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Urban Finance in Post-Depression Latin America:
The Solvency Status of Urban Borrowers

By Bertrand Renaud
and
Robert Buckley

June 1988

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Discussion Paper

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The principal authors are Bertrand Renaud, Housing Finance Adviser and Robert Buckley, Senior Financial Analyst from the Infrastructure and Urban Development Department of the World Bank. This essay on current urban problems reflects our learning experience in the broader context of the discussions in progress among various professional Latin American organizations. The authors should like to thank Dr. J. P. Arellano for his permission to reproduce source of his data on Latin American countries.

The World Bank

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Discussion Paper

**URBAN FINANCE IN POST-DEPRESSION LATIN AMERICA:
THE SOLVENCY STATUS OF URBAN BORROWERS**

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ABSTRACT

This paper discusses feasible approaches to the financing of urban investment in the disrupted financial environment of Latin America. Heavy financial subsidization of urban investment in LAC region could or has contributed significantly to the destabilization of the entire financial system. The paper discusses how continuing such economic recovery because they are often based on a misunderstanding of the status of urban borrowers. What are needed are urban policies, especially housing finance policies which can make full use of the high quality of housing as collateral. From a social policy viewpoint, scarce and shrinking public resources should only be used in the housing sector where they can have the largest marginal benefits. Traditional, enclave-type, public sector sites-and-services projects do not appear to meet this social effectiveness criterion. Alternatives exist which can have a greater impact on the sector with the same amount of resources. The paper discusses the importance of measuring the real cost of current subsidies, of minimizing the subsidy per unit and of paying for subsidies with using revenue raising methods which will not destabilize the economy.

URBAN FINANCE IN POST-DEPRESSION LATIN AMERICA
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"Seismologists learn more from one large earthquake than from
many small tremors." (E. S. Bernanke)

I. INTRODUCTION

1. It is of course well known that Latin America has just gone through a depression that has had catastrophic effects on all forms of public and private investment. The region as a whole had never before experienced such extensive, high and unstable real interest rates. Neither had its economies felt such precipitous and lasting falls in income. What is less well known and what is the topic of this paper is that urban finance, and particularly housing finance, have an important role to play in the restoration of stability in these economies. There are important linkages between policies followed within the urban sector, its performance and that of the rest of the economy and the financial system at large. In our views, urban finance reforms may well be a prerequisite to the resumption of national economic growth with stability.

2. The consensus is broadening that many current urban finance policies are not only unsustainable but indeed deleterious to economy recovery. However, a consistent view of urban finance not only has yet to emerge, but some of the policies views that are emerging are counterproductive. The urban sector can be a catalyst for domestic resource mobilization, but not unless the efficiency and targeting of current subsidies and the accountability for prospective risks is improved.

3. This paper examines the role that urban finance can play in returning Latin American economies to stability and growth. It also finds that one prominent benefit of better urban finance will be to reduce the diffuse but ultimately very regressive effects of current policies. Hence, because of the confluence rather than the trade-off between equity and efficiency gains and also because of its size, this sector is of strategic importance for policymakers.

4. The analysis is presented in three sections. First, we need to outline the post-depression context in which new urban finance policies must be implemented. Accordingly, we review the broad dimensions of the depression. Second, we discuss what we consider mistaken perspectives about the nature and role of the urban sector in the economy. We focus first on the potential quality of urban assets as collateral in financing the sector, and second on the effects that this quality can have on the choice of policies. Finally, we illustrate the

directions and components of change in urban finance needed to eliminate the destabilizing effects of many public programs. Our examples apply to housing finance policies which affect a very large proportion of total urban financial assets. Nonetheless, we think that the benefits from considering collateral quality apply with even greater force in non-housing investment.

II. THE RECENT DEPRESSION AS BACKGROUND TO NEW POLICIES

5. There is a great deal of diversity among Latin American countries in terms of economic experience, but the overwhelming commonality is the recent depression which has severely affected over 80 percent of the regional population of 400 million people. Much economic ground was lost during the first half of the eighties. The forward movement which had marked the region for decades has stopped. Some economies like Peru's and Bolivia's have experienced acute decline. The per capita income gap between Latin America and advanced industrial countries which had been closing steadily has reopened. By 1986, Colombia, which had borrowed less than the other countries, and Brazil, which had regained the ground that it had lost, were the only two countries whose per capita income was not lower than at the end of the 1970s. By 1987 the Brazilian economy which looms so large in the aggregates of the region is raising concerns again. Policymakers have lived through some harsh economic experiences and the new environment dictates different policies. As a background to the discussion of new policies we can look back briefly at the past decades of rapid growth and at the main components of the depression.

6. During the decades of rapid growth, the Latin American region was one of the fastest growing regions in the world. Economic growth was fueled by the powerful external forces of a rapidly expanding world economy and a reasonably strong demand for commodities, both oil and non-oil, which make up about 80 percent of the exports of the region. The flow of financial resources from industrial countries was taking place at low interest rates. The first oil shock of 1974 just accentuated this flow, given the unexamined assumption that world inflation would permanently lightened the debt burden of borrowing countries. Oil exporting countries increased their private capital inflows during the private dollar recycling years when international rates of interest were often negative in real terms. Variable interest loans became the norm.

7. In the urban sector per capita incomes rose markedly and city growth became very rapid under the dual impact of economic and demographic growth. But the tendencies toward chronic inflation and skewed income distribution remained. With increased wealth and growing cities, governments in the region engaged in large urban investments too often financed through what might be termed urban versions of the famous "Ponzi scheme". As long as central government resources were growing and urban incomes rising, current revenues of municipalities and

households could amortize the carrying costs of long-term investments such as housing and infrastructure.^{1/} Rapid growth permitted liabilities to be paid off at a faster rate than the assets deteriorated. But growth stopped, borrowing costs rose sharply, and the ability to amortize the cost of urban investments through new cash-flow infusion disappeared. However, slower growth only implies that the maturity of liabilities has to be lengthened to permit repayments; it does not imply that the value of liabilities exceeds asset values, in great contrast with the Ponzi scheme.

8. The second oil-shock of 1979 changed everything. Industrial countries went into recession, the world economy entered a new period of disinflation with very high real interest rates. The demand for Latin American exports collapsed and debt interest payments on variable rate loans shot up. A depression wave swept over the region caused by both external factors and internal policies. Its impact was felt mostly after 1982. However, Argentina began to slide in 1981 and got worse with its 1982 war. Then came the year of Bolivia, Chile and Costa-Rica. By 1983 Brazil, Ecuador, Mexico, Paraguay, Peru, and Venezuela had joined the descent.

