# Subsidies for Housing Finance

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#### INTRODUCTION

Housing plays a special role in the social and political dialogue in most societies. It is a major component in creating stable and healthy communities and is often the largest single household expense. Housing can be a sector for stimulus of the national economy. But housing conditions are often seen to be worse than socially desired, given the national standards of living and societal values. For these reasons, almost all societies intervene in housing markets through an array of policies and subsidies intended to stimulate housing production or consumption by various groups.

This article provides a framework for the analysis of housing subsidy systems. We examine the rationales for subsidizing housing and the related question of who should be receiving a subsidy. We define the concept of a subsidy; discuss the main parameters of subsidy design, and key issues that arise in implementation. Finally, we illustrate many of these issues through brief discussions of the major housing finance subsidies in the world today.

The article does not cover all housing subsidies, but rather focuses on those related to the financing of the purchase or improvement of owner-occupied houses. Moreover, it can only cover some key points on these topics. A much more detailed report is available at <a href="http://www.worldbank.org/wbi/banking/capmarkets/housing/agenda.html">http://www.worldbank.org/wbi/banking/capmarkets/housing/agenda.html</a> and <a href="http://housingfinance.wharton.upenn.edu">http://housingfinance.wharton.upenn.edu</a>. Our goal is to orient the reader to the main issues involved.

#### WHY SUBSIDIZE HOUSING?

#### The Importance of Clear Objectives

Most governments have broad goals for the housing sector - e.g., "to provide every household with a decent house and healthful living environment". Such a general objective provides little guidance to policymakers, who have to respond to a plethora of societal concerns and pressures related to housing and housing programs. Unfortunately, against a backdrop of major housing problems in most emerging economies, these political pressures often lead to subsidy programs that are drawn up hastily without considering what the precise objectives of the subsidy program are and how these are related to broader housing policy goals and other programs.

The policymaker's task is to refine the many political pressures into a set of housing sector goals and rationales for these goals, and then move on to develop strategies and options for achieving these goals. The most efficient options often turn out to involve changes in the regulatory or policy framework, for example in housing finance, land management and property rights systems. Others will require actual subsidies, but often preceded or accompanied by policy change.

We distinguish several reasons for subsidy intervention in the housing sector.<sup>1</sup>

- (i) Improving public health.
- (ii) Improving fairness and justice and societal stability.
- (iii) Overcoming market inefficiencies that yield monopoly profits or poor housing quality or insufficient volume of new

- construction, particularly in the low-income sector.
- (iv) Stimulating economic growth.

There may be more than one reason to create a particular housing subsidy program, e.g., programs designed to address public health issues may be motivated by improving social justice in society as well. In addition, there will be subsets of each objective. For example, measures to improve market efficiency may focus particularly on owner-occupied housing, or even more specifically on assisting first-time home-owners.

### Societal Benefits or Societal Politics?

The political system operates on a different basis than the policy design system. Some, if not all, housing policies are promulgated through the political system and bear its mark. Thus, there is not always a clear policy rationale for every aspect of housing subsidies or even whole subsidy programs.2 Evidence of this is that obsolete subsidies do not fade away, much of the cost of any given subsidy may be hidden from view, and the benefits of proposed and existing schemes are rarely critically evaluated. These comments are not made to suggest that there is no point to the sort of systematic analysis of subsidy programs proposed here, but rather to remind the reader that such analysis is only part of the process of actually designing and implementing new housing subsidies or understanding existing ones.

#### Improving Public Health

In most countries, the foremost reason to subsidize housing is (or was initially) to make sure that living conditions, including water and sanitation quality, will not cause outbreaks of disease. In countries where large segments of the population, particularly in urban areas, live in substandard housing and neighborhoods deprived of adequate services, this is easily the highest priority for housing subsidies. In more affluent societies where substandard housing is no longer an important issue, the focus of "public health" motivated programs is mostly on neighborhood stabilization crime prevention, social services, the improvement of neighborhood assets.

When public health is the main objective of subsidies, programs need to be designed to have the maximum impact on general physical and social conditions, i.e., they have to reach large numbers of households, both renters and owners, and focus on providing all households with healthful housing conditions within a specific period of time. The subsidies may be targeted to improvement of physical and social services, and may include basic homeownership options and support for rental housing.

Public health oriented subsidies are seldom tied to mortgage finance, since the beneficiary group often does not qualify for long-term loans. However, subsidies may focus on support for consumer or microfinance lending to reach public health goals.

# Improving Fairness and Justice and Societal Stability

A second objective of housing subsidies is to improve the income or wealth distribution in society. Housing subsidy is often used to redress the sources of societal inequality (often referred to as "fairness") because it is felt that housing conditions affect people's opportunity to improve their chances of success in life, e.g., having adequate transport to job-opportunities, better infrastructure to stimulate productive ventures and provide electricity so kids can complete homework, lower crime and fear

in neighborhoods, better access to good schools in other neighborhoods, better access to housing finance, etcetera. In other words, housing subsidies may be used to make sure that people have fair opportunities to improve their lives.

Another and related objective of housing subsidies is to directly address inequality in society through improving housing outcomes for underserved households (referred to as "justice"). For example, slum improvement programs are often designed to alleviate extreme poverty as a matter of social justice. Many national housing agencies and special housing funds subsidize housing for civil servants or "workers" to compensate for low wages.

