The Design and Implementation of Subsidies for Housing Finance

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March 2003

Prepared for the World Bank Seminar on Housing Finance
March 10 -13, 2003

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1. 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 they should be, 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.

Housing institutions and subsidy programs are developed in most countries in response to specific macro-economic or political situations but often remain in place long after the specific conditions they were meant to address ceased to be relevant. Generally, when new problems or frontiers in housing or housing finance require new subsidy approaches, additional programs are added. The housing subsidy and policy scene in many countries is, therefore, a complex tapestry of often contradictory subsidy programs, regulations, and tax measures, bewildering both policy makers and housing experts.

Periodically, however, budgetary constraints, socially uncomfortable inequities in the housing conditions of different population groups[1], and negative effects of subsidy programs on housing sector development put the reform of housing subsidy schemes on the political agenda in both emerging and (post) industrial economies.

This paper intends to provide a framework for the analysis of housing subsidy systems. We examine the rationale 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 paper 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 lengthy report could be prepared on any single one of the subsidies discussed. Our goal is to orient the reader to the main issues involved.

[1] General housing conditions in most developing and emerging economies have improved during the past decades, mostly because of rising incomes and the extension of basic services. However, gross housing inequities remain and will continue to require special policy attention.

2. 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. For example, there might be a general feeling that something should be done to prevent the growth of slums by assisting lower income households to access conventional quality developed housing or at least subsidizing access to serviced plots. The pressure could even be broader, such as a societal preference for favoring the self-ownership of housing over renting from others or for the provision of rental housing by the non-market (public and NGO) sector rather than market-driven landlords. Against a backdrop of major housing problems in most emerging economies, these political pressures often lead to subsidy programs that have been 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 goals and rationales for these goals, and only then move on to develop implementation 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. This section considers a variety of possible motivations for housing subsidies and their implication for program design. Of course, these will differ for each country depending on the many factors shaping national housing policy.

We distinguish several reasons for subsidy intervention in the housing sector.[2]

(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.

While it is clarifying to discuss different objectives separately, 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. Equally, programs to improve fairness and justice may address major housing market failures. However, it is less likely that programs focused on public health will serve to expand markets.

[2] Some of these issues are based on Marja Hoek-Smit and William Grigsby, Wharton IHFP lecture notes.

In addition, there will be subsets of objectives. 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.[3] Evidence of this is as close at hand as the observation above 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.

Improve Public Health

In most countries, the foremost reason to subsidize housing is (or was initially) to make sure that housing 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 home-ownership 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 micro-finance lending to reach public health goals.

[3] 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.

Improve 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 better transport to job-opportunities, better infrastructure to 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 Housing Agencies and special housing funds, provide housing to 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 destabilization 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 riots.
This set of objectives does not provide designers of subsidies with clear guidelines as to the type of house or service that should be subsidized. Should the focus be on increasing choice between rental and owning, between different locations and neighborhoods? What should be the type and quality of house that would be seen as just? In many societies a serviced plot or core-house would be considered inadequate. But should it be a two-bedroom house? In poor countries, public health and justice and fairness objectives will produce very similar type of programs, but in countries with a growing lower-middle class the two reasons for subsidization will result in different approaches. Once there is no public health objective to guide subsidy levels, the quality of housing to be supported with a subsidy becomes somewhat arbitrary. Equally, questions such as who should benefit from such programs and whether every qualifying underserved household should get a subsidy are less easily answered. In practice, programs focused on redistribution of income or wealth to certain population groups (through large-scale workers tax funds for housing, or the construction of "Housing Authority") often increase inequality in society, since only relatively few contributors benefit and mostly those with higher incomes.

In general, programs designed to alleviate fears of *political destabilization* are more often than not focused on *owner-occupied housing and stabilizing neighborhoods* rather than on providing rental housing. Home-ownership gives households a stake in their community and studies have shown that home-ownership has a stabilizing influence on households, other things being equal. 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. Mortgage interest tax deduction programs are often used specifically as a tool to expand homeownership. However, most studies conclude that the tax subsidy has only a marginal impact on tenure choice overall because it is too poorly targeted to achieve its homeownership objective economically (Bourassa and Grigsby, 1999).

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 opeartionalize it.

In many lower-income countries, the great majority of newly formed households cannot afford the lowest priced house in the formal sector housing market. This is particularly problematic in developing economies where urban growth is predominantly driven by in-migration by rural households. Moreover, the proportion of households that can afford newly constructed housing in most emerging and developing economies is relatively small (recent calculations show that this figure is around the 70^{th} percentile of the income distribution in countries like Brazil, Mexico and Indonesia). 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 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 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 because of 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 and the market cannot carry higher rates to compensate for those risks, nor has the market developed 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? Is credit risk high because of collateral problems related to inadequate property rights or neighborhood risk?

- *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 inclarity 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. Some examples will illustrate this point:

If low incomes are considered the main constraint in the market for low-cost housing, *income supplements or producer tax benefits* for housing may be considered, either directly or linked to the housing finance system (e.g., up-front grants linked to a loan, rental vouchers, eliminating VAT for low-income housing; *but* general mortgage tax deductions have proven to be least effective and inefficient).

