HOUSING FINANCE MECHANISMS

In Chile

UN-HABITAT
FOR A BETTER URBAN FUTURE

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Housing Finance Mechanisms in Chile

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FOREWORD

At the dawn of this new urban era, UN-HABITAT research shows that by 2030, two-thirds of humanity will be living in towns and cities. We thus live at a time of unprecedented, rapid, irreversible urbanisation. The cities growing fastest are those of the developing world. And the fastest growing neighbourhoods are the slums. Indeed, the global number of slum dwellers is now at or close to the 1 billion mark. Excessive levels of urbanization in relation to the economic growth have resulted in high levels of urban poverty and rapid expansion of unplanned urban settlements and slums, which are characterized by a lack of basic infrastructure and services, overcrowding and substandard housing conditions.

Yet housing and the services that should be provided with it are one of the most basic human needs. It is enshrined in various international instruments, including the Habitat Agenda. And reducing the number of slum dwellers around the world is a cornerstone of the Millennium Development Goals set to fight poverty around the world. So if we fail to achieve the Goals in towns and cities, we will simply fail to achieve them at all.

It was with this crisis in mind that the United Nations General Assembly decided in its resolution of 26 February 2002 to transform United Nations Commission on Human Settlements into a fully pledged programme. The General Assembly in its resolution called on UN-HABITAT to take "urgent steps to ensure a better mobilization of financial resources at all levels, to enhance the implementation of the Habitat Agenda, particularly in developing countries." It also stressed "the commitments of member states to promote broad access to appropri Aate housing financing, increasing the supply of affordable housing and creating an enabling environment for sustainable development that will attract investment".

The Habitat Agenda recognizes that housing finance systems do not always respond adequately to the different needs of large segments of the population, particularly the vulnerable and disadvantaged groups living in poverty and low income people. It calls UN-HABITAT to assist member states to improve the effectiveness, efficiency and accessibility of the existing housing finance systems and to create and devise innovative housing finance mechanisms and instruments and to promote equal and affordable access to housing finance for all people.

In our quest to reach as many people as possible, a cornerstone of our agency's new

Medium-term Strategic and Institutional Plan is partnerships. We have no choice but to catalyze new partnerships between government and the private sector. This is the only way to finance housing and infrastructure at the required scale – the scale needed to stabilize the rate of slum formation, and subsequently reduce and ultimately reverse the number of people living in life-threatening slum conditions.

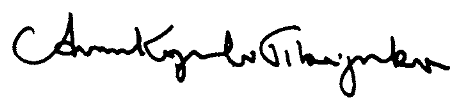
It is clear that in the coming 20 years, conventional sources of funds will simply be unavailable for investment at the scale required to meet the projected demand for housing and urban infrastructure. Many countries around the world continue to face deficits in public budgets and weak financial sectors. Local governments have started to seek finance in national and global markets, but this is only in its initial phase.

New mortgage providers have emerged, including commercial financial institutions and mortgage companies. But only middle and upper income households have access to such finance, while the poor are generally excluded. Although social housing is becoming less important in Europe and in countries with economies in transition, the need to provide shelter that is affordable to low income households still exists, including in developing countries.

This is why the exchange of information and knowledge on human settlements finance systems is so important. It is why it receives increased recognition in facilitating the development of human settlements finance systems and in turning knowledge into action for developing practical human settlements finance methods and systems for these pressing problems.

Our Human Settlements Finance Systems series documents the state, evolution and trends of human settlements finance in member states, and examines the factors and forces which drive the development of human settlements finance systems and the roles of different institutions and actors in shaping the systems and trends, and reviews human settlements finance systems. It presents an interesting review of policies, instruments, processes and practices. It examines the strengths and weakness of these systems and practices, their relations to the housing sector and the broad economic and social sectors, and lessons learned from practices.

Indeed, the country review studies we present are a valuable resource for member States because it is a body of work that also shows how human settlements finance systems and models can be applied to local use and thus provide a wider range of options for human settlements finance. The series also serves as guidebooks for policy makers, practitioners and researchers who have to grapple daily with human settlements finance systems, policies and strategies.



Dr. Anna Tibaijuka

Under-Secretary-General and

Executive Director

UN-HABITAT, Nairobi, 2008

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LIST OF ABBREVIATIONS ACRONYMS

AFPs	Administradoras de Fondos de Pensiones (Pension Fund Administrators)
AFV	Administradora de Fondos para la Vivienda (Administrator of Funds for Housing)
APR	Annual Prepayment Rate
BCCH	Banco Central de Chile (Chilean Central Bank)
CAS	Comités de Asistencia Social (Social Assistance Committees)
CASEN	Encuesta de Caracterización Socioeconómica Nacional (National Survey of Socio-economic Characterization)
CCHC	Cámara Chilena de la Construcción (Chilean Chamber of the Construction Industry)
CPI	Consumer price index
DSHD	Dynamic Social Housing without Debt—one of MINVU's social housing programs
EGIS	Entidad de Gestión Inmobiliaria Social (Entity for Management of Social Real Estate)
EMC	Endorsable mortgage credits
FSV	Fondo Solidario de Vivienda (Housing Solidarity Fund)
HSF	Housing Solidarity Fund—or FSV, in Spanish
INE	Instituto Nacional de Estadísticas (National Institute of Statistics)
LMI	Low and middle-income

LTV ratio	Loan-to-value ratio
MB	Mortgage bonds (commonly known as “bonos hipotecarios” or technically speaking as “letras de crédito”)
MIDEPLAN	Ministerio de Planificación (Planning Ministry)
MINVU	Ministerio de Vivienda y Urbanismo (Ministry of Housing and Urbanism)
MTV	Mortgage-to-value
NGO	Non-governmental organizations
NMC	Non-endorsable mortgage credits
PET	“Programa Especial de Trabajadores” or Special Program for Workers
PTI ratio	Payment-to-income ratio
SAFP	Superintendencia de Administradoras de Fondos de Pensiones (Superintendence of Pension Fund Administrators)
SBIF	Superintendencia de Bancos e Instituciones Financieras (Superintendence of Banks and Financial Institutions)
SEREMI	Secretaría Ministerial Regional (Regional Ministerial Secretariat)
SERVIU	Servicio Regional de Vivienda y Urbanización (Regional Service of Housing and Urbanization)
SPF	Social Protection Form (Ficha de Protección Social)
SVS	Superintendencia de Valores y Seguros (Superintendence of Securities and Insurance)
UF	Unidad de Fomento (unit of account for monetary values which is indexed to the CPI)
VSDsD	Vivienda Social Dinámica sin Deuda—or DSHD, in English

INTRODUCTION

This report evaluates the housing finance mechanisms in Chile which took shape in the mid-1970s. Special attention is paid to the issue of housing affordability. Over the past three decades, the impact of the Chilean government's social housing policy on the availability and affordability of housing has been substantial, in particular in drastically improving access to low and middle-income level households. For example, during the sixteen years from 1990 to 2005, the Chilean government directly subsidised the purchase of 1.2 million new housing units—roughly a quarter of the new dwellings built during this period—benefiting mainly families of the lower end of the income scale. It also has been crucial that since the mid-nineteen seventies, public policy has been geared to consolidate a market economy and the development of a solid and buoyant financial market in the country, making it easier and more affordable to access long-term credit.

All this has resulted in a substantial erosion of the historically large housing deficit and improved living conditions for the average Chilean family. For example, as illustrated by the most recent Census data, private housing stock grew by slightly more than a million units between 1992 and 2002, registering a variation of 30.4 percent during the ten-year inter-census period, well above the 13.2 percent increase in population. A dynamic and competitive construction sector—a crucial complement to an aggressive social housing policy receiving sizable annual fiscal contributions—also was a determining factor behind the robust housing supply response in the marketplace. As clearly reflected in available social statistics, gains in income levels in recent decades combined with easier family access to reasonably priced housing finance has resulted in much improved living conditions for large segments of the population, benefiting household across the income spectrum. It is one of the objectives of this report to share the Chilean experience and some of the lessons learned, in particularly those that may be replicable in other countries in the developing world.

This report is divided into five main sections. Section I, analyses the nature and scope of the housing challenge as seen from the broad perspective offered mainly by Census data. In particular, it tries to assess the progress made in achieving the important strategic public goal of reducing the historically large housing deficit. Section II, concentrates on the role of public housing programmes and social housing policies on the affordability of homeownership by Chilean families, particularly among lower income families benefiting from the use of direct upfront fiscal subsidies for those seeking to purchase a dwelling.

Non-subsidised housing also has played an important role in the improvement of living conditions. Section III reviews the experience in recent years in the country of housing finance in the private market, where a variety of different credit instruments have been offered to Chilean households over the past three decades. The credit origination process is reviewed in some detail and then comments are made about the role played by household savings as a contributor to the downpayment on a home.

Section IV concentrates on the mechanisms available for funding housing credit in the Chilean private financial markets, with an overview of recent developments in the Chilean capital markets, the regulatory framework and a flavor of the evolution over time of the main sources of long-term funding available to mortgage lenders and other residential credit originators. It also reviews the role of large institutional investors in the availability of long-term funding in the Chilean capital market, including the impact of the crucial reform of the pension system in the early nineteen eighties. Finally, Section V presents some key lessons learned.

CHAPTER 1

THE NATURE OF THE HOUSING CHALLENGE IN CHILE

One of the aims of this paper is to explain how public housing policy in Chile has evolved in the quest to meet the challenge of providing affordable and decent housing.[1] While much progress has been made in past decades to resolve the severe housing shortage that existed when the current social housing policy framework was first introduced in the mid-nineteen seventies[2], much still remains to be done to secure adequate housing for all Chilean families, particularly those in the lower income bracket. Two recent studies3 have estimated the quantitative/qualitative housing deficit in the range of 550 to 600 thousand units (in 2002-2003).

There is still strong public-private consensus on the importance of resolving the most pressing housing shortages and material shortcomings if not by the end of the current decade then shortly thereafter.[4] Housing is a highly capital-intensive activity that demands large volumes of financial resources, which present special challenges to developing economies. Chile is not the exception. Success in achieving current ambitious housing goals is thus dependent on a continued and fluid access by Chilean households to adequate housing finance, which is particularly challenging for those at the lower end of the income scale. But before addressing the housing finance issues and the choices confronting Chilean families, it is important to take stock of the current housing situation and its evolution in recent years.

THE SIZE OF THE CHILEAN HOUSING MARKET

The Chilean housing market has experienced great dynamism for many years now, which has helped reduce the socially pressing deficit of adequate housing, while contributing to the country's demographic expansion. Here the broad perspective is presented from the

1 In the past, the government's active direct mortgage lending activities aimed at the poorest households ended up distorting the credit-granting process, which resulted in serious moral hazard and much larger fiscal subsidies than anticipated. Recently, however, this practice of granting state-funded mortgages directly to subsidized households was stopped by MINVU, eliminating a significant source of credit distortions in the local mortgage market.

2 For a general description of the traditional "tripartite" approach to social housing policy used in Chile, see Pardo (March 2001).

3 See CCHC (May 2005) and MINVU (November 2004).

4 The government's most recent socio-economic survey, CASEN 2006, detected that some 9.5 percent of households in the country or 412,349 in total had urgent housing requirement needs since they were either living in irrecoverable units or they had to share a home or were living in overcrowded conditions.

viewpoint of the most recent Chilean Census data. The 2002 Population and Housing Census (2002 Census) data reaffirmed the long-term tendency of a substantial expansion in the housing stock over the past ten years.[5] As shown in Table 1, there was a 30.1 percent increase in the housing stock in the decade ending in 2002, figures that contrasted positively with the 13.2 percent expansion in the population of the country during the same period—at an annualised rate of 1.2 percent. Another long-term tendency of the Chilean market has seen the rapid increase in the number of households[6], which in the decade ending in 2002 grew 25.7 percent, almost twice as fast as the rate of population expansion. This has had great relevance for the housing market, since the associated reduction in household size—to 3.6 persons per household in 2002—has meant the additional demand for housing has been met with an increase in housing supply.

Implicit in the figures of the last two rows in Table 1 is the percentage of households co-sharing which has remained relatively constant—in 2002, 6.2 percent of households were living in a dwelling inhabited by more than one person. Also, the census figures show that Chile has mainly an urban population, which continues to grow at a rapid pace, with rural housing dropping to just 15 percent in April 2002. In fact, the latest census figures reaffirmed the long-term decline in the rural population, which in 2002 stood at 13.4 percent of the total—down from 16.5 percent in 1992. The persistent rural depopulation suggests that the housing challenge in Chile is increasingly becoming an urban one.

Table 1: Population and Housing Data for 1992 and 2002 Censuses

	1992 Census	2002 Census	Variation in 10 years
Chile's Population	13,348,401	15,116,435	13.2%
Population in Private Dwellings	13,094,923	14,800,126	13.0%
Households in Private Dwellings	3,293,779	4,141,427	25.7%
Total Housing	3,369,849	4,399,952	30.1%
Of which: Urban Housing	2,785,226	3,739,148	34.3%
Rural Housing	584,623	660,804	13,0%
Private Housing	3,359,813	4,380,822	30.4%
Of which: Main Residences	3,120,967	3,956,942	26.8%
Secondary/Unoccupied Residences	238,846	423,880	
Persons per Private Households	3.98	3.57	-10.3%
Persons per Main Private Residence	4.20	3.74	-10.9%

Source: INE

5 The 2002 Census gathered data for April 24, 2002. The previous census took place in 1992.

6 The 2002 Census used the standard definition for "household", that is, a group of people, not necessarily family related, living under the same roof and sharing food and other essential living expenses.

According to the 2002 Census figures, there was much better access to permanent housing (houses and apartments), the stock of which increased 31.6 percent in the decade ending in 2002, while the semi-permanent housing stock (huts, shacks, hovels, etc.) declined by 48.2 percent in the same period. The sharp decline experienced by the stock of ad-hoc, temporary and semi-permanent housing—to 141,495 units from 273,076 ten years earlier—contrasted with the net increase of 1,175,303 units in the permanent housing stock. This confirms that a good portion of the housing market's dynamism has been oriented to replacing sub-standard housing, which is also corroborated by formal housing construction data that shows that much housing replacement needed because of obsolescence of the old stock has been taking place.[7] Moreover, the 2002 Census figures give an encouraging picture of access to piped water (present in 91 percent of private housing), electricity (90 percent) and sewerage (90 percent), reinforcing the perception that the long-term trend towards important material improvements continue to take place in the Chilean housing stock. In fact, aggressive public policies aimed at increasing private sector involvement in the development of new infrastructure, particularly in the electricity and sanitation sectors, appear to have facilitated and complemented the social objectives of the government's housing policies.

The government's social housing policy has had a substantial impact on the number of housing solutions built in the country in past decades. Figures are not fully comparable, but it is interesting that during the inter-census period, 770,000 new housing solutions (the so-called "social" housing) were built under the umbrella of the various housing programmes supported by the Ministry of Housing. A portion of that social housing- mostly basic units - was built by private contractors hired by the Ministry of Housing, while another significant number of dwellings were supplied by private initiatives with the aim of attracting households receiving public subsidies in the form of a voucher—targeted to partially cover the downpayment on homes acquired by low or middle-income families.

HOUSING TENURE IN CHILE

As for housing tenure, the most recent census data shows a noticeable increase in ownership during the inter-census period. Private home ownership is by far the dominant feature in the Chilean housing market. Rentals, offered almost exclusively by private landlords, are a much less frequent option (17.6 percent of total private dwellings, according to the 2002 Census). As shown in Table 2, an additional 708 thousand families acquired their dwelling during the inter-census period, a 33.4 percent increase in ten years. Most of these new homeowners required a mortgage loan to complete the financing of their new home.

7 The total number of housing building permits issued during the same 10-year period was some 1.2 million, which points in the same direction of the importance that new formal housing has in Chile today.

