusively. Because American homes come with substantial operating systems, some sophistication and access to emergency funds is needed to own one. This situation was severely compounded by the focus on older, inner-city housing.

The program also suffered from the problem of severe non-transparency. The large bulk of the explicit costs were being deferred to the future and there were large contingent costs, in the form of credit risk being taken on without any accounting for it in the budget.

The program proved to be largely counterproductive as well as very costly.

2.8 Zimbabwe: Indirect Subsidies through a Special Circuit

2.8.1 Overview

Zimbabwe appears to have a housing finance system built around the model of the "building societies" that used to exist in the United Kingdom. This approach, nowadays termed a "special circuit," presumes that the function of extending long-term finance to the housing sector requires institutions that are separated from the rest of the banking sector and have certain protections or supports from the government. Traditionally, these institutions gather their funding from the savings deposits of households, a relatively stable funding source. In Zimbabwe's case, this source of funding has been supplemented with various subsidized funding from the government, so that rates on housing loans are generally below market levels.

2.8.2 Context

The author does not know about the history of housing finance in Zimbabwe nor the context for the current arrangements. Presumably, the reliance on building societies goes back to the colonial period, but the refinements that are the hallmarks of the current system appear to be of more recent vintage, primarily since 1980. Apparently, the government decided to attempt to use the building societies as a circuit to channel direct and indirect subsidies to residential finance, on a partly targeted basis. The government also set up at least two other institutions to complement the building societies.

Zimbabwe was not alone in this general approach. Before 1980, it was generally accepted policy in developed countries to provide housing finance through one or more special circuits, primarily designed to raise funds on a short-term basis to use to make long-term loans for housing. This had at least two advantages: there were much more short-term funds available than long-term funds and (not unrelatedly) the cost of short-term funds is generally less than long-term, because of the premium charged by long-term investors in return for giving up control of their funds for a longer period.

The result was that more funds were available for mortgages at a lower rate than otherwise and in more desirable forms (e.g., fixed-rate loans). Today, that is perceived as a subsidy to housing loans, since the proper premium for liquidity risk was not being paid and lenders did not face full market incentives to minimize other risks, such as interest rate or prepayment risks.

In addition, the political process often contributed some indirect subsidies to the process, partly to buttress the special circuit institutions and partly simply to make housing loans cheaper. Typically, this was accomplished through a combination of corporate tax preferences and preferential treatment of deposits.

2.8.3 Description[33]

The private housing finance system in Zimbabwe consists of four building societies — the Central African Building Society (CABS), the Beverly Building Society, the Founders Building Society, and the Zimbabwe Building Society (ZBS). They are the sole private providers of housing finance, since banks and finance houses are legally precluded from the market. Both lending rates and deposit rates are below market levels. A combination of regulations and special advantages has been put in place to maintain the below market circuit while at the same time maintaining the financial health of the building societies. The major distinguishing characteristics include:

- formal and informal controls on lending and deposit rates;
- tax-free status;
- lower withholding tax on deposit interest (20 percent as opposed to 30 percent for other institutions);
- quasi-mutual status; and
- class A shares — equity of original promoters or founding members
  class B shares — paid-up shares, taxable
  class C shares (PUPS) — tax-free; a percentage of the proceeds must be used for low-income housing loans.

Until March 1993, lending rates were set by the government; as of that date, rates for high-income lending were decontrolled. However, both high- and low-income rates are currently significantly below returns on Government debt and it appears that a combination of factors — concern for affordability, tradition, informal agreements with the Government, and ability to cross-subsidize — continues to support the special circuit approach.

The building societies are dependent on their ability to attract funds from the public at below-market rates. Both the government-owned Post Office Savings Bank (POSB) and money market funds compete directly with the building societies for savings. The POSB pays higher interest at a tax-free rate. Thus, the Association of Building Societies has negotiated with the government to allow for the development of products that encourage low-rate deposits. The two that have had the most impact on the level of deposits are PUPS and NCDs.

