HOUSING POLICY IN DEVELOPING COUNTRIES

THE IMPORTANCE OF THE INFORMAL ECONOMY

Richard Arnott*

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Abstract: All countries have a formal economy and an informal economy. But, on average, in developing countries the relative size of the informal sector is considerably larger than in developed countries. This paper argues that this has important implications for housing policy in developing countries. That most poor households derive their income from informal employment effectively precludes income-contingent transfers as a method of redistribution. Also, holding fixed real economic activity, the larger is the relative size of the informal sector, the lower is fiscal capacity, and the more distortionary is government provision of a given level of goods and services, which restricts the desirable scale and scope of government policy. For the same reasons, housing policies that have proven successful in developed countries may not be successful when employed in developing countries.

*Department of Economics
University of California, Riverside
Riverside, CA 92521
951-827-1581
richard.arnott@ucr.edu

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1. Introduction

In the foreword to *The Challenge of Slums* (2003), published by the United Nations Settlements Programme, Kofi Annan wrote:

> Almost 1 billion, or 32 percent of the world's urban population, live in slums, the majority of them in the developing world. Moreover, the locus of global poverty is moving to the cities, a process now recognized as the 'urbanization of poverty'. Without concerted action on the part of municipal authorities, national governments, civil society actors and the international community, the number of slum dwellers is likely to increase in most developing countries. And if no serious action is taken, the number of slum dwellers worldwide is projected to rise over the next 30 years to 2 billion.

While one may dispute the numbers and question the use of the word slum, with its socio-pathological connotations, there is no doubt of the magnitude of the housing problems in developing countries. The ideal would be massive redistribution from the over-consuming haves to the have-nots, eliminating poverty. But that is not about to happen. Given their scarce resources, what policies should developing countries employ to best deal with their housing problems, and, ruling out massive redistribution from rich to poor countries, what can the international community do to help?

Though the pace of economic research on housing in developing countries has increased rapidly in recent years[2], there is still very little empirical work analyzing housing policy

[1] I would like to thank Patricia Annez for very helpful comments on an earlier draft. In the past I have criticized "armchair development economists". With this essay I join their ranks.

in developing countries that is persuasive by modern standards in applied econometrics. Either the data are unreliable or insufficiently rich, or the empirical analysis suffers from obvious pitfalls. Case studies are suggestive but not conclusive. The housing policy experience of developed countries is considerably better documented and analyzed. Apart from adjustments that need to be made to reflect the income differences between the two classes of countries, can the received wisdom in developed countries on what constitutes good housing policy be applied to developing countries? Would housing policies that have been successful in developed countries necessarily be successful when applied to developing countries?

This paper will argue that the large size of the informal sector relative to the economy in developing countries, as well as the high proportion of housing that is informal, substantially alter the housing policy design problem, so that policies that have succeeded in developing countries may not work well in developing countries.

Table 1, which reproduces part of Table 6.1 of United Nations Habitat (2003), presents data on the extent of informal employment[3] by City Development Index (CDI) quintile. In the two lowest quintiles about 50% of workers are informally employed, which is

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[2] See Buckley and Kalarickal (2005) for an enlightening and informed review.
[3] "Informal employment" is not precisely defined. The imprecise definition is that an informal employee is "an employee in an unregistered enterprise". A note to Table 6.1 states: "There is no clear distinction between informally employed and unemployed, which relates to actively seeking work in the formal sector. Quite often, officially unemployed people will work in the informal sector."

The data were collected by the Housing Indicators Program, which was initiated by Stephen Mayo and Shlomo Angel at the World Bank, and has been continued by the World Bank and UN-Habitat. The data were collected for one of the largest cities in each of the 57 countries in the sample.

more than double that for the two highest quintiles. In developing countries, the bulk of the poor work in the informal sector.

Table 1: GNP per capita and informal employment by City Development Index, 1998

CDI quintile	1	2	3	4	5
GNP per capita, US$	606	1571	2087	3230	11822
Informal empl., %	49	51	40	26	19

Informal employment is one aspect of the informal economy. Informal housing is another. Angel (2000) defines *unauthorized housing* to be housing that is not in compliance with current regulations concerning land ownership, land use and zoning, [or] building construction, and *squatter housing* to be housing that is currently occupying land illegally[4]. This paper will use the term *informal housing* as synonymous with Angel's definition of unauthorized housing.

Table 2, which reproduces part of Table 23.2 of Angel (2000), presents data related to housing tenure type for four sets of countries, grouped by income. The most striking result in the table is that in 1990 about two-thirds of housing units in low-income countries were unauthorized, while essentially none in high-income countries were.

[4] To this definition of squatter housing, Angel adds the following footnote: "This definition fail[s] to include structures occupied illegally by squatters. Squatter settlements that are recognized by authorities as permanent settlements and that are provided with documentation to this effect have been excluded from the definition."

Table 2: Rates of owner-occupancy, unauthorized housing, and squatter housing by country income group, 1990

Country type	Low-income	Low-mid-inc	Upp-mid-inc	High-income
Owner occupancy, %	33	59	57	59
Unauthorized housing, %	64	27	9	0
Squatter housing, %	17	16	4	0

The main theme of this paper is that the larger relative size of the informal economy in developing countries imposes important constraints on government policy that are not present in developed countries. These constraints significantly influence the form of sound housing policy in developing countries and undermine the effectiveness of many housing policies that have been successful in developed countries. The gist of the argument runs as follows:

1. Since the bulk of the poor in developing countries work in the informal sector, government cannot accurately measure their incomes. This severely compromises the effectiveness of broad income-related transfer programs and more generally limits the scope for redistribution.

2. At least in low-income countries, most households, and probably therefore the bulk of the most needy households, live in unauthorized housing. Since governments are reluctant to subsidize unauthorized housing, their housing programs, with the exception of public housing, are biased towards authorized housing and therefore against the neediest households. Furthermore, the inability to measure household incomes accurately effectively precludes broad housing assistance programs that are geared to income.

3. Holding constant the real income of an economy, the larger is the informal sector, the lower is its fiscal capacity – the maximum amount its governments can collect in tax revenue on a sustained basis. To meet the demand for public services in the face of reduced fiscal capacity, governments in developing countries impose high tax rates on formal sector income and turn to other revenue sources that are inherently inefficient, resulting in highly distortionary fiscal systems. The diminished revenue-raising capabilities relative the size of the economy restrict the scale and scope of expenditure programs that governments can and should undertake, and encourage the use of regulation, both to direct the economy and to collect fee revenue.

4. The consensus is that redistribution in developed countries is best undertaken by the central government since doing so reduces welfare-induced migration. In developing countries, however, local governments and community organizations are better able than the central government to identify the truly needy, which argues for more decentralized redistribution.