Table 2: Private Housing Tenure According to the 1992 and 2002 Censuses

	1992 Census	2002 Census	Difference	Variation
	Thousand of Units			%
Homeownership	2,119	2,827	708.1	33.4%
- Fully Paid Homes[1/]	1,641	2,059	418.3	25.5%
- With an Outstanding Debt[2/]	478	768	289.8	60.6%
Rentals[3/]	556	689	132.8	23.9%
Other[4/]	427	384	-42.9	-10.1%
Total	**3,101**	**3,899**	**798.0**	**25.7%**

Source: INE

1/ Homeowners have finished paying any pending debt on the property

2/ There is still a portion of a credit outstanding (e.g., mortgage, lease) which helped to finance the purchase of the property

3/ Includes publicly and privately owned property—although the great majority of home for rent in Chile are privately owned

4/ Includes free-rent housing, including those occupied rent-free as part of a job-related arrangement.

The figures in Table 2 are encouraging since they suggest that a substantial and growing number of Chilean families have access to long-term credit to finance the purchase of a dwelling. The number of homeowners who bought their homes by getting in debt increased 60.6 percent during the inter-census period. By the time of the census in April of 2002, about one quarter of all Chilean homeowners were servicing a mortgage or some other type of credit which they had used to finance the purchase of their home.

The role played by housing finance in the Chilean market will be discussed in detail later on, but it is interesting that census figures confirm the growing relevance of credit as a factor in making homeownership a reality for the average Chilean family. Private homeownership in Chile has relied on the impressive development of the Chilean financial markets, which, since the mid- nineteen eighties, has rapidly expanded in volume and availability for private long-term mortgage lending. The large and steady fiscal contributions made annually via the Ministry of Housing, also have had an impact on the availability of housing finance over the past three decades. The Ministry's 13 regional agencies (the so-called SERVIUs) have used these fiscal resources to grant mortgages and subsidies to mainly low-income families seeking to acquire their first home. The aim of the Ministry of Housing has been to benefit families most in need and with low capacity to access more traditional credit sources. It should be emphasised, however, that the role of the Ministry of Housing as a direct mortgage lender to the poor did not work as expected and the practice was discontinued a few years ago. Since then the role of the Ministry of Housing as a housing subsidy provider to the poor has been enhanced. However, the figures in Table 2 still include many homeowners that received direct mortgages from the regional agencies.

THE IMPACT OF NEW HOUSING CONSTRUCTION

MAIN DRIVERS BEHIND THE NEW HOUSING SUPPLY

Demand is determined by three main factors:

(i) there is always a pressing need for new housing to close the remaining housing deficit within a reasonable time horizon.

(ii) the supply of additional housing should take into account the natural growth in the number of households, and

(iii) new dwellings are needed to compensate for the natural deterioration and obsolescence in the existing housing stock and the more demanding material living standards that accompany ever higher income per-capita levels.

According to the Ministry of Housing and Urbanism, estimates based on the 2002 Census figures and recent CASEN surveys[8], the single largest need is to reduce overcrowding among households in the lower income bracket.

For example, according to the CASEN survey, there were almost 209 000 families living in overcrowded conditions at the end of 2006.

A significant number of these poor families have limited economic autonomy and are unable to afford a home of their own. A more realistic solution for them appears to be the expansion of the dwellings where they currently live and share with other family units, which often are close family relations. In addition, there is a need for new housing to replace dwellings which have material deficiencies beyond recoverability. The 2002 Census, for example, registered 141.5 thousand so-called semi-permanent dwellings, equivalent to about 3.6 percent of the country's housing stock. Of course, besides urgent needs as those already described and which explain the core of the housing deficit, there is also a large potential demand for repairs and basic improvements to existing dwellings which were initially built under less demanding standards or have deteriorated with the passage of time. Improved access to electricity, potable water and sewage systems are leading examples of these types of upgrading needs. In fact, according to the 2002 Census figures, despite a sharp four-fold decline in the inter-census period, there were some 60 000 homes missing both piped water and an electricity connection in April 2002.

As for the second factor, already mentioned, impacting housing demand, the rate of new household formation is ultimately determined by a variety of demographic, economic and social variables. In the Chilean case, the end result has been a tendency in recent decades for a relatively rapid increase in the number of households. For example, the annual rate of new household formation reached 2.3 percent during the inter-census period 1992-2002, a much higher figure than 1.2 percent population growth rate observed during the same inter-census period. Thus, new household formation has been accompanied in Chile by a reduction in the average household size, which went from 3.9 people in 1992 to 3.6 people in 2002. This pattern of reduction in household size has been observed independently of household income since it is valid across

8 CASEN is a large national household survey currently conducted by the Ministry of Planning every three years to measure key socio-economic variables grouped into six main themes—including housing—in order to better design public social programs and control their outcomes.

income groups. This relatively rapid pace of new household formation adds additional pressure to the demand for new housing. the Ministry of Housing and Urbanism estimates put the number of new household formation currently at roughly 96 000 per year, which provides a first approximation for the number of new dwellings required annually just to keep the housing deficit from expanding due to this single factor.

ADDITIONS TO THE HOUSING SUPPLY

Table 3 shows basic building permit issued for new housing construction and for expansions of existing structures for the period 1996-2006. In the absence of more accurate statistics, these municipal permits are normally used in Chile as a proxy for new housing construction activity at the national level, including expansion done to existing dwellings. These permits only represent the intention to build in the future.

Table 3: Approved and Started Housing Construction

Year	New Housing Units		Additions to Existing Housing Units	
	Number of Units ('000)	Average Surface (m2/unit)	Number of Units ('000)	Average Surface (m2/unit)
1996	143.8	65.02	18.3	24.34
1997	137.2	68.08	17.5	24.57
1998	120.8	65.14	24.4	20.12
1999	114.3	58.33	16.2	20.25
2000	99.9	66.42	17.3	19.48
2001	118.7	59.42	16.4	22.12
2002	104.0	61.09	22.2	21.82
2003	127.6	61.16	25.4	22.96
2004	151.8	61.33	26.9	28.74
2005	147.7	62.91	25.1	30.68
2006*	163.2	67.12	25.7	31.93

Source: INE, as reported in MINVU's Statistical Bulletin (Nov/Dec. 2007 issue)

* Preliminary

Since there are costs and minimum preconditions involved in getting a permit these are strong intentions on the part of a builder.[9] As it can be seen in Table 3, annual municipal housing permits for newly built units were above the 96 000-unit threshold necessary to at least match new household formation in the country. In fact at the beginning and end of the 1996-2006 period, new housing construction permits were substantially above the threshold. Also, Table 3 illustrates the high sensitivity of housing construction activity in Chile—as in most countries—due to the economic cycle.

Chile went through an economic downturn starting in 1998 which caused a decline in real GDP in 1999. As shown in Table 3, the economic recession resulted in a sharp drop in new housing construction following a rapid increase in interest rates by the Central Bank late in 1998, partly in response to the so-called "Asian crisis" of the same period. The recession in the housing industry lasted much longer than in the economy as a whole—which started to recover in 2000. The prolonged slump in housing construction was reinforced by a drop in the GDP and a long period of high real interest rates, lasting until 2002. The good news was that even under the stressful economic and financial conditions of the 1999-2002 period, the Chilean housing industry was able to keep new housing construction levels above the 96 000-unit threshold. All this is consistent with other statistics which also point to a growing capacity of the Chilean construction industry—assisted by a strong fiscal support to the final consumer—to comfortably meet the housing demand originating from new household formation.

Besides the construction of new housing units, figures in Table 3 show that building activity is also geared to expand existing homes. This type of construction activity has traditionally been prevalent in Chile, as reflected in the large number of municipal permits obtained to carry out expansions of existing units. For the eleven-year period shown in Table 3, permits for expansion represented on average the equivalent of 16.6 percent the number of permits issued for new housing units. Perhaps even more significant is that the average size of each housing expansion was equivalent to 37.3 percent the surface of each authorised new unit—23.4 square meters for authorised expansions versus 62.9 square meters for totally new dwellings. Figures in Table 3 suggest that it is common for homeowners in Chile to improve their living conditions by expanding their homes once they are already living in them. Table 3 also shows that the average size of new units has tended to decline in recent years. This appears to be explained in part by a growing effort over the years by the Ministry of Housing and Urbanism to better target its subsidy programmes so as to reach the poorest segments, which in turn are the beneficiaries of the smallest sized homes.

9 To be sure, a housing permit does not necessarily mean that all authorized units will be finally built—indications are that that is also the case in Chile. In fact, housing permits tend to over-estimate actual new housing construction activity although there is a compensating factor since some housing is built every year without ever having secured a valid permit. Under-representation appears to be more pronounced in the case of expansions of existing dwellings since many homeowners do not bother getting a municipal permit for small refurbishings and other relatively minor works.

THE COST OF NEW HOUSING AND COMPOSITION OF DEMAND

Most housing construction activity traditionally takes place in and around the national capital; Santiago - comprising 6 million inhabitants - is by far the largest urban centre in the country. However, housing construction in many regional centres has been growing faster than in Santiago in recent years, as the larger construction companies with a national reach compete with smaller regional homebuilders for new business opportunities in these younger, less exploited markets.[10]

Comprehensive market statistics for housing construction activity and prices at the national and regional level, however, are scarce so in order to outline the main commercial features of the market for new housing in Chile this section relies mainly on indicators published by the Chilean Chamber of the Construction Industry, the industry's main business association and which collects information directly from its members in its effort to monitor business activity in the sector. Comparing this data with municipal housing permits, it appears that the Chamber of the Construction Industry statistics currently cover slightly less than 50 percent of the total homebuilding activity in the country.

Table 4: Homebuilding Activity for 2007: Sales and Available Stocks (Number of Units)*

By Type of Housing	Greater Santiago (1)		Other Regions (2)		National Level (1+2)	
	Available New Stock: Annual Average	Actual Sales New Homes	Available New Stock: Annual Average	Actual Sales New Homes	Available New Stock: Annual Average	Actual Sales New Homes
Houses1/	6,941	9,326	6,896	9,647	13,837	18,973
Apartments2/	35,042	19,055	14,468	8,813	49,510	27,868
All Types*	41,983	28,381	21,364	18,460	63,347	46,841

Source: CCH, as reported in its internet site

* Average of available new housing stock offered for sale, as reported monthly

1/ Includes detached single homes, row houses and the like

2/ Includes apartments or flats in high rise buildings

10 Three other leading regional urban centers for which there are some market indicatrena-Coquimbo, Valparaíso-Viña del Mar and Concepción-Talcahuano.ors are La Se

Also, the Chamber of the Construction Industry appears to offer a more complete coverage of new high-rise apartment buildings than of construction of single houses. Table 4 illustrates the current coverage of the Chamber of the Construction Industry figures for available housing stocks and sale levels, as reported for 2007.

At the national level, some 40 percent of the units sold in 2007 were houses (single homes, row houses, townhouses and the like). Apartment buildings are particularly noticeable in the Santiago market, where close to two-thirds of new units sold last year were flats, mostly in high-rise residential buildings. The significance of Santiago and surrounding urban areas for established homebuilders reporting to the Chamber of the Construction Industry is illustrated by the fact that 60.6 percent of the housing units they sold at the national level in 2007 took place there.

As in other advanced economies, the tendency in recent years in the Chilean real estate industry has been to increase consolidation via mergers and acquisitions as well as rapid company growth and incursions into new lines of construction activity. All this has resulted in a more mature industry of larger construction companies. As other companies in the construction business, firms specialising in homebuilding have tried to take advantage of economies of scales in order to reduce their average operating costs, enhance their capacity to negotiate better deals with suppliers, and reduce their financial costs, which is highly relevant in this traditionally capital-intensive industry. The dynamic construction industry - which as a sector grew at an annual rate of 6 percent during the past five years - has been competing in an increasingly more complex market. In the case of homebuilding, sales last year weakened significantly registering a drop of 2.3 percent according to Chamber of the Construction Industry figures, which meant that housing developers saw a substantial increase in their new housing inventory.

Implicit in the figures in Table 4 are rather high numbers of "months to exhaust the housing stock", particularly when compared with more developed markets, such as the United States, where similar types of indicators are normally published. In the case of Santiago for which longer time series are more readily available, the historical data shows that for the 2000-2007 period the number of months required to exhaust the stock of new housing in the hands of developers was 15 months (a higher 16.2 months average prevailed in 2007). At 20 months, the historical number for new apartments is particularly high. In contrast, the average for new houses in 2000-2007 was much lower: 9 months to exhaust the available stock. The low speed of housing sales in Santiago is affected by the considerable weight of apartments in the market as reflected in the fact that 67.1 percent of actual unit sales and 83.6 percent of the available stock in 2007 was explained by new apartments. In the regions, house sales were higher than those of apartments in 2007 although the stock of apartments available for sale by developers was more than twice their house inventory (see Table 4).

Besides the current cyclical downturn in housing sales, a longer-term factor behind the tendency for higher home inventories, is the attitude of Chilean households, which in recent years have increasingly demanded a more diversified matrix of housing products, not only in the Greater Santiago but also in other regional urban centers of the country as well. This has put pressure on homebuilders to increase their stocks of available new housing to broaden the range of products they offer their clients. This has allowed developers to meet homeowner demands in different market niches, where potential customers increasingly discriminate by type of housing, price range, size and location, and all this in a growing number of regional markets.

As for the prices of the housing stock on offer in the open market, available data is unfortunately rather limited. Specialised firms gather relevant market and price information but they are not in the public domain, save for some general statistics published from time to time by different interest groups, including the Chamber of the Construction Industry. That being said, the practice in the Chilean housing market is to price real estate in Unidades de Fomento, which is an inflation-indexed unit of account whose daily peso equivalent is published monthly by the Central Bank on the basis of variations of the Consumer Price Index the previous month. Mortgages also are normally expressed in Unidades de Fomento values rather than pesos, meaning that their real value does not depreciate with inflation. Monthly debt-service payments on Unidades de Fomento mortgages are made in pesos at the equivalent Unidades de Fomento/peso rate valid for the day the payment is made. Thus, the peso equivalent paid by the borrower closely track variations in the Consumer Price Index.

Recent data[11] published by the Chamber of the Construction Industry shows that some two-thirds of new homes and close to 60% of apartments sold in the Greater Santiago had a price tag of less than 2,000 Unidades de Fomento per unit in the last three years (2,000 Unidades de Fomento were equivalent[12] to USD77,350 in the last quarter of 2007). A new home half or less that price (i.e. 1,000 Unidades de Fomento or lower) could have been affordable by a large number of low-middle-income Chilean families, particularly since units in that price range are eligible for receiving a direct government subsidy in the form of a voucher to partially pay the downpayment.

Given current market conditions for first mortgages in the Chilean market, a family getting a 20-year mortgage and paying a 20 percent downpayment could have financed a 1,000 Unidades de Fomento home (valued at the equivalent of close to USD39,000 today) with a monthly family income of close to USD1,000 when dedicating a quarter of its monthly income to service the mortgage. Such a monthly income places the potential homeowner in the third or middle-income bracket of Chile's income distribution.

Although most housing units sold are priced at 2000 Unidades de Fomento or below, from the perspective of homebuilders the bulk of their revenues are generated by sales of housing priced above that amount. For example, in a recent study (pp. 64-67 of the April 2008 issue of its MACH publication), the Chamber of the Construction Industry estimated that 70 percent of gross sale revenues of homebuilding companies was generated by housing units priced above 2,000 Unidades de Fomento,

11 See the MACH 22 report, dated April 2008, published by the CCHC (www.cchc.cl).

12 Dollar equivalents included in this paper are just for the purpose of facilitating the understanding of monetary values in Chile for the reader unfamiliar with the unusual Chilean practice of expressing long-term monetary values in the inflation-indexed UF. As a note of caution, it should be pointed out that the US$/UF rate fluctuates a lot, so dollar values in the paper should be used only as a general reference.

with dwellings priced over 4,000 Unidades de Fomento generating more than 15 percent of their gross revenues. Because houses are more land intensive than apartments, the Chamber of the Construction Industry estimates that construction costs are equivalent to 65 percent in the case of houses and a higher 80 percent in the case of flats. The attraction of building high-rise apartments in the city of Santiago is explained in part by the higher prices of construction sites in the national capita.