- In 1986, the building societies were authorized to issue Class C Shares — PUPS (Permanent Paid-Up Shares). These are tax-free shares. There is a requirement that 25 percent of the funds be used for low-income housing (of which 25 percent was to be lent to the National Housing Fund for on-lending to local authorities, and 75 percent for individual mortgages). By the early 1990s, well over 25 percent of the funds were being channeled into low-income lending.
- In 1992, the building societies were given authority to issue Negotiated Certificate of Deposits (NCDs). They have the following characteristics:
  - 30/60/90/120 day terms;
  - taxable at normal rate;

[33] Most of this material was derived from a report prepared by Abt Associates for USAID in 1995 (by Michael Lea and Sally Merrill) for the purpose of evaluating the potential for a secondary market financing mechanism in Zimbabwe.

- limited to maximum of 20 percent of their total deposits; and
- bearer bond, tradeable.

The rate for the Class B (paid-up, taxable) shares is set by the building societies themselves, not by the government. These rates are very competitive; even though they are taxable, pension funds or other entities not required to pay taxes may invest in these shares.

Table 1 lists the rate ceilings and some of their changes since 1991.

Table 1
Building Society Lending and Deposit Rate Ceilings
(percent)

Rate	February 1991	September 1991	March 1993-June 1995
Low-Income Lending Rate	13.0	15.0	18.5
High-Income Lending Rate	14.0	17.0	decontrolled (ranged from 19.0% to 22.5%)
Class C Shares (PUPS)	11.25	12.65	19.5

The degree of subsidy on the funding and the lending sides is indicated by the fact that the cost to the government of issuing debt for 3-6 years was more than 26 percent in 1995 and rates on mortgages for commercial developments were around 30 percent. Moreover, inflation averaged more than 20 percent from 1991 to 1995, making the effective real cost of mortgage debt negative.

What is worthy of further note is that, while the PUPS funding was well below market, it was still above the rate on mortgages. How can this happen? Because the societies were investing a large portion of the PUPS funds in higher-yielding government debt and using the profits to stay afloat, while maintaining the loan rates on existing mortgages even further below market. (Also important apparently was the ability to offer low-income housing at a blended rate using grant funds under a USAID grant program.)

Of course, one implication of this situation was that there were less funds available for additional lending. Any additional loans would only generate a loss for the institution.

All mortgage loans made by the building societies are at a variable rate set unilaterally by the lender. However, prior to 1993, the rates on loans to both low-income and higher-income households were regulated and below-market. While rates to lower-income households were set at a lower level, the difference was more symbolic than having a significant effect on low-income housing affordability. (Information on exactly how the income categories were defined was not

available, but the average size of a low-income loan was generally less than 20 percent of the average high-income loan.)

The differential was officially deregulated as of March 1993, but the spread has remained relatively small. Presumably, this reflects a political decision, perhaps taken jointly with the government, to limit the spread to a moderate level, rather than see higher-income loans go all the way to market rates during a time of very high rates. Meanwhile, the overall degree of subsidy through the issuance of PUPS has had to increase to keep the societies solvent during this period of higher interest rates.

The government has two other channels for subsidies to lower-income housing. The National Housing Fund provides loans to local authorities to implement housing development programs for low- and middle-income groups. Apparently, loan repayment is assured from the local authority, but the rate on the loan is also substantially below market (it is not known what the rate is or how the funds are targeted).

The National Housing Fund also operates a Housing Guarantee Fund, with guarantees of 100 percent of loan amount in the case of public servants and 90 percent for others. It is not known whether this entity is operated on a commercial or political basis; however, it does the face the potential problem of all government-related institutions that it will be perceived both by borrowers and politicians as subject to political pressure.

With respect to credit risk, it is notable that the building societies do not perceive any difference between the recovery performance of low-income and higher-income borrowers. There was a major note of concern expressed over the government's requirement, instituted in 1993, that foreclosures on low-income households be reviewed by the government for possible coverage instead by the National Housing Fund. This action has not resulted in any disruption in the foreclosure process, but has raised the specter of political relief for low-income borrowers, something that can encourage defaults and be costly to lenders.