Yet another, but related, reason to subsidize housing is to prevent destabilizing social effects of poor housing and neighborhood conditions. Political fears that these poor living conditions will lead to social problems are certainly an important objective for housing subsidies as well. Indeed, slum upgrading and other low-income housing programs are often approved in the aftermath of political unrest.

In general, programs designed to alleviate fears of political and social destabilization are more often than not focused on owneroccupied housing and neighborhood *improvement* rather than on providing rental Home-ownership gives households a stake in their community and studies have shown that home-ownership stabilizing influence neighborhoods, other things being equal (Harkness and Newman 2002). In fact, in many countries, a general subsidy is provided for homeowner housing based on the notion that it buttresses civil involvement and social adhesion. So. societal stability can serve as a rationale for generalized housing subsidies or income or neighborhood specific interventions.

### Overcoming Policy or Market Failure or Extending Incomplete Markets

A frequently stated objective of housing subsidies is "to increase the supply of affordable housing". This vague statement

must be further examined to be operational.

In many lower-income countries, the great majority of newly formed households cannot afford the lowest priced house in the formal sector housing market. As a consequence, only a small proportion of the requirement for new housing can be fulfilled by new standard housing construction and the subsequent filtering up of lower-income households into the vacated houses. The only choice open to most newly formed households under such conditions is to double up with relatives, or build a house in the unauthorized sector.

Designing subsidy programs to deal with these issues is complex. Policymakers must understand the causes of the supply or demand constraints in some depth, before they can design an efficient program. Answers are needed to the following questions:

- Is the lack of supply of new formal-sector houses due to policy failure in the regulatory environment (e.g., subdivision, planning and building standards), which is out of step with what most households can afford or minimally need from a public health perspective? Or are the standards truly in line with health, environmental or societal values but incomes required to attain those levels are not obtainable generally?
- Are problems in accessing housing finance, and not just low incomes, major reasons why a large proportion of households cannot acquire standard housing? Are housing finance problems due to public or private monopoly systems or other system failures, or to macro-economic conditions that have little to do with the housing finance system per se? Are suppliers of credit reluctant to enter into the low-income market because these markets are incomplete? For instance, is there high uncertainty of future profits on the loan portfolio because default and foreclosure risks are perceived to be high? Is credit risk high because of collateral problems related to inadequate property rights or neighborhood risk?

Why cannot the market carry higher rates to compensate for those risks, or develop insurance against those risks? Are transaction costs to originate and service loans high relative to lender benefits or relative to household payment capacity? Is the lack of resale markets a main constraint for that market segment to develop?

 Are there constraints in access to serviced land because of public or private monopolies, because local governments are unable to provide infrastructure or timely and reasonably priced permits for development, or because of historical ambiguity of ownership?

Once policymakers understand the underlying causes, they can decide to solve problems directly through appropriate changes to policies and regulations or they can choose to provide subsidies to consumers or producers to overcome these market or policy failures. The choice of subsidies will have to be guided by the underlying cause of the problem.

# Stimulating Economic Growth through Housing

Some countries have used the housing sector to jumpstart the economy after a recession or depression. Housing creates employment not only in the housing construction industry but in industries that provide building materials and furnishings for the house. The reasoning is that this employment multiplier effect can mean that housing subsidies will stimulate the economy relatively more than other forms of government spending. Most of the housing institutions in the US were created by government during the depression years for that very reason.

However, while this objective to subsidize housing is often promoted by the housing industry, it can at best be a secondary objective for most emerging economies. First, government budgets do not allow a disproportionate allocation for the housing sector to be made. Second, housing finance and housing production systems in

most emerging economies are marred by inefficiencies and inequities, and housing subsidy programs should foremost focus on the process of improving the efficiency of markets and improving public health conditions rather than on pouring large amounts of funds into an inefficient sector.

# SUBSIDIES AND OPPORTUNITY COSTS

Subsidies are often perceived as giving or receiving something for free. That notion is misleading. It is helpful to more explicitly define the subsidy concept. We consider from a broad perspective that "a subsidy is an incentive provided by government to enable and persuade a certain class of producers or consumers to do something they would not otherwise do, by lowering the opportunity cost or otherwise increasing the potential benefit of doing so." (adapted from the US Congress 1969)

Since housing is both a consumption and an investment good, we need to use an inclusive definition of opportunity cost. For a household, lender or developer these costs are the yield that he or she could have received if they had used the money for other purposes or at a later time, including a measure of possible greater uncertainty of future rewards.

In turn, the opportunity cost to government of providing housing subsidies also needs to be considered within the same cost and uncertainty framework. For example, if government provides public land for a low-cost housing development, the cost of the subsidy will include the current market value of the land and some estimate of the cost related to giving up the option to use the land more efficiently in the future. There are more subtle costs as well due to the impact of allocating land in such a manner on the efficiency of land and housing markets.

Government's costs for housing financelinked subsidies are often "hidden" and highly uncertain. An extreme case of this is where public lending institutions make loans with interest rate subsidies drawn from special funds. The size of the subsidy often fluctuates with (uncertain) future market interest rates, and depends on unpredictable credit risk (public lenders are notoriously poor at recoveries). But other, more subtle, examples include government guarantees for default or cash-flow risk that do not charge for coverage of systemic risks in the economy or property markets. Other "hidden" costs include the costs of restrictions imposed on the efficiency of financial markets, and in some cases, the cost of redistributional effects of finance-linked subsidies, which work to the detriment of low-income households.