The above line of argument is static and takes the degree of informality as exogenous. Over the medium and long terms, however, the size of the informal economy relative to the formal economy, as well as the proportion of housing that is informal, are endogenous. Both firms and individuals decide whether to participate in the informal or the formal economy on the basis of perceived self-interest. All else equal, the government would like to increase the proportions of the economy and of the housing market that are formal, and recognizes that this can be achieved by making formal participation more attractive or informal participation less. This may entail some sacrifice of short-run efficiency. For example, in the short run the government would like to regularize informal housing not only to collect more in tax revenue and to extend its control over the economy, but also to facilitate public service provision to the poor. Doing so however encourages new unauthorized settlements, which conflicts with its goal of increasing the housing sector's degree of formality. One can pose this tradeoff as a conflict between short-run and long-run objectives. But probably a more useful way of framing the problem is to enquire into the optimal transition path from the status quo to a more formal economy -- that is, to treat the policy design problem as dynamic rather than static.

The paper distinguishes between developed and developing countries. When we speak of developing countries as a group, we have in mind the poorer developing countries. Some of our arguments need to be qualified when applied to emerging developed countries such as Mexico, Brazil, and China, or to countries that were formerly in the Soviet Bloc.

The remainder of the paper is organized as follows. Section 2 discusses the welfare economics of housing policy in developed countries, and Section 3 that for developing countries. Section 4 gives a thumbnail history of the housing policy experience in developed countries. Section 5 briefly reviews the housing policy experience of developing countries, and relates differences in the policy experiences between developed and developing countries to informality. Section 6 draws together the discussion and provides concluding comments.

The overall conclusion is that in developing countries the primary role of the central government in the housing sector should be to act as a facilitator, both enabling housing markets to work and taking a leadership role with respect to policy. In assisting low-income households achieve adequate housing, it should avoid expensive and broad-based housing programs and should instead assist local governments and community organizations to provide housing assistance to the most needy households.

2. *The Welfare Economics of Housing Policy in Developed Countries*

In almost all housing policy debates, economists argue for less government intervention in the housing sector than other groups of experts. Most economists have at least qualified faith in the efficiency of markets and argue for government intervention to oil the wheels of the market mechanism. They hold this view of the housing sector as well, arguing that the principal role of government with respect to housing should be to enable housing markets to work. Much of housing policy in developed countries is redistributive in native, having the ideal of providing "decent and affordable" housing for all. Economists tend to respect consumer sovereignty – that households know best how to spend their incomes – and therefore tend to favor income redistribution (which Tobin (1970) referred to as general egalitarianism) over redistribution in kind (specific egalitarianism), though many believe that social justice entails ensuring that all households enjoy at least basic levels of "merit goods" – decent housing, adequate nutrition, clothing, sanitation and health services, a safe and healthy environment, and affordable access to basic education. One may question whether homelessness is consistent with human dignity, even in the poorest countries, and reasonably maintain that the government should bear responsibility as the landlord of last resort.

The foundation on which economists have built their belief in the efficiency of markets is The Invisible Hand, as formalized in the theory of competitive general equilibrium. The First Theorem of Welfare Economics states that, under conditions of perfect competition, a market economy is efficient in the sense that it is impossible to make one person better off without making another worse off. Since the conditions of perfect competition are unrealistically strict, the Theorem provides a benchmark. Government intervention to improve the efficiency of markets may be justified because the real world economy deviates from the assumptions of perfect competition.

For many years, the dominant view among economists concerning the role of government was based on the classic theory of market failure (e.g., Bator (1958)). There are two central elements of the theory. The first is that there are three principal sources of market failure – natural monopoly (increasing returns to scale), externalities, and public goods. Government intervention may be justified on efficiency grounds to deal with each. The second is that equity and social justice should be achieved through the lump-sum redistribution of income. Since natural monopoly and pubic goods are unimportant in the housing sector, and since housing-related externalities can be dealt with on a piecemeal basis (for example, land use externalities are dealt with via zoning, and social capital externalities partially through the subsidization of homeownership), adherents of the classic market failure view of the role of government argue for limited government intervention in the housing market to improve efficiency, and income transfers rather than housing assistance to improve equity[5].

While many housing economists continue to base their policy arguments on the classic theory of market failure, over the last few decades new perspectives have emerged. On one hand, public choice theorists emphasize that there are government failures as well as market failures. Politicians may be more concerned with getting re-elected than with efficiency or equity; bureaucrats have an incentive to increase the size of their bureaus, whatever the social value of the services they provide; governments are power hungry; and so on. When account is taken of government failure, there is no presumption that market failure justifies government intervention – it may or it may not, depending on the economic and political circumstances. On the other hand, developments in economic theory, particularly the theory of optimal economic policy under asymmetric information, point to a potentially expanded role of government.

The theory of optimal economic policy under asymmetric information is now presented since it is central to this paper's argument. In the theory of market failure, efficiency is achieved by correcting market failures, equity via lump-sum redistribution. Lump-sum redistribution would be feasible if the government could observe need directly, but it cannot, and instead must imperfectly infer need on the basis of what it can observe. Suppose, for the sake of argument, that individuals differ only in ability, so that a needier

[5] Most economics principles textbooks contain a section "proving" that income redistribution is more efficient than income-related housing allowances. They do this by assuming that income redistribution is lump sum and that the housing market is perfectly competitive.

individual is simply a less able individual, and that there is a single generic consumption good. Suppose, too, that the government can observe an individual's income, but not his ability nor how many hours nor how hard he works (since the individual knows his ability, hours worked, and work effort better than the government, this is where asymmetric information enters the problem). Then the government must redistribute on the basis of income, which it does through income taxation. Faced with a positive marginal tax rate, an individual has an incentive to work fewer hours and less hard[6], which leads to inefficiency. Thus, perfectly efficient redistribution is impossible. The (second-best[7]) optimal income tax system has the property that the marginal social benefit of a dollar transferred from a richer to a poorer individual equals the marginal social cost, the efficiency loss caused by the transfer[8].

Now expand the model to include two consumption goods, one of which is more complementary to leisure than the other. The good that is more complementary to leisure should be taxed since this reduces the labor-leisure distortion due to the income tax. Now expand the model to include another dimension of need, such as health status. The government cannot observe an individual's health status directly but it can observe her expenditures on medical care. Second-best redistribution then entails an income tax that

[6] Inefficiencies are associated with substitution effects. Income taxation generates substitution effects away from labor and towards leisure, and towards less effort.

[7] The term "second best" is employed when there is some unalterable constraint that precludes attainment of the first best. Here the constraint is the government's inability to observe individuals' work and income.

[8] The optimal income tax problem was first formulated by Vickrey (1945) and later reformulated and solved by Mirrlees (1971). Their shared perception of asymmetric information as an essential feature in the formulation of optimal policy was the principal reason they were co-recipients of the Nobel Prize in economics in 1996.

adjusts the tax payable or the transfer made on the basis of health expenditures, plus commodity taxes and subsidies. The general point is that, when account is taken of the limited information the government has relevant to redistribution, the form of second-best redistribution may be complicated, entailing not only an income tax with many deductions, exemptions, and credits, but also the taxation of some commodities, the subsidization of others, and the rationed provision of yet others. The model can be extended further to treat public services. In deciding on the level of various public services, the government should take into account the implicit redistribution they entail. A second-best tax/expenditure package may entail free primary education, for example.