If poor access to, or high cost of, housing finance is the main bottleneck, relevant policy or regulatory changes (e.g., assisting with the establishment of credit bureaus, improving the reliability and speed of foreclosure procedures, support in the establishment of a liquidity window) and/or *finance-linked subsidies* (e.g., interest subsidies, savings subsidies, default insurance, up-front grants to pay for down-payment or to reduce the loan amount) may be considered.

However, if the high cost of finance is related to *monopolies or other major inefficiencies in the housing finance marketplace* (e.g., when government housing tax funds or housing banks prevent a competitive housing finance industry from developing), subsidies will merely end up paying for these inefficiencies. In such cases fundamental policy or industry changes will be needed before subsidies can be implemented effectively. We come back to that issue below.

Subsidies that focus on the extension of markets generally only impact house-types and households at the margin of being served under the existing conditions. Because of this, in most countries, this type of program is *unlikely to serve very poor households,* but rather households between the 65th percentile of the income distribution and the median income. Interventions that serve poorer households are more likely to be based on the public health or societal value rationales noted above.

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.

3. Subsidies and Opportunity Costs

Subsidies are often perceived as the 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)[4]

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.

For example, *the opportunity cost for a lender in making down-market loans* as part of a subsidy program is both the yield he or she foregoes by not making up-market loans (or other investments) and a measure of the potentially greater *uncertainty of future profits* by investing in a market segment that may carry unknown risk. If the government wants to provide incentives to lenders to make housing loans to a class of customers they did not lend to before, it can do so by lowering the cost, or by decreasing future uncertainty or both.

Similarly, if government wants to stimulate low-income home-ownership through subsidies, it needs to understand *the opportunity cost and risks factors that consumers take into account* in the decision to own. For current renters, the opportunity cost of home-ownership includes the yield they could receive on their assets if invested in their home. But, in addition, the potential home-owner will worry about uncertainties in meeting future mortgage payments and movements in value of the house that cannot be anticipated in the normal cost scenarios based on past trends in property value appreciation and interest-rate movements. For example, the future value of his house may depend on uncertain enforcement of codes and service delivery in the neighborhood, i.e., housing and neighborhood risks.

Subsidy programs should, therefore, take into account both the effects on cost and future uncertainty of an incentive package to lenders, developers or consumers. Some of the incentives can best be provided through cash or fiscal subsidies and some are better taken care of by policy or regulatory inputs (see below).

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

[4] One of the distinctions implied by this definition is between redistribution of resources for its own sake (not a "subsidy" under this definition) and the use of state resources to influence or alter behavior, which may involve redistribution of income as well.

related to give up its option to use the land more efficiently in the future. There are more subtle costs as well, which have to do with the impact of allocating land in such a manner on the efficiency of land and housing markets.

Government's costs for housing finance-linked subsidies are often "hidden" and highly uncertain. An extreme case of this is where loans are made by public lending institutions 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 servicing agents). 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.

These different examples already illustrate the point that subsidy incentives can be applied to a wide array of opportunity costs related to housing consumption or production, including the uncertainty of future risks for which markets have not yet developed. However calculated, the realistic assessment of the opportunity costs to government of providing housing subsidies needs to be considered in relation to the objectives the government has in mind to judge the overall efficiency of a subsidy. We come back to these issues below.

Regulations, Policies or Subsidies?

Subsidy should be a policy of last resort or, more precisely, should be used only in conjunction with other 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 well-defined 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.

4. General Types 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 on the use of different types of subsidies to address specific housing sector objectives. Here, we will provide a rationale as to why certain types of subsidy would suite some situations better than others.

Demand-Side or Supply-Side Subsidies

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 non-profit lenders or developers to deliver low/moderate income housing, and

(ii) Direct government lending (or other tasks related to mortgage finance) or government construction and management of subsidized housing.

Some examples of supply-side subsidies are tax benefits for non-profit or private developers, the provision of below-market funds for housing loans, credit risk insurance or guarantee schemes, or the provision of serviced land, infrastructure or housing.

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. For example, even if there is a high demand for new moderate-income housing and the construction sector is prepared to deliver affordable housing, mortgage lenders may lack access to funding or consider low/moderate income mortgages unprofitable or too risky.

A supply-side subsidy targeted to lenders to incentivize or help them to make moderate income loans may be needed. In some instances government may enter as a lender or funding agency of last resort (but see below).

The major downside of supply-side subsidies is that they distort markets, in particular when government takes on functions that could be done more efficiently by the private sector. Governments are particularly inefficient in delivering or managing housing credit directly and prevent private sector expansion of the housing finance system, because the hidden subsidies government lenders or funding systems receive are generally high and competitors will not enter the market. For those 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. For example many Northern European and Latin American countries have moved to a demand-side subsidy approach.

However, even in economies without major market or policy failures, housing and housing finance markets are often incomplete. Demand-side subsidies may, therefore, not stimulate supply of certain types of houses or certain types of credit. Often, demand subsidies can only be effective in combination with measures to lower the investment uncertainties for consumers or producers either through supply subsidies or regulatory/institutional inputs, e.g., lower neighborhood risk, loan guarantees, etcetera.