#### Regulations, Policies or Subsidies?

Subsidy should be a policy of last resort or, more precisely, should be used only in conjunction with other policy steps. The hierarchy of complementary government actions needed to improve the housing conditions for the majority of households in an economy are:

- (i) Develop or reform institutions and policies to facilitate the role of private and non-profit lenders and developers in expanding the moderate/low income housing supply, and provide education and training to consumers and producers to improve the operation of the housing finance industry;
- (ii) Improve the regulatory system in the different supply markets (land, finance, infrastructure) to allow more households to acquire authorized and healthful housing; and lastly
- (iii) Provide subsidies to address welldefined objectives.

Simply put, if government does not do what is necessary to encourage the housing construction and finance industries to function efficiently, housing supply cannot respond to price signals, and higher incomes or subsidies will not translate into better housing (Hoek-Smit and Grigsby 2002).

#### GENERAL PARAMETERS OF SUBSIDIES

A great variety of subsidy approaches can be applied to reach the objectives set out in the previous section. There are international "fashions" in subsidies as well as national preferences. Some countries are more inclined to develop systems that stimulate private sector production of houses, while others prefer to work more through government or non-profit bodies. Some countries use housing subsidies to bring all households to a minimum housing consumption level, while others focus on subsidies for higher cost housing and serve only a small proportion of deserving households. However, there are some basic choices most policy-makers have to make in the design of subsidies to address specific housing sector objectives.

#### Demand-Side or Supply-Side?

Demand side subsidies focus on increasing the willingness and the ability of households to consume better housing or housing of a particular type. Such household-focused subsidies are favored when the objective of the subsidy is to improve fairness and justice in housing or in society in general through the housing system. Increasing the demand for housing can be done through tax-benefits that lower the effective recurring cost of housing payments, through housing allowances or housing vouchers for rental or owner-occupied housing, or through up-front grants tied to housing finance or savings for housing. Finance-linked upfront subsidies can be applied to closing costs, the down payment, the premium for private mortgage insurance, or the loan amount. Subsidies can also pay for the education of households in home-maintenance and mortgage credit systems.

Since the beneficiary makes the choice to buy or rent a particular house, demand-side subsidies are considered more efficient than supply-side subsidies, which are instead linked to specific housing solutions or loans.

Supply-side programs subsidize the supply of housing directly in either of two ways:

- (i) Lowering the opportunity costs and risks for private lenders or developers to deliver housing finance or low- and moderate income housing (e.g., tax benefits for non-profit or private developers, the provision of belowmarket funds for housing loans, credit risk insurance or guarantee schemes)
- (ii) Direct government lending (or other tasks related to mortgage finance), provision of serviced land, infrastructure or government construction and management of subsidized housing for rental or owneroccupancy.

In general, supply-side subsidies are efficient only when input markets do not work well and do not respond to regulatory or policy incentives to deliver specific types of housing or housing finance. The point of supply-side subsidies, and their major downside if inappropriately used, is that they distort markets, in particular when government takes on functions that could be done more efficiently by the private sector. Governments are especially inefficient in delivering or managing housing credit directly and prevent private sector expansion of the housing finance system. For these reasons, many countries have shifted away from supply-side subsidies tied to finance systems and have chosen an up-front grant system tied to the individual or the loan.

#### Location-Specific or Household-Specific?

Another choice policymakers have to make is whether to concentrate subsidies in specific locations or provide subsidies to specific categories of households, irrespective of where they live. Again, the decision has much to do with the precise objectives the subsidy program is to address.

If the objective of the program is to ameliorate public health or improve inequities in housing conditions, a neighborhood-by-neighborhood slum or squatter improvement approach is likely to be the most efficient. Location specific subsidies can positively impact "collateral" values and encourage investments in an

area and leverage community inputs.

If the concern is to address societal inequities through housing subsidies (justice), the best option, at least theoretically, is to provide all qualifying households a housing allowance to be used for housing of their choice. Equally, when the aim is to give low-income households access to the same housing related opportunities as higher income households (fairness), mixing of low- and higher income households may be a preferred strategy, and vouchers or deliberate scatter-site supply programs could be most effective.

The drawback of location specific subsidies is that the subsidies tend to be capitalized into real estate values and taxes, particularly when they are tied to new construction and when the supply of residential land is constraint (Hilber and Mayer 2000), and will in the longer term be less efficient from an equity perspective.

#### **Entitlements or Rationed/Allocated?**

Another important question is: should all households qualifying for a housing subsidy receive it? The simple answer to this question is that the housing budget of emerging economies (and increasingly of OECD countries) can seldom carry universal housing subsidy programs and very few new programs are created that are structured as an entitlement. The more complex answer is that, even if budget allocations would be plentiful, it will depend on the ultimate objective of the subsidy program whether all qualifying households should actually obtain one.

When the purpose is to redistribute income through subsidies, an entitlement program may be considered. When the objective of the housing subsidy is to gradually get the private sector to make down-market loans, it may be undesirable or unnecessary to give all qualifying households a subsidy in order to reach that goal.