Since the menu of second-best redistributive policies might include housing subsidy programs, consideration of asymmetric information provides a potential basis for an expanded role of government in the housing sector, beyond correcting for the classic market failures. But this argument is too broad. Is there good reason to believe that housing is an efficient commodity on the basis of which to redistribute? After controlling for other signals of need such as low income and high health expenditures, is housing consumption strongly positively correlated with need? And how strong are the adverse incentives associated with providing housing assistance? Many developed countries attempt to come to terms with these issues in the design of their housing allowance programs. Housing need is typically measured by housing expenditure in excess of a certain fraction of income, and the possible adverse incentive effects of housing allowances on housing consumption are typically dealt with by relating the housing subsidy for a particular demographic group to the market rent of a basic housing unit for that group.

Most welfare economics does not deal specifically with children, but it should. Adults may bear some responsibility for their condition of poverty, but children do not. Every social system that purports to be just should provide children with minimal conditions needed for good health, security, and educational opportunity. Since almost all social systems around the world are family based, covering the basic needs of children usually entails covering the basic needs of other household members as well.

What priority should be accorded to providing decent and affordable housing compared to providing clean water, healthy sanitary and sewage conditions, educational opportunity, and adequate nutrition and clothing? A common response is that these other needs should be accorded higher priority, since they are what matter most for the well being of children. One rejoinder is that decent and affordable housing is necessary for healthy living conditions and for childhood development[9], another that respecting

[9] There is a body of literature that examines the effects of overcrowding in housing on the health status of adults and children and on childhood educational achievement, and finds that overcrowding is correlated with adverse outcomes. Generally speaking, the literature fails to establish causality since it does not adequately control for other factors, such as past poverty that may cause both overcrowding and the adverse outcomes.

A notable exception is Cattaneo *et al.* (2007), which analyzes the effects of a Mexican housing program, *Piso Firme.* Under the program, the government covered the dirt floors of participating households with concrete, without charge. Households within a well-defined geographic area whose housing units had dirt floors were eligible to participate. The study found “significant decreases in the incidence of parasitic infestations, diarrhea, and the prevalence of anemia, and a significant improvement in children’s cognitive development” and in household happiness (p.2). The study also found that the program is significantly more cost effective than Mexico’s well known consumer sovereignty entails allowing households to make the tradeoff between these other desiderata and better housing themselves.

While the theory of optimal economic policy under asymmetric information has not generated clear policy prescriptions concerning redistributive policy, it has strongly influenced public policy in another way. It has highlighted how large the efficiency losses generated by distortionary taxation can be. Public policy makers are now quite conscious that the social cost of raising an extra dollar of revenue – the marginal cost of public funds – may considerably exceed one dollar[10], and that this argues for less revenue-intensive policy intervention. This has been a major impetus in the regulated privatization and contracting out of 'public' services, in the establishment of public-private partnerships, and more generally in the push to enable markets to work and in the withering away of the welfare state[11].

Another issue related to the welfare economics of housing policy is the level of government that should undertake it. The standard argument, deriving from the literature on fiscal federalism, is that the central government should undertake broad-based

anti-poverty, conditional cash transfer program call OPORTUNIDADES and previously called PROGRESA. The success of *Piso Firme* indicates the potential value of specific, well-targeted housing programs but not for general housing assistance to the poor.

[10] When the government extracts as much tax revenue as it can from the economy, given its limited information, the marginal cost of public funds is infinite. If the government raises tax rates beyond this point, the economy is "on the wrong side of the Laffer curve" – distortion increases and tax revenue declines.

[11] Consciousness of asymmetric information has impacted government policy in many other ways as well. For example, it is now well recognized that the asymmetric information faced by banks in mortgage markets, and more generally financial institutions in primary and secondary credit markets, gives rise to market failures that may justify extensive credit market regulation.

redistributive policy since its doing so generates less welfare-induced migration and according to some standards is fairer. Contrary to this is the argument that local governments are better informed about local conditions and are better able to judge which households are the most needy. In the United States, broad-based housing programs are set up and funded by the central government but are administered at the local level.

Much of the literature on housing policy overlooks spatial aspects. Where a household lives determines its access to public services, including education, as well as neighborhood quality[12]. A housing program that is otherwise well designed may lead to its beneficiaries being socially isolated and having poor access to job opportunities. More generally, housing policy can have long-term effects on the spatial structure of cities[13], influencing especially the social composition of neighborhoods.

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[12] This theme is taken up by the essays in De Souza Briggs (2005), *The Geography of Opportunity.*

[13] Under perfect competition, markets provide the right signals for efficient spatial development. Market failures, such as uninternalized traffic congestion, and distortionary policy can lead to inefficient spatial development, whose social costs can be considerable. Squatter settlements can occur at locations that are better suited for other land uses and are efficiently developed at different densities; they may, for example, be located in prime locations that are better suited to office buildings or in locations that have poor transportation access to job opportunities. But ill-advised zoning can lead to such inefficient outcomes too. In both cases, the market provides signals for the correction of mistakes. Property owners in centrally located squatter settlements will respond to high rents by increasing density; informal firms will have an incentive to relocate to squatter settlements with poor job access; and if land is zoned for an inefficient land use, the market will make it profitable for it to be rezoned in its highest and best use. Since informal sector developers are likely to be more responsive to market pressures than planners, the spatial pattern of urban development may well improve with increased informality.

The discussion thus far in this section has tended to treat housing policy in the abstract. But most actual housing policies are targeted either towards either renters or homeowners, and to be directed at either the supply side or the demand side of the market. Governments almost everywhere favor homeownership due to the perception that it fosters social stability, even though homeownership for the poor is highly risky, as the recent rapid rise in US sub-prime foreclosures has shown. Since the bulk of poor households are – and should be – renters, redistributive housing policies should be directed primarily at the rental housing market. Whether redistributive housing policy should be targeted on the demand side or the supply side of the housing market will be touched on later.

3. Informality and the Welfare Economics of Housing Policy in Developing Countries

In the theory of optimal economic policy, the benevolent government chooses policies so as to maximize social welfare, subject to a variety of constraints. These constraints reflect not only the scarcity of resources but also how the government's lack of information restricts its policy choices.