2.8.4 Problems

The subsidy structure in Zimbabwe has some strengths and some weaknesses. It has the strength of having the lending being managed by private, commercially oriented institutions. In this context, there is reasonable assurance that politically motivated lending or non-recovery will be minimal. In addition, it has the strength of relying on variable-rate loans, thereby avoiding the bankrupting of institutions that has occurred in the U.S. and other countries.

It has the weaknesses of being operated through a special circuit and being funded indirectly through attempted suppression of deposit rates and through tax-advantaged liabilities.

It appears that as of 1995 the major source of subsidy was the issuance of the tax-exempt PUPS. Funding through tax-exempt liabilities has also been popular in the United States. Its initial popularity was based on the fact that individual states had found a loophole whereby they could channel cheaper loans to their citizens, at a cost to the federal government. Congress initially sup-

ported this indirect spending program, but later sharply curtailed it when the losses taken by the federal government were counted into the budget process. Thus, it is clear that part of the attraction of this kind of subsidy depends on the accounting treatment applied in the government budget process.

The main criticism of such tax-exempt funding is that the spread between the rate on the tax-exempt liability and a similar taxable liability is smaller than the tax loss. There are a number of reasons why this occurs, but the implication is that it would be less costly to simply make on-budget payments to the lender instead.

The other problem is the segmentation of the financial sector associated with protection and support for the building societies. One immediate casualty of such an approach is competition, both in lending and for funding. Usually, special protections and restrictions have to be placed on options on the fund-raising side, including restrictions on what assets the public can be offered by what branch of the system. This breeds inefficiency in the allocation of scarce funds and sometimes induces costly efforts of the public to circumvent the restrictions.

The largest problem with lending through special circuits is that it politicizes the lending process. The special circuits can become creatures of government policy, not market forces. This invites defiance of market forces (as in the U.S. government requiring savings and loan institutions to make only fixed-rate loans or the Zimbabwe government setting loan rates at artificial levels). Both the government and the special circuit institutions have incentives to diminish the impact of market forces more and more, until (in many cases) economic forces create a crisis.[34]

2.8.5 Responses per Terms of Reference

4(a): Overview of Structure

See narrative above.

4(b): History of Program

In summary, the program has grown in cost and lost in effectiveness as inflation and fiscal deficits have pushed up market interest rates.

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[34] The major exception to this was the deregulation of the banking and building society sectors in Britain after 1980. Already the building societies had been allowed to move to variable-rate lending after the first episode on inflation in the 1960s. However, they operated a cartel that determined loan and deposit rates, protected from competition on the deposit side by certain tax advantages and on the loan side by restrictions on overall commercial bank lending. One result was a frequent shortage of funds for home lending. As of 1980, the commercial banks were freed from their lending restrictions and they began competing strongly on the lending and deposit sides. This effectively ended the cartel arrangement and led the societies to seek equal footing with the banks in other aspects. The end result has been that the societies, just as with the savings and loans in the U.S., operate today as commercial banks, regular commercial banks have a significant share of the mortgage market, and there is never any shortage of mortgage funding.

4(c): Interest and Inflation Rates

Inflation has exceeded 20 percent per year throughout the 1990s, pushing nominal interest rates consistently beyond 25 percent. As of 1995, the effective market interest rate on mortgages would have certainly been around 30 percent. The one attempt at introducing mortgages that deferred some of this inflation-related interest was not successful.

4(d): Functional Details

See narrative above.

4(e): Roles and Responsibilities

See narrative above. It is not known exactly how the issuance of PUPS by the societies is regulated.

4(f): Targeting and Limitations

See narrative above. As of 1995, all borrowers were receiving substantial subsidies.

4(g): Tax Incentives

There are significant tax advantages given to the societies that grant them control of the mortgage market.

4(h): Other Schemes

See narrative above.

4(i): Number of Units

As of 1995, the building societies had about 48,000 loans outstanding, of which 40 percent were to low-income households. However, it must be emphasized that the outstanding balances of low-income loans are smaller, so that they amounted to only 15 percent of the total loan portfolios.

