

Reaching the poor: lessons from the Chilean housing experience

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SUMMARY: *In recent years, the Chilean government has been refining the housing support offered to households. This paper discusses the main strengths and weaknesses of this system, particularly its ability to satisfy the needs of low-income households. After a description of the system including effectiveness and targeting issues, the authors discuss future challenges for the Chilean housing system including the quality and flexibility of support.*

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I. INTRODUCTION

LATIN AMERICAN ECONOMIES have been conspicuously ineffective in providing basic housing services for the poor. The formal mechanisms of housing production and financing do not reach all segments of the population while informal mechanisms tend to produce solutions that are either sub-standard or expensive. A large number of low-income families are forced to reside in dwellings which lack basic sanitation services, are overcrowded or provide insufficient protection from the environment. Private sector activities are directed principally at high-income families and public policy is usually unable to make up for the deficiencies in the private provision of housing services.

A different picture is emerging in Chile, the result of a consistent housing policy and 40 years of sustained political commitment to public involvement in the housing sector. Within a context characterized by sustained macro-economic stability, reasonable rates of economic growth and strengthening financial markets, the Chilean housing sector has reached a political milestone: since 1992, the country has produced more new houses than the estimated increase in new families and the replacement needs derived from stock obsolescence. Further, the sector is reaching low-income families with a combination of programmes that are gradually improving their living conditions.

reflect the views nor the policies of the Inter-American Development Bank or any of its affiliated institutions.

1. Mac Donald, J. (1994), ¿Cuántas casas faltan? El déficit a nivel nacional y regional, Documento de Trabajo N°16/94, Corporación de Promoción Universitaria, Santiago, Chile.

2. Between 1973 and 1990, the private formal mechanisms for home construction and financing accounted for just over 10 per cent of the houses built in Chile. Although participation by the private sector has increased in the last five years - in consonance with economic growth and increases in family income - recent estimates suggest that the private sector is responsible for approximately 30 per cent of the additional housing stock.

II. CHILE: A CASE OF SUCCESSFUL STATE INTERVENTION IN HOUSING

a. Market Failure

IN CHILE, AS in most countries, the market faces many constraints in effectively providing minimum housing conditions for the population. According to recent estimates, in 1992 the country's 3.78 million households occupied 3.10 million houses. Low-income families make up most of the approximately 880,000 households facing inadequate housing, 610,000 sharing accommodation with other families and 270,000 living in houses requiring replacement.⁽¹⁾

Several factors have restricted the capacity of the private sector to provide housing for all the country's income groups. The most significant is the low income of many families that prevents them from having access to new houses supplied by private developers. Positive interest rates and the indexing of mortgage payments to a unit of account, the *Unidad de Fomento* (UF), have helped develop a private home mortgage financing system in Chile. However, this system does not benefit low-income families, who either cannot meet mortgage payments or are reluctant to take on indexed payment commitments on the strength of wages that do not always move according to changes in the UF. In fact, as in most developing countries, Chilean real-estate developers and commercial banks offer houses and financing mainly to high-income families.⁽²⁾

On the other hand, the rental housing sub-market is not significant in Chile. In the past, the supply of rental housing was discouraged by rent controls. Government intervention, while intending to protect tenants, undermined the real value of rentals and reduced flexibility in the rental market. Although the regulations were abolished in 1979, the rental market is still constrained by household preference for house ownership, a trend promoted by the government since official support only exists for owner-occupied houses. The combined effect of these factors makes private investors less interested in providing rental housing. As a result, self-ownership dominates housing stock tenure: some 63 per cent of Chile's housing stock is owner-occupied and only 17 per cent privately rented; the remaining 20 per cent is under other forms of tenure, mostly users without payment.

b. The Long and Winding Road of Government Intervention

Realization of the constraints faced by the market to supply homes for low-income households led the Chilean government to intervene in the sector. Over the years, governments of different political orientations have tried different policies including:

- direct construction of houses for specific clientele (1950-1960);

- the establishment of savings and loans institutions to cater for middle-income households complemented by government provided houses for low-income groups (1960-1970);
- the launching of massive public housing programmes aimed at providing every family with a house (1970-1973).

Furthermore, a real but undeclared policy, in the late 1960s and early 1970s, was tolerance of land invasions. This reduced overcrowding in the existing housing stock but created many sub-standard neighbourhoods where sanitary conditions were later, and still are being, improved through governmental programmes such as sites and services.

Although all these attempts have systematically proven unsustainable in the long-run and have shown, at best, only partial success, they do confirm the sustained political support for government intervention in housing that characterizes the Chilean housing experience. This commitment has provided Chile with a strong institutional structure led by the Ministry of Housing and Urban Planning ("Ministerio de Vivienda y Urbanismo" (MINVU)), an important group of cooperatives and NGOs specializing in social housing (a reaction to the failure of both the market and the government) and a construction industry with experience in low-income housing.

Sustained support for housing in Chile results in relatively good housing indicators in some sector areas.⁽³⁾ However, private housing financing in Chile is still not fully developed.⁽⁴⁾ An analysis of the problem goes beyond the scope of this paper, which centres on low-cost housing.

Starting in 1977, the government undertook a thorough reform of the housing sector based on the neo-liberal ideas used to reform other sectors of the economy. Housing production and financing was left to the private sector with some government help. With this approach, the historic difficulties encountered by the market in satisfying the needs of the low-income population were thought to be a result of the insufficient purchasing power of these households. The state, in a subsidiary role, was to help them supplement their purchasing power with up-front subsidies. Complementary financing would be provided by private banks.