9. The impact of world recession and disinflation on the real sector of Latin America has been very large. Massive resource transfers to rest of the world took place and were swollen by capital flight. They were equivalent to 25 to 30 percent of the exports of goods and services. The abrupt deterioration in the terms of trade, sharp increases in interest payments and the sudden drop in output led to a precipitous decline in the per capita GDP of the region, a fall estimated at about 11 percent in four years. As Table 1 shows not all countries remain above their 1974 level. Based on output adjusted for terms of trade and net factor payments, the income per capita drop was much steeper. Domestic financial markets suddenly experienced very high and unstable real interest rates.

10. The burden of adjustment has fallen most sharply on cities. The drop in income has led to reduced consumption and sharply lower savings. Since national savings available for investment are the difference between domestic savings and net payments abroad, the investment situation was worse. As Table 2 and 3 on aggregate savings and investment already suggest, there has been a progressive deterioration of the stock of capital throughout the decade whether it is housing, water and sewerage systems, community facilities, highways, railroads or ports.

^{1/} Ponzi was an Italian financier who was able to offer investors very high rates of return by using the funds of new investors to pay a higher than earned return to earlier contributors. The higher than market yield which was paid out of the increased flow of new funds attracted new investors thereby allowing the scheme to continue.

Table 1: BASIC URBAN AND ECONOMIC STATISTICS, LATIN AMERICA

Table Source	Population (millions)	Avg. Annual Urban Population Growth Rate (percent)	Urban as Percentage of Total Population	GNP Per Capita Dollars	GNP Per Capita Avg. Annual Growth Ratio (percent)	Per Capita GNP Rates	Avg. Annual Rate of Inflation	Avg. Annual Rate of Inflation
Country	mid-1984	1973-1984	1984	1984	1965-84	1984/1974	1973-1984	1980-1985
Argentina	30.1	2.2	84	2.230	0.3	0.86	180.8	322.7
Bolivia	6.2	3.6	43	540	0.2	NA	54.5	175.7
Brazil	132.6	4.0	72	1.720	4.6	1.14	71.4	148.9
Chile	11.8	2.4	83	1.700	-0.1	1.01	75.4	21.3
Columbia	28.4	2.9	67	1.390	3.0	1.18	23.8	22.3
Costa Rica	2.5	3.3	45	1.190	1.6	1.00	24.1	34.8
Ecuador	9.2	3.9	47	1.150	3.8	1.15	17.8	27.5
El Salvador	5.4	3.6	43	710	0.6	0.80	11.3	14.7
Guatemala	7.7	4.1	41	1.160	2.0	NA	9.4	7.5
Haiti	5.4	4.2	27	320	1.0	1.12	7.9	9.1
Honduras	4.2	5.7	39	700	0.5	0.99	8.6	6.9
Mexico	76.8	4.0	69	2.040	2.9	1.16	31.5	60.7
Nicaragua	3.2	5.2	56	860	-1.5	NA	17.2	54.4
Panama	2.1	3.1	50	1.980	2.6	1.15	6.7	3.2
Paraguay	3.3	3.4	41	1.240	4.4	1.48	12.9	15.8
Peru	18.2	3.6	68	1.000	-0.1	0.82	56.7	102.1
R. Dominicana	6.1	4.7	55	970	3.2	1.11	9.0	16.2
Uruguay	3	0.8	85	1.980	1.8	1.04	50.0	44.8
Venezuela	16.8	4.3	85	2.410	0.9	0.81	11.7	11.1

Source: World Development Report 1986. The World Bank.
International Financial Statistics Yearbook, 1986. International Monetary Fund.

Table 2: SAVING AND INVESTMENT IN LATIN AMERICA
1950-1985
(Percentages)*

Period <u>/b</u>	(1) Gross Savings to Gross Income	(2) Gross Investment to GDP	(3) Private Consumption To GDP	(4) Public Consumption to GDP	(5) Foreign Savings <u>/a</u>	(6) External Payments to GDP <u>/a</u>	(7) Terms of Tr Variation to GDP <u>/a</u>
1950	17.9	18.0					
1953	19.4	20.1					
1961-72	20.1	20.9	68.3	10.5	1.4	1.0	-0.0
1973-81	20.2	23.4	65.4	11.1	3.7	2.2	0.0
1982	15.2	20.1	66.0	11.6	4.8	5.0	-2.4
1983	15.3	16.2	65.5	12.0	1.6	4.6	-2.8
1984	16.1	16.1	65.0	11.9	0.8	5.0	-2.7
1985	15.9	16.3	65.2	11.7	0.9	4.5	-3.3

* Ratio calculated at constant 1970 prices for the period 1950-1972 and at constant 1980 prices for the year period 1973-1985.

/a The ratios for external savings, external factor payments and variations internal of trade exclude Venezuela.

/b Variations compared in 1970 for the period 1960-72:
Variations compared in 1980 for the period 1973-85.

Sources: Reprinted with the kind permission of Dr. J.P. Arellano.

Table 3: SAVINGS RATES BY COUNTRY 1971-1985

SAVINGS AS PERCENTAGE OF NATIONAL INCOME

COUNTRY	1971-1980	1980	1981	1982	1983	1984	1985
Argentina	21.7	19.6	15.6	14.9	13.6	11.4	10.8
Bolivia	17.9	13.6	7.6	8.7	6.6	5.2	2.5
Brazil	17.5	17.4	16.2	13.1	13.8	16.1	16.6
Chile	11.3	13.7	8.0	0.3	3.1	4.9	7.0
Columbia	17.2	18.1	15.2	13.4	12.2	14.9	12.8
Costa Rica	12.4	12.9	8.7	7.6	10.3	12.7	13.0
Ecuador	19.9	20.4	13.4	14.1	15.9	14.7	16.0
El Salvador	14.9	13.2	6.2	5.1	4.1	5.2	1.5
Guatemala	16.6	13.8	11.5	10.3	9.9	8.3	10.8
Haiti	10.2	9.3	4.4	7.9	8.0	8.4	7.9
Honduras	10.4	12.9	9.6	3.6	4.0	4.9	6.2
Mexico	20.7	23.7	23.5	18.4	19.9	19.7	19.9
Nicaragua	7.1	-6.9	-0.3	-2.5	-1.7	-3.7	-9.9
Panama	23.3	21.7	23.7	20.0	22.5	16.1	18.9
Paraguay	17	22.5	23.3	18.4	16.4	13.0	16.8
Peru	25.5	31.1	27.5	25.2	17.1	18.2	14.9
R. Dominicana	17.5	14.7	15.8	13.4	13.5	16.4	14.4
Uruguay	9.6	10.2	11.6	11.7	8.8	7.2	6.5
Venezuela	29.8	32.7	31.1	20.8	20.8	28.0	22.9

Source: Calculated on the basis of unpublished data provided by the Statistical Division of Cephal Savings ratios are derived from data in 1980 constant prices.