3.1 The informal economy

The larger is the informal sector, the less well informed is the government about the economy, which constraints its policy choices. In the optimal income tax problem reviewed in the previous section, it was assumed that the government can observe an individual's income but not her ability, effort, or work hours. Since the government cannot however observe informal wage and capital income, it can apply the income tax only to formal wage and capital income, which is both inefficient and unfair, inefficient since it encourages individuals and firms to operate in the informal sector, and unfair since a low civil servant pays more in income taxes than does a wealthy, informal sector entrepreneur. Thus, the presence of a large informal sector sharply diminishes the effectiveness of the income tax and income-contingent in-kind transfer programs, such as food stamps and housing allowances, as redistributive devices.

A large informal sector affects optimal policy in other ways as well. First, since income taxes are collected from only a fraction of the population, the government must turn to other sources of revenue[14]. The tax bases of many other revenue sources too will be eroded by the unobservability of transactions in the informal sector. All else equal, the government should raise revenue from those sources that are the least subject to evasion. Import and export taxes are effective since the bulk of goods that are imported and exported are done so legally. So too is value-added taxation applied to registered and government enterprises, including multinationals, since it encourages them to purchase their inputs from other registered enterprises.

Second, since the effectiveness of income taxation and income-contingent in-kind transfer programs as redistributive tools is severely compromised by a large informal sector, other tax policy instruments, as well as other types of government expenditure

[14] Gordon and Li (2005) argue that the informational constraints faced by governments in developing countries explain the “puzzling” fiscal structures they employ.

programs, need to be used to achieve distributional goals[15]. The theory of optimal taxation investigates the optimal tax rates on commodities when there is no income taxation[16]. As intuition would suggest, necessities should be subsidized and luxuries taxed, and in order to reduce distortion the rates of taxation and subsidization should be higher the less elastically are the goods supplied and demanded[17]. In developing countries, these rules must be adapted to take into account the evasion that occurs in the informal sector. An obvious but important point is that taxes are evaded but subsidies are not. These considerations explain why many developing countries heavily subsidize the basic staple. The basic staple is an inelastically demanded necessity and subsidizing it generates no evasive activity. The theory of optimal commodity taxation has also been extended to treat public services. The government can improve the lot of the poor by changing the composition of public services to their benefit by, for example, providing free health clinics rather than building untolled urban freeways, which benefit disproportionately the rich who own cars.

Third, informality reduces fiscal capacity. Consider the following conceptual exercise. Increase the size of a country's informal sector, while simultaneously reducing the size of the formal sector. Because the informal sector evades taxes, the country's fiscal capacity

[15] This theme is taken up in Pinto (2004). He argues that: "Policymakers frequently design self-targeting programs or target poor areas to assist poor families when income is not observed. Self-targeting schemes take advantage of differences in participation costs [such as crowding and delay in service] in assistance programs across households. Geographic targeting [bases transfers on place of residence]." (p.536).

[16] Important contributions to the theory of optimal commodity taxation include Ramsey (1927), Corlett and Hague (1953), Diamond and Mirrlees (1971), and Diamond (1975).

[17] These simple results are based are derived from partial equilibrium analysis, which ignores income and cross-price effects. Taking them into account in a general equilibrium analysis considerably complicates the optimal commodity tax results.

falls. Holding fixed the set of taxes employed, raising a given amount of revenue requires higher tax rates. Taxation should be carried to the point where the marginal benefit of an extra dollar of revenue raised equals the marginal cost. Since the marginal cost curve is higher when fiscal capacity is diminished, the optimal amount of revenue to collect, and therefore the size of the government budget, falls. Furthermore, since the marginal cost is higher at the optimum, the optimum tax system entails higher tax rates and is more distortionary. In the face of a larger informal sector, the government should not only apply higher tax rates to conventional tax bases, but should also collect revenue from sources that developed countries avoid because they entail intrinsically high distortion. An important example is setting permit fees above processing costs and requiring permits where they are unnecessary, even though doing so discourages entrepreneurship (e.g., De Soto, 2000) and encourages informality.

One can think of the optimal tax structure design problem facing governments in developing countries at different levels of conceptual sophistication. In the simplest model, the sizes of the formal and informal sectors are treated as exogenous, and the government has to raise a given amount of revenue in an optimal manner. In a more sophisticated model, the government budget is endogenous. The government decides simultaneously on the tax structure and the level and composition of government expenditures. As noted above, an increase in the level of informality reduces the (second-best) optimal size of the government budget and hence government expenditures, raises the optimal tax rates applied to formal-sector tax bases, and encourages higher permitting fees. In an even more sophisticated model, the degree of informality as well is treated as endogenous. Each economic agent decides whether to participate in the formal or informal sector, or perhaps how to divide his time between the two, keeping in mind the tax rates applied to formal sector activity and the size of permit fees. If the government attempts to raise more revenue by raising tax rates, it will encourage some agents to switch from formal-sector to informal-sector participation, further eroding the tax bases. Thus, accounting for the endogeneity of the degree of informality further raises the marginal cost curve of public funds, resulting in an even smaller optimal government budget.

It was argued above that the high cost of public funds encourages governments in developing countries to collect revenue from sources that developed countries would not employ because they are too distortionary. One can carry this line of reasoning further, and more controversially, to provide an explanation for why many developing countries have such high degrees of public corruption. Civil servants have information on the basis of which 'tax and fee discrimination' can be exercised. Pay a civil servant a low salary and implicitly allow him to supplement his salary with bribes. The bribe may be paid to avoid being audited, to speed up the processing of a permit application, or to prevent prosecution for illegal activity. Based on his experience, the civil servant can vary the bribe he demands according to his perception of the briber's willingness to pay. This amounts to fee discrimination. From the perspective of the government, turning a blind eye to public corruption has pros and cons. On one hand, the cash-strapped government can pay low civil service salaries and, through tax and fee discrimination, the public sector (including the civil servants) is able to extract more revenue from the private sector. On the other hand, corruption undermines the ability of the government to control the economy, sours the climate for foreign direct investment, and probably discourages entrepreneurship.

One could say that the government is caught in a Pareto inferior equilibrium. If all economic activity were magically formalized, everyone could be made better off. The expansion of tax bases would allow tax rates and fees to be reduced and the revenue collected by the government to rise at the same time. This would allow the government to upgrade the public services it provides and also to redistribute on the basis of income. Poor households would benefit from improved public services and redistribution through the income tax system. Rich households would benefit too from an improved business environment. But this way of looking at the problem is misleading. With the exception of the previously Communist Bloc countries, today's developing countries had economies that were even more informal fifty years ago. Globalization, and the increase in trade that has come with it, has encouraged some informal enterprises to formalize their activities, so as to gain access to international markets, and other informal enterprises that supply services to exporting companies to follow suit. It is therefore more appropriate to view these economies as on a transition path to increased formality. Government can introduce policies that encourage private sector agents to participate in the formal economy[18], both by making formal sector activity more attractive and informal

[18] There are several papers that model the determinants of informality. Lucas (1978) assumed that managerial ability differs across agents in the economy, with high-ability agents becoming managers and those with low ability workers. Rauch (1991) adapted Lucas' model to investigate the determinants of informality, by assuming that agents with the highest managerial ability become formal managers, those with intermediate ability

sector activity less attractive. The former can be achieved by lowering tax rates on formal sector income, concentrating expenditures on services that benefit formal enterprises, facilitating investment by easing permitting requirements and reducing fees, and providing formal sector firms with even more preferential access to credit, and the latter by harassing informal activity. Unfortunately, this policy strategy would help the rich at the expense of the poor, and big business at the expense of small business. The design of the optimal time path of policy is evidently delicate.