For example, a program may provide incentives to the private sector to increase lending for housing and move down-market, and to middle- and lower- income households to borrow to buy housing, for example though government insurance. However, the success of such subsidies hinges on other housing market factors. When financial subsidies stimulate demand for housing and the supply of housing is not elastic (i.e., will not be able to expand with increased demand), the effect of such subsidies will be dissipated or offset by a negative impact on the price of housing, at least in the targeted sector, and make also housing less affordable to those not receiving the subsidies. Also, the effect of subsidizing the supply of mortgage finance will only result in an equal subsidy being received by the borrower if the mortgage market is sufficiently competitive and efficient. It is, therefore, important to consider the wider market context when introducing any kind of subsidy.

Location-Specific or Household-Specific Subsidies
Another choice policymakers have to make is whether to concentrate subsidies in specific locations or provide subsidies to specific individual households. Again, the decision has much to do with the specific 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.

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.[5]
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The *drawback* of location specific subsidies is that the subsidies tend to be capitalized into real estate values and taxes, and will in the longer term be less efficient from an equity perspective. Other possible *advantages* of location-based subsidies are that they can positively impact “collateral” values and encourage investment in a particular area. Location-based subsidies can also leverage community inputs, which individual subsidies cannot do.

Entitlements or Rationed/Allocated Subsidies

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, but even then there may be philosophical reasons not to do so. For example, the US government has not been in favor of providing housing voucher subsidies as an entitlement, while many Northern European countries have a traditional affinity towards entitlement housing voucher programs as a way to redistribute income. 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 neediest? 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?

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.

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[5] Both an entitlement voucher program and a scatter-site supply-type program are however, often unfeasible in an emerging economy context. Vouchers are only effective when markets work well (and where most housing exceeds societal minimums), which is not the case in most emerging markets. Scatter-site programs cannot work to any scale when the number of households in low-income neighborhoods outnumbers by far those in higher-income neighborhoods and mixing of low-income households into higher income neighborhoods is thus a moot point.

The issue of targeting and rationing becomes even more difficult when there are two or more objectives being served by the same subsidy program. The goal may be to boost both social fairness and economic growth, but the latter may require that subsidies be focused on relatively higher income households who can afford a newly constructed house.

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 reason 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. Indeed, the middle class in many countries perceives these as resolving specific blockages on the path to acquiring better housing.

(iii) Housing finance-linked subsidies are generally easy to administer and implement.

Housing finance subsidies are therefore one of the most preferred types of subsidy programs across the world.

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 be suitable 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*.[6]

Such programs exclude underserved households with low or unstable incomes, collateral problems and /or other cultural / educational characteristics that make it difficult to access formal finance and housing and can therefore negatively effect the income distribution of a country. Other types of subsidies such as upgrading, rental support, site-and-services projects are more appropriate for this segment of the population. Alternative finance-linked programs can be developed for this group as a complement to

[6] Finance-linked subsidies are targeted mostly (but not necessarily) to first-time *owner-occupiers*, and may neglect resale markets and rental housing.

other supply-side inputs. These programs will be non-mortgage based and will often require NGO and government support.

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 these efficiency, equity and market distortionary features of housing finance linked subsidies in section 5 and 6.

The uncertain cost and distorting impacts of financial-sector subsidies makes more and more countries reform their systems and design subsidies, including subsidies linked to housing finance, 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, upfront and short-term government involvement). Many Latin American countries have transformed their housing finance subsidies in this way, as well as South Africa. Yet, the other limitations related to housing finance-linked subsidies are often not satisfactorily resolved.

5. 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 will 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, which we will discuss in turn.

- *First, an analysis has to be made of the effective cost of the subsidy,* and whether the cost is unnecessarily high to reach the intended results. 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 at a lower cost than government. For example, if government provides subsidized loans, the cost recovery is often extremely low compared to having the private sector do the lending, at least when it carries the risk on the loans.[7] These higher opportunity costs will make the subsidy less efficient and fewer households will be able to receive a loan (see Section 3. above).

- *Second, there are 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) that need to be assessed in relation to the cost. This is a complex measurement and political issue for most national subsidy programs. In many emerging economies, housing finance related subsidy programs are often the most costly and least effective in reaching their objectives, e.g., special tax funds or state banks that provide subsidized loans, income tax deductions of mortgage payments. These are also the least transparent and because their real costs do not show up on the budget, a serious assessment of costs versus benefits, both to the individual and to society, is often avoided. In general, the most allocatively efficient subsidies in emerging economies are the more "basic needs" oriented and transparent subsidies, particularly when combined with a savings program; they have the lowest cost per

[7] When the private sector is just administering the loan program the outcomes may not be much better than for government lenders, since they are not exposed to any risk themselves.

household (when implemented efficiently) and, have high individual and social benefits (e.g., slum improvement and legalization projects, with infill new housing).

- *Third, an assessment must be made of the degree to which the program replaces investments 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 benefit. This problem is called *"buying out the base"* or the fungibility of funds and its scale mostly depends on poor subsidy design and management.[8]. "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.