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11. Intense analytical efforts and extraordinary administrative energy have been expanded to adjust public policies and financial systems to this difficult situation. Three big lessons have been painfully learned during the 1980s by policymakers around the world. These three lessons are directly and fully applicable to urban finance. They motivate our interest in exploring more systematically the financial characteristics of urban investment.

- (a) First, the degree of uncertainty and riskiness of investment, whether public or private, can never be ignored. Lulled by almost three decades of continuing income growth, policymakers progressively disregarded uncertainty, instability and speculation; but these perennial components of human endeavor had clearly not disappeared. In the urban sector, rapid city growth and a correspondingly buoyant urban revenue flow also led to a neglect of uncertainty in the financing of the urban capital stock. The neglect of these risks often lead the various investors in urban capital, be they provincial and local entities or households, to finance that stock with an undiversified and/or highly leveraged financial structure. This structure has exacerbated the scale of economic shocks.^{2/}
- (b) Second, domestic savings and individual thrift remain the backbone of the supply of capital and will continue to determine long-term growth.^{3/} The rapid integration of

^{2/} This lesson has been learned in Europe too. A French analyst known for his support of active social policies recently reflected that "Monetary behavior is neither rightist or leftist: it simply exists and always takes its revenge, as history shows, on those who tend to ignore it." ["Les comportements monétaires ne sont ni de gauche, ni de droite: simplement ils existent et prennent toujours leur revanche, l'histoire le montre, sur ceux qui tendent à les ignorer."], Thomas Lefranc in L'imposture monétaire, Anthropos, Paris, 1981 quoted in Alain Prate La France et sa monnaie, Julliard, Paris, 1987.

^{3/} In his 1985 Nobel Lecture, Franco Modigliani has discussed how there has been a "brief but influential" period in the 1930s when "saving came to be seen with suspicion, as potentially disruptive to the economy and harmful to social welfare." Such an analytical view progressively deteriorated into the politically and electorally convenient rule that public overspending is always a safer bet than underspending. See Modigliani (1986).

world capital markets can provide the capital necessary to exploit potential gains from trade. However, foreign savings are no lasting substitute for domestic savings, they are only incremental to them. Moreover, a vibrant domestic savings market requires a financial system in which the real returns on assets will not be threatened by the ex post forgiveness of the real costs of other financial instruments such as the debt issued by urban capital investors, e.g. households and municipal borrowers.

- (c) Finally, it has become clear that some important market distortions and social inequities are much less the result of "market failures" than caused by inappropriate and unmeasured government interventions that unnecessarily increase the risks involved with urban investments. In such cases, what is the merit of policies based on socially generous objectives but faulty economic premises?

III. COLLATERAL QUALITY IN URBAN FINANCE: DO PRESENT POLICIES INCREASE THE RISKINESS OF GOOD URBAN ASSETS?

12. The central concern of this paper is that the analysis of urban policy has suffered from an excessively narrow perspective that does not make use of some of the most useful information for comparing investments in the wake of the debt crisis. In particular, given the nature of the budgetary process and standard national accounting practices as well as the policy processes in the urban sector, three problems arise: the financial characteristics of the urban capital stock are not taken into account; the financial risks to which agency programs expose the government are not evaluated; the savings and implicit wealth portfolio objectives of households are ignored and often haphazardly disrupted with large hidden transfers across the economy.

13. Analyses of urban policy need to focus on the urban capital stock as a capital good with a potentially high rate of return, especially after adjusting for risk. It should also be seen as one that is presently financed with inflexible contractual and regulatory restrictions that prevent lenders from recovering the debts incurred by the various urban borrowers.^{4/}

^{4/} Specific examples of portfolio restrictions are presented later. We should already note here that one of the worst portfolio restrictions on urban investment is the ambiguity of contracts between lenders and urban investors.

14. Financial concepts of risk and collateral applied to urban policy can significantly change macro-economic perspectives on the contribution of urban investment to restoring economic growth and stability. Comparisons among programs made within an investment portfolio framework can help to determine whether and when disinvestment should take place and in which sectors in reaction to the reductions in wealth associated the depression. We propose an explanation for why this perspective has not been taken before in the urban sector. Finally, we describe some concrete examples of how policy evaluation, and the corresponding policy recommendations, would change as a result of the application of this particular financial perspective to urban financial policies.^{5/}

A. Inadequacy of Pre-Depression Views of Urban Finance to Post-Depression Conditions

15. The policy problem in which we are interested is how the linkages between the fiscal and financial arrangements that finance the 40 percent or so of national gross capital formation going into the housing and urban capital stock are affected and affect macro-economic conditions. Our first experience is that empirical evidence on these kinds of relationships will not be easily derived.^{6/} Like most relationships of macro-economic consequence, the quantification of the fiscal and financial effects of urban policies is difficult. However, clearer insights into the types of pricing and other economic incentives that are desirable would already make a difference.

16. The economic shocks experienced by Latin American economies have bankrupted many borrowers, and macro-economic policy has had to operate in a new, riskier environment, one in which the financial rules for determining failure have been made much more lenient. In this new environment, financial institutions continue to make loans to firms whose liabilities exceed the value of their assets. To do otherwise would be disruptive, and would gratuitously impose the costs of macro-economic shocks on those enterprises that most aggressively followed market incentives, as well as those enterprises which the government often hopes will ultimately be growth generators. However, allowing these essentially bankrupt firms continued access to the capital markets when private lenders would exclude them requires that public policy apply contrived "rules of thumb," rather than relying on risk-adjusted rates of return for lending decisions.

^{5/} The particular perspective referred to is the contingent claims theory developed by Black and Scholes.

^{6/} See Buckley (1987) and Renaud (1987).

17. Unlike the analysis of the decisions with respect to almost all other capital goods, discussions of urban capital investments rarely if ever emphasize the effects of portfolio constraints or wealth maximization on the type and level of urban investment undertaken. Instead, they have focused myopically on the current expenditures needed to finance this social capital. The presumption being that because some households cannot pay the full user costs of this social capital, the actual return on investment must be low. This kind of perspective leads to the conclusion that urban capital expenditures necessarily require additional subsidies.^{7/} Given the extreme fiscal imbalances that have accompanied the debt crisis, and the resulting need to reduce government expenditures, it is not surprising that this conclusion has been rejected by macroeconomic planners.