5: Summary of Strengths and Weaknesses

As noted above, the strengths of the Zimbabwe system include its reliance on private lenders and variable-rate loans.[35] Also, since the subsidies are available on any housing loan (but it must be on a formal sector house), the Zimbabwe program avoids the inefficiency of those programs that focus on new housing only.

The weaknesses of the system as a method of delivering subsidized finance to lower-income households are also significant. As currently set up, the system requires the creation and support of special institutions for housing lending, the regulation of lending rates, the issuance of tax-exempt liabilities, and ongoing uncertainty about the financial viability of the lenders. Much of the subsidy derived from these efforts then goes to upper-income households.

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[35] However, it should be noted that there is a parallel system of subsidized finance to low-income housing, operated by the National Housing Fund through local housing authorities, that is apparently highly inefficient and bearing high default rates.

The reasons for this inefficient and ineffective system are presumably primarily historical, with the traditional building society approach being adapted to forced cross-subsidization of low-income lending. The introduction of subsidy through issuance of tax-exempt liabilities significantly increased the non-transparency and inefficiency of the system.

As noted, the strength of the system is the role of the private sector. This has been of significant benefit not only in keeping operating costs down and protecting the quality of loan underwriting; it has also meant that repayment rates of low-income loans apparently have stayed close to those for higher-income households. The recent incident of societies fighting an indication from the government that foreclosures might become politicized is an excellent example of how private lenders tend to keep the "credit culture" strong enough to support lending even to disadvantaged groups.

Unfortunately, this kind of system is not easily sustainable in the face of dynamic development of the financial sector. The presence of money market mutual funds makes it impossible for the building societies to offer less than the market rate on deposits. Special access of societies to tax-exempt issuances can perpetuate their dominance of mortgage lending, but only at a high cost in loss of taxes, competition, and pressures for innovation.

Overall, the system does seem to generate significant lending to lower-income households, while avoiding the disadvantages of direct public sector lending, but at a large cost. Substantial gains could be achieved by moving toward the integration of mortgage lending into the general financial system and direct, on-budget provision of targeted subsidies, either in the form of lump-sum grants or channeled through private sector lenders to buy-down rates on loans to lower-income households.

Section 3
Conclusions and Recommendations

As noted in the first section, the general advice of analysts of housing and housing finance policy is to avoid subsidizing housing finance. There were seven reasons given for this view, and most of those reasons have reappeared as drawbacks noted with respect to one or more of the eight subsidy programs reviewed. Despite this negative theory and experience, many countries have concluded that mortgage subsidies are a desirable way to assist low-income households.

The fact is that there are many political forces pushing toward enacting programs that are not conceptually or fiscally appealing. Similarly, South Africa ultimately may make compromises it judges to be required and accept the associated costs, but it need not do so out of ignorance of the consequences. This survey of programs in other countries provides both good illustrations of the hazards of certain designs and useful evidence for how "unnecessary" inefficiencies can be avoided and even for how design and implementation elements can be very helpful in minimizing excessive costs and improving efficacy.

The strengths and weaknesses of each program are discussed at the end of each description and analysis. This section collates all of those country-specific conclusions and reorganizes them around the cross-cutting issues raised in the opening section. After a review of these issues in light of these programs, some final remarks are made about how these findings might be applied in South Africa.

3.1 The Political Parameters of These Programs

As noted in the first section, to most efficiently pursue what is probably an "inefficient" program from the narrow viewpoint of income redistribution, it is important to understand the ultimate purpose of any housing program. An attempt was made to explore the political context of each program and how it has shaped the design and execution of the program.

In most cases, a major purpose of the program was to provide tangible evidence that the political system cared about the housing conditions of the public, especially the relatively more disadvantaged members of the public. In the case of Malaysia, this was the primary purpose and the program itself was more appearance than substance. This was also an important consideration in Chile, Hungary, Jordan, Mexico, the U.S., and Zimbabwe, but not so much in Germany. In the case of Jordan, the appearance of concern was enhanced by naming the bank the Housing Bank.