- *Fourth, a further assessment should be made of the benefits to understand whether there may be some 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 we would express it in a cash amount. For example, publicly provided housing for low income beneficiaries (both owner-occupied and rental housing) often results in housing that is valued by the beneficiary at a price well below what the government paid to produce the house.

  In many instances, the actual "market" value at the time the house is delivered is well below the cost of producing the house (often related to neighborhood quality and risk factors). Examples abound of low-income housing developed in "affordable" locations, far away from employment and social services and without adequate infrastructure, only to be abandoned by the original beneficiaries or sold for a fraction of its replacement cost (Egypt, Chile, Mexico, South Africa, the Philippines).

  For some types of projects a discrepancy between public cost and beneficiary value may not be bad *per se*, for example when public health benefits of a sanitation program are important to pursue whether government cost are valued rightly by the beneficiary or not. In any case, a clear-eyed calculation of benefits would separate out the true benefits from the perspective of the recipient and the additional benefits from the perspective of the society.

[8] 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.

By factoring in this gap, policymakers are more likely to lean towards subsidy programs that maximize *individual choice* as much as feasible both in the design and implementation of subsidy programs. Research has shown that giving consumers an allowance or grant to find better ownership or rental housing, will, all else equal, translate into a larger part of the subsidy being applied by the consumer to improve 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. One of the key ways of maximizing horizontal equity is to be able to make a subsidy an entitlement or, at least, to assist as many eligible households as possible. 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.

  Subsidies are often designed with rigid income or house-price brackets and cut off points. Households with incomes just above the cut-off point qualify for a much smaller subsidy than the person just below the cut-off. This can lead to an inequitable subsidy structure. Moreover, it creates a phenomenon known as the *"cliff effect"* -- in order to benefit from a higher subsidy amount, a disproportional number of households declare incomes or house prices just below each cut-off point. 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 home-ownership and a formal mortgage loan, which in most developing nations and developing countries is often not more than fifty percent of households. This neglects most housing problems for households below the median income. Trickle down of benefits or filtering up of households through the housing stock cannot happen because of the mismatch between house price and incomes (see section 3.). These types of programs can *escalate the inequalities* in societies.

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 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, e.g., cost of non-payment of government/special fund loans and the liability this poses for the actuarial soundness of these funds; different risk scenarios including catastrophic or systemic risk for government guarantee programs. The US has introduced such a system, but it is very rare in developing and emerging economies. Many governments simply lack the capacity to do the fiscal management of future liabilities of longer-term financial subsidies. This would argue in favor of the use of upfront, simple subsidies that can be shown on the yearly budget, but with multiple year allocations. However, there is a preference by the political process for hiding the true costs of subsidies. This makes them much more difficult to reform or eliminate.

The other component of transparency refers to the selection of beneficiaries, which should be done according to objective and published criteria, and be made public. 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 (with the exception of programs that are so poorly designed that they do not have any effect on the behavior of consumers or producers). 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/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.

Housing subsidy programs can have a strong effect on the type of house that is produced, on house prices and house quality. The effects of government constructed social housing on housing markets, such as crowding out of privately produced housing in all but the lowest market segments, the negative effect on area house prices, have been well documented. Equally, programs designed as incentives for private developers to construct low/moderate income housing can have a profound impact on market outcomes. When programs specify the house-price brackets and type of housing that qualifies for a subsidy program, the market will respond and will be flooded with houses of the maximum allowable price. This price is often higher than it should be because the subsidy is partly capitalized in the price of the house and the benefits accrue more to the builder than the beneficiary. Another frequent problem with this type of incentive system is that the price is set too low and developers can only make a profit on the program if they select low-cost land to build on, which often means land in far away locations and without proper infrastructure. The end result is a dysfunctional urban system, with high density housing developments on the outskirts, devaluing the benefits to the low-income households through both high transportation costs and long commuting time. Not surprisingly, the vacancy rate in these units is often high (Egypt, Indonesia, Chile, India, Mexico, South Africa).

Equally, finance-linked subsidy programs have a strong impact on the type of housing finance system that will develop in a country. We already discussed the major distorting effects of special housing tax funds and national housing banks on the participation and down-ward expansion of the private housing finance systems. In the next sections of the paper, we will discuss the main types of housing finance subsidies and their effect on housing and housing finance markets.

The Experimental Housing Allowance Project in the US, showed that a demand-type subsidy to individual households would distort markets less and that a higher proportion of the subsidy actually ended up to improve the housing consumption of the beneficiary. Upfront subsidies are also more transparent. For that reason, several countries are moving towards a demand oriented subsidy system. However, as we discussed above, demand type subsidies can only work if housing and housing finance markets are reasonably efficient. Regulatory and institutional reform has to precede the introduction of demand subsidies. In many countries with a small relatively fixed supply of formal moderate income housing, the demand-type upfront subsidy programs end up working as a supply-side subsidy to developers and lenders, experiencing the same type of problems as supply-side subsidies describe above (Indonesia, South Africa, Mexico).

Effect 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 should be reduced by targeting subsidies carefully. 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.