3.2 Housing

Before proceeding to discuss how a large informal housing sector further constrains government housing policy, it will be useful to discuss some salient features of informal housing markets.

In many respects the distinction between formal and informal housing is analogous to the more familiar distinction between formal and informal labor and product markets. Land and property owners are analogous to the owners of informal enterprises, and renters to workers. Owners decide whether to develop their properties formally. The advantages of formal development include access to formal credit markets, preferential provision of

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run informal firms, whose size is limited by assumption, and those with the lowest ability become workers. De Paula and Scheinkman (2007) in turn adapted Rauch's model, giving formal firms access to cheaper credit.

Bosch, Goni, and Maloney (2007) document the changing character of the informal labor market in Brazil. The standard view, formalized in the Harris-Todaro model (Harris and Todaro, 1970), is that workers in the informal sector queue for better jobs in the formal sector. However, the recent pattern in Brazil of worker transitions between formal and informal employment are similar to the job-to-job dynamics in the US. This is consistent with the view taken in this paper that enterprises and workers choose between formal and informal sector participation based on perceived profitability.

public services, and reduced uncertainty. The disadvantages include payment of property-related taxes and compliance with onerous and profit-reducing regulation. Renters too decide whether to participate in the formal or informal market, trading off lower rents and more flexible lease arrangements against reduced security of tenure and probably lower quality public services. But there are also important differences. Squatter housing entails the illegal occupation of land, which is more serious than tax evasion and non-compliance with regulation. Also, in many developing countries, the bulk of households cannot afford to live in formal housing, so that informal housing is to a larger extent housing for the poor than informal employment is employment for the poor. Thus, issues related to poverty loom larger in policy debates about informal housing than they do in debates about informal labor and product markets.

In most developing countries formal housing markets are overregulated. This is argued forcefully in De Soto (2000) and is also widely acknowledged (e.g. World Bank, 1993, Angel, 2000). The construction permitting process is expensive and may take several years, and building and zoning standards are unrealistic given the country's state of development. One reason is that cash-strapped local governments use permitting to generate revenue, another that many planners strive in vain to enforce their vision of the City Beautiful against the power of market forces. Whatever the reasons, the overregulation makes formal housing unaffordable for the poor and much of the middle class too. It is also dysfunctional, since by encouraging the construction of non-compliant housing, it reduces the power of planners to influence the spatial development of the city.

Even with limited contract enforceability, informal housing markets function in much the same way as do formal housing markets[19]. Units are bought and sold and rental markets are active. Informal housing markets do differ from formal housing markets in one important respect, however. In formal housing markets, a durable structure meeting local building codes is constructed on a titled plot of land. Over the years, densification may occur through legal add-ons, teardowns, and in-fills. In areas of informal housing, this process is more continuous and incremental. The initial structure on a site is often no more than a shack. As the owner of the shack accumulates savings, he replaces the shack with the first floor of a durable structure, and then adds rooms and floors as he can afford to do so, often financing the expansion by renting out part of the structure. Squatter housing differs from other informal housing in being built on illegally occupied land. In the past, many governments in developing countries were hostile to squatter settlements and undertook slum clearance programs. One reason was to discourage urban-rural migration, which used to be widely viewed as excessive, another was to deter the illegal settlement of land, and yet another to discourage unauthorized housing. The tide has been changing. The ideological pendulum has been swinging away from the state attempting to micro-manage the economy to its harnessing and channeling market forces by enabling markets to work. Also, cities are now widely viewed as engines of economic

[19] World Bank (1993) and Angel (2000) report on the results of a long-term empirical research program at the World Bank comparing the operation of housing markets across countries, and empirically make a persuasive case that housing markets in developing countries respond in the way textbook models predict. They argue on this basis that "housing policy matters" in developing countries, and that developing country governments should employ policies that enable housing markets to work, which includes easing regulation of land, housing, and housing financial markets. Malpezzi (1999) argues along the same lines.

growth[20]. Accordingly, most governments in developing countries today view squatter settlements, and more generally informal housing, as an inevitable albeit unwelcome by-product of the economic growth they wish to foster. As experience with them has developed, squatter settlements are being increasingly viewed more benignly as nascent communities.

The previous subsection discussed how a large informal sector constrains government policy. A large informal housing sector further restricts the ability of the government to deal with urban housing and related problems in several ways. First: Since it is largely undocumented, governments have little information about informal housing – the income-demographic composition of informal housing residents, housing adequacy, housing needs, the incidence of overcrowding, etc. With such limited information, documenting housing problems and predicting which policies will be effective are difficult. Second: The defining characteristic of informal housing is that it is in violation of land ownership laws, zoning regulations, and building codes. Evasion of property-related taxes is another important feature. Thus, almost by definition, local authorities have limited influence on informal housing through taxation and regulation. Furthermore, just as informal productive activity erodes the income tax, commodity tax, and value-added tax bases, so too does informal housing erode the bases of property-related taxes. Third: Government's limited information on informal housing residents reduces the target efficiency of policy. Information on the incidence of various diseases across neighborhoods can be used to target sanitation and sewage infrastructure projects, but

[20] In his essay for the Commission, Duranton (2007) provides a masterful overview of the empirical and theoretical literatures on the subject.

comparable indicators of housing need are hard to come by. Fourth, the unpredictable growth of informal housing neighborhoods makes it more difficult to plan for urban infrastructure, including transportation, sanitation, sewage, fire protection, police, and medical facilities. Fifth: Governments need to consider the effects of their policies on the proportion of housing that is informal. If they turn a blind eye to violation of regulations and provide the same level of services to informal as to formal housing, they fail to discourage the future construction of informal housing. If however they discourage informal housing, they may impede the operation of the housing market and harm the poor. And sixth: It is important that citizens respect the rule of law. In some cultures informality may be seen not as violation of the law but as a choice to undertake economic activity outside the formal sector. It is hard to rationalize the expropriation of land in squatter settlements in this way, however.

We conclude this section by summarizing the major constraints informality imposes on the design of housing policy in developing countries, which provides a backdrop for Section 5's broad-brush review of these countries' housing policy experience.