Homebuilders currently have in stock a large number of highly priced units, particularly of homes with a surface of 140 square meters, which is a popular unit size since that is the cut off surface to take advantage of a 50 percent discount in the real-estate tax rate. According to the Chamber of the Construction Industry, the average price for the available new stock of houses was 24.8 Unidades de Fomento/m2 (USD959 equivalent) and 32.7 Unidades de Fomento/m2 (USD1,265 equivalent) for apartments in the last quarter of 2007.

This means that a typical 140 square-meter apartment (3 to 4 bedrooms, kitchen, dining/living room and 2 and half bathrooms) was being sold at that time for an average price of 4,578 Unidades de Fomento (some USD177 thousand equivalent). Such an apartment was affordable mainly to households in the country's top income decile—with average monthly incomes of 128.6 UF (approx. USD4,440) according to the CASEN 2006 survey—since lenders would require a family income of at least USD4,350 equivalent for a mortgage financing 80 percent of the unit's price (20-year mortgage and current lending rates).

CHAPTER 2

THE ROLE OF THE STATE IN MAKING HOUSING AFFORDABLE

ASSESSING THE FISCAL EFFORT

Publicly supported housing programmes in Chile have been crucial in transforming potential demand for housing into actual demand, particularly among low-income families. The fiscal support to the Ministry of Housing and Urbanism's social housing programme has been significant over the years. In fact, the sum spent by the Ministry of Housing and Urbanism in support of its social housing programmes during the period 1990-2006 added up to the equivalent of some USD7.3 billion—end-2006 values—or USD5,507 on average for each of the 1,322,416 new housing solutions supported by the Ministry of Housing and Urbanism's programmes during that seventeen-year span.

From a macroeconomic viewpoint, figures of the National Budget Office show that the government spent annually on average a fairly constant 3.8 percent of the central government's total budget, the equivalent of 0.8 percent of GDP on housing programmes that are part of its "social protection" net in the years 1997 to 2007. As illustrated by the most recent figures available, the fiscal effort was again substantial last year when the equivalent of USD1,219 million were spent by the Ministry of Housing and Urbanism under its different programmes part of the government's social protection net.[13] In particular, some 66 percent of the money spent on housing programmes by the central government's social protection net in 2007 went to pay for the Ministry of Housing and Urbanism's direct household subsidies (versus 56 percent in 2006). An additional USD455 million equivalent was spent in 2007 by central government on other housing and community services activities, such as urbanisation, potable water supply and other programmes not included in the social protection net. Moreover, the fact that the fiscal contribution to social housing has remained a steady and significant portion of the fiscal budget over a long period of time.

13 The Chilean government is currently implementing a variety of programs as part of its social protection net, including programs for the old, family support, unemployment, etc., in addition to those supporting p housing for the poor. In 2007, for example, 30.6 percent, some US$9.4 billion equivalent, of the expenditures of the central government went to programs which comprised its social protection net.

This has contributed to the stabilisation of the construction industry - an industry naturally prone to sharp cyclical swings.[14]

Given the Ministry of Housing and Urbanism's emphasis on supporting families at the lower end of the income scale, its contribution is much more noticeable in terms of the number of new housing units than the monetary value of its contribution to the economy as a whole. This is in line with the Chilean Chamber of the Construction Industry figures presented earlier as practically all dwellings that have received the Ministry of Housing and Urbanism subsidies in the past have been priced below 2,000 Unidades de Fomento. Nonetheless, the Ministry of Housing and Urbanism's statistics show that the number of new housing solutions built annually and delivered under all of its programmes averaged 85,000 per year between 2001 and 2007 - a significant number of housing solutions when compared with the total number of new housing permits for the same period (Table 3).

THE MINISTRY OF HOUSING AND URBANISM'S TRADITIONAL ACTIONS FOR PROMOTING SOCIAL HOUSING

The central government relies mainly on the Ministry of Housing and Urbanism and its regional agencies to implement its social housing policy. Three main types of public actions traditionally carried out by the Ministry of Housing and Urbanism in the past were in support of the central government's social housing policy whose main objective was making housing ownership more affordable to the poor. Of those three actions, only the granting of direct subsidies by the state remains currently quite active. The other two traditional the Ministry of Housing and Urbanism actions: the direct supply to poor families of mortgages and basic housing units built to government specifications and paid for by the state, were discontinued at the beginning of this decade and are no longer a part of the Ministry of Housing and Urbanism's policy tool kit.

DIRECT DEMAND SUBSIDIES

Direct housing subsidies to homeowners were first introduced by the Ministry of Housing and Urbanism in the mid-nineteen seventies. This entity has been granting demand subsidies directly to less-advantaged families to help them pay for their first home. For many years this has meant a new dwelling, but since the reforms within the Ministry of Housing and Urbanism's housing programmes early this decade, subsidised households can also acquire used units and receive fiscal support to upgrade their old dwellings and improve their material living conditions.[15] The amount of fiscal resources going into these public subsidies over the years has been substantial. In 2007, for example, the Ministry of Housing and Urbanism actually disbursed the equivalent of USD709 million for housing subsidies under its different social housing support pro-

14 Social housing as other public social expenditure in Chile have become increasingly resilient to down swings in macroeconomic activity over the years, as the government has been able to successfully implement and maintain anti-cyclical fiscal cushions that protect the flow of funds to its social programs, including housing.

15 The practical results of this policy shift became particularly noticeable in 2007, when some 96 thousand families were granted subsidies under programs targeted to financially assist with housing maintenance, repairs and enhancements, including improvements in their surroundings.

grammes, including the new programme modality which grants subsidies to households for repairs and upgrades of their old basic housing stock. Last year, 58.1 percent of the money spent on housing by the central government under its social protection net went to pay for the Ministry of Housing and Urbanism's direct housing subsidies to households. The Ministry of Housing and Urbanism subsidies are always assigned to a specific family group who receive a certificate or a voucher that the benefiting family uses to cover part of the cost of its housing solution.

THE MINISTRY OF HOUSING AND URBANISM'S FORMER MORTGAGE PROGRAMME

In the past, but not any longer as already mentioned, the Ministry of Housing and Urbanism used to be an important supplier of long-term mortgages to household groups considered non-bankable or with uncertain capacity to access long-term credit markets under financially acceptable conditions. The problem was that the Ministry of Housing and Urbanism for decades had a very poor loan-recovery record acting as a direct credit supplier.[16] Thus, the Ministry of Housing and Urbanism's poor track record was a key driver behind the recent policy changes that stopped direct state mortgage lending to poor families. Moreover, by stopping mortgage lending the Ministry of Housing and Urbanism recognised that most vulnerable groups are in no financial condition to service a long-term mortgage, simultaneously deciding to grant larger subsidies to these disadvantaged family groups.

Today the poorest households accessing the Ministry of Housing and Urbanism's programmes, finance the bulk of their new home with a state subsidy. They must make a small contribution from family savings. Under the new financing scheme applied by the Ministry of Housing and Urbanism to the most vulnerable groups, families are discouraged from assuming debt to acquire their first home—private subsidies and grants are welcomed, if available.

Households which are better off and eligible for the Ministry of Housing and Urbanism's subsidies under other housing programmes, normally get a state vouchers to pay for a portion of the downpayment on their more expensive housing solutions. These more comfortable families also normally have to go to the mortgage market to secure long-term credits from institutional lenders to complete their home financing. Since many of these households are only marginally bankable, the Ministry of Housing and Urbanism continues to offer them indirect financial assistance in the form of credit enhancers—including partial credit guarantees and court-cost insurance to reduce foreclosure risks faced by lenders on defaulted mortgages. These are contingent liabilities by the government, with the mortgage origination and debt management processes totally in the hand of formal market lenders. Eventual claims are paid by the Ministry of Housing and Urbanism directly to insured lenders following their repossession of foreclosured property.

16 For a more detailed account of this point, see also Pardo (March 2001).

THE MINISTRY OF HOUSING AND URBANISM, AS A FORMER HOME SUPPLIER

Another discontinued traditional activity of the Ministry of Housing and Urbanism was the direct supply of basic housing to the poorest households. To do this, the Regional Service of Housing and Urbanisation used to request public bids from private contractors to build on its behalf large numbers of low-priced housing, which then the Ministry of Housing and Urbanism assigned to preselected households (classified as poor by the Social Assistance Committees Form) receiving its traditional subsidies.

The Ministry of Housing and Urbanism used to call for homebuilding bids for two types of dwellings: the so-called "progressive" housing and basic housing. The idea behind progressive housing was to urbanise the site and build the core of a housing unit, including kitchen and bathroom facilities. That was the government's contribution. Families acquiring housing in progress were supposed to finish the construction work, adding bedrooms for example, according to an original design. The Ministry of Housing and Urbanism distributed 46,210 of these unfinished dwellings between 1991 and 2003—although the last year the Ministry of Housing and Urbanism called for bids under this programme was in 1999. The average cost of the subsidy per progressive unit was 139 Unidad de Fomento (some USD5,650 today) for the period 1991-2003.

The Ministry of Housing and Urbanism's basic homes (or "viviendas SERVIU" in Spanish) were finished dwellings of around 40 m2 built on behalf and paid for that ministry. They were allocated by the Ministry of Housing and Urbanism under its Basic Housing programme aimed at the poorest segments of the population. Families under this programme received a subsidised price for a dwelling, made a small downpayment from personal savings, and received a direct mortgage from the regional Regional Service of Housing and Urbanisation to complete the financing of the dwelling. This was a key housing programme since the mid-nineteen seventies until 2002, when it was discontinued and basically replaced by the Housing Solidarity Fund programme. The Ministry of Housing and Urbanism was allocating basic homes from its stock to families until very recently. Available statistics show that the Ministry of Housing and Urbanism finished and delivered 296,339 of these basic dwellings between 1990 and 2005. The average subsidy per unit for these basic dwellings in the same period was 255 Unidad de Fomento (some USD10,400 in today's values), as reported by the Ministry of Housing and Urbanism.[17]

The reality was that the Ministry of Housing and Urbanism encountered increasing difficulties acting as the main supplier of basic housing. Besides mounting logistic and management issues faced by the Regional Service of Housing and Urbanisation in the implementation of sound housing development projects across the country, significant reductions in the housing deficit and increases in family incomes over the years meant that the nature of the housing problem in Chile increasingly evolved from being a problem of quantity to one of quality of housing solutions provided.

17 Often, the SERVIUs included publicly owned sites as part of the construction package offered to private bidders. In most cases there was an implicit land subsidy associated with MINVU-sponsored construction activity since public land was priced at cost rather than at market values, which were often higher. The other big subsidy for many families was that they got various portion of their mortgages (principal and interests) later on condoned by the government, as discussed in more detail in the text.

In other words, an increasingly more complex demand matrix for social housing and the inability of the Ministry of Housing and Urbanism to efficiently and effectively deliver the right supply response has meant a growing mismatch between the Ministry of Housing and Urbanism-driven supply of basic housing and the demand for it.

THE NEW HOUSING SOLIDARITY FUND

The policy response to the perceived problems came at the beginning of this decade, when the Ministry of Housing and Urbanism implemented a major policy shift which ended the direct involvement of Regional Service of Housing and Urbanisation in the construction of housing for the poor. Under the new policy, construction of new basic housing is being financially supported by subsidies from the Ministry of Housing and Urbanism's newly created Housing Solidarity Fund. This is a much more market-driven approach to satisfy homeownership demands by the poor, one which leaves micromanagement of housing projects in the hands of community organisations rather than the Regional Service of Housing and Urbanisation which concentrates on reviewing proposed housing projects, manages allocated subsidies and supervises the new system. As with other housing subsidies, the money going to the Housing Solidarity Fund is allocated every year via the fiscal budget as part of the central government's social protection net. The Housing Solidarity Fund periodically offers funds in different locations of the country to bidding groups composed of vulnerable households organised under the umbrella of special-purpose demand-driven/ community groups formed to design and carry out well-defined housing development and construction projects. Under the new scheme, community organisations, such as municipal governments, non-governmental organizations, and others, address the specific housing needs of the poor in their community by engaging the so-called Entity for Management of Social Real Estate, which are special-purpose entities (public or private) designated by beneficiaries to manage their real estate development projects (new and old dwellings can be financed by the Housing Solidarity Fund). To qualify for the lump-sum subsidies offered by the Housing Solidarity Fund managed by the Ministry of Housing and Urbanism, the Entity for Management of Social Real Estate must be capable of designing and implementing housing development projects which are socially, technically and financially acceptable (i.e. these projects and their beneficiaries must meet stringent requirements, see Box 1).

As a result of this major policy change in the allocation of fiscal resources, the supply of social housing to the poorest segments of the population has been in a transitional stage over the past few years, as it has taken time for the new demand groups under the Entity for Management of Social Real Estate to get organised and ready to submit its well-structured and well-thought out housing projects to the Housing Solidarity Fund. However, preliminary figures for 2006 and 2007 indicate that after a slow start during 2002-2005, the Housing Solidarity Fund is finally having a significant impact on the supply of new social housing, having contributed to the financing of 32,401 housing solutions (new and used units) for the poor in 2006 and close to 39,000 in 2007.

This means that 49 percent of new homeowners receiving the Ministry of Housing and Urbanism subsidies last year received financial support from the Housing Solidarity Fund (versus 38 percent in 2006). Clearly, the Ministry of Housing and Urbanism's aim of making the Housing Solidarity Fund its main tool for subsidising and resolving the housing needs of Chile's most vulnerable groups is now well on target.

Box 1: The Housing Solidarity Fund

The Housing Solidarity Fund grants housing subsidies in the form of vouchers to Chilean families living in poor conditions or facing conditions of social vulnerability according to the government's Social Protection Form. The Housing Solidarity Fund provides financial assistance to families buying a new or used home or, if they wish, to build their own home. Currently, the Ministry of Housing and Urbanism grants Housing Solidarity Fund subsidies under two different sub-funds: the Housing Solidarity Fund I and the newer Housing Solidarity Fund II. So far, most state subsidies have been disbursed under Housing Solidarity Fund I. There are many similarities between the two, although there are a few important differences. For example, families under the Housing Solidarity Fund II can opt to complement the financing of their homes with credits—in addition to family savings, state subsidies and grants from other sources, if available. Access to Housing Solidarity funding also depends on whether a proposed housing project involves construction or not. If it does, then families participating in a specific project must organise their group into a legal entity. The minimum group size is 10 households. Housing Solidarity Fund I has a maximum group size, which is 300 households. Projects entered into the database and involving construction are evaluated by a technical commission of experts by the regional service of housing and urbanisation and the Regional Ministerial Secretariat. The commission assesses proposed projects and once deemed eligible, the commission issues a Certificate of Qualification, which can be conditional or final. The Ministry of Housing and Urbanism from time to time calls for national bids to allocate Housing Solidarity I funds to housing projects holding a Certificate of Qualification. Dwellings receiving subsidies from the Housing Solidarity Fund are required to have at least two bedrooms, a kitchen and bathroom facilities and a common living space (e.g., living room/dinning room).

The Role of Entity for Management of Social Real Estate: All requests for Housing Solidarity Fund grants must be presented to regional service of housing and urbanisation via an Entity for Management of Social Real Estate. The latter are legal entities (public or private) created with the purpose of providing technical assistance and managerial skills to families seeking a housing solution requiring Housing Solidarity Fund subsidies. Entity for Management of Social Real Estate are in charge of depositing all required documentation about a proposed housing solution in the database maintained for this purpose by each regional service of housing and urbanisation. Once a project is approved and selected, the Entity for Management of Social Real Estate does all the necessary paperwork required by the regional regional service of housing and urbanisation in order to get the subsidy certificates or vouchers on behalf of eligible households.