The original design suffered many modifications. The government, when confronted with the lack of interest by developers to enter this housing sub-market and of private banks to lend to these households, had to assume an active role in the production of low-income houses, assigning them directly to beneficiaries and providing supplementary loans.

c. The Current System. Characteristics of the Subsidy Scheme

Over the years, and after much trial and error, a three-tier housing system has emerged. The system includes:

- private mortgage financing that allows upper-middle and high-income families to buy houses produced by private developers;

3. World Bank/Habitat 1993 Housing Indicators for Santiago show a housing sector operating more efficiently than that of other similar developing countries: a relatively low house-price-to-income ratio (2.1), a high production ratio (6.2 houses per thousand inhabitants), high housing investment (4.4 per cent of gross city product) and low land development and construction costs.

4. World Bank/Habitat Housing Indicators testify to this situation: mortgage loans represent only 20 per cent of the outstanding loans in both commercial and government financial institutions. Furthermore, mortgage loans financed only 44 per cent of the total investment in housing in 1992. Heavily influenced by the problem of arrears in the public lending mechanisms (total arrears was over 40 per cent of portfolio in 1992), currently, commercial banks finance housing loans through mortgage backed securities issued by the banks. These securities are often sold in the secondary market, backed by the financial strength of the issuing bank. Recently, new forms of securitization of mortgages have been explored, as has the possibility of introducing leasing for housing.

- a mixed system, which pivots on non-refundable cash vouchers supplied by the government and supplemented by loans from local banks, which helps middle and low-middle-income families to finance houses also produced by developers;
- government contracted houses distributed with heavy subsidies to low-income families.

The government contracted programmes include the Basic House Programme (BH) that provides finished houses of 42 square metres on average at an average cost of US\$ 6,500, and the Progressive Housing Programme (PH) that provides beneficiaries with a fully serviced housing lot and a core house of approximately 14 square metres at an average cost of US\$ 4,000 (the core allows beneficiaries to settle on the lot while they expand it into a full house).⁽⁵⁾ The government contracts out the building of BHs and PHs to private construction firms and distributes them directly to beneficiaries.

5. The values mentioned correspond to contracted prices. Although they include the land costs, the building is frequently executed on government land, thus they may not fully reflect them.

Table 1: The Chilean Housing System

Income US\$/month	Subsidy		Cost to buyers US\$		Maximum house price US\$
	Type	US\$ %	Savings	Loan	
0 - 85	Progressive Housing	3,700 93.0	250	N.A.	3,950
86 - 220	Basic Housing	3,950 61.0	310	2,190	6,450
221 - 419	Workers Programme	2,520 27.2	1,120	5,610	9,250
221 - 419	Subsidy Certificate I	3,640 26.0 3,360 24.0 3,080 22.0	1,400	8,960 9,240 9,520	14,000
420 - 900	Subsidy Certificate II	3,080 11.0 2,800 10.0 2,520 9.0	2,800	22,120 22,400 22,680	28,000
361 - 1,680	Subsidy Certificate III	2,520 6.0 2,240 5.4 1,960 4.7	4,200	35,280 35,560 35,840	42,000
N.A.	Rural Subsidy	4,200 37.5 3,640 32.5 3,080 27.5	Land	7,000 7,560 8,120	11,200
420 - 1,680	Urban Renewal	5,600 13.3 5,320 12.7 5,040 12.0	1,400 2,800 4,200	35,000 33,880 32,760	42,000

N.A.= not applicable

The mixed system includes several lines of action. The most significant is the Unified Subsidies Programme (USP) that issues cash vouchers to complement household savings and debt capacity to buy market offered houses that comply with minimum standards and maximum price requirements set by MINVU. Beneficiaries search freely for houses offered by developers and apply their vouchers towards payment of the house. Cash vouchers are for purchasing new houses, with the objective of boosting the construction industry. The beneficiary is authorized to use the voucher to purchase a house only after a year of issuance. The Special Workers Programme (SWP) provides direct subsidies to organized groups with either larger savings capacity or with assistance from other sources (firms, NGOs). The Rural Housing subsidy helps rural households to improve housing conditions, allowing access to a very basic solution (almost for the amount of the subsidy) or to a better quality home if the household can obtain a loan. The Urban Renewal Subsidy Programme promotes the renewal of deteriorated inner-city areas. Eligibility here involves not only the applicants (in terms of savings and capacity to pay a loan) but also the area where the house is located, which has to be in a predetermined renewal area. Table 1 describes the basic characteristics of the Chilean system.

For many years the government centred its support for low-income households on the Basic Housing Programme. The fact that the programme had difficulties reaching very low-income households led the government to introduce the Progressive Housing Programme, which provides lower standard housing but requires less up-front savings and no loan repayment.⁽⁶⁾ The introduction of this programme effectively extended the range of housing services provided by the government aimed at reaching the very low-income families that were doubling-up with other households ("*allegados*").