Recent housing policy experience in developed countries, which will be reviewed in the next section, indicates that demand-side, income-related housing subsidy programs are generally more effective in getting decent and affordable housing to the needy than public housing and other supply-side programs (Olsen, 2003). Unfortunately, in most developing countries, because of the large informal sector, household income cannot be measured at all accurately, which effectively precludes broad-based, income-related demand-side housing programs, such as housing subsidies and housing vouchers, being employed. This consideration by itself suggests that supply-side programs might be relatively more effective in developing countries than in developed countries. But other considerations call into question the effectiveness of housing policy generally as a redistributive tool in developing countries. On one hand, since the large informal sector severely restricts the government's ability to redistribute on the basis of income, more weight in a redistributive program should be put on other forms of redistribution, such as the subsidization of essential commodities or the provision of public services that disproportionately benefit the poor. On the other, controlling for the level of real income, since informality reduces taxable capacity, governments in developing countries are strapped for cash and so should draw back from ambitious expenditure programs and instead work towards channeling market forces. Doing so improves efficiency and stimulates economic growth, but, beyond a rising tide raising all boats, does little to improve equity. As well, one may question the appropriateness of subsidizing housing when primary education and health and sanitary services for the poor are inadequate. In developed countries most redistribution is undertaken via broad-based, income-related transfer programs funded by the central government. In developing countries, where redistribution programs cannot be geared to measured household income, more decentralized redistribution may be desirable since local governments and community organizations are better able to identify needy households.

The picture this section has painted of the constraints imposed on housing policy in developing countries by the extent of informal economic activity and housing, has perhaps been overdrawn. Developing countries do indeed face more severe informational constraints in their housing policy design problem than do developed countries, and tax and regulation evasion is a more serious problem. But since their housing markets function in much the same way as housing markets in developed countries, housing and housing-related policy can be effective. Infrastructure programs do improve the quality of life in informal housing settlements, and subsidies will be picked up even when taxes are evaded. To an outsider, developing economies may appear anarchical, but many have nonetheless succeeded in achieving robust growth, expanded participation in the formal sector, and more controlled growth of their urban housing.

4. Housing Policy Experience in Developed Countries

Olsen (2003) and Malpezzi and Green (2003) provide expert reviews of the current state of housing policy in the United States, as well as some of its history. The federal government plays a dominant role in low-income housing policy, though in recent years local governments have been playing a larger role. There are three types of federal rental housing assistance programs, none of which are entitlement programs. The first is public housing, housing projects that are owned and operated by local public housing authorities established by local governments but funded primarily by the federal government. The second are projects that are owned privately, either by nonprofits or for-profit firms, and receive subsidies from the government. The third is tenant-based assistance in private housing -- housing allowance and housing voucher programs. All the programs have exhibited considerable, indeed rather bewildering, variation over time, in terms of the form and magnitude of the subsidies provided to building owners, as well as tenant eligibility criteria and tenant rent formulae. Less than half of the 14 million renter households that satisfy the eligibility criteria actually receive rental assistance. Over the past four decades, there has been a steady movement away from public housing and towards housing allowances calculated according to tenant household income, so that now only about thirty percent of federally subsidized housing units are in public housing. The current majority view, based on numerous empirical studies, many of which are reviewed in Olsen (2003), is that demand-side, income-related rental assistance policies are more efficient than supply-side rental assistance policies, according to a variety of criteria. As well, the bad experience with public housing has led policy makers to favor the "deconcentration of poverty populations" and broader housing choice for rent-assisted tenants. Most owner-occupied housing assistance comes via the income tax system, in particular the deductibility of homeowner mortgage interest payments for households that choose itemized deductions. Since most poor households pay less income tax by not itemizing, the income tax provides little encouragement to poor households for homeownership.

There seem to be no overall reviews of housing policy in Europe comparable to Olsen's and Malpezzi and Green's for the United States. Several differences from the US experience during the post World War II era are however evident, as well as similarities to it. First, especially in Northern Europe in the forty years after World War II, government involvement in the housing sector was far more extensive than in the United

States, to the extent that in some countries most housing units were built and allocated by the state. In some countries, this was due to different social philosophies; the Nordic countries especially were more socialistic and less market-oriented, placing more emphasis on equity and less on efficiency. In other countries, housing institutions set up to respond to the critical housing situation after the War were only slowly dismantled. The application of first-generation rent control programs to private rental housing was ubiquitous. Second, in response to both the inefficiencies created by over-regulation and the heavy fiscal burden of government-provided housing, over the last twenty years all European countries have been gradually withdrawing from the housing sector, by deregulating and moving towards greater reliance on markets in the provision of housing, with rental housing assistance being increasingly geared to income. Third, there has been the same trend as in the United States towards demand-side, tenant-based housing allowances, and away from supply-side, construction-based subsidies. And fourth, while European countries have moved to greater reliance on the market in the provision of housing, the sentiment lingers that it is the responsibility of government in a civil society to ensure decent and affordable housing for all its citizens.

5. Housing Policy Experience in Developing Countries

Since housing policy in developing countries is poorly documented, this section will review the World Bank's experience with housing policy assistance to developing countries, which is generally well documented. The World Bank has supported a series of housing policy initiatives, each of which has succeeded less than hoped for. Public housing projects were dominant during the 1960's, with a large proportion of the units going to civil servants, and are now widely acknowledged to have been a failure. Funds were often made available for construction but not for maintenance, and most rents fell sharply in real terms due to rent control, leading to rapid deterioration of housing units. The evolution of the Bank's housing policy from 1970 to 1992 is expertly documented in World Bank (1993, 51 - 69). Quotes from those pages follow:

The evolution of the World Bank's housing policy through two decades can be divided into three stages. The first decade of Bank housing policy focused mainly on "sites and services" and slum-upgrading projects; the second gradually shifted the emphasis to housing finance development; and recently there has been a gradual shift to "housing policy development" loans.

Sites-and-services and slum upgrading projects, initiated in Senegal in 1972, signaled the first fundamental shift in housing policy in the postwar years -- from total public housing provision to public assistance in private housing construction. The shift was based on the realization that in most developing countries legal housing produced by the private sector was not affordable for most urban residents; the mass production of enough high-standard housing to meet urban needs required massive subsidies that most governments in market-oriented economies were either unwilling or unable to afford; that low-income countries were building affordable housing through an evolutionary process, with self-help and self-management of the building process; and that providing secure land tenure and basic infrastructure services increased the incentives of households themselves to invest their savings, labor, and management skills in housing.

Sites-and-services and slum upgrading projects sought to translate these observations into practical solutions by implementing more affordable building standards and providing basic infrastructure services or core-housing units instead of finished units. In this manner, the serviced sites, with secure titles and long-term leases, would provide households with an affordable foothold in the housing sector without requiring subsidies. These projects, although in some cases relatively large, were conceived as experimental demonstration projects seeking to meet three primary objectives: the provision of affordable adequate housing for low-income families; cost recovery from beneficiaries resulting in the elimination of public subsidies; and replicability of such projects by the private sector, demonstrating that it could move down-market to produce affordable housing in large numbers.