In Chile, the overall housing program was viewed as being essential for keeping political and social peace, and the goals and implementation of a large-scale program of lump-sum subsides and government-directed construction were considered very desirable. The subsequent need to provide indirect loan subsidies was considered a regrettable but so far unavoidable aspect of the larger program.

It appears that the Bauspar system today in Germany is not considered to be an important part of the policy apparatus for supporting housing opportunities. There are special subsidy programs devoted to that goal. It appears that the political support for the Bauspar subsidies primarily focuses on the encouragement of desirable attitudes toward saving in general and for housing in particular and simply to support a venerable institution from which most people benefit.

Hungary's subsidy program was forced by the appearance of high inflation. If it had not been enacted quickly, lending would have stopped, with some deleterious effects on housing, but even larger effects on the state-owned construction companies and lenders. The public's general dismay over the sudden changes in how government supported the "social" sector was also a concern. The program was dropped once these issues became less important.

Jordan has had a longer "transition" than Hungary to a new mode of subsidy, only as the long-run costs of channeling subsidies indirectly through a special bank became apparent. Fortunately, during this period, Jordan avoided all the worst ills of a national housing bank.

Mexico, like Chile, has a large number of programs to provide strong evidence of government concern for the less advantaged. In contrast, though, more of these programs have been poorly designed or used as channels of political favoritism or corruption. The FOVI program has had the more "respectable" purpose of encouraging private sector lending further down the income distribution. In this sense, the program was designed to be as much a remedy to a flaw in the financial system as a vehicle for political purposes. Over time, the focus of the program on this specific goal has increased and the subsidy decreased.

The U.S. program of interest and credit-risk subsidy was only the latest version of continuing efforts to come up with some large-scale method of upgrading the housing opportunities of poorer households, an effort that was reinforced by the political consensus of the late 1960s in favor of large-scale social programs. The new orientation toward low-down-payment loans on existing owner-occupied housing was appealing to the general public because of the aspect of encouraging ownership by the poor families and presumably greater involvement by them in upgrading their neighborhoods. When this approach proved to be disastrous, new commitments of housing subsidies were then redirected to another generation of rental program designs.

The subsidy scheme in Zimbabwe seems to be the product of historical momentum compounded by rising inflation, as in Hungary. The resulting subsidies and distortions to the system have grown beyond what was expected and hopefully there is some consensus on the need for reform.

In all these cases, public policy seems to have been responding to the perception of social and political benefits from assisting with housing specifically instead of general income assistance. However, it is notable that in the most developed of these countries, Germany, Hungary, and the U.S., public policy has moved away from housing as a special sector for assistance to low-income

households and closer toward viewing direct income-redistribution as a more efficient way of providing a "social safety-net."[36]

3.2 Mixing Subsidies with Finance

There were seven specific drawbacks noted in the first section to delivering subsidies through the housing finance system.

The first was the likelihood that borrowing itself would be subsidized and not necessarily the housing consumption decision. The experience of Hungary most vividly bears this out, where borrowing, but not buying, declined sharply when the subsidies where removed. The German Bauspar system also encourages households to take out loans for renovations or second homes that they might not if the rate were not subsidized, especially if the rate on government bonds or other investments is higher than the loan rate. The U.S. subsidy scheme also strongly encouraged moderate-income households to take the maximum loan rather than add more savings, since the rate was so low. It is likely that the building societies in Zimbabwe have also experienced much lower prepayments since their rates on the loans are less than they pay on their deposits. All of these increases in borrowing are also increases in the cost of the subsidy scheme without any real benefit in terms of housing consumption.

The second concern was that a special channel would generate extra costs to a subsidy. This has occurred in Jordan and Zimbabwe, with significant effects. Germany has succeeded, though, in minimizing the costs of its special channel.