Before Entity for Management of Social Real Estate can offer their services to the community, they must sign an agreement with the Ministry of Housing and Urbanism spelling out its duties, service charges, rights and responsibilities. Basically, Entity for Management of Social Real Estate must organise the family groups and carry out the work necessary for them to acquire a home.

Continuation.......Box 1: The Housing Solidarity Fund

Entity for Management of Social Real Estate has specific responsibilities during each stage of a project, whether this involves the construction of new units or the acquisition of dwellings already built. Entity for Management of Social Real Estate also are responsible for preparing and presenting an acceptable Social Implementation Plan, which identifies the assistance and support the Entity for Management of Social Real Estate provides families participating in a specific project. Regional service of housing and urbanisation normally pays for the technical assistance provided by the Entity for Management of Social Real Estate to beneficiaries.

Project selection: The selection process takes into consideration the following:

* Vulnerability of the group (number of disabled people or those suffering from catastrophic diseases, number of seniors, etc.)
* Condition of poverty of the group (average for the group below the poverty line, according to the Social Protection Form)
* Quality of the Social Implementation Plan
* Quality of the proposed housing project
* The size of any additional grants to be received by the project
* Degree of compliance by families and dwellings with Housing Solidarity Fund requirements

Minimum family requirements:

* Head of family/spouse/partner must be at least 18 years old
* Family group or household must qualify as poor and/or vulnerable, be a first time recipient of a state or municipal housing subsidy and not have title to a dwelling
* Individuals living alone cannot be beneficiaries, except for senior citizens and a few other exceptions
* Each family group must have a housing savings account in a bank with a balance of at least: 10 Unidad de Fomento (approximately USD360) in the case of HSF I and 30 UF (USD1,080) in the case of Housing Solidarity Fund II

Individual family subsidies under the HSF: The value of each subsidy voucher is between 280 Unidad de Fomento (USD8,631) and 470 Unidad de Fomento (USD16,902), depending of the county where the dwelling is located and the type of housing solution being proposed. However, in most parts of the country the basic subsidy for existing homes is 280 Unidad de Fomento and for newly constructed is 330 Unidad de Fomento (USD11,868).

Moreover, the Housing Solidarity Fund offers two types of complementary subsidies: a) to help pay for the construction site in cities of 30 thousand or more inhabitants, a subsidy of up to 150 Unidad de Fomento (USD5,394) additional per family, and b) to help pay for improvement of common areas, a subsidy of up to 5 UF (USD180) additional per family. Moreover, housing projects receiving funding from the Housing Solidarity Fund can also bid for financial support from other the Ministry of Housing and Urbanism programmes targeted to improve community facilities and the urban setting.

Continuation.......Box 1: The Housing Solidarity Fund

Recent projects subsidized by the Housing Solidarity Fund:

* Project "Sol de Julio", Region V: Construction of 18 solid dwellings of 32.4 m^2 each. New units replaced old wood dwellings in poor condition. The subsidy per family amounted to 280 Unidad de Fomento.

* Project "Villa La Roca de Quintero", Region V: Construction of 330 apartments in several four-story high buildings built in a newly urbanized municipal site. There are two apartments per floor, most two-bedroom apartments of 42.91 m^2. Also, there are fourteen three-bedroom apartments of 47.57 m^2. Besides the 280 Unidad de Fomento subsidy per family received from the HSF, This project received an additional contribution, arranged by the municipal government, valued in 8,389.4 Unidad de Fomento (USD301,703).

* Project "El Esfuerzo y Esperanza", Region VIII: Construction of 90 houses in a newly urbanized site connected to the public water and sewage systems. Paired 37.2 m2 units were built in 175 m2 sites, leaving 18.4 m2 ready for an eventual future expansion. The total cost per dwelling was 285 Unidad de Fomento (USD10,249), of which each family contributed 10 Unidad de Fomento in personal savings plus the site. The rest came from subsidies paid out of the Housing Solidarity Fund.

MAIN PUBLIC POLICY ISSUES

The design of a consistent and effective social housing policy requires housing authorities to carefully review the variety of issues involved in producing a well-integrated set of policy guidelines. This section will address some of the issues faced by Chile and review some of the government's policy responses to the challenges confronted by its social housing activities during the course of the past three decades.

HOME OWNERSHIP AS THE KEY POLICY CHOICE

Making adequate housing affordable for all has been a long-term political priority of the Chilean government. For that purpose, it has clearly favoured homeownership. Renting from private landlords is also an option for Chilean households but as shown in Table 2, this has not been the preferred solution for securing the housing services required by the population—rented dwellings, for example, accounted for only 17.9 percent of all housing solutions in the 2002 Census. Why that has been traditionally the case is hard to say. In part, the choice among low-income families is easy to understand since opportunities to rent are scarce and expensive vis-à-vis homeownership, which has been made easier by generous state subsidies that often have included a hidden subsidy component when borrowing directly from the Ministry of Housing and Urbanism. High levels of homeownership also appear to reflect deeply held individual preferences which through the political process have made of "owning-your-home" a widely accepted and scarcely questioned public policy choice. The Ministry of Housing and Urbanism's housing programmes have traditionally been designed with homeownership in mind, never having offered state-owned units for rent under any of its social housing programmes. Even in the case of the Ministry of Housing and Urbanism's Housing Leasing Programme, the landlord is a private party with a contractual pledge to sell the property to the tenant at the expiration of the lease contract.

Homeownership requires a major financial commitment on the part of a family since it demands large amounts of financial resources. A sizable fiscal contribution in the form of a demand subsidy, complemented with prior family savings, have been essential for giving the poorest segments of the Chilean population a reasonable chance to formally own a home that meets minimum standards. Those households aspiring to own a home that go beyond basic housing, require a steady source of income and access to long-term credit. Thus, adequate and affordable access to mortgage financing is the other key ingredient to homeownership for many among low and middle-income families. Social housing policies, then, have to pay special attention to affordable access to term-credit financing by these families. From the perspective of a market economy like Chile, the preference for homeownership has had important financial implications for public policy, some of which are reviewed below.

THE GENERAL PUBLIC POLICY FRAMEWORK

In Chile's open market economy the state's social interventions are directed primarily to correct market distortions and improve opportunities for disadvantaged members of society whenever the spontaneous market outcome does not meet politically acceptable minimum standards. In this context, Chile's social housing policy framework has not changed much since the late-1970s. The framework rests on four main pillars or policy guidelines, whose purposes are to:

a. Focus public interventions on supplementing private actions and covering for detected market deficiencies in the provision of housing services, mainly among lower middle income households (this defines the so-called "subsidiary" role of the state)

b. Apply social progressiveness to state interventions, so that scarce public resources are spent on resolving housing needs of those facing the most severe shortcomings

c. Aapply household selection processes that ensure that scarce fiscal resources are clearly targeted to and that reach those most in need and

d. Design efficient and effective financial instruments so as to make sure that public interventions minimise financial distortions and that fiscal resources are spent achieving stated public goals on social housing—thus making sure that the biggest social impact is obtained from scarce budgetary resources.

STEADINESS OF PUBLIC POLICY OVER THE YEARS

Within this policy context, the Ministry of Housing and Urbanism's specific public housing programmes have varied considerably in modality and number over the years, changing to accommodate the perceived needs of the moment and as lessons are learned.

To be sure, programme revisions have modified from time to time—sometimes in depth—the menu of options, but always under the umbrella of the already stated policy framework. Since the mid- 1970s and over subsequent years, the same general common purpose of public housing policy has been consistently maintained, independently of the political leanings of the Administration in place. This policy consistency has been reflected in practice in sizable annual fiscal budgetary allocations which, for example, contributed to the financing of better living conditions of some 106 000 households in 2007 (i.e. number of subsidy certificates or vouchers actually paid by the Chilean Treasury). Preliminary estimates of the Chilean Chamber of the Construction Industry indicate that actual subsidy payments in connection with the construction or acquisition of homes last year was the equivalent to some USD8.3 thousand per dwelling, with the bulk of the fiscal assistance going to subsidize the purchase of a housing solution supported by the Housing Solidarity Fund. This is in line with the stated intent of government's policy which seeks to invert the size of the fiscal contribution in line with the price of the financed dwelling.

BENEFITING THE POOREST HOUSEHOLDS THE MOST

Social progressiveness meant that most of the government's contribution in the past was aimed at the poorest families. For example, the leading program for the poorest, which is financed via the Housing Solidarity Fund since 2003, explained 60.2 percent of the total amount spent by the Ministry of Housing and Urbanism in direct subsidies in 2006—that is, it paid out an average subsidy equivalent to USD9,992 per beneficiary that year, when 32,401 households were subsidised under the Housing Solidarity Fund programme (the bulk of them under the Housing Solidarity Fund I modality). In contrast, the contribution from family savings was a much smaller amount, with the minimum set at 10 Unidad de Fomento (the equivalent of USD343 per household in 2006). Moreover, there were practically no mortgages in the financing of Housing Solidarity Fund-supported housing in 2006. All these are families classified well under the poverty line—i.e. those among the poorest/most vulnerable 40 percent of the population—according to detailed government surveys used to specifically target its programs part of its social protection net.

Large public subsidies in the case of the poorest families—most of which are considered non-bankable—has made housing much more affordable for those able to pass the Ministry of Housing and Urbanism's screening system. As it will be discussed in more detail below, the quality and fairness of the screening system is crucial for an accurate targeting of fiscal subsidies and central for meeting the social progressiveness test.

The emphasis on social progressiveness has meant that lower to middle income families which aspire to a better housing solution because higher income levels and easier access to long-term credit in the financial system, are getting today as a group a much smaller share of the fiscal resources. For example, official figures show that the Ministry of Housing and Urbanism in 2006 paid only 362,270 Unidad de Fomento (some USD12.4 million) in housing subsidies resulting from voucher redemptions by households buying the highest priced homes receiving fiscal assistance—just 1,883 dwelling in total. These were families benefiting from the traditional general or unified subsidy program and those participating in urban renewal and the conservation of historical zone projects. These dwellings, by and large new construction, on average got 192.4 Unidad de Fomento each (some USD6,590) in state subsidies, 13.9 percent of their average price of 1,386 Unidad de Fomento (USD47,470).

The persistent and sizable fiscal effort to support housing solutions for the most disadvantaged sectors of the population has been accompanied by a positive response on the part of the construction industry, which has kept supplying a constant flow of low-priced homes and innovative new solutions for families seeking a housing solution via participation in the Ministry of Housing and Urbanism's housing programmes. Specialisation in low-income housing by several construction companies has improved productivity in this segment of the industry, benefiting lower to middle income families and reinforcing the credibility of Chile's social housing policy.

THE MINISTRY OF HOUSING AND URBANISM'S PROBLEMS AS A CREDIT SUPPLIER

The Ministry of Housing and Urbanism's activities as a mortgage lender to the poor were already covered. The purpose of revisiting the topic here is to review in more details its implications, particularly for the financing of social housing.

Initially, the hope of the government was that poor families would be capable of promptly servicing their debt with the Ministry of Housing and Urbanism, thus maintaining basic housing affordability for poor families without the need for larger upfront fiscal subsidies. The Ministry of Housing and Urbanism's subsidies represented in any event a large contribution to the financing of basic housing. The Ministry of Housing and Urbanism-supplied mortgages were initially limited to the equivalent of not more than 35 percent of the price of a basic unit (in the USD2,000 to USD3,000 range at the turn of the century), with a maximum mortgage-to-value ratio of 75 percent and subject to an inflation-adjusted interest rate of 8 percent per year.[18] Beyond that, when the Ministry of Housing and Urbanism's mortgage programme was active, little effort was made to assess debt affordability by the beneficiaries, which were chosen basically on the basis of their housing needs (i.e., poverty/vulnerability of the family group) and the contribution made by accumulated family savings rather than their financial capacity to service a mortgage.

The practical result has been a large number of defaults, as many families simply could not meet their monthly debt-service obligations once acquiring their homes. In addition, poor management practices by the regional service of housing and urbanisation and their lack of political will to collect meant that even households that could afford servicing their mortgages often were delinquent on their payments. An April 2001 the Ministry of Housing and Urbanism-sponsored survey showed that 42.2 percent of non-poor family recipients of the regional service of housing and urbanisation mortgages were delinquent in their payments at the time. Thus, the Ministry of Housing and Urbanism for years gave substantial and unintended additional subsidies to the beneficiaries of its housing programs. Also, the

18 For a more detailed discussion of direct SERVIU mortgages, see Pardo (March 2001).

Ministry of Housing and Urbanism's lack of action to improve financial discipline among its debtors has made it much more difficult for lower to middle income families to secure a mortgage with private lenders who have been discouraged by the high level of moral hazard they observed in that market segment—and that clearly increased the perceived level of credit risk involved in lending to lower to middle income families. Besides large fiscal losses, mortgage lending by the government had the unintended consequence of artificially increasing the need for additional mortgage lending by the regional services of housing and urbanisation since discouraged mortgage originators in the marketplace grew increasingly shy of actively lending to lower to middle income families: perceived credit risks were too high.

By letting the regional services of housing and urbanisation to actively engage in the business of supplying long-term mortgages to the poor, mostly households in the lowest two income quintiles, the Ministry of Housing and Urbanism paved the way for a big fiscal problem, one that is still being felt today, years after the practice of granting long-term mortgages was discontinued. Recently 92 000 households with direct and indirect regional services of housing and urbanisation debts were offered a special Ministry of Housing and Urbanism initiative—still available—which will allow them to have the remaining portions of their pending mortgages condoned. This will finally allow them to clear the title to their homes. The central government is absorbing the loss, which in effect is an unintended additional subsidy for the benefiting families—there is not much public information available on this. The specifics of this debt-clearing initiative are as follows:

- Close to twenty-five thousand direct regional services of housing and urbanisation debtors will be condoned all remaining debt. These are families living in homes included in the cadastre of "Housing development projects with construction problems" dated July 2005 and which includes housing supplied originally by the Ministry of Housing and Urbanism.
- Close to sixty-seven thousand will be condoned all remaining debt prior to a copayment, as follows:
    - Families which have paid more than 50 percent of the original mortgage need to make a copayment of 12 Unidad de Fomento (some USD478 today).
    - Families which are up-to-date serving their mortgages and have paid less than 50 percent of the original debt need to make a copayment of 18 Unidad de Fomento (USD717)
    - Families which are in arrears on their monthly payments and have paid less than 50 percent of their mortgages have to make a copayment of 24 Unidad de Fomento (USD956).

The messy fiscal situation and the unintended consequences for LMI mortgage lending were key drivers behind the sharp review of the Ministry of Housing and Urbanism. financing practices in 2001, which resulted in the establishment of the Housing Solidarity Fund and the explicit increase of state housing subsidies for the most disadvantaged family groups.

SECURING THE SUPPLY OF BASIC HOUSING

The Ministry of Housing and Urbanism's past activities as a leading supplier of basic housing to the poor have already been described in an earlier section. The reason for revisiting the issue here is to better understand the motivations behind such activities. In the past, faced with a pressing housing deficit among the poor, the Ministry of Housing and Urbanism placed much more emphasis on the number of solutions being offered in the market than on the quality of the housing being built. This approach was much easier to defend at an earlier stage when it was paramount to rapidly cut the large historical housing deficit. Moreover, at that time the government's efforts—in the face of scarce fiscal resources—were concentrated on drastically reducing the average price of each new basic unit being built under government contracts. This had a direct and positive impact on housing affordability, particularly given that a mortgage was part of the financing equation, even for families that clearly could not afford a SERVIU mortgage. The Ministry of Housing and Urbanism's strategy for years was to contract new basic housing in the periphery of urban centers, where land—in many instances owned by the government—was cheaper and much larger projects could be built; thus taking advantage of an economy of scale. Eventually, a significant number of private developers became specialists in this type of social housing, to which the perceived long-term commitment on the part of the Ministry of Housing and Urbanism clearly helped. Impressive gains in productivity took place, as new building methods and technologies became well established. This allowed for sharp reductions in the average price of a basic dwelling for the poor.[19]

By the late nineties, the benefits of the Ministry of Housing and Urbanism's approach of generating its own supply of basic housing had lost most of its early attractions. The favoured large new housing developments for the poor had become considerably more expensive, particularly in the large metropolitan areas, and had to be built farther and farther away from urban centers to reduce location or site costs, thus increasing commuting times to intolerable levels. Moreover, massive regional services of housing and urbanisation-developed sites missed the necessary sense of community. In fact, surveys have found a growing detachment and dissatisfaction on the part of the poor with these types of housing solutions. Apartment buildings, one type of solution tried in large metropolitan areas to compensate for the steady and significant increase in the price of urban land, are particularly badly rated by the poor. Because of their very small size, these apartments are prone to noise pollution and loss of privacy, while managing common areas has shown to be particularly hard to handle by the community.