The voucher system is achieving good vertical equity, providing a larger subsidy as the cost of the house decreases. Originally, the system also offered support for those with incomes above those stipulated in level III. The government gradually reduced the levels and amounts of the subsidies, better targeting the resources. The reduction in subsidy levels led to the current less than 5 per cent subsidy for the lower level of subsidy III compared to the 93 per cent subsidy of the Progressive Housing Programme. The desired outcome of the system is to increase the commitment of households into repaying mortgage backed loans as their income increases.

d. The Current System. Government Lending for the Basic Housing Programme

Confronted with the lack of interest from private banks to enter the low-income lending market, the government opted to provide complementary loans of US\$ 2,200, via the Ministry of Housing, to beneficiaries of the Basic Housing Programme, amortized over 12 years at a preferential annual interest rate of 7 per cent.⁽⁷⁾ These government lending activities are plagued with

6. Initially, the programme contemplated a soft loan repayment but it was eliminated so that the beneficiaries could devote their savings to expanding and consolidating the houses.

7. Real commercial interest rates for 12-year mortgages ranged from 9-17 per cent in the 1979-1984 period.

problems of arrears in the loan portfolio; even after several re-negotiations, loans more than three months in arrears still account for more than 60 per cent of all loans. The high level of arrears still remains even after the government contracted out the collection process.

This situation is only related in part to the household's inability to pay. There is indirect evidence that a lack of discipline in the system plays a major role: there is the general feeling among beneficiaries that you do not have to pay back a government loan. This impression is further enhanced by reluctance on behalf of the government to evict beneficiaries who are in arrears, fearing the political backlash and the many renegotiations of loans made in the past. Thus, the loans turn into *de facto* subsidies for those who default, to be added to the already high subsidy of the programme.

e. The Current System. Access Options to the Lowest Income Groups

There are various ways to gain access to the Chilean housing system. To enter the subsidized programmes, households must demonstrate housing needs and income through a Social Stratification Survey ("Ficha CAS") and complete a savings plan for the amount required for each programme (see Table 1). A transparent procedure guides the assignment of the subsidies, relying on a national list of applicants and a formula based scoring mechanism.

Under the current system, the government directly supplies houses to families with incomes below US\$ 230 through the so-called "public stream" of the Basic Housing and Progressive Housing Programmes, where the MINVU assigns the houses directly to beneficiaries selected from the national list of applicants. Both programmes also consider a "private stream" where applicants apply for the subsidy in organized groups, providing the land and contracting-out building of the houses with the resources from the subsidy. In these cases, subsidies are not assigned through the national list but directly by the regional offices of MINVU using predefined budgetary allocations.

Demand for both of these programmes is significant. Data from the Basic Housing Programme shows that, in 1993, there were six applicants for every beneficiary. This ratio is consistent with the average 1,700 days (4.7 years) which elapse between registration and access to a house through this programme.

Table 2 compares the registered, the applicants (the registered who comply with the programme requirements) and beneficiaries of the BH and PH programmes. The data show that, in 1993, the chances of gaining access to a housing solution were better in the Progressive Housing Programme: there were 2.4 applicants for each beneficiary of the public mode and 3.9 for the private one, whilst there were over six applicants for every beneficiary of the Basic Housing Programme. However, this may be due to the novelty of the Progressive Housing Programme (introduced only two years earlier). This programme is

bound to suffer an increase in the number of applicants as it becomes better known, and should attract some of the 365,000 households registered with the Basic Housing Programme who cannot comply with its savings and loan repayment conditions. In the long run, access to both programmes should be similar.

Table 2: Basic Housing and Progressive Housing. Access Data 1993

Programme	Registered *	Applicants **	Beneficiaries ***
Progressive Housing "Public"	24,000	13,400	5,700
Progressive Housing "Private"	4,700	2,700	700
Basic Housing "Public" ****	365,000	136,000	22,300

* Registered: households submitting applications.

** Applicants: registered households complying with all programme requirements.

*** Beneficiaries: applicants receiving housing solutions in the programmes.

**** The private modality of the BH programme is starting to be implemented in 1995.

SOURCE: Ministry of Housing and Urban Planning. Annual Reports.

The notably fewer applicants for the private mode, over the public mode, can also be explained by the novelty aspect. Nevertheless, the difficulties that households experience in finding land and contracting the house themselves, rather than this being done by the public sector, cannot be underestimated. The Special Workers Programme, which also works on the basis of organized groups applying for subsidies, was implemented some years ago but these groups are supported by established organizations which deal with the land and building matters.

f. Recent Accomplishments. Expanding the Housing Stock

The Chilean housing system is benefiting from a stable macro-economic environment and a rapidly developing financial sector. This has allowed for the gradual consolidation of the mortgage based mechanism for housing financing administered by private banks and increasingly financed by institutional capital. Furthermore, economic growth has allowed the government to sustain the heavy financial burden represented by the subsidy scheme. Finally, economic growth is gradually expanding the purchasing power of households, increasing their access to market provided housing services and products. The system is currently producing over 110,000 new houses annually and the distribution is shown in Table 3.