The third concern was that the subsidies are non-transparent. This has been the case in all countries other than perhaps Germany, where the subsidies to the Bauspar are well-understood. In none of the other countries was the magnitude and even the nature of the *ex post* subsidies anticipated by governments or recipients. Even Malaysia had to intervene when its small expected cross-subsidy ballooned with a rise in interest rates. In addition to uncertainty about future events, there is also a strong political tendency to overlook the eventual build-up over time of commitments to pay subsidies on past loans.

The fourth concern was that the government's involvement in the subsidy program might corrupt the ability to collect. The evidence in this regard is both clear and instructive. The more closely a loan (but not the subsidy) is identified with the government, the greater the difficulty to collect on it. Thus, government subsidies delivered through private lenders or even government-owned lenders operating on strictly commercial basis (the Housing Bank of Jordan) have not had extra-

[36] Despite this "rationalization" of efforts to redistribute income to the poor, all of these countries continue to have other policies that simply subsidize housing over other consumption items in general. In other words, even the most "advanced" countries (at least Western ones) show a bias toward boosting housing consumption.

ordinary delinquency rates.[37] The most serious case has been Chile, but even the state-owned bank in Hungary has seen unusually high rates, not just because foreclosure and eviction was effectively impossible, but also partly because it is being reimbursed by the government for its ultimate losses.

The fifth issue was that tying a subsidy to a loan required the recipient to have formal sector employment to facilitate underwriting the loan. This is an important problem when the subsidy is large and could be delivered instead as a lump-sum grant not requiring an underwriting process. It may be a drawback for the Mexican and Chilean programs.

The sixth problem was the potential for perverse incentives to affect the actions of the financial intermediary. This is at the heart of the problem in Chile. It has also been a problem in Hungary, where the government has taken on some of the credit risk. It was also a problem in the U.S. program, where the government was taking on all of the credit risk. Finally, it is a problem in Zimbabwe, where the government has interrupted the normal asset-liability management of lenders and thereby taken on the burden of ensuring that the building societies get enough subsidy to avoid going bankrupt.

The seventh issue is that the equivalent subsidy, given in the form of a lump-sum grant, usually would be less costly and more effective. That is the guiding premise of the general Chilean subsidy program, but their experience has shown how difficult implementing a grant-only approach can be. The situation merits further analysis.

The situation is presumed to be that a government can deliver a given amount of subsidy either through a loan or through a grant. In principal, the recipient would be better off receiving the grant and getting his own loan on market terms. The problem is that the market seems to fail in providing these recipients the choice of getting a market-rate loan. When the subsidy is delivered through a loan, the government intervenes to make sure that the loan gets delivered, usually through providing hidden subsidies (e.g., taking on credit risk or paying a premium for servicing) to get lenders to make the loan. The question is, if this hidden subsidy were added to the grant, would the recipient and the lender be able to agree on loan terms that are satisfactory to both parties.

The problem seems to be that lenders and borrowers strongly prefer not to have an explicit premium charged on the interest rate on such loans, to cover extra risk or servicing costs. There are some ways around this, such as when mortgage insurance is provided for a separate charge. But it generally is considered "inappropriate" to make extra charges that are related directly to the income of the borrower or size of the loan. Thus, the Mexican government subsidizes the extra servicing costs of FOVI loans rather than provide a grant to recipients to cover the costs of a

[37] U.S. lenders under the Section 235 program had very high rates because of the absence of any equity and therefore any leverage over the household. Private Mexican banks have had high delinquency after the recent very adverse economic circumstances, but actually lower rates than on loans to higher-income households.

premium on those loan rates. (Even this approach is more desirable than the Chilean approach of using the State Bank to make the loans without explicit subsidy.)

It is usually this issue that makes governments prefer subsidizing loans over making grants. They prefer to have direct control to ensure that the public gets the required finance promptly without "discriminatory" charges. This approach is also convenient during the policy formulation process because the eventual costs of doing so are almost always underestimated and thus appear to be less than having to "bribe" private lenders explicitly to take on the burden of lending to the disadvantaged group. Despite these perceptions and preferences, the costs of taking this "easier way forward" usually eventually make this approach clearly inferior in retrospect.