Today, when the Ministry of Housing and Urbanism's social housing programmes continues to have a major impact on the Chilean housing market, practically all of Chile's permanent housing construction is done by private companies acting under their own initiative. Public policy has steadily moved away

19 Data for the mid-eighties show that some developers bid and delivered basic housing of 38 square meters for the equivalent of US$2,800, meeting minimum construction standards and including the price of the site and the urbanization of the development. A similar unit 10 years earlier was priced at the equivalent of some US$7,000, mostly due to higher land prices and to a much lesser extent to general price inflation and construction costs

from direct state interventions to generate the new supply of social housing. As already explained, the benefits of a direct supply interventions by the Ministry of Housing and Urbanism became more difficult to uphold over the years, which led to a major policy shift early this decade. Under current public policy, the Ministry of Housing and Urbanism is required to be much more responsive to atomised private decisions at the community level, both on the demand and supply sides of the housing market. To accomplish this, it is becoming increasingly clear that alternative programs such as the Housing Solidarity Fund are better suited for the task.

The recent Law on Co-ownership of Real Estate provides an improved framework and set of incentives for the design, organisation and administration of new community-driven real estate development projects. As already discussed at length, the Ministry of Housing and Urbanism now allocates a large portion of its annual budget to its Housing Solidarity Fund for the purpose of subsidising community-driven initiatives.

THE MINISTRY OF HOUSING AND URBANISM'S HOUSING LEASING PROGRAM

From the viewpoint of the government's social housing policy, the housing leasing programme was a response to the special needs of family groups who were not being properly served by other the Ministry of Housing and Urbanism's programmes. Under this programem, the Ministry of Housing and Urbanism grants direct subsidies to households leasing eligible properties from independent private leasing companies under long-term leasing contracts which include a mandatory clause requiring lessors to sell the property to the leasing families at the end of the leasing contract- assuming that the lessee has complied with the terms and conditions of the leasing contract. In essence, these are lease-to-purchase contracts that promote homeownership.

The government promoted the enactment of special legislation in the mid-1990 to have the proper legal basis for those types of housing transactions, which also allowed the Ministry of Housing and Urbanism to implement an alternative subsidy programme involving housing leases. It should be pointed out that the housing leasing concept as it is applied in Chile, goes beyond the Ministry of Housing and Urbanism programme. In effect, several new specialised leasing companies are now operating in the country offering long-term housing leases as an alternative housing finance mechanism to the population at large, even to households which do not require or seek a Ministry of Housing and Urbanism subsidy.

Because this is one more housing-finance modality available in the Chilean market, its technical details will be reviewed in Section III, where different mortgage origination modalities available in the local market also will be discussed.

The subsidies the Ministry of Housing and Urbanism is offering under its housing leasing programme are being targeted mainly to the poor seeking a housing solution priced up to 400 Unidad de Fomento (equivalent to some USD16,250 today). [20] Households benefit-

20 Subsidies can be higher for dwellings located in remote areas—which rarely is the case with leased properties—and in zones declared of historical conservation or urban renewal.

ing from this the Ministry of Housing and Urbanism's programme are required to make an upfront payment of at least 5 percent of the value of the leased property which gets them a 140 Unidad de Fomento subsidy from the Ministry of Housing and Urbanism. These two contributions made at the inception of the transaction reduce the value of the lease contract which significantly reduces the credit risk exposure of the lessor.

According to the Ministry of Housing and Urbanism statistics, it had granted subsidy vouchers to 58,820 families under its housing leasing programme until the end of 2007, of which 94 percent of the beneficiaries were opting for leasing properties valued up to 400 Unidad de Fomento. Currently, a significant portion of those subsidy certificates remain to be exercised by the beneficiaries, which should sustain the demand for the housing leasing industry's financial services in the coming months.

MANAGING THE MINISTRY OF HOUSING AND URBANISM'S DIRECT DEMAND SUBSIDIES

The impact of the Ministry of Housing and Urbanism's upfront demand subsidies via the allocation of vouchers goes beyond the monetary value of the household subsidies actually disbursed every year. In fact, the fifteen regional services of housing and urbanisation offices grant every year the right to upfront subsidies in the form of subsidy certificates to a much larger number of households than those actually exercising their right. For example, regional service of housing and urbanisation distributed the right to a subsidy to 104,778 families annually in the period 2003-2006—for an estimated annual cost to the government of USD631.3 million (end-2006 values). Some subsidies during that four-year period were targeted to help with the financing of regional service of housing and urbanisation-contracted housing—a practice now phased out—and others to finance vouchers for the down payment of households buying a home on the open market. In practice, however, the Ministry of Housing and Urbanism disbursed on average subsidies for about 83,128 dwellings per year under its various programmes during the same 2003-2006 period. That is, actual units benefiting from a subsidy amounted to only 79.3 percent of the number of households potentially eligible for a subsidy during those years, as measured by the number of vouchers issued during 2003-2006. In terms of the volume of fiscal resources, the Ministry of Housing and Urbanism disbursed on average 81.3 percent of the money allocated for subsidies during that period.

According to the Ministry of Housing and Urbanism, 2007 registered a record number of new subsidy certificates distributed (209 thousand vouchers were allocated). This figure represented a big jump in the number of beneficiaries, but it is explained in part by the new emphasis on improving living conditions of those already living in existing dwellings and which were granted state subsidies to repair and improve their homes. As a result, some 53 percent of households last year received vouchers to financially assist them with the construction or acquisition of their first home, and the other 47 percent to carry out improvements, extensions or repairs in their existing units. As mentioned earlier, the actual number of subsidy vouchers paid out by the Ministry of Housing and Urbanism in 2007 was a much lower figure (106 000). Based on past experience, it would take a couple of years for the bulk of subsidy certificates distributed in the last year to be used by beneficiaries. One reason is that it takes some time for families to materialise their housing plans. Only then these vouchers will translate into actual disbursements in the fiscal accounts. In the meantime, outstanding vouchers represent contingent claims on the central government, for which this needs to make adequate funding provisions.

However, there are several other factors that explain the difference between allocated subsidies and those actually paid in any given year. To start with, beneficiaries have up to 21 months to exercise their vouchers, so as suggested above families take their time in finding the right home before using their vouchers. In the meantime, family circumstances sometimes change and buying a home drops down in the list of priorities or due to a fall in family income a home becomes less affordable. Also, it could happen that an improvement in the employment situation causes some families to aspire to a higher priced house which does not qualify for a state subsidy. But perhaps more relevant, many lower middle income families still face important obstacles when trying to qualify for a mortgage, often being unable to secure one from banks or other mortgage originators, so the Ministry of Housing and Urbanism vouchers go unutilised. Impediments to securing a mortgage have a detrimental impact on home ownership affordability by lower middle income families—except for the poorest group who rely heavily on state subsidies—since long-term credit is almost always an essential component of the financial package for families aspiring to more than a basic housing solution. On a more positive note, some 37.8 000 new homeowners using regional service of housing and urbanization vouchers were successful in securing a mortgage or a long-term lease to finance their new dwelling in 2006, which speaks well of the capacity of the credit market in Chile to meet the needs of the lower middle income families supported by the various the Ministry of Housing and Urbanism's programmes.

TARGETING FISCAL SUPPORT TO THE POOREST HOUSEHOLDS

The fiscal contribution to housing investment in Chile is significant although, as mentioned earlier, it represents a fraction of the overall monetary value of the annual investment in housing in the country. From a social perspective, however, the primary consideration should be whether the Ministry of Housing and Urbanism's interventions affect the life of a large number of disadvantaged households and whether fiscal resources are accurately targeted to the most vulnerable families and those with the most pressing needs. From experience, these family groups have traditionally been concentrated at the bottom of the income distribution.

Carefully targeted, upfront subsidies via vouchers have been the traditional practice of the Chilean government. In fact, sharp focusing on the poorest households traditionally has discouraged the delivery of housing subsidies via alternative subsidy mechanisms such as below-market interest rates. The latter is a practice which international experience has shown to be regressive since it tends to favour families purchasing higher priced housing, with higher incomes and capable of borrowing on financial markets. Concentrating on the use of personal vouchers to financially assist families with the down payment on their home also tends to reduce distortions in the credit markets, particularly since the practice of also granting direct mortgages was stopped by the Ministry of Housing and Urbanism.

To improve the chances of the poorest/most vulnerable members of society of receiving adequate housing services, a necessary first step is to have the right instruments for identifying disadvantaged families. In Chile the traditional instrument for many years has been the so-called Social Assistance Committees form, used since 1980 until last year, when the new Social Protection Form was introduced. This new socio-economic questionnaire represents a major overhaul of the Social Assistance Committees form, but in any event, these two forms have been quite important since they are a key requirement of all disadvantaged families seeking access to a range of state and municipal programmes which constitute the social protection net, and that includes the Ministry of Housing and Urbanism's housing subsidies.

The recent adoption of the Social Protection Form has brought about major changes to the questionnaire of the old Social Assistance Committees. Moreover, the aim of the new form is to measure family vulnerability—which is a more forward looking concept - instead of family deficiencies—a more static concept—as it was the case with the Social Assistance Committees form. The information-gathering process to fill out the new questionnaire has remained basically the same. The information is gathered through personal interviews by social workers working for municipal governments—which are politically autonomous entities managing a variety of social services in their local communities. Personal information gathered during the personal interview is processed and each variable is rated according to a pre-established point system. The points are then added to achieve a socioeconomic score for a given individual and his/her household. Information for the whole country is kept in a national database at the Ministry of Planning, with over 2.2 million family data in the database. A big effort, which started in September 2007, is still under way to interview families using the new Social Protection Form and update the available information.

To better understand the importance of the recent changes introduced with the Social Protection Form, it is perhaps useful to briefly comment on the old Social Assistance Committees form. The content of the Social Assistance Committees form varied little over the years: it traditionally included thirteen main variables grouped into four main themes: housing, education, occupation/income and family asset holdings. Information from each household was gathered by asking a total of 65 questions, with an update carried out every two years. The information gathered concentrated on detecting each family's unsatisfied basic needs, focusing on establishing current poverty levels. Such socioeconomic stratification of the population indeed played quite a useful role as an input for the design and implementation of the government's policies and programmes. However, the authorities felt the need for better indicators of social vulnerability by families and their members, so the Social Protection Fund gathers more information about the future capacity of each member to generate income, including measures of the family's human capital and the stability of income flows. The new form also recognises that each member of the family has different needs according to age, health condition, region of the country and overall living conditions.

In summary, the new point scale takes into consideration special needs of every particular family group and its members, giving much more weight to variables related to income and occupation, while deemphasising family assets and subjective assessments that rely on observations and the personal judgment of interviewers. All this is aimed at improving the targeting of each specific social programme offered to the community by taking into account specific needs derived from different personal situations, highlighting conditions such as physical handicaps, old age, unemployment, disease, low income, housing needs, etc.

Identifying those most in need is a first step but still not sufficient for successfully implementing a progressive social policy. For that, it is also necessary to design and implement social programmes, such as those targeting housing subsidies, which are progressive.

For example, in the specific case of the Ministry of Housing and Urbanism, this ministry redesigned its housing programmes in 2001 and again in 2006 in part to reduce participation by middle and upper-income households.

A key instrument used for that purpose was the National Survey of Socio-economic Characterisation survey—already referred to in footnote 9—which provides detailed data on the ex-post impact of the Ministry of Housing and Urbanism's programmes at the national, regional and county level. Data for the 2003 version of this household survey showed a substantial improvement in the targeting of public housing programmes—comparable published data for the 2006 survey is not currently available. This improvement in the targeting of social housing programmes in favor of lower income families is shown in the figures in Table 5 below:

Table 5: Portion of Public Housing Subsidies Received by New Homeowners

Grouped by Family Income Level				
Benefits Received by Income Decile	2000		2003	
	Percentage	Number of Beneficiaries	Percentage	Number of Beneficiaries
Deciles I to VI	68.5%	60,169	80.9%	78,232
Deciles VII to X	31.5%	27,669	19.1%	18,470
Total	**100.0%**	**87,838**	**100%**	**96,702**

Source: CASEN survey 2000 and 2003; CCHC (May 2005) and MINVU

Table 4 shows that new homeowners in the first six family-income deciles received roughly 81 percent of public housing subsidies in 2003, a marked improvement from three years earlier, when the same families captured only 68.5 percent of the fiscal housing subsidies. The poverty line for a typical family in Chile is roughly USD313 per month (in 2005 dollars)[21] and families in decile VI had monthly incomes roughly twice the poverty level—the first three income deciles explained half of the housing subsidies in 2003, according to the National Survey of Socio-economic Characterisation survey, while the stated public policy was to allocate 70 percent to these families. Perhaps what is surprising is that mid and high-income families—those in the upper four family-income deciles—were still receiving a significant share of housing subsidies in 2003, despite the concerted effort to stop the leakage of fiscal resources in favor of higher income households. In any event, the Ministry of Housing and Urbanism's housing programmes today are clearly making home ownership increasingly more affordable for those households at the lower end of the income scale.

THE MINISTRY OF HOUSING AND URBANISM'S CURRENT SOCIAL HOUSING PROGRAMMES

From a housing finance perspective, Chile's public policy today actively seeks to make home ownership more affordable for two types of households: a) those which that are considered poor/vulnerable, to whom the Ministry of Housing and Urbanism currently offers basically four alternative programmes and b) those above the poverty line but still requiring some financial support to complete the financing of a home of their own, to whom also four alternatives currently exist. In addition, the Ministry of Housing and Urbanism offers several complementary programmes to the community, geared to improving the living environment in which social housing is inserted. Subsidies offered for the implementation of these projects are in addition to those offered to individual households to finance the acquisition of a dwelling. The current list of available Ministry of Housing and Urbanism programme modalities is summarised in Table 6 below:

21 MIDEPLAN conducts special surveys to determine the poverty and indigence levels for those years when it conducts a CASEN survey. Indigents are those that cannot afford to consume what is considered to be the recommended minimum daily food intake and poor are those whose incomes do not allow them to meet their basic needs (approximately twice the income level for borderline indigents).