The next question is then —if not every qualified household is to receive a housing subsidy, who is to be preferred? The poorest? Those who will be helped the

most by the assistance? Those for whom assistance will do the most for the housing system as a whole? The most deserving (e.g. the working poor)? Groups with special problems (e.g. the elderly or handicapped)? Or should we distribute housing assistance through a lottery instead? (Hoek-Smit and Grigsby 2002)

Of course, the answer to these questions is closely related to the ultimate objective of the subsidy program. For example, for programs focused on expanding the housing finance sector, the qualifying households should be acceptable borrowers to the industry, but would not have been able to receive a loan without the subsidy incentive. This would suggest a lower middle-income focus, with an effective phasing out of the subsidy at higher income levels.

# Linking Subsidies to Housing Finance or Not?

There are many ways to subsidize housing: through the production side (e.g., land grants, infrastructure), through finance (e.g., subsidizing construction loans, permanent loans, investor guarantees), through operating expenses (e.g., public or employee housing, housing allowances, heat and utilities), real estate tax deductions (e.g., tax abatement, tax caps, income tax credits/deduction for homeowners), and by price controls (e.g., rent control).

Many housing subsidies are in one way or another linked to housing finance, even if they do not subsidize finance directly. There are several important reasons for the popularity of finance-linked subsidies:

- (i) The real costs of the subsidies can be "hidden", off-budget or deferred and are not easily quantified. This makes finance-linked subsidies politically irresistible.
- (ii) Finance plays a critical role in the housing sector — it increases housing affordability and is a necessary supply input for housing production — and is therefore a frequent target for policies and subsidization.
- (iii) Housing finance-linked subsidies are

generally easy to administer and implement.

There are several major drawbacks to many national housing-finance linked subsidy programs. First, subsidy programs linked to private sector-led mortgage credit require a target group with a sufficient level and stability of income and financial prospects to access formal private sector finance and to sustain formal sector housing solutions. The main goal of these is not generally meeting basic needs, helping the poor or the redistribution of income, but rather meeting social goals and expectations of the middle and lower middle classes.<sup>3</sup>

Second, the assumption underlying a finance-linked subsidy approach is that the main constraint to be addressed is housing affordability and that the housing market works well for the targeted market segment. When this is not the case, it is likely that finance-linked subsidies will be captured by lenders or developers.

Third, there are high, often uncertain and mostly hidden costs to many housing finance-linked subsidy programs. For example, real costs of interest rate subsidies are often deferred to future years, housing finance sector guarantees seldom include provisions for system risk.

Fourth, they often pose restrictions on the efficiency of financial markets, in particular housing finance systems. When housing finance is provided through special tax funds or housing banks, private lenders cannot compete in that section of the market and will not develop systems to move down-market. We will discuss some of the efficiency, equity and market distortionary features of housing finance linked subsidies below.

The uncertain cost and distorting impacts of financial-sector subsidies makes more and more countries reform their systems, and design subsidies that are transparent and open to the entire housing finance industry (e.g., upfront grants linked to mortgage or consumer loans for housing, mortgage insurance with limited, and short-term government involvement).

#### **HOUSING SUBSIDY DESIGN**

Once policymakers have set or evaluated their goals for government intervention in housing markets, and have decided to reform existing subsidy programs or design new ones, a number of important questions will need to be answered to ensure that programs are efficient, will have the intended redistributive results, and will have a positive impact on the housing system as a whole. We discuss some common problems with housing subsidies and put them into a framework that may guide the design and evaluation of housing subsidies.

#### **Efficiency Issues**

Efficiency is about net benefits relative to effective costs. There are several aspects to the analysis of efficiency.

- First, an analysis has to be made of the effective cost of the subsidy, and whether the cost can be reduced without affecting the impact of the subsidy. The effective cost includes the stated cost and any indirect costs, as well as the administrative cost to produce and monitor the housing intervention. The indirect costs can be very substantial, including losses on any loans insured by the state, losses due to distortions introduced in the housing or housing finance markets, and the social costs of pushing up tax rates to pay for any major housing subsidy. With respect to both administrative and indirect costs, it is particularly important to assess whether the private sector can produce the subsidy, such as lending on a subsidized basis downmarket, at a lower cost than government (taking account of default losses).
- Second, the apparent social and economic benefits of the subsidy program (i.e., the intended public health outcomes, redistributional improvements, gains in market improvements or extension, and economic outputs or increase in national savings) need to be assessed in relation to the cost. This is a complex measurement and political issue for

most national subsidy programs. In general, the most allocatively efficient subsidies in emerging economies are those designed to address more "basic needs" through transparent subsidies, particularly when combined with a savings program; they have the lowest cost per household (when implemented efficiently) and have high individual and social benefits.

· Third, the estimated benefits must be adjusted for the degree to which the program replaces investments4 or expenditures the recipient would make anyway without the subsidy or, alternatively, provides benefits to people who would have done the same thing without the subsidy. This problem is called "buying out the base" and its scale mostly depends on poor subsidy design and management.5 "Buying out the base" is particularly problematic in subsidies related to finance, such as government interest rate subsidy programs, subsidies related to savings for housing, and mortgage interest tax deductions (in other words, in all three cases, most of the subsidy goes to people who would have done very much the same thing without the subsidy). Careful design and targeting and regular adjustment of the subsidies to new market conditions can avoid the worst of these problems.

Closely related is the question of whether the subsidy really strongly impacts "households on the margin", who just need a small push to affect their behavior. For example, a hotly debated issue is whether mortgage payment tax deductions really expand the number of home-owners on the margin in an efficient manner and significant degree. Most observers agree that they do not (Bourassa and Grigsby 2000).