6. Summary Discussions of Major Types Of Subsidies To Housing Finance

Throughout the paper we have discussed different types of housing finance subsidies and their positive and negative features. The critical role of finance to improve housing affordability and its indispensability in the housing production process makes finance a major focus of housing policy and subsidies. We have emphasized the often high hidden economic costs of many finance-linked subsidy approaches, in particular the restrictions they impose on the efficiency of housing finance systems, and the fact that they are not applicable to low-income groups and often have a negative redistributional impact. It is, therefore, important to spend some time clarifying objectives and principles of finance-linked housing subsidies, and analyzing the pros and cons of different finance-linked subsidies.

The main categories of finance-linked subsidies are:

i. Subsidizing the interest rate on housing loans using market-based funding
ii. Subsidizing the interest rate on housing loans using special funds
iii. Subsidizing the interest rate on housing loans using deductions or credits for mortgage interest with respect to income taxes
iv. State support for housing-related savings schemes
v. State-sponsored insurance or guarantees: loan default risk
vi. State-sponsored insurance or guarantees: system default risk
vii. Providing a lump-sum grant
viii. State housing banks

We discuss each of these subsidy categories briefly below.

I. 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: (1) 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., 10%). (2) 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).

The reduction in rate (buy down) can be for the life of the loan, or for some shorter period, or phase out over time, either depending on the income of the borrower or just elapsed time. If a fixed rate mortgage is used, the total buy-down amount can be deposited in an escrow account in the bank to simplify multi-year accounting issues. There can also be recovery of the subsidy under some circumstances. It may also be applicable to only certain types of housing, such as new houses, or certain types of households, such a first-time buyers.

A common variation is to use low-rate funding drawn from a special fund, i.e., non-market-based funding. Doing so raises different issues, which are examined under the next subsidy type.

Another common variation is to grant tax advantages to mortgage interest that indirectly reduce the effective rate. That is also considered separately below.

Rationales: Such assistance may be targeted by income, although usually less than it appears to be. Thus it is 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 anyway. This renders most such programs very expensive relative to the true impact achieved. It also depends on whether the subsidy is derived from direct payments or indirectly through tax benefits (less efficient).

Another significant concern is that the financial and mortgage markets be fairly competitive. If they are not, a portion of the subsidy may be captured by any dominant mortgage lender. In this case, the subsidy may also push up the price of all mortgage credit, because of the increased demand for credit.

In addition, if the program is tied to specific target income groups and house-types, and the cost of the house is limited, some of the benefit can be lost through use of poor locations chosen to meet these constraints.

Equity: The subsidy is larger, the larger the loan, and thus generally the higher the income. This regressive effect can be muted by targeting or expanded by requiring that homes be newly constructed (and thus more expensive). However, such subsidies are inherently distortive and inequitable, in the sense that the subsidy encourages borrowing more than the minimum needed and cuts the reward to accumulating prior savings, and may also, if the subsidy is deep enough, sharply discourage early repayment of the loan.

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 buy-down 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.

Examples: Czech Republic (tax-free mortgage bonds; direct rate reductions for loans on new housing), Hungary (subsidized rates on mortgage bonds; direct rate reductions for first-time buyers of new houses), United States (tax-free bonds for first-time buyers, with potential recovery).

Worst Case: Hungary subsidizes the cost of funding raised through mortgage bonds by 10%, thereby making the net cost of such funding less than 0.0%. The future outlays are not reflected in the current year budget.

Best Case: Jordan allocates a limited number of interest rate subsidies each year (a fixed percent reduction), based on future income from a one-off "housing trust fund" and with future outlays fully budgeted.

II. 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 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 usual, access is limited to the contributors to the fund.

Efficiency: Such programs are usually distortive in many ways. They undermine 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 result in weakened culture of repayment (and greater losses from default). Rarely is proper account taken of the losses being borne by contributors to the fund who do not draw on it, or of the increase in wage taxes that discourages formal-sector employment. Subsidies are also so deep that early repayment is sharply discouraged.

As is the case with the previous subsidy, these subsidies are often tied to specific income groups and house-types, which combined, will only allow subsidized houses to be developed in poor locations.

Equity: Access is often restricted to a range of incomes, but most of the benefits go to the highest income levels within this range. On the other hand, if the special fund is supposed to provide benefits (at retirement or retrenchment) to its contributors, and the subsidization reduces those benefits, and mostly only the higher income members of the funds get the benefits, such subsidy schemes are doubly regressive, allocating more housing subsidies to higher income households, and paying for it through lower benefits to lower income contributors.

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. In other words, it appears almost costless, while being much more costly than a direct subsidy through private lenders.

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

Other Comments: Very attractive politically because most of 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.

Examples: Brazil (provident fund), Indonesia (below-market-rate government loans to lenders), Mexico (special housing fund), Philippines (pension funds)

Worst Cases: All of the examples noted above. They suffer from all or most of the weaknesses of such a subsidy.

Good Cases: None.

III. Subsidizing the Interest Rate on Housing Loans: Deduction or Credit 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 then taxpayer. In the simplest form, the effective interest rate on the loan is reduced by the tax rate (e.g., 30%).