18. Perhaps even more importantly, most discussions and analyses of macroeconomic investment policy completely ignore investment in urban capital, implicitly assuming that these investments are insensitive to economic conditions.^{8/} It is not an exaggeration to say that the relationships between the kinds of urban financial policies pursued, macropolicy, and the level and type of investments made in the urban sector have as yet to even be identified. To discuss the linkages between investment in urban capital and macropolicy in this analytical void we need first to consider the behavior of the investors affected by urban financial policy.^{9/}

B. Policies Needed to Consider the Collateral Efficiency of Urban Assets

19. During the depression we believe that most urban borrowers became technically insolvent because of liquidity problems rather than

^{7/} Such proposals were recently advanced by F. Herrera, former President of the Inter-American Development Bank, and in the analyses prepared by the Banco Hipotecario Del Uruguay, as presented to the 17th Meeting of ALIDE, see Pees Boz (1987).

^{8/} See for instance the general equilibrium models of Lance Taylor (1980) and other general equilibrium approaches to investment and their neglect of the urban capital stock and the behavioral responses of urban investors.

^{9/} The premises of our analysis are that urban investors will increasingly make decisions in an urban sector in which residents either pay the marginal cost of the local public services they consume or receive a subsidy of this cost. Local communities pay the market price for the inputs used in providing these services or receive a subsidy up to the market price. In other words, we expect that local public goods can in principle at least if not yet in fact be provided efficiently.

actually bankrupt^{10/}. This is an important distinction in determining the appropriate policy response as well as one that was not recognized. Actually, the policy response was twofold. First, to treat the insolvency as though it was a bankruptcy. Instead of attempting to structure a means of "working out" of the insolvency, policy often attempted to "bail out" those actors in the urban financial system, i. e., mortgage borrowers, provincial governments, and municipal financial institutions. Policy has also attempted to shift the costs and inconveniences of the insolvency to those who either would have consumed a higher level of services in the absence of the insolvency, or, much more circuitously and regressively, on those still holding financial assets and not real-denominated assets.

20. If urban borrowers were not actually bankrupted by the depression, as we conjecture, the scale and inefficiency of government resource transfers to the sector increased. For instance, policy often took the form of complete forgiveness or inflation discounting of all the outstanding debt that had been issued to finance existing urban investments. As a result, the already high per unit subsidy for the existing urban capital stock increased, as did the implicit taxes on all other financial assets that are used to finance this forgiveness. This process resulted in what we term "automatic fiscal destabilizers" making a bad fiscal situation worse: the level and efficiency of the transfers to the sector changed adversely as a result of changes in economic conditions rather than as a result of changes in policy.

21. In addition, the changes in the rules of thumb used to ration credit in post-depression financial systems, directly increased the regressivity of the distribution of wealth. This approach was regressive because the policy of treating bankrupt firms as though they were merely insolvent, and insolvent urban investors as though they were bankrupt lead to: (a) negative rates of interest on those financial savings that remained in the formal financial system, (b) increases in the prices of land and existing housing due to the inability to tax real-denominated assets through changes in the inflation rate, and (c) reductions in the supply of urban capital at the same time that demand for it was increasing.^{11/}

^{10/} Liquidity or insolvency problems are the inability to service debt in a timely fashion in contrast with true bankruptcy which is characterized by a balance sheet where liabilities exceed total assets and net worth is negative. One of the reason why we believe that most urban borrowers were not bankrupt is that the value of urban assets--particularly housing--is considerably less volatile than those of other investments.

^{11/} The demand for urban capital responds to urbanization trends generally. Tolley and Thomas (1987) show how declining incomes that stem from, for example, declining commodity prices can easily increase urbanization trends despite reduction in per capita income.

22. Cumulatively, these effects have created incentives that have both deepened and prolonged the severity of economic conditions. They have discouraged financial savings from returning to capital markets in which they will be heavily taxed should economic conditions again deteriorate. They have simultaneously increased the asset value of urban capital and reduced the financing available to make such investments. They have so blurred the distinction between financial and fiscal policies, a distinction that was by no means an exact one before the crisis, that government intrusions in the economy are more difficult than ever to measure and control. They have, in short, contributed to the establishment of a financial environment in which it is difficult if not impossible for lenders to react correctly to the underlying riskiness of specific loans. Finally, they have imposed a disproportionate share of the costs of adjustment on lower-income families.

C. A Contingent Claims Perspective on Urban Investment

23. Our working hypothesis is that the inability to recognize that for the urban sector insolvency was the problem and not bankruptcy has been a central policy failure in the macro-economic management of urban finance. However, regardless of the validity of this hypothesis, the perspective it offers is helpful in evaluating the possible macro-economic effects of urban financial policies. It can also help explain why these effects have not received more attention.

24. Because financial institutions have experienced losses that were sufficiently severe in the past ten years, the analysis of loss minimization for the insurers of these institutions has required some sophistication. However, the analytical advances that have permitted the requisite increase in rigor have only been developed in recent years.^{12/} Their application to the valuation of financial structures and of untraded assets is even more recent.

25. The basic insight of the contingent claims perspective is that under certain conditions it may become optimal for a borrower not to repay a loan and to default. In the simplest case of a borrower who does care about his reputation and future credit-worthiness, this point is reached when the value of the asset, PA, falls below the amount, PL, that is owed. The lender's loss is the difference between the post-default values of PA and PL; for the borrower the loss is the difference between the pre-default value of PA and the post-default value of PL. The risk that such an event can occur can be calculated and insurance against it sold. The appropriate premium or fee for such an insurance will be equal to the expected cost of default losses being realized, plus administrative costs.

^{12/} See Merton (1977).

26. The expected costs of default in turn are determined by four factors: the volatility of PA and PL; the initial difference between PA and PL; the fact that there often are transaction costs involved in exercising the default option, for instance, borrowers do care about their reputation and the value that they place on it, call this value C, must be added to PA in order to determine when it is optimal to default; and, finally, the discount rate. The market price of insurance can be calculated when information exists on these factors.

27. A contingent claim analysis of urban investments presents some difficulties. First, the risks involved in the business investment loans made by financial institutions are ultimately more straightforward than are the risks assumed by investors in urban investments. Second, the insurers of these risks, deposit insurance funds, have a more transparent responsibility for the assumption of these risks than a central government has for insuring the repayment of loans made to finance urban capital projects. It should therefore come as no surprise that little analytical attention has been paid to studying the effects of urban financial policies on either urban investment behavior or the risk exposure of the central government.