Table 6: The Ministry of Housing and Urbanism Social Housing Programmes Revised Programmes Announced in July 2006

Program Type	Maximum Upfront Subsidy+	Minimum Prior Savings+	Credit Access*	Dwelling Minimum Standards	Comments
A. Subsidy Programs for Poorest Households					
HSF Title I or DSHD Program	USD9,607 to US$16,126 range per household (280 to 470 UF)	USD343.1 per household (10 UF)	Debt is not allowed	- At least 2 bed-rooms, kitchen, bathroom and one common living area - Construction of approx. 38 m2 - Site of at least 55 m2 - Municipal building permit	- Allows new or used dwellings - Subsidy application through EGIS - Group of 10 house-holds minimum - Eligible for complemen-tary location subsidy - EGIS services paid mostly by MINVU - Poverty status based on CAS Form - Household doesn't own a dwelling
- New construc-tion projects	USD11,322 (330 UF)				- Subsidy can go up by as much as 42% in far-out regions - Eligible for complementary urban improvement subsidy
- Existing housing	USD9,607 (280 UF)				Subsidy can go up by as much as 50% in far-out regions

Program Type	Maximum Upfront Subsidy+	Minimum Prior Savings+	Credit Access*	Dwelling Minimum Standards	Comments
HSF—Title II	USD9,607 to USD14,410 range per household, depending on region of country (280 to 420 UF)	USD1,029.3 per household (30 UF)	Credit from financial institution is optional	Same as DSHD	- Allows new or used dwellings - Subsidy application through EGIS - Group of 10 households minimum - Eligible for complementary location subsidy - EGIS services paid mostly by MINVU - CAS Form point value no superior to the 2nd income quintile - Doesn't own a dwelling
Rural Subsidy I-Single Household	USD7,548 to USD9,264 range per household, depending on region of country (220 to 270 UF)	USD343.1 per household (10 UF) plus the home site	Credit from financial institution is optional	Municipal building permit	- Household resides in rural area - CAS Form point value places household among poorest 40% - Sanitation services available to property - Maximum size of rural property of 8 ha (irrigated equivalent) - Doesn't own a dwelling

Program Type	Maximum Upfront Subsidy+	Minimum Prior Savings+	Credit Access*	Dwelling Minimum Standards	Comments
Rural Subsidy II-Villages	USD9,607 to 11,322 range per household depending on region of the country (280 to 330 UF)	USD343.1 per household (10 UF) plus the home site	Credit from financial institution is optional	- Individual household sites of no more than 1,000 m2 - Project for development of common site approved by MINVU	- Households located in rural area - CAS Form point value places households among poorest 40% - Sanitation services available to property - Households don't own a dwelling - Group belongs to valid community organization (e.g., cooperative) - Minimum group size: 30 villagers in new village and 10 in existing villages
B. Other Social Housing Subsidy Programs					
General Subsidy—Title I	Upfront subsidy depends on price of the dwelling being financed and the region of the country	USD1,716 per household (50 UF)	Mortgage from financial institution is optional	- Housing of up to 140 m2 - Price of dwelling must be not more than US$20,586, with exception of far-out regions where it can go as high as US$41,172 (e.g., Eastern Island) (Up to 600 UF, with the exception of far-out regions, where can be up to 1,200 UF)	- New, used or construction of an urban or rural dwelling - Single or group of households can request the MINVU subsidy—via an EGIS in the latter case - Household cannot own a dwelling already - Household selection according to pre-established MINVU formula of 8 variables - CAS Form is not required

Program Type	Maximum Upfront Subsidy+	Minimum Prior Savings+	Credit Access*	Dwelling Minimum Standards	Comments
- Housing priced up to US$20,586 (600 UF)	USD7,205 minus Housing Price/5 (210 UF minus HP)				- Eligible for additional implicit subsidies: a) at time of mortgage origination (interest rate guarantee and mortgage origination), and b) in the event of foreclosure (insurance covers part of the creditor's losses) - Implicit subsidies can go higher in far-out regions - Price of dwelling subsidy can be as much as 33% in far-out regions - - Subsidy can be up to 3.8 times larger in far-out regions
- Housing priced in US$20,587 to US$34,310 (600 to 1,000 UF)	US$3,088 per household (90 UF)				- Price of dwelling can be as much as 20% in far-out regions - Subsidy can be up to 3.2 times larger in far-out regions
Territorial Interest Subsidy—Title II	Upfront subsidy applies in areas declared of urban renewal and priority development		Mortgage from financial institution is optional		- New, used or construction of an urban or rural dwelling - Single or group of households can request the MINVU subsidy—via an EGIS in the latter case - Household selection according to pre-established MINVU formula of 8 variables - CAS Form is not required - Household cannot own a dwelling already

Program Type	Maximum Upfront Subsidy+	Minimum Prior Savings+	Credit Access*	Dwelling Minimum Standards	Comments
- Housing priced up to US$34,310 (1,000 UF)	USD6,862 per household (200 UF)	USD3,431 per household (100 UF)			
- Housing priced up to US$68,620 (2,000 UF)	USD6,862 per household (200 UF)	USD6,862 per household (200 UF)			
Housing Rehabilitation Subsidy—Title III	Upfront subsidy applies to "economic" housing resulting of reha-bilitation of dwelling built before July 31, 1959		Mortgage from financial institution is optional	Economic hous-ing of not more than 140 m2	- Urban or rural renewal - Single or group of households can request the MINVU subsidy—via an EGIS in the latter case - Rehabilitated building declared eligible by MINVU, in compliance with Urban Law - Rehabilitated building subdivided into at least two economic dwelling - Household selection according to pre-established MINVU formula of 8 variables - CAS Form is not required - Household cannot own a dwelling already
- Housing priced up to US$41,172 (1,200 UF)	USD8,578 per household (250 UF)	USD3,431 per household (100 UF)			
- Housing priced up to US$68,620 (2,000 UF)	USD8,578 per household (250 UF)	USD6,862 per household (200 UF)			

Program Type	Maximum Upfront Subsidy+	Minimum Prior Savings+	Credit Access*	Dwelling Minimum Standards	Comments
Housing Leasing Subsidy	Upfront subsidy depends on price of the dwelling being financed and the region of the country	No prior household savings needed		Dwellings priced up to US$34,310 are eligible (1,000 UF), but can be higher in far-out regions, areas declared of urban renewal or historic conservation—up to twice the general norm	- New or used dwellings are eligible - Leasing contract with special savings account and buy/sell promise at pre-established price at end of contract - Dwelling is paid by subsidy an portion of monthly installment deposited in special savings account
- Housing priced up to US$13,724 (400 UF)	USD4,803 per household (140 UF)				
- Housing priced up to US$17,155 (500 UF)	USD4,117 per household (120 UF)				
- Housing priced up to US$20,586 (600 UF)	USD3,431 per household (100 UF)				
- Housing priced up to US$34,310 (1,000 UF)	USD3,088 per household (90 UF)				
C. Complementary MINVU Programs					
Housing Mobility				Household must buy a dwelling of not more than 140 m2 (new or used) within 12 months of selling the old subsidized dwelling	- This program allows households to sell subsidized housing prior to standard curfew periods—which can be as much as 15 years in case of HSF I program - Money from sale is deposited by seller in a special interest-earning account, with outstanding amount endorsed to MINVU

Program Type	Maximum Upfront Subsidy+	Minimum Prior Savings+	Credit Access*	Dwelling Minimum Standards	Comments
Large Urban Centers	Additional upfront subsidy of up to USD1,372 (40 UF) per household				- Available to housing projects receiving housing subsidies under the HSF located within large metropolitan areas or their close proximity
Location	Additional upfront sub-sidy—per housing project—of between USD1,029 and USD5,147 (30 to 150 UF range)				- Available for housing construction projects requiring special site developments and improvements

Source: MINVU

* *Third party donations are allowed and optional—such as those from municipal government, NGO's, companies, individuals, etc.*

\+ *Subsidies are set in UF, a unit of account indexed to inflation (CPI), which had an equivalent value of US$34.3 at end 2006*

CHAPTER 3

THE EVOLUTION OF HOUSING FINANCE IN CHILE

AN OVERVIEW OF CREDIT'S ROLE IN THE FINANCING OF HOUSING

The focus in Section II was on social housing and the analysis of the key role played by the state in its financing via large direct demand-oriented subsidies aimed mostly at disadvantaged households. In Section III the emphasis will be on the second pillar sustaining the financing of home ownership in Chile, that is, the role played by the domestic financial markets in the provision of long-term credit to households, including lower middle income families receiving government subsidies for the down payment on a home but which still require some debt financing to become homeowners.

It was said earlier that Chilean families and government housing policies favour home ownership over housing rental. However, for this preference of owning one's home to materialise, it is crucial that institutional creditors be able and willing to massively supply long-term credit to individual households and assume the risks inherent in such credit operations. As in many other countries, in Chile the financial instrument of choice for housing finance traditionally has been mortgage lending.[22] However, active periods of residential mortgage lending in the first three quarters of the twentieth century were sporadic and negatively affected by recurrent bouts of high price inflation during the last century. The revival in residential mortgage lending as a major lending activity of the banking industry only came to stay with the introduction of inflation-indexed bonds (late 1970s) and the economic recovery in the mid 1980s.

With the consolidation of inflation-indexed term credit, residential mortgage lending expanded and diversified beyond the banking industry, to also include credit cooperatives, life insurance companies and mortgage companies. In addition, new home owners can tap the residential leasing industry for housing finance. However, mortgage lending by commercial banks still remains by far the dominant source of housing finance in the Chilean market.

22 First residential mortgages protected by a pledge on the property being financed.

SIZE OF THE MORTGAGE MARKET

All in all, housing finance has become a well-established line of business for a large number of financial intermediaries, which have done a reasonable job at meeting the needs of Chilean households seeking borrowed resources in the financial marketplace. The volume of transactions and credits has expanded rapidly for many years now stimulated by strong housing demand, the introduction of new fixed-income securities and the deepening of the domestic capital market. The impact of this housing credit expansion was captured at the national level by the 2002 Census figures (see Table 2), which showed a net increase of 60.6 percent in the number of housing units with a pending credit during the ten-year inter-census period, so that by April of 2002 there were 768 000 residences in the country that had an outstanding credit associated with them. At that time, according to the bank supervisory body, the outstanding number of mortgage operations of the Chilean banking system was almost 560 000 (see Chart 1 below); that is, close to three-quarters of all outstanding mortgages in the country at that time. It is safe to say that most of the other housing debt in the country was mortgages in the Ministry of Housing and Urbanism's books—for which unfortunately statistics are not published. The chart below also shows that housing lending activity by banks has expanded significantly in the following years so that the number of outstanding housing mortgage operations on the books of the banking system increased 49 percent from December 2000 to March 2008, when they reached 807,806 mortgages operations. he chart also shows that the value of the banks' mortgage portfolios expanded at a higher pace in real terms (Unidad de Fomento values) during that period, indicating that the average value of residential mortgages has been increasing over time. By the first quarter of 2008, the average bank mortgage was valued at the equivalent of slightly over USD35 thousand and the housing mortgage portfolio of the banking industry were worth some USD28 billion in the same quarter. Chart 1 includes all residential mortgages lending by the banking system, including both new and pre-owned housing.

FINANCING MODALITIES FOR HOMEOWNERSHIP

Section II discussed that the Ministry of Housing and Urbanism discontinued the practice of extending direct mortgage loans a few years ago. Today, almost all new housing credits are being supplied by professional credit originators in the financial markets. From a housing finance perspective this means that currently there are three different financial approaches in use to expand home ownership in Chile:

a. *The financing of homes for the poorest households*: As already discussed at length for the Housing Solidarity Fund, the financial package for the poorest households includes basically two components: a large direct state subsidy which is complemented by a small amount of family savings. Sometimes, these families also benefit from grants from other sources other than the central government (i.e. municipal governments, foundations, foreign governments, non-governmental organisations, etc.). These dwellings are small—approximately of 38 square meters—priced in a range of between USD10,100 and USD16,700 equivalent, where the larger figure is only valid for housing in remote and isolated areas of the country

b. *The financing of homes for marginally bankable households*: This approach is geared towards families who normally require access to long-term credit from financial institutions in addition to upfront state subsidies in order to acquire their first home. In this case the standard financial package includes three ingredients: a the Ministry of Housing and Urbanism voucher applicable to a down payment, a contribution from family savings to complement the state subsidy, and complete the down payment—between 20 to 25 percent of the price of the dwelling— and a long-term mortgage to cover the bulk of the cost of the dwelling—maximum payment-to-income ratio of 25 percent. These families are buying their first dwelling normally for a price of less than USD60,000 since over that price level the Ministry of Housing and Urbanism vouchers are not available for first-time home buyers—the Ministry of Housing and Urbanism does not provides subsidies to households which already benefited from one to acquire a home. Banks are normally the originators of these mortgages (so they are included in figures in Chart 1). The Ministry of Housing and Urbanism's only assistance to lenders is the supply of partial credit guarantees for a fee in order to reduce credit risk they face, particularly to induce mortgage originators to lend to those households considered only marginally bankable

c. *The financing of homes for households with fluid access to mortgage markets*: These families normally do not receive fiscal subsidies of any type and they finance the purchase of residential properties with a down payment—normally 20 percent—and a large long-term mortgage—which can cover up to 100 percent of the price of the dwelling—freely secured in the marketplace, most likely from a commercial bank. These are the higher priced dwellings normally purchased by households at the higher end of the income scale and with a fluid access to a broad range of financial services. Housing units traded in this market segment are in the most dynamic segment of the market and this type of mortgage lending capture by far the largest volume of housing finance. This is the so-called "prime" mortgage market where originators offer a wide selection of mortgage products to household perceived as the most credit worthy.

FINANCING NEW HOUSING CONSTRUCTION

The market for new housing is the most active one in Chile, where second-hand housing trading takes place mostly at the upper end of the price scale and with little activity observed in the in the pre-owned social housing market.

In the absence of more accurate figures, Table 7 below provides a broad general idea of the size and composition of the Chilean market for new housing construction for the period 2004-2006. (These figures should be used cautiously and only for the purpose of having a first order of magnitude of the market for new residential construction.):

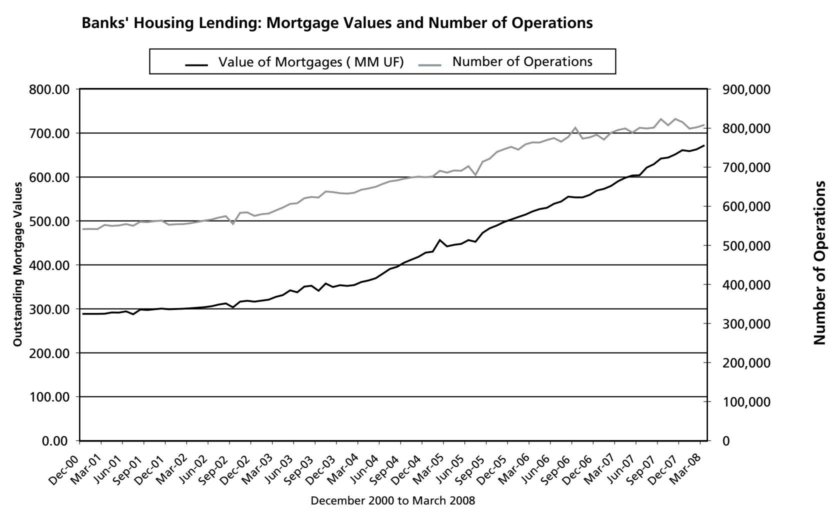
Table 7: New Housing Construction 2004-2006

	2004	2005	2006
	Number of Units		
1.) Homes for the poorest households- without access to debt financing	64,155	51,784	52,210
2.) Homes financed with state vouchers, term credit and family savings*	25,229	25,921	30,258
MINVU-subsidized housing (rows1+2)	89,384	77,705	82,468
New housing permits—authorized and started	151,787	147,734	154,291
3) Other new housing (difference between housing permits minus subsidized housing)	62,403	70,029	71,823

Source: MINVU and INE

* *It also includes new housing solutions financed under MINVU's leasing subsidy program*

Chart 1



Source: "Financiamiento de Vivienda", quarterly report, SBIF (www.sbif.cl)

As seen in the table above, some 52 000 new homes in 2006 were financed mainly through direct state subsidies and did not require a credit. In fact, these homes went to poor families who are discouraged by the Ministry of Housing and Urbanism from accumulating debt to finance their homes. As for new housing, all residential mortgage financing is done by regulated financial institutions, mainly commercial banks, even for lower middle-income families receiving state subsidies and needing additionally a credit. Figures in Table 7 suggest, again as a first approximation, that as many as 102 000 new formal credits were needed in order to exhaust the new supply of housing in 2006 (adding figures 2) and 3) in the last column to the right). Of those dwellings requiring credit, some 30 percent received the Ministry of Housing and Urbanism subsidies (30,258 families). Unsubsidised households purchased the rest of new construction in 2006; perhaps as much as 47 percent of newly built homes (or some 72 thousand units) and many of them requiring access to credit markets. Of course, transactions involving old housing stock also often rely on mortgages for their financing, but this is not reflected in the figure in Table 7. (Information available for transactions involving just pre-owned residential property is not available.)