Variations: (1) Deduct not only interest but also principle repayment and real estate taxes. (2) Permit also on second or additional (holiday) dwellings. (3) Limit the total amount of interest deductible or the total amount of loan subject to the deduction. (4) 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). (5) Balance this deduction by a claim for a certain amount of income implicitly derived from living in the house (imputed rent). (6) 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 (rather than concentrate on assets in 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 upper-middle 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, sometimes viewed as a compensation for accepting high tax rates. 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.

Examples: Many European countries, United States

Worst Case: In the United States, the mortgage interest deduction is almost unlimited, gives the biggest subsidy to the richest, is effectively applicable to most consumer loans as well (if collateralized by the home) and costs over 3% of the total budget. Political discourse claims great effects on homeownership, despite very small savings going to moderate income households contemplating renting or buying (studies show that there is only a marginal effect on the increase in homeownership (Bourassa and Grigsby, 1999)).
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Best Case: Britain stands out as an example of where it was gradually restricted and finally eliminated.

IV. 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 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 potentially important variation in both schemes is whether it is required that the savings be used for housing in order to qualify for the subsidy.

A 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. Tying savings to other 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 other social benefits are also small (e.g., the program is not used to indicate creditworthiness, the impact of the low rate on amount that can be borrowed is cancelled out by the shortness of the term of the low-rate loan). Moreover the budgetary impact can be very large (>1.0% of state budget).

The goal of the French E-L program to provide a stable funding source could be met much more efficiently today through the capital markets. In addition, the special access of commercial banks to this program probably distorts the mainstream housing finance market.

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 is 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: The Bauspar schemes are very attractive politically, because most of the middle class is being promised a large bonus on their savings (whether additional or not), and the Bauspar proponents (the would-be operators of these for-profit institutions) usually claim that boosts in housing activity will make up for the budgetary costs. 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, despite lack of 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.

Examples: Czech Republic, Germany, Hungary, Slovakia (all have Bauspar systems); France (Epargne-Logement); Chile, South Africa (tie other subsidies to savings)

Worst Case: The Czech Republic has allowed the Bauspar system to grow uncritically and pointlessly, due to political popularity. Almost half of all Czech citizens have an account, but there are minimal benefits to housing. (However, Germany operates their Bauspar scheme with limited subsidy and primarily to complement conventional mortgage finance.)

Best Cases: Poland actually reversed a hasty decision to adopt a Bauspar system. Chile rewards consistent savings in market-rate accounts with accelerated access to a large lump-sum subsidy. South Africa and Mexico are starting to tie the allocation of subsidies to savings.

V. State-sponsored Insurance or Guarantees: 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. It can do so through a guarantee of a borrower's obligation to private lenders or through insurance, where the government insures a loan against default.

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 full or partial coverage of all loans. Another parameter is whether the state supports non-profit or private insurers, rather than execute directly.

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 the programs avoid moral hazard in lending (e.g., by regulation or risk-sharing) and utilize proper pricing of the risks. BUT programs can be highly damaging if they deter the resolution of economic and political issues that are elevating default 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. If the premium charged is reasonably close to "actuarially sound", the subsidy involved is not great (only related to catastrophic economic or political risk).

Transparency: 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. But the risk of widespread losses due to systemic issues is more difficult to assess.

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 charged for the risks (or the unfunded portion is properly budgeted). But an alternative to meet some policy goals is for the government to pay for privately provided insurance or to support with a lump-sum the establishment of a private insurer. In any case, 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.

Examples: Canada, Lithuania (offered for high LTV loans), Philippines (tied to regulatory advantages), South Africa (only limited government exposure), United States (full coverage on lower-cost housing, military veterans)

Bad Cases: The system in the Philippines is not nearly actuarially sound. Brazil is still paying for a program shut down over 10 years ago.

Good Cases: South Africa gave a lump sum subsidy to set up a mortgage insurance scheme, and then successfully withdrew all suggestion of government guarantee and also secured reinsurance for commercial risks. Lithuania has also developed its mortgage insurance scheme thoughtfully.

VI. State-sponsored Insurance or Guarantees: Funding Market Risk

Description: States commonly provide insurance against loss of deposits in the banking system. Similarly, they sometimes provide implicit or explicit guarantees, usually 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 securitization windows or liquidity facilities. 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.

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. This can facilitate funding systems that are lower cost or otherwise advantageous (e.g., channeling fund across regions in an economically diverse country), which can be a valuable advantage to the system as a whole at a relatively small cost.

Efficiency: The principal issue here is whether the management of the guaranteed enterprise is able to abuse this advantage for their or their shareholders' benefit or to not do their business as well as possible. 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. In general, and certainly initially, the guarantees apply to high quality loan portfolios and will benefit mostly the least risky and relatively large loans. In the case of the US, there have been efforts to squeeze some of the excess profits out of the shareholders and towards lower-income homebuyers.

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. The usual approach is to not make the guarantee explicit, which makes the situation less clear but also creates some desirable incentives for management

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 feasible (but usually is hard) to "sunset" any government involvement without leaving an implicit guarantee.