☐ Fourth, the estimated benefits must be adjusted for the gap between the cost of the subsidy and the beneficiary valuation of impact on their housing situation. Many subsidy programs result in benefits that are valued less by the recipient of the subsidy than the (opportunity) cost to government if it

would be expressed in a cash amount. Frequently, the market value at the time a subsidized house is delivered is well below the cost of producing it because of neighborhood location, quality and risk factors.

Research has shown that giving consumers an allowance or grant to find better ownership or rental housing, will, all else equal, translate into a higher value being placed by the consumer on the improvement in their housing condition than through other types of subsidies. Many programs could be improved by increasing the housing choices for households and allowing subsidies to be used not just for prescribed new ownership houses, but for private rental housing and resale of houses as well.

### **Equity Issues**

Whether subsidy programs are motivated by redistributional purposes or not, it is important to assure that outcomes within and across programs are equitable and do not worsen income or housing inequalities in society.

- "Horizontal equity" refers to the treatment within the same income or wealth strata. Designing the subsidy to be closely targeted and use as small a subsidy as possible (i.e., efficient) helps increase the number of people assisted. Not only does an excessively large subsidy reduce the number of people who can access it, but it also widens the inequality in the treatment of similar people in general.
- "Vertical equity" refers to the relative treatment of people across different income or wealth strata. Vertical inequities can be exacerbated by subsidies so large that the housing quality of beneficiaries ends up substantially above what can be afforded by higher income groups who are not eligible. As a response, a disproportional number of households declare incomes or house prices just below each cut-off point, known as the "cliff effect". A system that gradually

decreases the subsidy with higher incomes will moderate this effect.

Other equity concerns arise when the major housing subsidy programs in a country focus on those who can afford formal homeownership and a formal mortgage loan, which in most developing nations is less than fifty percent of households. This neglects most housing problems for households below the median income or those with mostly informal or irregular incomes.

#### **Transparency of Costs and Allocation**

Good subsidy design is only possible if the actual costs of subsidies as well as the benefits are known. The cost of a subsidy should therefore be explicitly defined and, preferably, shown in the annual budget. Costs should reflect the opportunity cost, including the risks, to government. If costs cannot be shown on the regular budget, as in the case of fiscal subsidies (tax benefits, tax funds used for housing) or government guarantees for mortgage lending, the opportunity costs and risks of the subsidy should be made explicit by the budget office of the government each year. This includes creating estimates of foregone tax income; recognizing the cost of nonpayment of government or special fund loans and the liability this poses for the actuarial soundness of these funds; and looking at different risk scenarios including catastrophic or systemic risk for government guarantee programs.

The other component of transparency refers to the selection of beneficiaries, which should be done according to objective and published criteria. Bidding and other administrative procedures should be clear. The efficiency losses of non-transparent administrative systems are considerable in many countries.

#### **Distortions in Markets**

All housing subsidies distort markets to some degree. Because of this, subsidy programs, particularly in developing countries and emerging economies, should be designed thoughtfully to avoid the

unhealthy development of housing finance, housing development, and land markets. As much as possible programs should be implemented through private sector entities — financial institutions, NGOs, CBOs, developers and contractors— that are "best in class" for each activity and that will respond to program incentives meant to enhance middle- and low-income housing markets.

Finance-linked subsidy programs can have a strong impact on the type of housing finance system that will develop in a country. We will note below the major distorting effects of special housing tax funds and national housing banks on the participation and downward expansion of the private housing finance systems.

#### **Effects on Labor Mobility**

When subsidies are tied to housing units and households cannot transfer the subsidy benefit to another unit, housing subsidies can have a negative effect on the mobility of labor to places where it is needed. This is a particular problem with public or non-profit rental housing subsidies. Subsidies should avoid limiting the housing choice of residents.

# Administrative simplicity

Subsidy design should minimize the government's administrative burden. The need for rationing can be reduced by targeting subsidies carefully (thereby reducing "buying out the base"). Incentives should align participants' and private sector partners' behavior with public objectives so as to minimize the need for monitoring and rule enforcement. The cost of subsidy administration is in some instances higher than the subsidy itself, in particular if new organizations have to be set up. Subsidy programs that require a small catalytic function by government, but that are further implemented by private or non-profit firms are often administratively most efficient.

### SUMMARY DISCUSSIONS OF MAJOR TYPES OF SUBSIDIES TO HOUSING FINANCE

We have discussed in general various rationales for subsidies to housing finance, the general parameters in their design, and aspects such as efficiency and equity that are used to evaluate them. The rest of the article looks at seven major categories of such subsidies within the analytical framework we have developed.

### Subsidizing the Interest Rate on Housing Loans: Using Market-Based Funding

**Description:** The state intervenes to reduce directly the interest paid to a private lender from the normal market rate.

Variations: (i) Paying the lender a fixed amount of interest (e.g., 5%) or some proportion of the interest due (e.g., 30% of interest due) or down to some specific rate (e.g., to 10% from 15%). (ii) Providing tax or direct subsidies to the funding used, which flows through to the rates paid (e.g., tax advantages or rate subsidies to bonds used for funding). (iii) Providing the subsidy for the life of the loan, or for some shorter period, or phasing it out over time, either depending on the income of the borrower or just elapsed time.