3.3 Implementing Inefficient Policies

It is almost a truism that housing subsidy programs have as important cost savings in their implementation as in their design. It is always useful to differentiate the design from the implementation in formulating a program to achieve the maximum efficiencies in each.

For example, the cost to the government of the low-rate loan program in Jordan is more than doubled by its implementation through indirect subsidies to a single lender. Making the subsidies payable in an explicit, direct fashion, even through a monopoly lender as in Hungary, is still cheaper than providing them indirectly, even if through competing lenders, as in Zimbabwe. The excess costs are reduced even further by auctioning the subsidy to competing private lenders, as in Mexico.

3.4 Transparency

There is a strong tendency for interest rate subsidies to be non-transparent. This may be because of their long time frame, their indirect funding, the presence of unknown risks, and/or the ability to defer cost into the distant future; all of these contribute from the side of the policy-maker. The complexity of evaluating a stream of future subsidies also makes them opaque to the recipients.

The best example of this among these programs is in Hungary. It took the Hungarian government four years to end the deep interest rate subsidy program, despite strong evidence that it was going to become too expensive. But it took the government only four months to limit a large up-front grant program because the cost was promising to break the budget in the immediate fiscal year.

The United States has also been moving steadily toward greater transparency in its low-income housing subsidy programs, with requirements that future commitments of subsidy be reflected on the current budget and contingent liabilities be avoided or measured.

3.5 Targeting

Experience with these programs confirms the advantages and difficulties of targeting assistance. Hungary and Zimbabwe have moved from open-to-all subsidies toward greater targeting, in an effort to trim back government deficits. At the other extreme, the best-targeted programs, those of Chile currently and the former Section 235 in the United States, have shown the difficulties of

designing programs that are tightly targeted to poorer families. Designs that can work with a middle-class population, such as loans in Chile and homeownership in the U.S., are not always applicable to households with lower incomes.

3.6 Implications for South Africa

All of the above material, including the conceptual introduction, detailed descriptions, and general lessons, are rich with useful implications for policy-makers in South Africa. These implications can most succinctly be described in the form of various "dos" and "don'ts." As noted frequently below, none of these are absolutes. But they are a good set of standards against which proposals can be usefully measured.

Do use lump-sum grants to the extent possible. It is the author's understanding that South Africa already has a program of lump-sum grants. This is very laudable, but probably some of the same problems that have arisen in Chile have already occurred in South Africa as well, e.g., private sector lenders do not make complementary market-rate loans to the beneficiaries and private sector builders do not build formal sector homes affordable to this group. These are problems to overcome, not reasons to rely on subsidized finance.

If loan subsidies are going to be offered, it may still be desirable to offer beneficiaries a choice between the loan subsidy and an equivalent grant. This encourages households to make every effort either to make it without a loan or to make their own financing arrangements.

Don't force purchase of new homes. The reasons for allowing lump-sum subsidies for the purchase or upgrading of existing homes or self-construction of informal sector housing are clear in terms of the lower cost of the housing solution. The reasons for not doing so are also clear. There is great potential for abuse (e.g., brothers sell each other their homes). As importantly, there may be political pressure to use the subsidy scheme to force new construction, both from the recipients, who envision themselves in a new house, and from the voting public, which does not want to support construction of "shacks."

Do use the private sector to the extent possible. But what if the private sector resists? The solution is not to switch to the public sector, but to work with the private sector in new ways. For example, in Chile, the government was surprised at how cheaply and quickly it could get private developers to provide minimal core houses on serviced lots when there was an open competitive bidding for the whole project, including site acquisition and development. A similar procedure has worked well in Mexico.

Similarly, if private lenders will not make loans, they should be enticed, not replaced (see below).

Do not use subsidies to facilitate loans on truly unbankable borrowers. Many low-income households are simply not capable of repaying a large, long-term loan. They cannot be expected to have steady enough income or to ignore other pressing needs just to avoid loan default when default has no immediate consequences. Moreover, corrosion of the general "credit culture" is

such a slippery slope — where unremedied default by one encourages others or one financial shock can never be recovered from — that it is better to avoid the quicksand to begin with.