At the same time, every year the government provides basic sanitation for approximately 14,000 low-income dwellings in sub-standard settlements through the Settlement Upgrading Programme. Also, after 24 months, the beneficiaries of the Progressive Housing Programme who comply with a savings plan

Table 3: Housing Production 1990-1994

Programme	1990	1991	1992	1993	1994*	1995**
PH "Public"	0	5,488	8,053	5,577	4,935	6,531
BH "Private"	0	601	2,626	2,523	5,189	5,999
BH "Public"	16,029	24,805	22,414	21,011	26,328	23,335
BH "Private"	0	0	0	0	0	5,000
SWP	14,550	12,792	20,743	16,535	15,270	17,000
Subsidies (I,II, III)	24,801	22,721	22,368	22,307	22,312	30,507
Rural Subsidy	6,307	4,910	8,485	7,602	7,377	8,056
Sub-total public sector	61,687	71,317	84,689	75,555	81,411	96,428
Private sector ***	17,217	17,164	20,980	41,837	37,216	N.A.
Total new houses	78,904	88,481	105,669	117,392	118,627	
PH second phase	0	327	561	800		4,964
Settlement upgrade	11,617	18,850	14,996	12,223	11,500	12,000
Total upgrading	11,617	19,177	15,557	13,023	12,950	16,964

N.A.= not applicable

* Preliminary Data

** Programmed

*** Estimated. There are no reliable statistics on the volume of houses produced and financed by the private sector. This estimation corresponds to the subtraction of the houses supported by the public sector from the data compiled by the the National Statistical Institute on the number of houses initiated each year.

SOURCE: Ministry of Housing and Urban Planning. Annual Reports and Ministry estimates

8. The additional subsidy tops the subsidy received by the beneficiaries of the Basic Housing Programme (US\$ 3,700 + US\$ 2,000 versus US\$ 3,950), who usually have higher income levels.

are eligible for an additional subsidy of US\$ 2,000 for upgrading housing stock.⁽⁸⁾

In the last five years, the number of new dwellings produced by the system has been greater than the estimated number of new families created every year (80,000) and the number of replacement of homes (20,000). By sustaining this level of production, the Chilean housing system is currently able to provide formal housing to some of the estimated 880,000 families currently living in sub-standard dwellings or who are being forced to double up with other families.

g. Recent Accomplishments: the Increase in Savings

The success of the system which assigns houses plays an important role in the positive outcome of the savings scheme mounted as part of the eligibility criteria. Eligibility criteria for all subsidy schemes require "registered households" to save for at least two years and to reach the amount stated in Table 1 for

each programme. Savings currently amount to more than US\$ 350 million in over 800,000 individual savings accounts managed by private banks. It is expected that, as family income continues growing, so will the savings, thus reducing the burden of subsidies for the government.

The savings scheme transformed traditional group pressure on the political system to provide publicly financed housing into a savings discipline to allow access to houses. People's confidence in the effectiveness and transparency of the system is a significant factor in introducing discipline in social pressure for housing. Currently, communities rely on MINVU for the solution to housing problems, as shown by the fact that no land invasions, common in the late 1960s and early 1970s, have taken place since the return to democracy in 1990.

The negative side of the system, however, is the excess reliance of low-income families on solutions provided or assisted by the state. This limits their willingness to engage in self-help or community based housing solutions.

III. A PRAGMATIC STATE RESPONSE AND THE RATIONAL ALLOCATION OF RESOURCES

IN CONTRAST TO its neo-liberal origins, the Chilean housing system is far from being driven by the private sector with the state acting as a facilitator. The system, as it stands today, represents a pragmatic application of the original principles. As a result, the Chilean housing system shows a more complex picture than one which would emerge from its theoretical formulations. The state's presence throughout the system is pervasive. Several mechanisms, established to ensure efficiency in the attainment of the quantitative goals, affect the efficient allocation of resources and generate inflexibility, thus reducing the system's ability to satisfy the needs of the population.

a. Supply-Driven Housing Production

In the original design, the Chilean housing system was demand-driven. The government acted as a regulator and helped low-income families to gain access to privately produced houses through direct subsidies, whilst developers were made responsible for the different stages of production and marketing. In spite of the demand oriented rhetoric of the system's design, and the visible role assigned to private entrepreneurs, the system to date is mostly supply-driven and with much state intervention.

Introduced during the recession years of the late 1970s, official subsidy schemes are aimed at supporting the demand for houses produced by the formal construction industry imposing restrictions on the use of cash vouchers to buy houses from stock. To regulate the use of the vouchers, the state defines the characteristics of the houses through price and minimum standard restrictions in houses eligible for cash vouchers. As a result, in the relevant housing sub-markets, the characteristics

of the supply are determined by the government: private developers produce only the eligible types of houses.

Low-income housing demand created by the subsidy scheme failed to persuade developers to put eligible houses into the market and banks to provide complementary loans. Developers argued that the low profit margins obtained in the BH and PH programmes prevented them from entering those markets and they concentrated on the higher unit value markets created by the Special Workers Programme and the Subsidy Certificate and Urban Renewal Programmes. Private banks justified their reluctance to support low-cost housing programmes on the grounds that low-income households represented a high credit risk: not only may they default on the loans in mass but also evictions represent a political cost that the banks are not prepared to face.

In response, the government resorted to directly contracting Basic Houses Programme houses and, more recently, Progressive Houses Programme houses, whilst MINVU provides beneficiaries with the loans they require to complete the financing of the dwellings supplied by the Basic Housing Programme. As a result, the government constructs the houses and assigns them, as in the traditional government-run system of housing supply for low-income households.