The first objective of these projects, physical provision of low-cost housing units, was broadly achieved. Unfortunately, the large majority of projects met neither the second nor the third objectives. A detailed 1987 Bank study [Mayo and Gross, 1987] on subsidies in sites-and-services projects observed substantial interest rate subsidies in [most] of the projects carried out. A detailed study of subsidies in Bank-assisted projects ---yielded estimates of subsidies ranging from 50 to 75 percent of the true economic cost --- for five of the seven projects ---.

The third, objective, replicability, --- was generally not met because key features were not replicable [by the private sector] on a large scale. The waiver of zoning, land use, and building regulations, availability of foreign and domestic expertise, access to government land at below-market prices, and interest rate subsidies were important aspects of such projects that either were not or could not be replicated.

Slum upgrading projects --- were, conversely, able to satisfy the replicability criterion, and to distribute subsidies more widely to the poor. --- Although loans for such projects were smaller and more difficult to administer than housing finance loans, they will remain a critical component of Bank lending for years to come.

A significant shift in housing policy and practice within the Bank took place during the 1980's. Lending gradually moved away from sites-and-services toward lending to housing finance institutions. The shift was motivated by two broad objectives. First, there was a perceived opportunity for the Bank to address broader economic issues in the borrowing countries. A well-functioning housing finance system was seen as contributing to financial sector objectives through improved domestic resource mobilization, and to fiscal objectives by making subsidies more transparent and better targeted.

The second, and perhaps more immediate, objective was to affect overall policies and performance of the housing sector through the broad instrument of housing finance system development.

The monograph goes on to say that the main lessons learned at the Bank during the two decades were that: the macroeconomic and regulatory environments are important; the informal housing sector has significant contributions to make; projects have limited impacts; attention should continue to shift to the housing sector as a whole; and emphasis should shift from projects to institutional reform.

The Asian Financial Crisis called into question the wisdom of rapidly liberalizing financial markets in developing countries. Housing finance system development is credited with stimulating investment in formal, owner-occupied housing at the top end of the market, which has likely had a beneficial, trickle-down effect on the informal housing sector. But it has not directly stimulated informal housing sector production; banks have not been interested in getting involved, because informality is inconsistent with prudential management and because serving the poor is unprofitable.

In the intervening years, there have been two principal housing policy initiatives in developing countries that have been reflected in World Bank financing. The first is "private participation in infrastructure" (PPI), which includes both privatization in the construction and provision of urban infrastructure services and private-public partnerships. Annez (2006) provides a thorough and thoughtful review of the policy experience with PPI's. Her conclusions are cautionary:

> The private financing for urban PPI has been quite limited and undeniably disappointing in relation to the high expectations prevailing in the 1990's. --- PPI appears to be a[n] unreliable source of finance. --- Those local governments strapped for funding and keen to expand their investments would be wise to recognize [the] limitations [of PPI] --- and [central] governments encouraging local governments to use PPI to support their investment programs need to recognize that PPI entails important fiscal risks as well. --- PPI is inherently limited in scope for financing urban infrastructure for the wide array of non-commercial infrastructure services cities need. Even for commercial services like water supply, subsidies are prevalent all over the world, and in many of the poorest, most rapidly urbanizing countries, it will be difficult to attract private finance for necessary expansions of the water network while restructuring subsidies to make them financially sustainable and socially acceptable.

The United Nations Human Settlements Programme's [2005, pps. 47-49] assessment points as well to the adverse distributional effects of PPI in developing countries. As economic theory would suggest, privatization is often profitable only when providers have effective monopoly power and exploit it[21].

The second major housing policy initiative in recent years is well known: microfinance. Chapters 6 and 7 of United Nations Human Settlements Programme [2005] provide a well-informed discussion of recent developments. The chapters contrast four forms of loans, mortgage finance by banks, microenterprise finance, shelter microfinance, and community funds. Microenterprise finance is targeted to small entrepreneurs, shelter microfinance to households with land who wish to improve their structures, and community funds to those without secure tenure for the construction of basic housing and infrastructure. A dominant theme is that shelter microfinance agencies and community organizations need links to the state to provide funding on the required scale but that establishing these links carries with it the dangers of bureaucratization.

The Bank has also experimented with making its housing-related loans conditional on the recipient country's streamlining its housing regulatory régime. And recently the Bank has been researching the effects of decentralized poverty alleviation programs (Galasso and Ravallion, 2005), whereby the central government allocates poverty alleviation funds to community organizations, which in turn decide on the allocation of funding across households. The tentative finding is that the community organizations do a better job of targeting funding to the neediest households than central governments do in allocating funding to the neediest communities.

[21] The privatization of water supply in a poor country seems a particularly dangerous ideological excess because of the extreme harm its faulty execution may cause.

It is noteworthy that, after public housing, the World Bank has provided little loan support to programs that give direct assistance to renters.

While the literature on housing in developing countries has for many years discussed the problems associated with ambiguous property rights in land, this issue was brought center stage by De Soto's book, *The Mystery of Capital*, which argued that, by reducing risk and the fear of expropriation, the regularization of property rights would lead to massive increases in informal housing construction. The book stimulated a wave of titling programs but the current consensus is that titling is more expensive and onerous than was anticipated and has provided only a moderate stimulus to informal housing construction.

Funding is, of course, central to housing policy. In most developing countries, the central government collects taxes from the more attractive tax bases, leaving the less attractive tax bases to local governments. In recent years there has been a worldwide trend towards the decentralization of government expenditure functions. In developed countries, this has been accompanied by an increase in formula-based intergovernmental grants. In many developing countries, local governments have simply been left to do more with little or no increase in funding from the central government[22].

[22] Theory suggests that land taxation is an efficient revenue source for local governments. Even when account is taken of ambiguities in property rights for land and tax evasion in the informal sector, it is disappointing that local governments in developing countries do not generate more revenue from this source.

While cursory, this review of the housing policy experience of developing countries, from the perspective of the World Bank and the United Nations Human Settlements Program, reinforces points made in the earlier section on the welfare economics of housing policy in developing countries, particularly how severely the presence of a large informal economy constrains housing policy.

1. In discussions of housing policy in developing countries, there is little if any mention of income-related housing assistance programs, simply because the bulk of income received by poor households is derived from informal economic activity and is therefore undocumented. Whatever redistribution occurs via housing policy is done without reference to household income. Furthermore, with the exception of public housing, direct assistance to renters is rare.

2. The lack of available funds to conduct housing programs at a national scale is of central concern in almost all developing country housing policy discussions. One might think that this simply reflects the relative poverty of developing countries. But cross-country studies (e.g., Malpezzi and Mayo, 1987), as well as casual intuition, indicate that households in developing countries do not spend a larger proportion of their incomes on housing than households in developed countries. Thus, the greater difficulty developing countries have had in mounting national housing programs than developed countries, can be ascribed to the greater difficulty they have had in raising revenue, *relative to the size of their economies*, which derives from tax evasion in the informal economy eroding their tax bases.