Rationales: If it is targeted by income, it could be conceived as helping housing finance become more accessible at lower income levels, or helping young families obtain a dwelling. In Central Europe, it has been favored for encouraging new construction and the growth of the market in mortgage bonds. It may also be used to address "temporary" increases in market interest rates (e.g., pay an adjusted amount when rates are higher than some base interest rate).

**Efficiency:** Depends on what the goal is, but generally more efficient than tax subsidies (see below) and less efficient than some alternatives. The major problem is that of "buying out the base," i.e., paying a subsidy to all those who qualify and not just those who would not buy a home without

the subsidy. When the subsidy is derived from direct government payments, it is generally more efficient than from indirect tax benefits.

**Equity:** The subsidy is larger, the larger the loan, and thus generally the higher the income. This regressive effect is often expanded by requiring that homes be newly constructed (and thus more expensive). Equity can be increased through improved targeting.

**Transparency:** Cost and benefit to beneficiary are relatively transparent if general funds are used by the government to make payments to market-based lenders. But true cost is clear only if future outlays are properly budgeted in the current year. Providing the subsidy for a specific number of households each year and budgeting for that by putting the total buydown amount in an escrow account in the bank will help achieve this.

**Implementation:** Relatively low cost, but with some technical complexity due to dealing with private lenders. May involve some compensation to lenders for extra administrative costs or the hiring of some additional administrative officials.

**Other Comments:** Very attractive politically. Very inexpensive initially if the current budget is not charged the full amount of the committed future outlays.

# Subsidizing the Interest Rate on Housing Loans: Using Special Funds

**Description:** The state intervenes to reduce the effective rate paid by the borrower from the normal market rate, by drawing funding from a special public fund at a below-market rate of interest.

Variations: There can be many different genres of funds tapped, including the general social security fund, retrenchment (provident) funds, civil servant retirement funds, or special "housing" funds based on a wage tax. This category also includes offering funding from the general budget at below-market rates.

**Rationales:** Such assistance is seen as providing "workers" better access to housing, and is seen as a "benefit" of participating in the fund if, as is usual, access is limited to the contributors to the fund

Efficiency: These programs are usually distortive in many ways. They hinder the development of market-based funding systems, and often are channeled through state-sponsored lending structures, which undermine the development of private lending and usually weaken the culture of repayment (and have greater default losses). Rarely is proper account taken of the losses being borne by contributors to the fund who do not get loans, or of the increase in wage taxes that discourages formal-sector employment. Subsidies are also so deep that early repayment is sharply discouraged.

**Equity:** Access is often restricted to a range of incomes, but most of the benefits go to the highest income levels within the targeted range. Horizontal equity is also poor, if only a small portion of all "contributors" get the low-rate loans.

**Transparency:** Triply non-transparent. The full future cost of the subsidy is not reflected on any budget, the impact on reduced payouts to fund contributors is not recognized, and the future default losses for state-sponsored lenders are ignored.

**Implementation:** Relatively low cost, but may involve some significant administrative apparatus.

Other Comments: Very attractive politically because most of the cost is hidden, but sets in motion long-term distortions that are very difficult to remove. Usually very expensive in the long run. Potentially useful if sole focus is to catalyze the involvement of the private financial sector.

# Subsidizing the Interest Rate on Housing Loans: Deduction for Mortgage Interest with Respect to Income Taxes

**Description:** The calculation of taxes due on personal incomes is modified by reducing the amount of income subject to tax by the amount of interest paid on a loan used to finance the purchase or expansion of a dwelling occupied by the taxpayer. In the simplest form, the effective interest rate on the loan is reduced by the tax rate (e.g., 30%).

Variations: (i) Deduct not only interest but also principle repayment and real estate taxes. (ii) Permit also on second or additional (holiday) dwellings. (iii) Limit the total amount of interest deductible or the total amount of loan subject to the deduction. (iv) Express as a tax credit (a fixed percent of the interest is offset against taxes due, where the percent may be less than the marginal tax rate). (v) Balance this deduction by a claim for a certain amount of income implicitly derived from living in the house (imputed rent). (vi) Tax exemption of some or all of capital gains on the sale of owner-occupied home.

Rationales: Help middle class attain homeownership, encourage use of mortgage finance system, redress the tax advantage of those with cash enough to finance home purchase (i.e., the implicit services from this asset are not taxed, while other forms of return on investments are).

Efficiency: Depends on what the goal is. If to encourage homeownership, it is usually very inefficient, because it subsidizes almost all owner-occupiers to push a small additional number into ownership. It does encourage diversification of personal portfolios (encourages accumulation of assets other than housing equity), but also requires that marginal tax rates be higher to compensate.

**Equity:** Usually largest subsidies go to highest income households, and none to low income households (either because they owe no income taxes or are renters). But it does redress the advantage of those

with the cash assets to avoid large mortgages.

**Transparency:** Makes the tax system and housing finance system less transparent. For example, in the US, the main role is to flatten the rise in the tax load on the uppermiddle class despite seemingly rising marginal tax rates.

**Implementation:** Relatively low cost, as an add-on to tax administration. Requires additional administration by lenders.

Other Comments: Very attractive politically and very inexpensive initially if few have loans and/or few pay taxes. But lost revenue grows greatly over time and so does difficulty of modifying it. Efficiency can be improved greatly if restricted to tax credit and/or tight limits placed on loan amounts.