When considering the houses directly produced by the government and those purchased with subsidies (43 per cent and 25 per cent respectively, in 1994), it turns out that the government is directly or indirectly responsible for the production of over two-thirds of the system's output. This is a role well beyond that of a facilitator. By means of the direct demand for houses and the house size and price limitations imposed when using subsidies, the government defines the characteristics of most of the Chilean housing supply. Only those houses that fit government definitions are produced and the consumers are left with little choice but to fit their aspirations to what is offered. This problem, quite acute in the BH and PH programmes, is less dramatic in the Unified Subsidies Programme, where consumers have greater choice of location, if not of house characteristics.

b. Rigid delivery system

Political pressure to reach quantitative targets contributes to the system's rigidities, which focus attention on the supply side of the equation. This has prompted MINVU to focus on the efficiency of resource use leading to a rigid production system.⁹ Standardized housing types are reproduced endlessly and assigned to all types of families, irrespective of their needs or preferences. As the largest developer in the country, MINVU has yet to develop a more demand oriented approach and adjust its programmes to the needs and effective purchasing power of the demand. This drawback leads to two types of resource misallocation: on the one hand, households often receive either less or more housing than they need; on the other hand, the rigid financing structure based on one price for one type of house

9. MINVU's argument for continuing the direct contracting of Basic and Progressive Houses is cost related. Direct contracting, with payments to contractors during execution, allows the ministry to produce Basic Houses for an average of US\$ 6,500 (US\$ 155 per square metre), one of the lowest in Latin America.

10. Beneficiaries of the Basic Housing Programme systematically report house expenditure up to 50 per cent less than that previously paid in renting.

prevents the system from adjusting household repayments proportionally to their income. As a result the system is incapable of tapping all the resources that potentially would have been devoted to housing by the beneficiaries.⁽¹⁰⁾ This design flaw is made worse by the inability of the system to enforce repayment of government provided loans.

The option to promote the use of subsidies towards buying new houses introduces a further rigidity to the system. Lack of financing hurts the market for low-income homes in the housing stock and prevents the fluid transfer of houses that would contribute to the rational allocation of the stock. Also, the long tradition of government support for home ownership, coupled with many years of rent control (removed in 1979), has discouraged the growth of the rental market, crippling another mechanism to efficiently allocate the housing stock.

Furthermore, MINVU regulations prevent beneficiaries from renting or selling subsidized houses during the first five years through restrictions placed on the registered title to the property. This results in reduced housing mobility by households: once a beneficiary receives a house, he is stuck with it, at least for the first years. However, these families may have to retain the house much longer, and they tend to remain in the same house throughout most of the family cycle. Applicants to social housing programmes create the greatest demand for these types of houses, and form the government's captive market in the assignment of the basic and progressive houses contracted every year. This trend not only misallocates resources in that households do not adjust their consumption of housing to their needs but also affects the mobility of labour in the economy. Nevertheless, there is evidence of unauthorized rentals and transfers occurring, demonstrating a market need for these transactions.

c. Quality, an Elusive Target

MINVU had two goals for the reformed housing delivery system: to expand housing production and to reduce government involvement. The original design of the reformed system was consistent with these goals. Production and marketing of the houses was left to the private sector, consumers were expected to care for the quality of the product, whilst competition among producers would improve quality over time. Actual implementation of the reform prevented the attainment of both goals simultaneously. As previously stated, lack of interest by the private sector to supply Basic Houses Programme houses (and more recently Progressive Houses Programme houses) through market mechanisms forced the ministry to directly contract the houses thus giving it the responsibility of guaranteeing the quality of the product that it was assigning to the beneficiaries. Regional offices of MINVU regularly report difficulties in supervising contracts due to budgetary and manpower constraints. As a result, the government is not fully capable of guaranteeing the quality of the houses. Beneficiaries are consistently reporting on the poor quality of materials and craftsmanship and often have to make significant repairs or replace faulty components.

11. This problem is exacerbated by the common practice among developers of undertaking each development through specific limited liability companies. The company is incorporated exclusively for the purposes of the development and is dismantled upon completion, limiting the developer's liability.

The strict bracketing of price and minimum standard developed by MINVU to contract Progressive and Basic Programme houses has led construction companies to develop model homes that maximize profits and that are used in all contracts. This inhibits innovation and promotes endless repetition of the same models.

Quality concerns also plague the houses sold on the market by developers to holders of subsidy certificates. Price eligibility limitations push developers into reducing costs, a goal often achieved at the expense of the quality of the product. The complexity of the product limits buyers' awareness of quality. Supervision by municipalities and public utilities is restricted to specific connections or to compliance with land use regulations and codes affecting the soundness of the structure, and does not contribute towards boosting quality.⁽¹¹⁾

d. Relaxing the Rigid Delivery Systems: Community Based Access to Subsidies

The monolithic production-distribution system that MINVU created for the BH and PH programmes shows signs of change. From its inception the PH Programme allowed organized groups to apply for subsidies. This allowed groups to purchase land and comply with the savings requirement. Over the years community based Progressive House Programme housing has become very popular, representing an increasing proportion of the total number of houses built every year.

Besides the contribution that this community based mechanism is making to ease the acute shortage of land faced by the programmes (more about this in the section on urban impact), this procedure allows the beneficiaries to influence the solution they receive. Beneficiaries influence not only the choice of location but can negotiate their preferences with the contractor. Usually, beneficiaries prefer more built area, sacrificing the quality of finish within a given construction budget. The more active role played by the beneficiaries in the construction process also helps to establish community organizations in the new neighbourhoods.