The presence of a significant down payment is a useful way of differentiating between low-income households that have the employment and attitudinal characteristics needed to maintain a formal sector house at the same time as repaying a loan regularly. This can be required explicitly, as Mexico requires 10-20 percent, or implicitly, where Chile gives greater priority to households with larger down payments. The experience in Chile and Mexico, however, is that relatively few households with monthly incomes below US$200-300 are good potential long-term borrowers.

Do not offer long-term, low-nominal-rate funding. Upsurges in inflation are common, especially in developing countries. In this context, it is highly undesirable to offer low fixed-rate loans. The attractions are obvious: it boosts the amount of loan that a household can afford today and eliminates uncertainty as to the nominal repayments. But it also makes the eventual size of the real subsidy totally uncertain and usually means that the household will get a windfall of much lower real payments in the future than they can afford to pay.

Do capitalize on as much of the inflation-related part of the interest rate as possible. Mexico and Chile have shown that it is not necessary to subsidize the inflation-related part of the interest rate, even for moderate-income households. In fact, their loan programs charge rates that are almost the same as market rates (except for risk and servicing costs). Ghana has also had significant success with indexed mortgages (but at a subsidized real rate). The basic issue here is that subsidizing 20 percent interest rates to 10 percent in a 10 percent inflation environment, just to achieve greater affordability, is leaving intact the tilt effect on real mortgage payments. It is incurring a high cost on the government primarily so the borrower can have the luxury of a rapid decline in real payment levels in the future.[38]

Indexation is not a panacea, though. All such programs have run into problems during times of economic trauma, when real wages are depressed and real interest rates are very high. That is a part of the inevitable downside of making long-term loans in volatile developing economies. This is a reason to build special provisions into the indexation or modify it somewhat (such as in Ghana, where repayments are indexed to the borrower's wages), but not to ignore the issue.

Do not subsidize an interest rate below the deposit rate. If the loan rate is below the rate on other opportunities that the borrower may have for holding excess cash, subsidized loans will be taken out even when not needed and will not be paid back any earlier than required. In many developing countries, the urge to pay off debt as early as possible is very strong, but will be countered if the rate is too low.

Do not create a special circuit if possible. This dictum is also difficult to follow sometimes, especially when the existing banking sector will not lend to lower-income households. Once again,

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[38] A weaker but easier alternative is to phase out the subsidy on a given loan, as Hungary did. The danger is that inflation will fall faster than expected and leave the payment burden rising.

it is better in such a case to compromise with this principal as little as possible, perhaps by creating institutions that may abide by different rules or specialize in a special market, but do not have special protections from market forces.

Do not ignore the market forces against lending. There are good reasons why the housing finance market does not serve all the public. These reasons should be addressed explicitly rather than indirectly by creating subsidies or new institutional structures to force expanded lending. The problems will not go away and will probably reappear in worse form.

Do provide incentives for market lending. Mexico addresses the problem of above-average servicing and credit risk directly by compensating private lenders for them. It then recaptures any excess subsidy along these lines by auctioning off the subsidy. Jordan is currently considering offering a direct tax credit to banks that make eligible loans.

Do not shift credit risk to a government entity. South Africa has considered this issue at length and has so far provided only limited insurance against large-scale political risk. Extending this to individual credit risk invites reduced enforcement of recoveries and efforts at repayment, and increased politicization of housing finance.

Do consider subsidizing savings or equity build-up rather than borrowing. It is intrinsically difficult for many lower-income households to meet repayment obligations on long-term loans. Aside from this, the real cost of borrowing funds, once servicing and credit risk are properly accounted for, is quite high. For both of these reasons, it may be desirable to devote some of the subsidies that would have gone into covering default losses or the costs of intermediating loans to instead subsidizing savings or making complementary grants for "saving" in the form of sweat equity through upgrading an existing housing unit. A boost in the cash savings of a household going into a housing purchase also confirms and reinforces the beneficiary's feeling of ownership at the same time as reducing the loan burden.

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