3. Another common theme is the dysfunctionality of housing policy in developing countries. Not only do central governments fail to establish national housing programs

but also governments at all levels set up numerous impediments to private housing development, primarily excessive and burdensome housing and land use regulation and excessive fees (Angel (2000)). It was argued earlier that this seemingly dysfunctional behavior is, at least to some extent, a rational response by government agents to low fiscal capacity relative to the size of the economy, deriving from the large relative size of the informal economy.

4. The literature on housing policy in developing countries emphasizes the importance of removing the impediments to the smooth operation of housing markets but contains little discussion of housing policy as a redistributive tool. Even the United Nations Human Settlements Programme, whose rhetoric concerning slums is decidedly left wing, says little about large-scale housing programs directed specifically at the neediest households. It seems that the community concerned with housing policy in developing countries has resigned itself to the inability of government to provide "decent and affordable housing for all", and instead focuses on a myriad of small-scale, local programs.

Even though governments in developing countries face more severe constraints in the design of effective housing policy than do developed countries, the picture is not altogether bleak. The research consensus is that both formal and informal housing markets in developing countries respond to market and policy stimuli as textbook models suggest. Thus, housing policy can be effective. The poor information central governments have about household incomes precludes broad-based redistributive housing policy. And the high cost of public funds means that governments must choose their housing policies with care. But there is still scope for ameliorating housing policy. The central government should take the lead in enabling markets to work, which it can do by liberalizing but at the same time prudentially regulating housing finance markets, and by reducing the regulatory burden it imposes and providing incentives for lower levels of governments to reduce theirs, and more generally by promoting policies that increase participation in the formal housing sector. It also has an important role to play in redistributive housing policy, albeit an indirect one, by accepting responsibility for ensuring that all households, especially those with children, are housed according to realistic minimum standards and by providing matching grants to local governments that institute policies to meet these standards. The task of local governments is to come up with policies that target households with the greatest housing need, perhaps by working through neighborhood and community organizations, and with the tax revenues to partially fund the policies. Whether public housing, despite its high cost, is part of the optimal policy mix depends on local conditions, as does the appropriate policy concerning the quality of public services to provide unauthorized and squatter settlements

6. Concluding Comments

Developing countries differ from developed countries not only in per capita income but also in having a relatively large informal sector. In the major cities of the poorest two quintiles of countries, about one-half of the labor force works in the informal sector, and a considerably larger proportion of the poorest households. As well, in the lowest income countries, almost two-thirds of the urban population lives in informal housing, and again an even larger proportion of the poorest households. This paper has argued that the relatively large informal sector along with the relatively large proportion of informal housing in these countries substantially affects what housing policies will work and what will not, so that much of the housing policy experience of developed countries is not transferable to developing countries.

In developed countries there has been a major reorientation in low-income, rental housing policy over the last three decades, away from public housing and subsidized construction of private housing units for the poor and towards housing allowances based on household income. Since governments in developing countries cannot observe informal sector incomes with any accuracy, any income-related housing assistance would have to be based on formal sector income. But since those with zero or very low formal income include not only the destitute but also wealthy, informal sector entrepreneurs, conditioning housing assistance on formal income would have very low target efficiency. Thus, a large informal sector effectively precludes income-related housing assistance.

A large informal sector affects housing policy in another important way. The larger is the relative size of the informal sector, the smaller is the proportion of economic activity that is taxed. Thus, holding constant the level of "real" per capita income -- which includes both formal and informal sector income -- in a country, the larger is the informal sector, the smaller is fiscal capacity. In turn, the smaller is fiscal capacity, the higher are the tax rates needed to raise a given amount of government revenue, the more distortionary is the tax system, and the lower is the optimal size of the government budget. If the same is true of the equilibrium as for the optimum, then one should observe governments in developing countries being hard pressed to finance even the basic level of public services commensurate with the average standard of living, and that is indeed what one observes. To some extent, one can also attribute some other characteristics of developing countries to their governments being strapped for cash: excessive regulation, excessive fees for permits, low-paid civil servants, and bureaucratic corruption.

Unauthorized housing is housing that violates regulations concerning land ownership, land use and zoning, and building construction. Squatter housing is housing that occupies land illegally. The large proportion of housing that is unauthorized impacts government housing policy too. If the government were to simply regularize unauthorized housing, developers would have little incentive to conform to regulations. Thus, the government must discourage unauthorized housing but that is difficult to do without disrupting the informal housing market and hurting the needy.

Economists make a fundamental distinction between efficiency and equity. Most economists who are experts on housing in developing countries argue that housing policy can best achieve efficiency by enabling housing markets to work. There is abundant evidence that informal housing markets operate in essentially the same way as formal housing markets. Thus, enabling housing markets to work entails not only correcting market failures and reducing the excessive amount of government land use and housing regulation, but also tolerating and facilitating informal housing markets. Assisting community organizations in setting up microfinance for informal housing and infrastructure investment is a promising new line of policy.

Achieving equity is more difficult. In developed countries, the primary tools for achieving equity have been redistribution via the income tax and the free or heavily subsidized provision of basic services -- health, primary education, sewage, sanitation, and police. Providing subsidized housing for low-income households has also played an important role, especially in Europe. In developing countries, the scope for redistribution is considerably more circumscribed. Formal sector incomes can be taxed, but since the government cannot observe informal sector incomes, and since the bulk of the poor earn their living in the informal sector, redistribution through the income tax system would be ineffective. Redistribution via the subsidized provision of basic services is potentially effective, but governments in developing countries are so strapped for cash that even the most benevolent would be hard pressed to provide adequate services for the poor.

What role should housing policy in developing countries play in achieving equity? Income-related housing assistance cannot be implemented effectively. One may reasonably argue that the poor need adequate food, clothing, and health care, and a clean and secure environment, more than they need more spacious housing. Even if this argument is correct (some recent evidence suggests that a minimal level of housing is important for both health and happiness), the issue remains of how best to provide housing to the very needy -- the homeless, the destitute, and poor families with children receiving inadequate services. Since most very needy urban households are renters, and since income-related rental housing assistance is unworkable, almost by elimination some minimal public housing seems called for. And since community organizations are best situated to identify the very needy, decentralized provision through them would be the most suitable method of delivery. NGO's can help by organizing the construction of housing for the neediest households, and international agencies by conditioning loans on the provision of minimal services to low-income neighborhoods.

The overall message of the paper is conservative. Efficiency in the delivery of housing in developing countries can be best achieved by enabling both formal and informal housing markets to work. Also, the high proportion of economic activity that takes place in the informal sector and the high proportion of housing that is informal severely restrict the scope for both redistribution and redistributive housing policy. Nevertheless, since informal housing markets operate in much the same way as formal housing markets, well-designed local housing programs can, with central government support, be effective in improving the well being of the housing poor.

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