Pressure for community involvement is mounting, causing MINVU to consider refinements to the BH Programme. One proposal will allow organized communities to apply as a group for the subsidies, as in the PH Programme, another will allow participants to choose between a house in a MINVU contracted subdivision and a cash voucher to buy a house elsewhere, either new or from the housing stock. These developments will introduce much-needed flexibility into the BH Programme.

IV. TARGETING

FROM ITS INCEPTION, the reformed housing system concerned itself with the targeting of government resources. Before the reform, middle-income and upper-middle-income groups were receiving an inordinate proportion of government subsidies,

12. According to Castañeda, in 1969 the poorest 30 per cent of families received only 22 per cent of the subsidies, while 30 per cent of middle-income families received 37 per cent and the remaining 40 per cent received 41 per cent. Castañeda, T. (1990), *Para combatir la pobreza*, Centro de Estudios Públicos, Santiago, Chile. This structure did not change significantly until the 1977 reform. Although Allende's administration (1970-1973) increased direct government construction for low-income families, it did not eliminate the subsidies received by middle-income families through the operations financed by the housing and loans institutions.

mostly as interest rate subsidies and loan defaults.⁽¹²⁾ This changed under the reformed system. The consolidation of a private mortgage backed lending mechanism for middle and upper-income households and the introduction of the cash voucher system that created a programmed, transparent and up-front subsidy mechanism were instrumental in improving targeting of government expenditure on housing. The establishment of a unified and formula-driven system to allocate the vouchers created confidence in the system, removing it from undue political pressures. Central to the definition of the formula are factors measuring social needs (family size, income, housing needs) obtained from a social stratification survey and a commitment to solving the problem (time and amount of savings) which with the first set of criteria proved effective in screening households with the most pressing housing needs but with the second set discriminated against households without regular income.

Concern for targeting the subsidies overshadowed the need to carefully calculate the amount of the subsidies. There is indirect evidence that the subsidy levels may be high for beneficiaries in the higher income brackets and that they can be reduced without affecting demand in the corresponding housing submarkets.

a. Reaching Low-income Households

Over the years the system has been refined, reducing the range of families able to apply for subsidies with the purpose of focusing expenditure on the lowest deciles of the income distribution structure. Also, subsidies for the higher-income families have been reduced to devote more resources to low-income groups. These adjustments improved the vertical equity of the system.

Table 4: Targeting of Progressive and Basic Housing Programmes (in %)

Criteria	Factor	Progressive Housing		Basic Housing	
		Applicants	Beneficiaries	Applicants	Beneficiaries
Income	(a) Indigent	55.8	47.5	56.1	52.8
	(b) Poor	31.0	35.0	28.3	26.2
	Low-income (a) + (b)	86.8	82.5	84.4	79.0
	No low-income	13.2	17.6	15.6	21.0
Housing situation	Without potable water	55.9	66.7	44.3	60.1
	Without sewerage	57.6	72.7	44.8	62.8
	Without electricity	18.1	15.0	9.5	13.4
	Poor roofing	59.5	54.2	43.8	54.2
	Poor flooring	45.7	39.1	38.7	39.5
	Poor walls	71.0	65.5	58.9	69.1

SOURCE: Ministry of Housing and Urban Planning (1995) Programme Targeting Study. Santiago, Chile. (mimeo).

In 1991, MINVU's housing programmes expanded to add the Progressive Housing Programme. This programme intends to reach families in the lower-income deciles which were systematically left out of the Basic House Programme because of their lack of savings and inability to obtain the necessary loan. This development expanded the government's capacity to reach low-income families.

Appropriate targeting and the number of houses produced are the towering accomplishment of the Chilean housing system. A recent study of income in a sample of beneficiaries provides evidence of the targeting of the low-cost housing programmes: over 90 per cent of beneficiaries of the BH and PH programmes were found in the bottom quintile of the income distribution structure. The study also underscores the difficulties encountered by formal housing programmes in reaching households at the bottom of the income scale. Only 31 per cent of the beneficiaries of the BH Programme and 39 per cent of the Progressive Housing Programme were in the bottom decile of the income distribution structure.⁽¹³⁾ Recent studies suggest that income distribution for beneficiaries of the PH and BH programmes closely matches income distribution for all the applicants (see Table 4).

13. Laval, J.E. (1995), "Housing subsidies in Chile. Who really benefits?" Unpublished Masters Degree Thesis, Georgetown University, Washington D.C.

b. Reaching Households in Need

The data on Table 4 suggest that the Chilean housing system is effective in reaching households with the most acute housing needs: the proportion of beneficiaries closely matches that of all applicants for most indicators of poor housing conditions. An indication of the system's capacity to select households facing deficiencies in the most critical housing components is the fact that the proportion of beneficiaries of the PH and BH programmes facing water supply deficiencies is larger than that of all applicants.

The Chilean housing system has been remarkable in reaching the target population with all its programmes. There is, however, part of the population that the system is not reaching as yet. They are at the bottom decile of the income distribution structure, the families living below the indigence line. Little is known about these families and their needs and preferences. Current consensus is that they face multiple deficiencies that cannot be solved only through housing. They require more comprehensive programmes to incorporate them into society including nutrition, employment and education.