28. The contingent claim perspective has come to play a very important role in understanding and evaluating the behavior of financial intermediaries. Its role in placing urban investments in the appropriate macro-economic context can also be a very important one.

29. Contingent claims analysis applied to depository institutions focuses on their behavior as highly-regulated profit maximizing firms.^{13/} Attention is given to (a) whether the firm should be closed, due to bankruptcy, or allowed to continue to operate even though it is incurring losses, (b) how portfolio restrictions affect a firm's operations and solvency, and (c) what are the indirect costs to other financial market participants if a bankrupt firm is not closed or portfolio restrictions are not changed.^{14/}

30. The contingent claims framework as applied to financial institutions is not transferable to the case of urban finance without examining first the characteristics of urban investments which affect their quality as collateral (the value of PA). Four aspects seem important to us: the ability to repossess urban projects in case of non-payment, the relative volatility of the value of urban assets, the long-term costs to which urban defaulters are exposed, and the transaction costs of borrowing in a post-depression environment. We now look at these four characteristics and their impact on current policy choices.

^{13/} See Zahler (1987).

^{14/} See Kane (1985) for an analysis applied to the U.S. housing finance system of Savings and Loans.

1. Urban Projects Cannot Be "Closed"

31. Business investments made with the insured deposits of banks have divisible salvage value, even if it is much less than the initial investment; those made in the urban sector frequently do not. Many infrastructure investments cannot be resold to other users if the original borrower does not pay; nor can (or should) a simultaneous delinquency on mortgages by a large number of households easily be met with foreclosure. Hence, just as international debt has little apparent enforceable collateral value, so too is the case with urban assets: the original borrower cannot be replaced, and this strengthens his bargaining position should economic conditions deteriorate vis a vis the lender, relative to the position of an insured depository institution with respect to the regulator of financial institutions.

32. This bargaining characteristic suggests that for urban finance, government does not have the latitude that regulators do in determining whether or not to "close" a business project. It is impossible to do so. However, a stronger negotiating position does not imply that debt repudiation is necessarily to be expected from urban borrowers under conditions that may precipitate payment delinquency. If it did, international investments would never take the form of debt because this expected outcome would be known to investors prior to the default. The widespread existence of such debt instruments, at least prior to 1982, suggests that other factors can be usually be expected to dominate this characteristic in determining the collateral strength, or equivalently the credit riskiness, of urban capital investments. We discuss those factors below. However, first consider how urban capital's other characteristics affect it's collateral quality.

2. The Value of Urban Assets is Less Volatile than in Other Assets

33. If one looks at the volatility of the market value of housing and urban land in urbanizing economies, relative to the volatility of all other asset values it is clear that the former is the lower one.^{15/} If we ignore, for the moment, the strength of the borrower's bargaining position on likely default behavior, the relatively stable asset-value of urban capital should make it one of the best forms of collateral. If one takes the contingent claims perspective, it is one of the assets on which borrowers are least likely to default (since PA does not fall by much or may even rise). Hence, although urban capital investments cannot be terminated by the lender ruthlessly seizing the

^{15/} See Ibbotson and Siegel (1983) for some empirical estimates. The results, however, are fairly intuitive. Housing as an asset is under increased demand, for it produces a service in very general use. Relative price changes have lesser implications for its demand than for very specialized assets. Moreover, it is not taxed by changes in the inflation rate.

asset, this does not imply that such investments are riskier than are other investments. As discussed below, the policy position taken on the ability of government to either recover such debts, or to follow measures that account for the contingent liability of these debts can have an enormous effect on the riskiness of all financial investments in the economy.

3. The Long-Term Indirect Costs of Default on Urban Defaulters Are High; But They Have Been Waived by Policy

34. In a normally functioning economy, the indirect costs of default are significant. As long as an investor wants to borrow again and someone keeps track of past behavior, the impossibility to "close" projects is more than offset by these indirect costs. If policy attempts to shift these costs to others, as it has, the incentives to default increase. As a consequence, urban investments become risky investments rather than being a source of safety in a hostile financial environment (PA to the lender will fall, forcing it to cut back on PL). Financing will be both reduced in amount and more expensive, or else will vanish.

35. A number of studies of the default behavior of home mortgage loans in the U.S. have shown the important role that the indirect costs of default play in the individual decision to default.^{16/} A similar analysis has been extended to the behavior of international debt instruments, showing that for loans with sovereign guarantees the indirect costs to the borrower of defaulting are of overriding importance.^{17/} In both cases a major consideration in the default decision is the future costs that can reasonably be expected to be incurred as a result of opting to default. The primary cost of this sort is the possible exclusion from the capital market that might be applied by lenders, or the higher cost of borrowing that would be needed to compensate lenders for the greater risks that might be associated with a borrower with a history of defaults, particularly if the defaults are viewed by the lender as being unnecessary and avoidable.

4. Post-Depression Financial Costs are High

36. Analyses of the 1930-33 depression in the United States have shown that the performance of the economy and the speed of macro-economic recovery were impaired by the fall in the quality of financial services, particularly credit intermediation. The cost of credit intermediation i.e. "the cost of channeling funds from the ultimate savers/lenders into the hand of good borrowers" was raised significantly because of the inability of the banking system to differentiate between

^{16/} See Foster and Van Order (1984), Cunningham and Hendershott (1984).

^{17/} See Grossman and Van Huyck (1985).

good and bad borrowers and to evaluate collateral effectively. What is essential to lowering the cost of credit intermediation is "the combination of collateral and simple loan contracts."^{18/} In addition to shifting the cost of defaults to other parts of the financial system, what well-intentioned urban policies of loan repudiation achieve is to remove from the financial system urban assets which are most apt to help in a badly needed reduction in the cost of credit intermediation. Historically, housing assets have played a large role as collateral for small businesses.

5. What Post-Depression Policy Focus: Urban Assets or Social Sector?

37. To sum up, one of the central concerns of the analyses of financial institutions lies with the effects of portfolio restrictions on the firm's net worth, and how this figure affects the firm's behavior and can itself be affected by changes in the portfolio regulations. For urban investments, in which most of the investments are subsidized, this type of analysis is rarely done. The current reasoning is straightforward: if, due to changes in macroeconomic circumstances, the costs of financing an already subsidized good increase how can one expect to reduce subsidies without incurring either social unrest or a more regressive distribution of income?