MORTGAGE MARKET PARTICIPANTS AND RISK MITIGATION

The perspective in the remainder of Section III will be from the viewpoint of the credit markets: that is, the emphasis will be on those housing transactions requiring mortgage credit freely supplied by domestic financial institutions, independently of whether the household accessing credit markets receives a state subsidy or not. However, a distinction will be made at times between credit access by state-subsidised or low-income families and those accessing mortgages in the so-called prime market.

From a broad perspective, the process of housing finance in Chile has become increasingly more sophisticated over the years, as new types of financial institutions and instruments have appeared in the marketplace—often as a result of new legislation and regulation. Today, the inherent risks involved in mortgage lending are shared by a variety of specialised, commercially oriented market players - principally mortgage originators, capital market investors such as pension and mutual funds, structured bond issuers and life insurance companies. The role of the Chilean state as a risk taker was significantly curtailed a few years back when the Ministry of Housing and Urbanism stopped supplying direct mortgages to poor families. Currently, its role as risk taker is limited to extending specific partial financial guarantees under its General Subsidy-Title I programme (see section B of Table 6)[23].

The stringent legal and regulatory requirements of the banking law also have been critical in reducing the overall credit risk faced by lenders. In particular, this legislation imposes minimum down payment requirements on standard mortgage lending typically used to lend to lower middle-income families. The collateral provided by real-estate mortgages

23 One of the financial guarantees offered by MINVU to families receiving vouchers under the General Subsidy-Title I program protects them against unforeseen price drops in mortgage bonds financing their specific transactions—i.e., due to unexpected increases in term interest rates in the capital market. Other types of partial financial guarantees offered by MINVU are the partial credit guarantees offered to lenders and the court-cost insurance already discussed in Section II.

has special treatment under the Chilean financial legislation, making it highly desirable for lenders. In particular, mortgage lenders in Chile can count on relatively fast and proven foreclosure procedures in court which have shown to adequately protect their rights in case of default. In addition, mortgages are backed by an effective property registration system—albeit a relatively expensive one, which is operated privately under a public concession regime[24]. In summary, all this has made of residential mortgage collateral an important credit risk-reducing factor for lenders and investors in mortgage-backed securities.

Behind the fast pace of expansion of housing finance in the Chilean market in recent decades has been the growing ability of mortgage originators to parcel risk out among several market participants. This certainly has benefited households seeking a residential mortgage, in particular those at the lower end of the income scale, who have benefited from parallel improvements in the overall efficiency of the mortgage lending industry and increased competition. The bottom line is that, in addition to more plentiful mortgage volumes, this has brought about significant declines in funding rates and lending spreads over time.

The next pages will provide a more detailed account of the status of housing finance in Chile by explaining the roles played by different stakeholders and financial instruments. The emphasis will be mainly on the origination process, the funding instruments being used, the credit servicing process, and the mechanisms available to promote household savings. Additional background information will be provided to the extent that it allows for a better understanding of the evolution of the Chilean model of housing finance.

THE ORIGINATION PROCESS

Commercial banks have dominated the origination of housing mortgages since the reintroduction of this line of business in the Chilean marketplace following changes in the banking law in the second half of the 1970s. These changes included the re-introduction of mortgage bonds[25] in 1976 as part of the banking reform that created universal banking and the right of banks to offer inflation-indexed asset and liability products—including mortgage bonds, term loans, time deposits and other instruments expressed in Unidad de Fomento. Although there are a few other residential credit originators active in the marketplace (including mortgage companies linked to life insurance companies, real-estate leasing societies and credit and savings cooperatives[26]) all these are responsible as explained earlier of only a fraction of all housing finance in the Chilean market. Thus, the emphasis in this section will be principally on: a) the role played by the banking system as originators of residential mortgages and b) the instruments they use to fund this type of lending activity. Some information will be provided also on

24 The so-called "Conservadores de Bienes Raíces" provide two important services: they are in charge of maintaining and updating the real-estate registration system and issuing legally valid certifications on the status and liens on real estate property—implicitly acting also as title insurance providers.

25 Mortgage bonds were initially introduced in the Chilean financial legislation late in the nineteen century as part of the creation of the specialized mortgage banks.

26 Of the five credit cooperatives supervised by the banks' supervisory agency, SBIF, only one had housing loans in its balance sheet. March 2008 figures show that outstanding mortgages at that time amounted to the equivalent of less than US$95 million.

the contribution of mortgage companies to the origination process.

OPTIONS OPEN TO RESIDENTIAL BORROWERS IN CHILE

Borrowers in Chile have three options when securing a mortgage loan to finance the purchase of a dwelling. These are:

a. bank mortgages that use mortgage bonds as the funding instrument

b. endorsable mortgage credits, which automatically offer lenders—banks and mortgage companies—the option to sell the originated mortgage contract to qualified institutional investors; and

c. non-endorsable mortgage credits, which have terms and conditions freely agreed between the lending bank and its client.

The relative importance of each of these mortgage modalities has varied significantly over the years for reasons that will be discussed in more detail below. From an historical perspective, residential mortgages funded with mortgage bonds were for many years the only real option for aspiring homeowners until reforms of the banking and securities legislation in the nineteen nineties introduced two new concepts: securitisation of financial assets and endorsable mortgage credits. Previously these had been foreign concepts to the Chilean financial legislation. As a result of these path-breaking financial innovations, endorsable mortgage credits became a relevant alternative to mortgage seekers and originators, with this mortgage modality rapidly gaining momentum in the second half of the 1990s.

In recent years, however, easier direct access by banks to the capital market, plus increased financial sophistication among households, have led banks to introduce a whole range of new mortgage products in the marketplace and for which the highly adaptable non-endorsable mortgage modality is better suited. As a result, this type of residential mortgage has had a rapid gain in market share during the current decade.

Today, non-endorsable mortgage credits are the preferred option for residential mortgages at the higher end of the income scale. This notwithstanding, mortgages funded with mortgage bonds still explain the largest number of mortgage transactions although their relative importance has been declining for some time now. One remaining factor in favour of mortgage bonds is the preference for this type of funding by commercial banks specializing in extending mortgages for social housing (a market dominated mainly by Banco del Estado and, to a lesser degree, by Banco del Desarrollo). Table 8 below illustrates the recent evolution of mortgage origination by Chilean commercial banks:

Table 8: Residential Mortgage Financing by the Chilean Banking System[1] (Value figures in millions of USD, at year-end)

Type of Financing	2000	2003	2005	2006
a) Mortgage bonds				
--Outstanding value (USDMM)	5,378	6,718	6,731	6,163
- Market share—in value terms	65.4%	63.4%	37.5%	31.1%
--Number of transactions outstanding	455,975	508,638	504,206	477,892
- Market share—transactions	82.9%	77.8%	66.0%	60.3%
b) Endorsable mortgages[2]				
--Outstanding value (USDMM)	1,889	1,980	2,201	2,036
- Market share-in value terms	23.0%	18.7%	12.3%	10.3%
--Number of transactions outstanding	44,235	56,591	57,147	60,128
- Market share-transactions	8.0%	8.7%	7.5%	7.6%
c) Non-endorsable mortgages				
--Outstanding value (USDMM)	953	1,905	9,022	11,633
- Market share-in value terms	11.6%	18.0%	50.3%	58.7%
--Number of transactions outstanding	49,528	88,347	202,369	254,234
- Market share--transactions	9.0%	13.5%	26.5%	32.1%
All Housing Mortgages (a+b+c)				
Credit Outstanding (USDMM)	8,219	10,603	17,953	19,833
Number of Transactions Outstanding	549,738	653,576	763,722	792,254

Source: SBIF—"Financiamiento de Vivienda", quarterly report, March 2007

1. Data do not include transactions in arrears

2. Data includes endorsable mortgages owned as well as administered by banks (mortgage companies data is not included)

THE INDEXATION OF FINANCIAL INSTRUMENTS

Before reviewing in more detail each mortgage modality currently present in the Chilean market, it is important to revisit the Unidad de Fomento—already introduced in Section II—and to discuss in more detail its origins and the key role played by this inflation-indexed unit of account in the local credit markets.

Because of the chronic high inflation endured by the Chilean economy during the first three-quarters of the 20th century local banks had no access to long-term funding in pesos, the local currency, which made long-term lending and housing finance, in particular, non-viable.[27] For example, when banks were allowed to use the Unidad de Fomento for their funding and lending activities in the mid-nineteen seventies, the Chilean economy was recently leaving behind a three-digit inflationary environment and the CPI was still showing annual increases well into the two-digit level. The authorities were looking for ways to promote long-term financing and allowing the newly-authorised universal banks to use the Unidad de Fomento was part of the set strategy. Actually the Unidad de Fomento was not a new concept since it had been around in one form or another since January 1967. It was only a new tool for commercial banks.[28]

One of the first uses banks gave to the Unidad de Fomento was the issuance of Unidad de Fomento-denominated Mortgage Bonds, a type of inflation protected fixed-income financial instrument sold in the capital market and particularly well suited to fund long-term residential and other mortgage-backed credit operations. In an inflationary environment, investors purchasing long-term fixed-income securities required special protection against the risk of high inflation. The Unidad de Fomento-denominated Mortage Bonds gave them the necessary safeguard.

Given the scarcity of housing finance up to that point, an already substantial housing deficit grew even bigger in the years prior to the bank reforms of the late 1970s. The strong demand for new housing also meant that there was a high potential demand for long-term credit, a business opportunity that commercial banks were eager to address. In fact, in the midst of the inflationary environment, actual credit demand by working families proved to be quite resilient as nominal salaries were often

27 Mortgage lending in dollar-denominated credit—or any other hard currency—to the average Chilean household traditionally has been perceived quite risky and non-available, particularly in the face of a history of severe foreign exchange crisis which every few years brought about serious macroeconomic instability in the past.

28 The UF was created in January of 1967 by the Ministry of Finance. In the next ten years the methodology for its calculation evolved somewhat, with the current procedure established in July 1977. Today, future daily UF values are published early every month by the Central Bank covering the period between the tenth day of the current month and the ninth day of the following month. Thus, the actual value of the UF in any given day is always known in advance—in fact, by as little as five days and as much as 36 days in advance. The formula used for the UF calculation is based on the geometric average of the variation experienced by the CPI during the previous month, as measured and published by the National Institute of Statistics (INE). Now that inflation is considerably lower, it sometimes happens that the UF actually goes down in value following a month when the variation in the CPI has been negative. There are a couple of other units of accounts that have a similar role to the UF and that are published by the Central Bank although they are only marginally used for mortgage lending.

and predictably adjusted to compensate for past increases in the CPI—that way at least many household could cope with high inflation. The inflation-indexed mortgages offered by banks eventually became not only acceptable to households but the preferred way to satisfy their pent-up demand for home ownership, despite the high interest rates initially associated to Unidad de Fomento-denominated mortgage loans. Banks for their part found in Mortgage Bonds the preferred instrument to fund those term credit operations.

Besides their long maturity, Unidad de Fomento-denominated mortgages offer important additional advantages to households. To start, they are always serviced in pesos, using the peso-Unidad de Fomento rate valid the day the debt-service is paid to make the conversion from Unidad de Fomento to pesos. To Unidad de Fomento loans apply a Unidad de Fomento or real interest rate—that is, a rate that does not incorporate the inflation premium always implicit in nominal interest rates in pesos. In a high inflation environment, "nominal" peso interest rates tend to be much higher than the equivalent "real" interest rate in Unidad de Fomento, so the advantage of term loans denominated in Unidad de Fomento is that they automatically capitalise a large portion of the inflation premium—meaning that the loan's outstanding principal amount is adjusted upward daily in peso terms to reflect the changes in the value of the Unidad de Fomento. Financially speaking, this implies that in real terms the loan principal of Unidad de Fomento-denominated mortgages are paid back according to a much more evenly distributed repayment schedule, thus making it much more affordable for the average household, as opposed to a term peso loan in a high-inflation environment and carrying a high nominal interest. In the latter case, the real value of principal payments during the first few years are substantially higher than when mortgages are denominated in Unidad de Fomento. In summary, by shifting the inflation-risk burden from the funding to the lending side of the residential mortgage business, Unidad de Fomento-denominated mortgages were able to create a minimum set of conditions necessary for the development of a formal housing finance market. However, they were far from sufficient.

MANAGING THE ASSET-LIABILITY RISK

Although the introduction of Unidad de Fomento-denominated loans resolved important issues, indexation was insufficient by itself for establishing a sustainable business model for residential mortgage lending. Indeed, the collapse of the Chilean savings and loan system in 1970—a little over a decade after being established—was a case in point; in fact, the Unidad de Fomento was originally created precisely to reduce the inflation risk faced by residential mortgages offered by these financial intermediaries. Savings and loan institutions had a monopoly over this type of financial instrument, so Unidad de Fomento-denominated mortgages took off rapidly when they began to offer them in the marketplace. A major weakness of the savings and loan system, however, was on the funding options available to these institutions, which exposed them to substantial transformation risk (the combined risk resulting from interest rate and funding mismatches in the balance sheet). In the absence of a capital market, Chilean savings and loan institutions have had to rely heavily for their funding on short-term deposits from individuals and mortgage-backed re-purchase agreements with commercial banks, which in themselves were almost exclusively dependent on short-term deposits. The serious mismatch between the assets and liabilities of savings and loan institutions—by being long on mortgages and short on deposits—eventually caused the demise of this industry in Chile.

In a way their financial collapse came for reasons not entirely different from those that resulted in the demise of most of the savings and loans industry in the United States many years later, following a severe liquidity squeeze in financial markets and which caused the high level of transformation risk implicit in short-term funding to materialise.

In the Chilean case, savings and loan institutions had in addition the misfortune of not being able to rely on the capital market for at least part of their long-term funding needs—since in the 1960s such a market was practically non-existent.

Unidad de Fomennto-based mortgage lending has been the norm in Chile for over forty years now. In the last thirty years the mortgage industry has been dominated by commercial banks. These have relied on two key pillars—both representing major financial innovations also favoring the development of the domestic capital market. One of the pillars was the introduction of the Unidad de Fomennto and bank issued Unidad de Fomennto-denominated mortgage bonds. The other was the establishment in 1980 of a defined-contribution private pension system in which workers would deposit their mandatory retirement savings—an individual account that eventually funds their pensions. Since then, pension funds have accumulated over USD90 billion in financial investments. By now pension funds have been joined in the capital market by a growing number and varied array of other institutional investors, including insurance companies, banks, mutual and investment funds and many institutional investors from abroad. In this dynamic and rapidly expanding market, pension funds, life insurance companies and a few other institutional investors have shown a natural appetite for mortgage-backed and other Unidad de Fomennto-denominated fixed-income securities. All this interest in the demand for long-term paper has considerably diminished the level of transformation risk inherent in the Chilean financial system and thus made mortgage lending sustainable in the long run.