Examples: United States (Fannie Mae, Freddie Mac, Ginnie Mae, Federal Home Loan Banks), France (in the past), Hong Kong, Jordan, Korea, Malaysia

Good but Worrisome Case: Fannie Mae (US) has a history of helping develop more efficient techniques of channeling funds into fixed rate mortgages, but also has a history of using its implicit government guarantee (and near-monopoly status) to increase its profits. In this regard, it has recently moved away from primarily acting as a securitizing conduit and instead is acting as a mortgage bank, holding loans in portfolio and funding them through bond issuance, with sophisticated hedging of retained risks.

Better Case: The Federal Home Loan Banks provide a model of a liquidity facility that is inherently low risk, high reward. This model has been successfully emulated in Malaysia and Jordan.

VII. 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 or serviced land or even a house. In theory, such an approach can be very efficient and can encompass most of the other subsidy approaches. In practice, the situation is much more complex.

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).

Examples: Chile (only new housing), Germany, South Africa (usually gift of a new house), Venezuela (usually gift of site and core house).

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, and allows those who do not qualify for a loan to still benefit from a subsidy. It can be more clearly designed to pay for the down-payment and closing cost or lower the loan amount. In either case, the costs are transparent.

Efficiency: When applied to lower income households, a grant scheme usually involves some restrictions on the location and design of the housing it can be applied to. These restrictions introduce a gap between the value to the beneficiary of the subsidy and the cost of the subsidy. 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. In addition, most upfront grant schemes decrease the subsidy amount steadily as income is higher (in contrast to most interest rate subsidies).

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 allocation system 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.

Good Cases: Chile pioneered such grants for low-income household, but restricted them to only new houses and required complementary finance, which it provided through state entities at income levels where private lenders did not participate. Costa Rica has a similar scheme, but focuses it on community-based housing developments through NGOs. South Africa did so on a massive scale, but relied on “free” land and infrastructure and “first-come, first-served.”

Best Case: Germany offers all first-time owners an efficient form of subsidy, but it does not address redistribution (equity) issues.

VIII. State Housing Banks

Description: Many states have felt that the most direct way to impact the housing market is through the state going into the business of providing housing finance. In the process, they usually combine several of the individual subsidies mentioned above, such a guarantees of funding and default risk, below-market interest rates, and use of special funds.

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

Examples: Most of Africa (mostly now defunct), Brazil, Indonesia, Jordan (now privatized), Thailand

Rationales: In theory, a state housing bank can pioneer the business of market-rate lending for housing. In practice, it is usually a convenient shortcut in developing housing finance in a country without establishing proper conditions.

Efficiency: Management can sometimes be given incentives to operate on commercial principles and maintain reasonable efficiency. If operated as a state agency, administrative costs will be relatively high and default costs potentially unlimited. In all cases, the most important question is what are the social benefits, especially relative to the alternative of properly developing the private market in housing finance.

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. If default losses are high for political reasons (lack of political will to enforce collection), the benefits may be skewed towards those who choose to default.

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. Additional social costs associated with deterring the development of market-based housing finance can also be large.

Implementation: Relatively simple, which is a major attraction.

Other Comments: With a few possible exceptions, state housing banks have been deleterious to the state budget and/or the development of market-based housing finance.

Worst Case: Almost all.

Not So Bad Cases: Thailand used its Housing Bank to inspire the private lenders to get into the low/moderate income lending business. Jordan kept its bank operating on commercial principles.

7. A Road Map

This report has tried to cover very briefly a very large topic, yet include all the most important conceptual principles as well as pragmatic experiences. In the process, the reader has not been left with a pithy set of guidelines on how to proceed in their country.

This is partly because our experience has led us to believe that conditions specific to the social, political and financial situation in each country are very important in formulating appropriate and feasible subsidy policy. But we understand that some readers would appreciate some specific suggestive instructions that may be helpful in avoiding the worst outcomes and instructive of how to find the best. This last section tries to offer such guidance.

General Process. The review of the major types of housing finance subsidies makes it clear that efficient, effective, and transparent subsidy schemes are quite rare. Why is this the case, especially in countries with substantial resources devoted to housing policy formulation?

The short answer is that, in many cases, the subsidy policy is driven by short-term political processes rather than an explicit policy formulation process. As noted in Section 2, the goal of "housing policy" is often primarily to gain political approbation, and not to solve the supposed "housing problem". Political approbation and really solving problems are not necessarily completely different things, but neither are they the same thing. The most common result is subsidy policies that are very popular politically but often without much net effect, at least relative to their true cost. This problem afflicts housing policies in the most sophisticated economies and governments as well as the least so.[9]

However, there are cases where governments have embarked on a systematic analysis of the issues, failed solutions, and potential new solutions, and eventually followed the implications of such work.[10] We recommend such an approach.

Phase 1: Determine the Housing Issues or Goals. As we have emphasized many times, the design of effective and efficient subsidies must start with choosing a goal or rationale. This is really the most difficult part. The political discourse that leads to adopting subsidy schemes is usually relatively imprecise and inarticulate. Often it requires a

[9] Of course, this problem is not only present in housing policy. Nor is it necessarily due to lack of good faith. There is often a large gap between political perceptions (by the electorate and the elected) and analytical reality. But it may also be due to catering to ancillary agendas of various interest groups.