38. Unfortunately, this reasoning is not only flawed, it also diverts attention from those aspects of urban financial policy that are most likely to be productive. To reiterate our argument of why urban investors are more likely to be only insolvent than are most other investors: urban investments under rapid urbanization are one of the least risky assets in the economy from an asset valuation perspective. If credit-worthiness monitoring and foreclosure laws function properly, when economic conditions deteriorate default will not be the preferred option and urban capital is more likely to maintain its real value to borrowers. Hence, most borrowers would prefer to default on other investments before defaulting on urban investments, and insolvency rather than bankruptcy is more likely to be the financial problem in this sector. If on the contrary, well-meaning social policies encourage debt repudiation by a significant number of borrowers, this will trigger a fall in the collateral value of urban investment held by the much greater number of urban asset-holders and accentuate the slide of the economy. Then borrower balance sheets can shift to bankruptcy in large numbers, without speaking of the rising cost of credit intermediation. The decline in the aggregate value of urban assets will be multiples of the value of debts repudiated.

39. If this argument is true, then rather than forgiving the loans of what are thought of as essentially bankrupt borrowers, attention should be given to modifying the portfolio restrictions that create a

^{18/} See Bernanke (1983).

condition of temporary insolvency for most of the borrowers. In other words, attention should be given to either (a) recasting the outstanding loans so that over the longer-term more is recovered, and the per unit subsidy level does not increase as rapidly when economic conditions deteriorate; (b) developing a financial mechanism through which the government or the borrowers, rather than other asset holders, could insure the macroeconomic risks that lead to delinquency; or (c) the economic costs of the rules of thumb that cause bidders for this relatively safe asset to be denied access to credit at the same time that riskier borrowers are given such access should be more carefully evaluated. All of these measures would either significantly reduce or make more obvious the indirect costs of the changes in the financial environment which govern policy with respect to failure.

40. Moreover, even if this argument were not true, and bankruptcy rather than insolvency characterizes the status of most urban investors, the asset-based perspective on urban finance still remains very important to the design of urban finance policies. It clarifies crucial links between the sector and economy-wide investment mechanisms.

IV. ILLUSTRATIONS OF CONTINGENT CLAIMS ANALYSIS IN URBAN FINANCE

41. In choosing illustrations of current policy problems, four urban finance areas are conspicuous in Latin America: (a) mortgage indexation problems, (b) the structure of subsidies in inflationary environments, (c) the use of wage tax funds to generate forced savings for housing and other urban investments, and (d) the behavior of provincial financial institutions in economies in which sub-national governments have lost a significant portion of their traditional revenue sources very quickly.

42. Of these four policies areas, we analyze the first two: mortgage indexation and the structure of subsidies. The mortgage indexation schemes in use in Brazil, Argentina, Mexico, and other Latin American countries, rely on short-run cash flow indexes rather than the yield on the asset financed or more generally the yield on the investor's portfolio. In other words, these repayment schemes are not derived from the households long-run willingness to pay for the asset but rather with some arbitrary notion of what is affordable. Would housing finance systems benefit from focusing on the collateral efficiency of housing and expand? Subsidy schemes in use also emphasize cash-flow measures of affordability rather than the relative yield of the asset financed. The result is that households are given less incentives to mobilize their own resources and instead rely on subsidies where they would often be willing and able to pay. What is the proper use of subsidies in post-depression Latin America?

43. The policies we discuss are in housing finance rather than in the more general urban finance for urban corporations or provincial and

local entities. This choice of policies is made for two reasons. First, it is easier to illustrate how contingent claims analysis applies to housing investments than to the often more complicated financing mechanisms used to finance municipal projects. For housing finance, the structure of the investors' balance sheet is more obvious and the return to the investor is more straightforward than is the case for other urban finance portfolio restrictions. Second, this particular set of urban financial projects is important in its own right. In many Latin American countries, the debt outstanding on housing loans accounts for a significant share of total financial assets in the economy. Hence housing finance represents an important subset of the entire financial sector.

A. Mortgage Design and Risk Bearing Ability In Unstable Economies

1. Mortgage Indexation Against Inflation

44. The chief affordability problem of housing finance in an inflationary environment is that with high nominal interest rates the real costs are redistributed towards the early years of the loan rather than increased. The obvious solution is to devise a mortgage instrument that redistributes these real costs back over later years. Then, if real interest rates were constant, a loan indexed to prices would be very much like offering a fixed-rate mortgage in a zero inflation environment. If payments are adjusted with inflation, the risk about the uncertainty of the value of repayment would be eliminated, and the real would not be shifted forward in time. Indexation in this case would solve the housing affordability problem. In order for financial transactions to take place, indexation of some form is essential in these economies.

2. Mortgage Indexation and Macroeconomic Risks

45. Financial and fiscal problems are directly linked to the mortgage indexation schemes currently in use. The form of indexation used in the mortgage market has not been a contracting device that affords "monetary correction" and protects principal while providing a positive return to savers. Nor has it been designed to structure the value of liabilities with reference to the behavior of the value of the asset financed. Households have shown that they cannot bear the costs of such repayments. Admittedly, the limited ability of households to bear all the risks associated with mortgage loan indexation is an important constraint on the schemes used.

46. Indexation does not provide protection for the risks that, for example, real income will fall by 15 percent - 20 percent, or real interest rates will increase sharply to 50 percent or more. Even less can they provide protection against both occurrences at the same time. Loan indexation, in fact increases lender risk-exposure to the kinds of shocks that have been experienced in Latin America. When exchange rates

depreciate, unemployment rises, and real wages stagnate, most households are unable to repay loans linked to financial indices. The widespread insolvency that accompanies such macroeconomic trends is not necessarily any fault of the borrowers.

47. When most borrowers are unable to make repayments due to changes in macroeconomic conditions, as occurred in Brazil, it is not a financial problem, it is a political problem; particularly when the borrowers are middle-income wage earners, participating in government-sponsored programs. The political protests that met attempts to increase mortgage payments through indexation schemes, as, for example, occurred in Argentina, are an expression of opinion about distributive policy. Tensions also arise because households are not the economic unit that in the short-run has a comparative advantage in bearing the kinds of macroeconomic risks that have occurred. However, while households should not be expected to bear "too much" risk, neither should they expect to have their financial position improved significantly due to the way their payments are indexed as has occurred.

48. When real incomes fall, the cash-flow problems implied by some of the indexation schemes used can pose enormous repayment problems for families. These problems need to be addressed by loan design and not loan forgiveness. Concern about the severity of cash-flow problems do not mean that the indexes used should completely obliterate the value of the mortgage liability because of short-run macro-economic conditions. For example, annual payment increases could be constrained into more acceptable but cumulative increases. Then very sharp short-run increases in interest rates could be accommodated by payments smoothed over a number of years. At present, in contrast, the value of many of these loans is effectively written-off.