### State Support for Housing-Related Savings Schemes

**Description:** Most such schemes are designed after the Bauspar system in Germany (although there is an alternative model operating in France). The saver receives a bonus based on the amount saved in each year, but savings can only be withdrawn after a minimum number of years. The funds are gathered by specialized institutions (Bausparkassen) and invested in low rate housing loans or government debt.

Variations: The French system (Epargne-Logement (E-L)) channels these funds into the commercial banks, where they are used primarily for making housing loans. A completely different and very important variation is to use increased access to subsidies targeted to lower-income ownership as the incentive to save, i.e., link the ownership subsidies (not necessarily tied to a low-rate loan) to the amount and duration of saving.

Rationales: The Bauspar system is claimed to increase savings, indicate the creditworthiness of savers/borrowers, and channel low-rate loans to housing (theoretically as low-rate financing to

complement market-rate financing). The Epargne-Logement system was designed for similar purposes, but with an emphasis on providing a stable pool of funding. More generally, tying savings to subsidies can be used to reward savings behavior and also to distinguish who most wants the subsidy or is best prepared to make good use of it.

**Efficiency:** There is a major problem of "buying out the base." Evidence from the new Bauspar systems in Central Europe is that most of the savings and housing investment would have happened anyway and the net social benefits are quite small. However, the budgetary impact can be very large (>1.0% of state budget).

The linkage between savings and accessing a (deep) ownership subsidy seems to be very efficient in both building up the financial resources of the household before owning and in indicating those who are most otherwise prepared to become owners (especially if a mortgage loan is involved).

**Equity:** The Bauspar and E-L systems are not very targeted by income, since there is a need to achieve a large scale of operation to support these separate institutions. However, there are limits on the subsidized amount of savings. Most of the subsidy goes to middle-income households who have the savings to put into the system.

Requiring savings to access a subsidy can be considered unfair against those least able to save. However, if the subsidy is associated with owning a formal sector house, this link is so beneficial that such equity concerns should be addressed through alternative redistribution schemes.

**Transparency:** By the nature of channeling the subsidy indirectly through the special Bauspar institutions, there is a weak linkage between subsidy and effect. It may even be that savers do not understand how large of a subsidy they are receiving. For both the Bauspar and E-L schemes, it is very difficult to cut back the commitments of future subsidies without causing a crisis of not enough new savers joining the system.

**Implementation:** The Bauspar and E-L schemes are easy to implement, since the private sector is given large incentives to ramp up the number of participants. The net cost of channeling subsidies in this fashion is inherently uncertain.

Other Comments: Once started, political and financial forces (both the Bauspar and E-L systems depend on a constant inflow of new savers) make them almost impossible to curtail, even when there is little evidence of significant positive impacts.

Introducing savings as a factor in allocating ownership related subsidies to lower-income households is generally desirable. Similarly, it may be very useful to directly subsidize the savings of first-time homeowners or low-income households, but only on a targeted basis and within the normal financial system.

### State-sponsored Insurance or Guarantees for Primary Market Risk

**Description:** The state offers to take over from private lenders all or a portion of the credit risk associated with all or a targeted portion of housing loans.

Variations: There are many variations, depending on the nature of the insurance or guarantee offered, the coverage provided, and the attempts to ensure the full funding of potential losses. One of the most important is whether the coverage is only associated with loans that involve small downpayments or are otherwise targeted, or full or partial coverage of all loans. Another parameter is whether the state supports non-profit or private insurers, rather than executes directly. Examples include the Federal Housing Administration (FHA) and Canadian National Housing Administration (NHA) mortgage insurance programs.

Rationales: These schemes can be used to encourage mortgage lending in general in the face of legal, economic, or political uncertainties. They also can be used to encourage private lenders to make larger loans than otherwise, or loans to lower income people than otherwise, or at least at

lower rates. They can also be used to stimulate a private or non-profit default insurance industry to develop (but they tend to block such development).

Efficiency: Such schemes can be a relatively efficient way of encouraging mortgage lending, especially to targeted groups. Key considerations include the degree to which the programs avoid moral hazard in lending (e.g., by regulation or risk-sharing) and utilize proper pricing of the risks.

**Equity:** Such schemes can be targeted by price of house or size of loan, but doing so reduces the diversification of the scheme over housing sub-markets.

Transparency: If the premium charged is reasonably close to "actuarially sound", the "hidden" subsidy involved is not great (only related to catastrophic economic or political risk). Guarantees that are offered by governments without any objective risk assessment are usually very expensive in the long run. Even if the decision is to not charge an appropriate amount, the implicit subsidy can be budgeted, at least for normal default risk.

Implementation: The main difficulty in implementation is to set up the administrative system well to anticipate and moderate the potential for fraud or abuse due to agency risk and for adverse selection in usage.

Other Comments: Potentially worth consideration, especially if there is a social purpose that can be clearly identified and reasonable amounts can be charged for the risks (or the unfunded portion is properly budgeted). However, it is very important not to use such when the underlying problem is that the legal, social, or political environment does not permit management of default risks.

## State-sponsored Insurance or Guarantees for Risk in the Market for Funding

**Description:** States commonly provide insurance against loss of deposits in the

banking system. Similarly, they sometimes provide implicit or explicit guarantees, often on top of primary market coverage of credit risk (i.e., a blanket guarantee), in order to support the development of wholesale funding mechanisms for housing finance.