[10] Three that are prominent are Chile (lump-sum grant or core house), South Africa (a comprehensive upfront subsidy program, including ownership and rental options), Germany (one-time cash assistance for homeownership), and the United States (rental housing allowances). However, these same countries pursue other subsidy policies that can not be so recommended, and the implementation of intended programs proved more difficult than anticipated. Others that have just embarked on this path are Mexico and Indonesia (with World Bank assistance), and Lithuania has just completed a systematic analysis of issues and policies with the assistance of a grant from the World Bank

special commission (like the ones established in Lithuania or Mexico recently) or high-level task force, with technical staff, to channel the discourse into useable goals.[11]

At the beginning, the general feeling may simply be housing is "unaffordable." The use of this term is almost guaranteed to keep the policy discussion too murky. Usually it means that the consumption of housing, based on market forces, for all or some subset of citizens, is below some desired level. This could be because (i) prices of dwellings are "too high," (ii) the cost of financing is "too high", or (iii) incomes of some are too low and redistribution is desired in the specific form of housing. The analysis has to provide a clear understanding of the reasons for house-prices or housing finance being "too high".

This process is often iterative. It may start with the identification of general issues (e.g., poor quality housing), proceed to identify steps that will help in that regard (improve access to credit), then consider what sort of subsidy would best improve access to credit. The more refined the specification of the goal, the more closely linked can the subsidy (or other solution) be to the problem.

Phase 2: Regulatory or Policy Reform Instead of Subsidy? Once the reasons for the constraints in the housing system are understood, the analysis should address the question of which constraints can be corrected without a housing subsidy (e.g., excessive costs of obtaining developable land or permits, market or legal imperfections causing excessive spreads on loans), and which constraints are to be solved at the macro-economic level (high inflation causing high interest rates, major institutional distortions of special funds causing inequities and limited market extension). Such approaches should be considered prior to pursuing subsidies.

Once a realistic assessment has been made of which problems can and which cannot be solved by regulatory and policy change and in which time-frame, a realistic set of goals and specific objectives can be developed for subsidy programs. In other words, it is time to iterate back towards identifying as specifically as possible what the goal of any subsidy program would be.

Phase 3: Which Subsidy? After establishing the need for a subsidy and what its goals are, one can jump to the relevant sub-set of subsidy options below.

> **Option 1: Concern About Low-Income Housing Conditions?** If the rationale for subsidies is that consumption of some minimum amount of housing is desirable for public health reasons, or that boosting consumption at lower income levels helps alleviate certain social problems, then the goal is to promote housing consumption among lower-income households. One of the most straightforward ways of the latter approach is to subsidize housing expenditures by lower-income

[11] It is usually found that there are multiple goals, and the resulting policy addresses all of these poorly. For example, in order to encourage new construction, improve low-income housing outcomes, and encourage home ownership, a scheme may provide deep subsidies to relatively few lower income households who then may not even be able to maintain their home. It would be better to address each of these separately or to give clear priority to one or two goals, but both of these steps may be very difficult politically.

households, e.g., provide a subsidy that pays to the household a portion of the cost of renting or owning an acceptable unit (upfront subsidy that can be applied to buying an existing or simple core house or improve an existing house, a "housing allowance" for ownership or rental housing; this sort of subsidy does not fall under the housing finance subsidies considered here). However, such an approach may involve a number of significant implementation difficulties and requires markets to work for the low-income segment, which is not the case in most developing countries.

Alternatives include subsidizing the supply side of the rental sector in general (if renting is closely related to income), improving slum and squatter areas, or providing a serviced plot/core unit, combined with measures/subsidies to improve savings and access to consumer finance for low-income housing.

If the goal is primarily to redistribute significant income and it is viewed that doing so in the form of housing instead of in cash is more socially desirable (or politically acceptable to those being taxed to pay for it), then the best options are probably rental housing allowances (if an active, formal sector rental market exists) or income-targeted ownership subsidies, which could be lump-sum grants, savings related subsidies or non-distorting interest rate subsidies (if housing finance is readily available to the target groups).

Option 2: A General Housing Subsidy? If prices are too high in general, and nothing can be done to bring them down, then this is saying that the society as a whole feels that housing should be generally subsidized relative to its true scarcity value. In other words, the unsubsidized outcome would be too little housing being consumed in general and there are social benefits to distorting the consumption of the society away from other things and toward housing.

These sorts of clarifying observations can help policymaking enormously. For example, if housing consumption is to be favored in general, then an exemption from VAT may be an efficient way to address all different levels of house construction and improvement. A general non-distorting subsidy to interest rates on housing loans (for rental as well as owner, for new and resale housing) may be considered for that segment of the market that uses mortgage loans. (But there is no reason why this subsidy should be related to tax rate bracket! Make it a tax credit.)

Option 3: System Improvements? It may also be concluded that the underlying problem is that the housing finance system is not working as well as desired. This may lead to the conclusion that it can be made more efficient or that perhaps it should actually be favored over other forms of financing. This could suggest the need for regulatory reforms (see above) or new laws that support more efficient ways of funding mortgages (e.g., mortgage bonds or securitization). Or it may be a call for state involvement in a new institution that takes on some risks in the primary or funding markets. (But this should only be done with great care so as