3. Mortgage Rate Insurance and Other Forms of Risk Sharing

49. Policy reforms must recognize that households and lenders are ultimately concerned with different kinds of risks. There are cash-flow concerns for borrowers, and ultimate loan value concerns for lenders. This dichotomy of concerns has led to proposals to limit the rate at which mortgage payments can increase, or to proposals for a third party to assume what might be termed the catastrophic risks of large interest rate increases.^{19/} Neither of these two approaches can eliminate the risks involved in mortgage loan indexation, or the political pressures to use the indexation scheme as means to provide subsidies. In addition, the choice of "the" appropriate index will continue to be an important and complicated issue. Nevertheless, increased attention to the effects that macroeconomic circumstances can have on the value of mortgage repayments will lead to making the costs of housing finance policy much more explicit to the three parties: the borrower, the lender and the government.

^{19/} See Kaufman (1975), Capozza and Gau (1984).

50. Once catastrophic risks are recognized, new designs can limit the risks taken by government, and shift the cost of such approaches either to the households who benefit from the loans, or to more efficient fiscal mechanisms that have less effect on savings incentives and economic efficacy. For example, in Mexico, Argentina, and Brazil mortgages are indexed to wages. This policy carries little repayment risk as long as the wage index is increasing in real terms, that is by more than the inflation rate. However, when real wages fall, this kind of mortgage instrument results in a reduction in the value of the loan. When real interest rates increase at the same time that the real return to mortgages decline, lenders are placed in a severe solvency squeeze. Allowing these institutions to remain in business when the value of their liabilities is far in excess of the value of their mortgages is one way government, and indirectly other borrowers who are "crowded out" by the continued activity of these technically bankrupt institutions, bear the cost of mortgage loan forgiveness. Other ways of bearing these costs are negative deposit rates and the forced investment of pension funds in deposits with negative real returns.

B. Risk Management and Containment of Subsidies

51. In many countries, subsidies per unit are very high and in excess of 80 percent per unit. Meanwhile, the annual level of housing production is equal to or may be below capital replacement levels. If subsidies per unit were reduced sharply, cut in half or more, the number of new housing units produced could be expected to increase significantly. The increase in production associated with a lower subsidy per unit could in turn be expected to lower the rents for all those not directly served by the program. As a result, more poor households would benefit indirectly through the same level of overall public expenditures. Subsidy programs targeted on those low- and moderate-income households who could mobilize some of their own resources may have a greater impact than those geared to the most needy families who consequently require very large per unit subsidies. These indirect effects of housing subsidies may be difficult to measure, but they can nevertheless be important.

52. The first priority is dealing with interest rate risk. Without dealing with it in some fashion, market-oriented housing finance is impossible. Moreover, it is through the government regulations that deal with this risk that resource mobilization incentives are presently eroded. Because borrowers cannot presently shoulder the full burden of high and volatile interest rates some subsidy element will be present in mortgage loans unless rates decline over the life of the loan. This subsidy must be measured, it must be reduced and it must be properly financed.

1. Measuring The Subsidy

53. Step one should be the identification of the implicit costs and/or contingent liabilities associated with current methods of dealing

with mortgage repayment risk.^{20/} Besides providing a measure of the subsidy or contingent liability implied by a particular loan form, this analysis should also identify who besides the borrower is the bearer of this risk or subsidy. Is it depositors through negative interest rates, taxpayers, other borrowers who are crowded out, and/or the government?

54. Precise measurement of these transfers is not the objective of the analysis. Rather, the objective is to show the usefulness of widely-used capital-budgeting techniques for the evaluation of the effects of mortgage loan terms and indexes on the present value of expected repayments of different instruments under different macroeconomic environments. Such an evaluation would extend the discipline of government budgeting concepts to the financial institutions that now effectively carry out fiscal policy with respect to housing. However, besides extending the discipline of measurement of the subsidy, the government should also assume the responsibility for full repayment of the portion of the loans not paid by households because macroeconomic circumstances deteriorate and the present value of loan repayments is less than the amount lent.

55. This explicit recognition and assumption of responsibility by the government for any shortfall in the value of mortgage repayments will serve two purposes. First, it will constrain governments to shift less of this risk away from borrowers than is currently done, because borrowers can and should bear more of this risk than they do at present. Second, it will provide assurances to holders of financial assets that should macroeconomic circumstances dictate that households are not liable to repay their mortgages in full, the government will not attempt to pursue macroeconomic policies which will attempt to shift these costs to other owners of wealth.

2. Reducing The Subsidy

56. As a second step, attention should be given to identifying more "reasonable" ways of sharing the risks between government, households, and financial institutions. There are many ways that this

^{20/} In the case of indexed mortgage loans, if current expectations are such that the timely repayment of a loan using a wage index is thought to be worth 50 cents for each dollar borrowed, the ex-ante subsidy is 50 percent. The size of the ex-post subsidy depends upon whether expectations were realized. In a highly regulated economy, it is of course conjectural to say what expectations are, and consequently what the subsidy level is. As a result, it is difficult to measure such subsidies or taxes precisely. Nevertheless, regardless of the measurement difficulties it is clear that the size of these implicit transfers or fiscal policies is very large in many instances. A contingent liability is incurred if, for instance, repayments are indexed to wages and wages fall.

risk-sharing could be improved. Chief among them, however, is careful design of the mortgage instrument so that those households who are willing and able to pay an interest premium or insurance fee to avoid bearing such risks are allowed to bid for such protection. It may well be that the government is the only supplier of such protection. Nevertheless, even if this is the case, provisions should be made so that the expected costs of such a program have explicit revenue sources, be they household payments or tax-revenues. This may in fact a better use of tax-funds than their present programs.

3. Paying for the Subsidy

57. The third step involves the choice of explicit revenue-raising methods to make any contingent or anticipated payments that are not directly assigned to either borrowers or lenders. In the circumstances of unstable economies it is of course unreasonable to hope that such payment schemes could be self-financing in the short-run. However, it is still reasonable to conclude that such programs would result in the governments either bearing considerably less of the risk or conferring smaller subsidies than they implicitly do at present. In addition, in almost of these countries taxes are already collected for housing finance purposes. Using a portion of these tax-funds to accrue what amounts to insurance reserves would be a more effective use of these revenues than is their current substitution for household debt and savings through poorly-targeted subsidy programs.