Variations: Usually support for either a securitization window or liquidity facility. This can take the form of guarantees on timely cash flows (securitization) or against default by lenders who borrow from a liquidity window. The assurances can be explicit or implicit to varying degrees. Examples include timely payment guarantees provided by the Government National Mortgage Association in the US and the Canadian Housing and Mortgage Corporation, the Federal Home Loan Banks in the US (liquidity facility) and Fannie Mae and Freddie Mac in the US (combination conduit and portfolio investors).

Rationales: This step leaves the lenders and mortgage insurers with the primary burden of the credit risk, but protects the investors from catastrophic failures of the housing finance system.

**Efficiency:** Almost certainly, perfect efficiency will not be attained because there will not be the normal pressures of competition to shape behavior nor limit the efforts of management to benefit (in fact, such institutions tend to be monopolies). The stakes can be very high if the bulk of housing finance relies on a guaranteed system.

**Equity:** In some cases, access to this guarantee is limited by size of loan and thus there is some redistributive effect. A required minimum loan size or house-price has the opposite effect.

**Transparency:** The size and nature of this subsidy can be very complex to assess. It depends greatly on the exact nature of the activities being guaranteed and the tools available for supervising use.

**Implementation:** It involves building up the structure and skills of a new institution, as well as careful construction of regulation and supervision to manage any mis-

incentives. Often done as a joint public and private sector effort.

Other Comments: May be something worth considering, especially if underlying model is very low risk. The advantages over alternative, private market arrangements should be clarified fully before attempting use of such an approach. Also, it may be desirable (but usually is hard) to "sunset" any government involvement without leaving an implicit quarantee.

#### Providing a Lump-Sum Grant

**Description:** All of the other subsidies involve an indirect process for helping people obtain housing, most commonly through facilitating their borrowing to do so. The most direct mode of assistance is a grant of cash applied to the down-payment for a loan, loan amount, closing cost or mortgage insurance premium, or serviced land or even a house.

Variations: The lump-sum grant approach applies to all first-time homeowners in Germany. In most other places, such as Chile, Costa Rica and Ecuador, it is restricted to lower or moderate-income first-time owners and new houses. A key variation is whether it is accompanied with (subsidized) finance as well and/or requires significant self-help (savings or sweat equity).

Rationales: It is a direct intervention to increase access to owner-occupied, formal-sector housing. A direct grant allows people who cannot save for a required down-payment to access a loan; it can lower the loan amount for those who cannot afford the repayments for a house; and allows those who do not qualify for a loan to still benefit from a subsidy.

**Efficiency:** When targeted to lower income households, a grant scheme usually involves some restrictions on the location and design of the housing it can be applied to. In addition, there is usually an extensive administrative effort required.

**Equity:** Unless the grant is universal (an entitlement), the scheme will probably force

a detailed discussion of who should get what when. Such discussions, which are usually missing in the formulation of less transparent subsidies, serve to improve the perceived equity of the subsidy size and the allocative mechanism.

**Transparency:** In principle, a cash grant will be almost totally transparent. The value of grants of serviced land will usually not be as transparent but can be calculated.

**Implementation:** Creation of such a program can be administratively complex. But once the parameters are settled and the allocation system is in place, it is relatively low cost.

**Other Comments:** There can be political opposition to providing grants precisely because the costs are transparent and the allocation process is explicit.

#### State Housing Banks

Many countries have felt that the most direct way to impact the housing market is through the state itself going into the business of providing housing finance. In the process, they usually combine several of the individual subsidies mentioned here, such as guarantees of funding and default risk, below-market interest rates, and use of special funds. In theory, a state housing bank can pioneer the business of market-rate lending for housing. In practice, it is usually a convenient (but expensive) shortcut in developing housing finance in a country without establishing proper conditions.

**Variations:** Key variations include having the bank be partially private, some degree of reliance on special funding, and some use of non-market mortgage instruments (e.g., fixed rate or indexed loans).

Efficiency: Management can sometimes be given incentives to operate on commercial principles and maintain reasonable efficiency. If operated as a state agency, the administrative costs will be relatively high and default costs potentially 100%.

**Equity:** In general, the benefits go to the borrowers of the bank in proportion to their loans. However, the bank may be in a position to cross-subsidize from large borrowers to smaller borrowers.

**Transparency:** If there is an explicit or implicit guarantee of the state, the losses can be very high. If there are multiple subsidies involved (e.g., access to special funds, below-market charges for risks of individual loans), it can be very difficult to recognize the total cost.

#### **NOTES**

- <sup>1</sup> Part of this section is based on Hoek-Smit and Grigsby (2002).
- <sup>2</sup> Of course, the society benefits through a healthy political system, but the point here is that any one analyzing or proposing significant subsidies must be aware that such reallocations of resources involve power considerations aside from the sorts of societal benefits discussed here.
- <sup>3</sup> Finance-linked subsidies are targeted mostly (but not necessarily) to first-time owner-occupiers, and may neglect resale markets and rental housing.
- <sup>4</sup> See Sinai and Waldfogel (2002) for an analysis of crowding out effects of public housing in the US.
- <sup>5</sup> To the extent that a housing subsidy does not alter the behavior of consumers or producers, it is merely an income transfer. If the transfer is to the "right people," this may be acceptable, but the social benefits are probably much less and there are more efficient ways of organizing such income transfers.
- <sup>6</sup> See Diamond (2002)

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