One of the effects of the concern for targeting is the *de facto* failure to establish a mixed finance system in the largest programme, the Basic Housing Programme. The loan portfolio emerging from direct lending by MINVU has such high rates of arrears (over 60 per cent) and such resilience to improvements that it can only be described as a financial failure. However, it served to retain the image of the system as running an effective mixed finance system. Even if resources from the government are available, so that the arrears do not become a financial problem for the system, it becomes an equity problem: non-compli-

14. The lack of equity still exists for beneficiaries of the Progressive Housing Programme, who have access to the second phase which provides US\$ 2,000 for house consolidation.

15. MINVU relaxed all land use regulations restricting the incorporation of land to urban uses under the assumption that the land market was able to allocate land to its most efficient and socially beneficial use.

16. World Bank/Habitat Housing Indicators show that in Santiago, the median land price of a developed lot on the urban fringe and the median price of undeveloped raw land show an average ratio of 2.6. At the same time, the ratio of land prices for unserviced land with and without planning permission is 0.8. Planning permits do not delay development, taking on average only three months.

17. The Santiago Metropolitan Area contains, in the periphery of the urban area, some of the most productive agricultural land in the country. Estimates indicate that in the four decades of rapid urban expansion 1950-1990, Santiago's growth consumed approximately 10 per cent of all agricultural land class I existing in the country.

ant Basic Housing beneficiaries end up receiving a subsidy of US\$ 6,140, that is 95 per cent of the cost of the housing solution. This level of subsidy is higher than the subsidy received by beneficiaries of the lower standard solution, the Progressive Housing Programme, which amounts to US\$ 3,700, equivalent to 93 per cent of the cost.⁽¹⁴⁾

V. URBAN IMPACT

THE QUANTITATIVE SUCCESS of the Chilean housing policy is exacerbating one of its major design shortcomings, namely its lack of concern for the urban impacts. One characteristic of the Chilean housing policy is its overriding concern to increase the housing stock. This led to priority being given to the number of houses built with the resources available over the quality of the urban environment being created. This approach led to significant losses of agricultural land and to the creation of large low-income neighbourhoods with no urban amenities other than basic infrastructure.

a. Land Development

The system relied on the massive acquisition of land by construction companies in the late 1970s, a strategy made possible by the relaxation of land use regulations.⁽¹⁵⁾ Companies bought large tracts of agricultural land in the peripheries of the major cities. The land was subsequently sub-divided to cater for the demand created by government programmes and the subsidy certificates. The availability of land is reflected in information that suggests that most cities in Chile face low land price distortions induced by the regulations on land development, a situation that facilitates housing policy.⁽¹⁶⁾ The negative side of this situation arises from the absence of incentives to improve efficiency in the use of serviced land.

Construction companies holding serviceable land were successful in winning government contracts for the production of Basic Houses Programme housing. They used the land with the best amenities and better locations to produce houses for the market opened up by the cash voucher based subsidy scheme. In the context of fixed maximum prices, profit maximization led to cost minimization in production. Low-density housing schemes were preferred by developers because of the lower construction costs of one or two-storey houses.

With average densities of 250 persons per hectare (equivalent to 50 homes per hectare), the almost 450,000 houses contracted by the government in the two decades spanning 1974-1993 required 9,000 hectares of urban land. In the metropolitan area of Santiago alone this accounted for the transformation of over 4,000 hectares of agricultural land into urban uses.⁽¹⁷⁾ The Subsidies Certificate Scheme and demand by other higher-income groups required at least another 9,000 hectares of land during the same period. Therefore, the housing policy alone explains the yearly consumption of nearly 900 hectares of agricultural land.

The Chilean housing policy is currently facing a growing constraint caused by the shortage of land. The rapid exhaustion of serviced land on the peripheries of the large cities was exacerbated by the lack of investment in trunk infrastructure during the years of economic crisis 1979-1998. Infrastructure investment levels are slowly recuperating but not fast enough. Currently, developers report that in the Santiago Metropolitan Area, the cost of unimproved land represents the equivalent of 20-25 per cent of the final cost of the Basic Houses Programme house; to make an 11 per cent profit, the cost of unimproved land should not exceed 8 per cent of the total cost.

The Chilean housing policy does not promote the renewal of the inner-city. The current subsidy scheme for urban renewal is insufficient to promote it and land legislation does not contain provisions for the government to help the renewal process. Developers face a major constraint in the fragmented land tenure structure of the inner-cities. As a result, the bulk of urban development is taking place on the peripheries of cities leaving large parts of the central areas underutilized.

b. Urban Amenities for Low-income Households

Particularly in large cities, BH and PH projects are clustered, creating large neighbourhoods of households with similar low-income levels. The population's income level prevents the emergence of privately provided urban services (education, health, recreation) and the public sector has only partially responded to the demand. Housing projects include minimal community facilities, a meeting place and a small playground. Municipalities expand the primary education and health infrastructure with grants from central government but they are not always able to provide for the operation and maintenance of the facilities. One reason is that the real-estate property on their territories (social housing programmes) is exempt from land taxes, the most important own source of revenue for the municipalities. The central government, which creates the problem through its decision to build BH or PH programme housing in the municipality, does not contribute towards operation and maintenance costs.

The privately owned and managed urban transportation system usually reacts to the demand created by the new neighbourhoods. The low fares allow low-income families access to the system but they also force operators to extend the routes (to generate sufficient revenue), extending the travel time of the populations living on the peripheries. Average journey time to work in Santiago is more than 50 minutes, taking up almost two hours daily.