C. Housing and Three Key Policy Issues of Urban Finance

1. Resource Recovery by Public Lenders

58. At present, mortgage lending often comes exclusively from public programs. Therefore better targeting, measurement, and control of the level of subsidy per unit are essential to reduce both the very large inefficiencies of current housing finance policies, and their adverse effects on resource mobilization incentives. This objective is not the political nonstarter that it might appear at first glance. The objective does not necessarily call for an immediate reduction in public resource allocation to housing, although that often may well be desirable. Rather, it focuses initially on: (a) identifying more accurately the scale of such subsidies that are now not measured in government budgets; and (b) reducing some of the very large efficiency losses implied by current program structures.

59. Besides attempting to make housing more affordable for more households, housing finance subsidies can be designed to take advantage of the fact that, as an asset, housing will continue to be a relatively attractive form of wealth-holding in these economies. The restoration of the credibility of financial assets will not occur quickly in economies in which real borrowing costs have exceeded 20 percent while real returns on deposits have simultaneously been negative. Consequently, subsidy beneficiaries can be expected to mobilize some

resources in order to gain access to housing. Housing subsidy structure can be designed to encourage such resource mobilization. In addition, the housing provided should be in a stage that permits households to use future savings and possibly household labor to invest in the unit. Different subsidies can not only encourage more resource mobilization, they can permit the number of subsidized units produced to increase.

2. Role of Housing Finance In Restoring Stability

60. In unstable economies, the ability to offer positive, safe returns to savers is essential to reverse the flight from formal financial intermediaries. Correctly-structured housing finance policies should be seen not only as a means to provide equity to the housing market, but also as a way to help reduce the risk-taking that perpetuates the economic disruptions. At present, the financial systems in unstable economies encourages speculative risk-taking when real interest rates move to the high levels that have been observed. In these environments often-times the only borrowers are those who have to continue to borrow in order not to declare bankruptcy, or those who are in a sense "betting" on loan government forgiveness of some form.^{21/}

61. In addition to its effects on the housing market a subsidy that is designed for maximizing the amount of household contribution towards each housing unit produced will also benefit the financial system. In unstable financial environments the financial system has often functioned more like a lottery than a device to channel resources to investments that have high rates of return. Housing does not offer an investment with the highest rate of return in the economy but, it does offer one of the safest assets, and in many economies it clearly does have a high return. Consequently, its financing offers a safer basis on which to base financial intermediation than do many of the alternative investments for which borrowers are willing to pay very high real rates.^{22/}

3. Social Impact of Housing Finance Reforms

62. Identifying policies and reforms that focus on the sector's macroeconomic and financial linkages does not subordinate the housing needs of the poor to the fiscal austerity which often appears to be the prescription for unstable economies. It aims for the greatest social leverage in an environment of shrinking resources in three forms. First, young, moderate, and lower-income households have the most to gain from a restoration of economic growth. Second, the housing finance

^{21/} For a discussion of distress borrowing in Argentina, see Petrei and Tybouts (1984) as well as Corbo and de Melo (1985).

^{22/} The reforms of housing finance in Chile after the 1982 depression built upon the quality of residential mortgages as one of the few remaining assets that can be trusted in the aftermath of the crisis. This is also the origin the U.S. housing finance system after the Great Depression, see Bernanke (1983).

systems and innovations, that were often designed to assist these households are now contributing to the overall economic disruptions. Changing the form, rather than the level of assistance can reduce the scale of macroeconomic disruption. If more housing can be produced with the same volume of subsidies, that will both improve overall economic conditions, and the circumstances of the poor. Finally, immediate relief for the very poor is better achieved through programs that do not require ownership of a long-term investment.

63. For example, between 1980 and 1985 in Greater Buenos Aires real rents almost doubled, the number of families living with more than one family to a housing unit increased substantially.^{23/} Simultaneously, the government spent between one and two percent of GDP on housing subsidies per year during this period. Nevertheless, new housing production was hardly sufficient to keep pace with depreciation of the existing housing stock and the supply of rental housing contracted for much of this time. Such a high subsidy level represents a strong government commitment to the housing sector. Clearly, however, such expenditures did not solve the housing problems of the poor. Furthermore, because the taxes used to finance these subsidies came from a variety of indirect taxes on owners of other assets, they contributed to the macroeconomic environment that caused housing market conditions to deteriorate in the first place.

V. CONCLUSION

64. Our analysis has aimed to show that there are five major kinds of benefits in encouraging the sound development of urban finance at this time.

(a) Housing and Urban Benefits

Clearly, better housing finance will improve the efficiency and stability of housing and urban investment. As is well known, the availability of financing is the critical factor in urban development projects. The striking physical differences observable across neighborhoods in the same city reflects the nature of their financing or lack of it.

(b) Financial Sector Benefits

At a time when economic conditions have been more uncertain, it would improve the overall stability of the financial system if financial institutions could diversify efficiently their

^{23/} Source: Housing Secretariat Argentina, 1986.

asset portfolio into housing and urban capital which are some of the safest and least risky assets in the economy.

(c) Domestic Resource Mobilization and Household Savings

Better housing finance systems will encourage the dynamic complementarity between the accumulation of financial savings and future investment in what is the major asset for most households. The accumulation of savings in the form of deposits rather than physical assets will allow the resumption of financial deepening interrupted by recent inflation and will allow more efficient allocation of savings economy wide. In addition to the recent fall in per capita incomes, present forms and levels of household financial savings are a clear sign of inadequate and not credible financial systems in many countries.

(d) Social Benefits

The social benefits of better urban finance systems for the poor are both direct and indirect. The direct effect is that better market based systems for the majority who can pay will free public resources for support of the poorest households who currently stand at the end of the queue. Indirectly, a more efficient and abundant supply of housing will stabilize housing rents on the rental market and affect the majority of the poor.

(e) Fiscal Benefits

From a macro-economic management viewpoint there are important fiscal benefits to be made in reforming existing urban and housing finance systems as part of the necessary structural adjustments. The resource transfers involved in mortgage finance practices are often extremely large and erratic. These transfers operating through financing are much more inefficient than transfers made through direct public expenditures; they are also largely unmeasured because they are an implicit tax on the financial system. There are now accounting and budgetary pressures to increase this form of transfers precisely at the time when the need is for financial liberalization. In Latin America, this problem of unaccounted but very real transfers is particularly serious because they often increase automatically in size as economic conditions deteriorate. Indeed they do function as automatic fiscal destabilizers.

65. The severe shocks of the depression have clearly placed in evidence the risks attached to past urban practices. Until the urban sector's problems are treated within the appropriate financial and analytical context, the urban disruptions that have occurred in so much of Latin America will not be understood; and more importantly, nor will these disruptions be corrected and ended.

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