In the future, the government faces the challenge of increasing its investment in the quality of the urban environment of the low-income neighbourhoods that it creates as a result of its low-income housing policies. This involves greater care in the investment and operation and maintenance of education, health and recreation infrastructure. Adequate transportation services will also need to be better assured for low-income neigh-

bourhoods, since they have a significant effect in the quality of life of the households.

VI. THE CHALLENGES AHEAD

a. Coverage and Subsidies

THE CHILEAN HOUSING system is remarkable in that it provides a coherent coverage of all housing sub-markets and reaches the poor with formal, if somewhat rigid, housing solutions. Coverage, implying that households in all income brackets have formal mechanisms to gain access to housing solutions, ensures not only satisfaction of the needs of households but also prevents crowding out of government assisted solutions by higher-income groups.

The amounts and mechanisms of the subsidy scheme of the Chilean housing system may require revision in view of the improvements in the real income of the population in recent years. This may lead to a consolidation of programmes to improve targeting, expand the system's capacity to reach households in need, and better respond to the demands of the population. Highly subsidized programmes such as the Progressive Housing Programme may be expanded, thus reducing the resources allocated to Subsidy Certificate III. Furthermore, the current distinctions between the Basic Housing Programme and the Subsidy Certificate Scheme may not be justified, particularly if the level of subsidy is adjusted and beneficiaries of the Basic Housing Programme fully pay back the loans they get from MINVU. The consolidation of subsidy programmes and better use of households savings and debt capacity will free resources to expand the programmes aimed at the very low-income households who do not have the capacity to save or repay a loan.

b. Reduced Government Intervention

Current government activities in low-cost housing, although credited for producing houses in quantities comensurate with the size of the problem, may be preventing private sector involvement in producing and financing these houses since, in the most significant programmes, the private sector acts merely as a contractor. Turning part of the government contracted programmes (particularly the part of the Basic Housing Programme that benefits families with incomes above the average applicant) into cash voucher based schemes may open new venues for private sector production and financing and will mobilize household savings, currently blocked by the rigid delivery and finance mechanisms, into housing.

c. Flexibility of Access and Expanded Options

Access systems may be modified to improve the ability of the system to respond to the preferences of beneficiaries. Greater flexibility may be obtained by allowing the use of cash vouchers

18. Currently, private developers are actively participating in the Special Workers Programme, proof that they may be willing to supply through the market houses with values in the US\$ 10,000 range. This price range can be accessed by households with incomes above US\$ 200 per month.

19. The Chilean housing system opted for a full formal housing development process and it is paying the cost of this option (US\$ 6,500 per minimal housing unit). The argument for this approach is that past attempts to institutionalize a progressive approach to the public components (sanitation and roads), of land development for housing proved costly and inefficient.

to buy houses from stock in all subsidy programmes. This will help adjust supply and demand in the low-income housing sub-markets. Furthermore, MINVU may gradually scale down its production activities in favour of more community based production modes for low-income programmes and more market based production for the higher-income programmes.⁽¹⁸⁾

The promotion of rental housing is another venture that the government may explore to further enhance the capacity of the housing system to satisfy the needs of households. Currently, the government is in the process of regulating a leasing mechanism for housing, a system intended to help households with low savings capacity to gain access to home ownership. Rental housing may be of interest to institutional investors if well-packaged investment instruments are produced (for instance through real-estate investment trusts).

d. Quality Improvement

Housing may be a special case in the general rule that, in market regulated production and distribution systems, competition ultimately ensures the quality of products. Chile is not an exception in that, after several years of operation of the reformed housing system that relies on the market to match supply and demand for houses, quality concerns still exist for almost all housing products on offer. Beneficiaries of the cash vouchers may be helped in their search for quality homes by the fact that an inspection of the selected house by a certified technician is required prior to cashing the voucher. The cost of the inspection would represent a minimal part of the cost of the solution and may save more money for the purchaser than its cost. In time, insurance companies may offer quality warranties, a development that will establish a *de facto* rating system for builders. The government may promote the development of the insurance schemes through tax incentives.

e. Urban Development Focus of the Housing Policy

To continue supporting its option of allowing access to fully-serviced land and minimum standard shelter only, the Chilean housing system will have to fully address the urban impacts of promoting an efficient and socially beneficial land development process, including taking advantage of the opportunities offered by the deteriorated inner-cities.⁽¹⁹⁾

The government should expand investment in urban development. Investment in trunk infrastructure is required to expand the supply of land in all urban areas. This must be complemented by cost recovery mechanisms to involve developers in the financing of trunk infrastructure (betterment taxes, land readjustment schemes). This strategy can play a significant role in promoting more efficient land use of the developed land.

Active involvement by the government in promoting the urban renewal of inner-cities is also required. Currently, a lack of large land plots in the centre of the city is preventing private investors from responding to a latent demand for centrally lo-

cated housing. These barriers can be removed with a proactive approach from government aimed at balancing the private and social benefits of the land development process. Government facilitation of private investment in deteriorated inner-cities allows investment to follow more closely the preferences of consumers. A combination of these strategies will allow for a more balanced allocation of private sector resources to housing.

The provision of urban services and reliable transportation services to low-income neighbourhoods in the peripheries of the cities is necessary to compensate for the inability of these households to support private services. Municipalities and communities can play a leading role in the provision of the services, if financing is available.