The discussion that follows will go into the details of the financial instruments typically denominated in Unidad de Fomennto and used by credit originators in Chile to make home ownership a reality for the average family.[29]

MORTGAGE BONDS

Mortgage bonds are funding instruments for the issuing financial institution. This aside, casual observation indicates that the concept of mortgage bond varies considerably from one country to the next. In the Chilean case, this financial product was first introduced in the late 1800s by single-purpose mortgage banks following bond-issuance practices observed in continental Europe at the time—France and Denmark, in particular.[30] Apart from the introduction of Unidad de Fomennto-denominated mortgage bonds in 1976, the basic concept of the Chilean mortgage bond

29 Additional background information on the evolution of mortgage lending in Chile can be found in Pardo (March 2000).

30 Even today, Chilean mortgage bonds have many similarities with bonds being issued in Denmark.

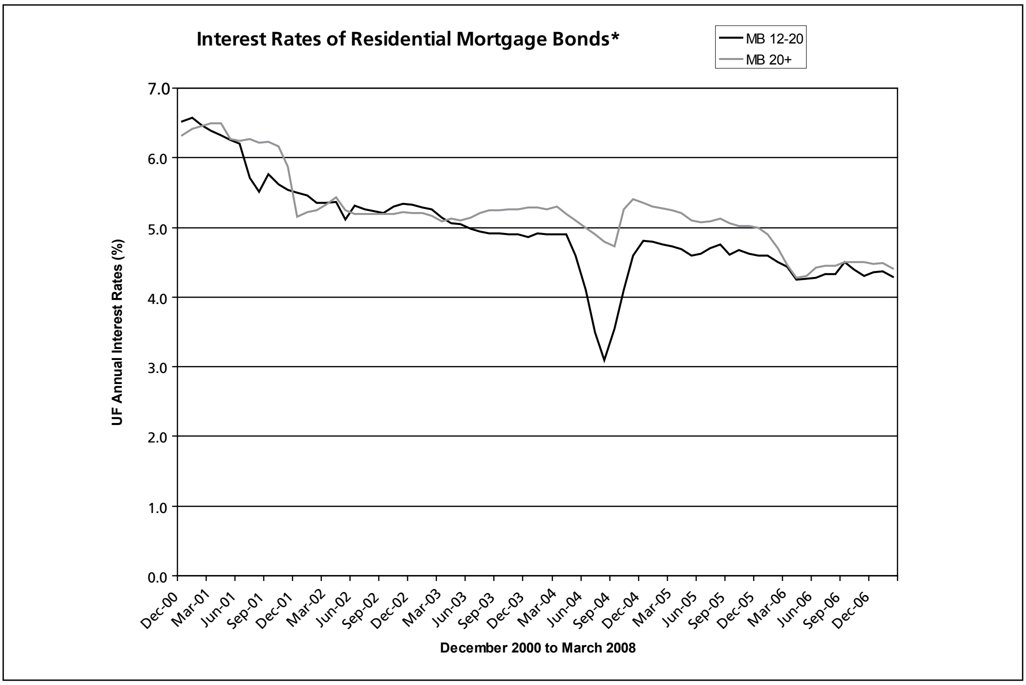
has changed little since its inception over 120 years ago. These financial instruments are bearer fixed-income securities issued by commercial banks in series of equal currency of denomination, interest rate and amortization schedule. All outstanding mortgage bonds are denominated in Unidad de Fomennto —with equal Unidad de Fomennto debt-service payments made in pesos using the value of the inflation-indexed Unidad de Fomennto the day the payment comes due. These bonds represent direct liabilities of the issuing banks, having the additional benefit to investors that in case of default by the issuer they have preference over the cash-flow generated by the pool of mortgaged assets backing the stock of outstanding bonds.

Banks can issue two types of mortgage bonds to fund mortgage loans. Of particular interest here are bonds issued to finance the purchase of residential properties by individuals. The other type is a general-purpose mortgage bond, which can be used to fund any other type of mortgage-backed lending, including large commercial transactions by businesses. According to Chile's Banking Law, in the event of default by the issuing bank, these two types of bonds are divided into two separate pools, each one having the benefit of its associated pool of pledged mortgages.

Mortgage bonds are an attractive long-term funding instrument for banks, since they are perceived as a good credit risk in the marketplace. Although mortgage bonds in recent years have steadily reduced their relative importance in the investment portfolio of capital market participants, they remain well represented in the marketplace, particularly those destined to fund residential mortgages for subsidised housing. Figures for March 2008 show that outstanding mortgage bond obligations used by banks to finance residential mortgages added up to more than USD6 billion whereas the number of residential mortgage transactions being financed was 406,366.

The Unidad de Fomennto interest rates banks have to pay on the Mortgage Bonds they issue have come down considerably during the current decade. This downward trend has been part of the more general tendency towards lower real and nominal interest rates in the Chilean financial markets in recent years, including all rates banks pay for funding their operations. Chart 2 illustrates the case for two different long-term maturities of residential Mortgage Bonds issued by banks. The green line (Mortgage Bonds 12-20) shows average Unidad de Fomennto rates for Mortgage Bonds with maturities of between 12 and 20 years. The red line shows rates for maturities longer than 20 years.

Chart 2



Source: "Financiamiento de Vivienda", quarterly report, SBIF (www.sbif.cl)

** Rates do not include the bank's commission*

MAIN FEATURES OF MORTGAGE BONDS-FINANCED CREDITS

When a bank's client requests a mortgage to finance the purchase of a home, the bank can offer to sell a Mortgage Bond in the capital market in order to fund the loan operation. Normally residential mortgages of this type have a maturity schedule in the range of 8 to 30 years, but it can be as short as one year.

It is important to notice that when using mortgage bonds, banks are not offering their clients the money directly since the cash to pay for the home will come from the sale of the mortgage bond in the marketplace. The terms and conditions of the mortgage bond issued to fund a specific transaction are those contained in the prospectus for its series, which the bank has previously registered with the Superintendence of Banks and Financial Institutions. The authorisation and registration of mortgage bonds with the Superintendence of Banks and Financial Institutions is done by the bank as part of the implementation of its housing finance business plan for the year. Normally, a bank maintains a whole range of mortgage bond series registered with the Superintendence of Banks and Financial Institutions so as to cover different interest rate scenarios and specific demand needs from its borrowers. The actual issuance of mortgage bonds, on the other hand, is a piecemeal exercise that takes place only when a specific mortgage loan is granted to a client. This, in effect, simplifies the process of securitisation of housing finance since there is no need to pool a number of mortgages to issue a structured security that is sold in the capital market—the Chilean Mortgage Bond is issued and sold one credit transaction at a time. This feature of the Chilean mortgage bonds is especially attractive to emerging economies where capital markets lack financial depth and sophistication—like in the early 1980s in Chile when there were legal and market impediments to issue, for example, structured mortgage-backed securities based on large pools of residential mortgages.

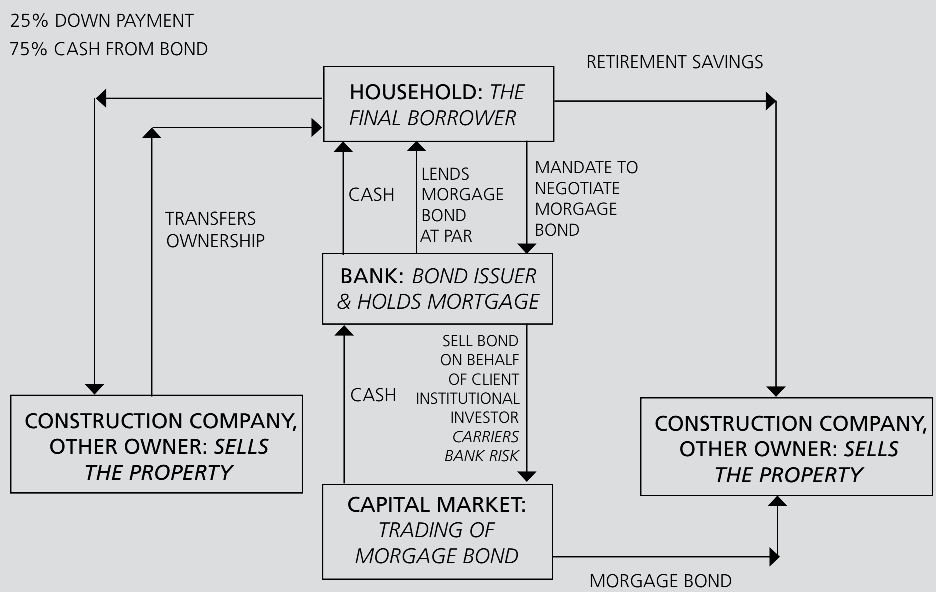
Mortgage bonds are normally sold in the Santiago Stock Exchange by the issuing bank on behalf of or under a mandate from its client, the final borrower, who accepts a mortgage debt for an amount equal to the face value of the associated bond being sold. This means that the borrower assumes the risk of potential capital loss if the bond is sold below its face value in the marketplace—that is, when the market interest rate is above the face rate of the bond being sold. While in theory capital gains caused by lower interest rates at the time of sale of the Mortgage Bond benefit the borrower, in practice they rarely take place since investors do not like to buy Mortgage Bond above their par values since there is a risk of potential losses if the borrower decides to pre-pay the mortgage—more likely when interest rates are in a downward trend. As a general rule, banks do tend to offer their clients Mortgage Bonds carrying rates similar to those prevailing in the market, although when market conditions are unsettled their bias is towards offering bonds with rates slightly above market rates—that is, these are Mortgage Bonds that risk being sold below par.

The exact amount of money received from the sale of a Mortgage Bond is known only when it is actually sold to an investor. From the viewpoint of borrowers, this is a major shortcoming of Mortgage Bonds since up to three months can elapse between the signing of the loan promise and the completion of the mortgage credit transaction that triggers the sale of the Mortgage Bond.31 In the meantime, market conditions can change for the worse, with the borrower facing a situation where the bank's loan might end up being insufficient to fully cover the price of the home being purchased due to a loss in the market value of the bond—however, the borrower is expected to assume the debt represented by the full face value of the Mortgage Bond. Fortunately, heavy competition among banks in mortgage lending often lead banks to guarantee the market value of their mortgage bonds, mitigating the risk of a money shortfall for their clients. Sometimes, banks even promise to buy their own bonds at face value if such a price is not available in the marketplace. In fact, banks often trade their own or other banks' mortgage bonds as part of their investment activities and/or to edge the price guarantees offered to their clients. For example, banks had some USD739 million equivalents in Mortgage Bond in their investment portfolios at the end of 2006.[32]

31 Actually the amount of time required to complete a transaction can be much shorter than 90 days, with the amount of time required varying considerably depending on many factors, such as the need to carry out the necessary inspections on the property, complete its registration and wait for the bank to finish it's the due-diligence process.

32 When mortgage bonds are bought by banks, they appear as financial investments in their balance sheets. These assets are recorded separately from lending activities and do not qualify as housing financing.

Box 2: MB-financed Residential Morgages



The diagram in Box 2 above illustrates a typical Chilean residential mortgage transaction involving the sale of a Mortgage Bond to an investor in the capital market.

Since mortgage bonds are funding instruments for the issuing bank, they appear as liabilities on the balance sheet. Investors buying these bonds actually take a bank risk. It is the lending bank which takes the credit risk associated with the borrowing household. Basically, the Mortgage Bond counterpart in the bank's balance sheet is the mortgage loan being financed, so the asset and liability entries in the case of mortgage lending funded with Mortgage Bond always has to match. This requires that when there is a principal payment by a borrower the outstanding amount of mortgage bonds in the balance sheet must go down by exactly the same amount. This asset/liability symmetry implies that when clients make mortgage prepayments banks are required to retire an equivalent amount of Mortgage

Bond from the marketplace.[33] It also means that banks cannot sell to third parties their mortgage loans funded with a Mortgage Bond since the origination and funding of these credit operations are tightly bundled together by law. Thus, these mortgage loan transactions must remain on the bank's balance sheet until their complete extinction or early prepayment, whatever the case may be, and cannot be sold to third parties. Restructuring of existing

33 Banks can do this in two different ways. They either can buy an equivalent amount of bonds of the same series in the marketplace or prepay some of the mortgage bonds of the same series up to the amount of prepayments by their clients. The selection process of the bonds to be prepaid by the issuing bank is clearly spelled out in the General Banking Law and involves a random selection process and special announcements in the press to inform investors of bonds being subjects of prepayments.

mortgages also becomes cumbersome as it implies the prepayment of the original loan and the retirement of an equivalent amount of mortgage bonds from the market.

Mortgage loans funded with Mortgage Bonds must meet minimum financial parameters specified in Title XIII of the General Banking Law, which provides the legal framework for this type of credit transaction. Two contractual requirements stand out: a) the loan amount cannot exceed 75 percent of the value paid for the property or its appraised valued, whichever is lower (a conservative loan-to-value ratio) and b) the borrower's monthly debt service payments cannot exceed 25 percent of his/her income[34] (a rather conservative payment-to-income ratio). Also included in the General Banking Law is the right of banks granting Mortgage Bond-financed mortgages to use a "praetorian" foreclosure procedure. This is an unusually expedient and simplified procedure, which in practice has given creditors a powerful tool to resolve problem loans in relatively short periods of time and contributed to enhance the value of residential mortgages as collateral, reduced operational costs and legal fees, while benefiting compliant borrowers with lower interest rates on their mortgages.

INTEREST RATES AND CREDIT QUALITY OF MORTGAGE BOND-FINANCED MORTGAGES

The interest rate paid by final borrowers of mortgages funded by Mortgage Bonds is the sum of the bond rate plus a commission that goes to the bank. In effect, the commission plays the role of the bank's spread on this type of mortgages loans. The commission is freely negotiated between the bank and its client beforehand as part of the contractual arrangement. As illustrated in Table 9 below, Superintendence of Banks and Financial Institutions statistics show a long-term downward trend in the commissions charged by banks for Mortgage Bonds. Mortgage Bond rates also have been in a downward trend (Chart 2) although less pronounced than that observed for the banks' commissions.

Since the rates in Table 9 are expressed in Unidad de Fomento values, final borrowers using Mortgage Bonds-financed mortgages also have benefited from the substantial declines observed in the rate of inflation in the Chilean economy during the current decade - i.e. the daily adjustments in the value of the Unidad de Fomento during the current decade have been much smaller on average than in the 1980s and 1990s.[35]

34 This ceiling place by law on the payment-to-income ratio ceiling applies only to housing priced up to 3,000 UF—or the equivalent of about US$120 thousand today. This financial covenant is particularly relevant for mortgages financing the purchase of subsidized housing for which banks normally use MB-funding.

35 Inflation in Chile as measured by the CPI has come down from levels above 20 percent at the beginning of the nineteen nineties to levels of roughly 3 percent during the current decade.

As to the credit quality of this type of residential mortgage lending, available figures for December 2006 show accumulated arrears (value of loans overdue more than 90 days) of 0.8 percent for the banks' Mortgage Bond-financed mortgage portfolios.

Banks today are required to maintain loan-loss provisions for these residential mortgages in the order of 0.5 percent of the value of their portfolios. Provisioning requirements recognise the solid protection provided by the collateral which normally backs this type of residential mortgage. The need to follow conservative financial practices by banks appears well justified in this case since Mortgage Bond-financed credits are the preferred choice to meet the mortgage needs of households acquiring subsidised housing. Indeed, available data reveals that borrowers with small loans are much more likely to be late on their payments than "prime" borrowers with larger loans. In December 2006, for example, 10.3 percent of all residential transactions involving Mortgage Bonds financing were in arrears, a much higher percentage than the value of the portfolio in arrears, which suggests that banks are having considerably more arrear problems with small borrowers.

REASONS FOR THE INTRODUCTION OF ENDORSABLE MORTGAGE CREDITS

Endorsable mortgage credits are lending instruments designed to be easily transferred from mortgage originators to institutional investors expressly authorised by law to acquire them, including life insurance companies, banks, real-estate investment funds and special-purpose secondary market conduits (the so-called "sociedades securitisadoras"or securitisation societies).

This type of mortgage instrument was not totally new to the Chilean market when it was reintroduced under its current version as part of the reforms of the Insurance Law of 1988. In fact, Endorsable mortgage credits are similar to the mortgage-lending instruments that were used by the savings and loans association system—the so-called SINAP—until its final financial collapse in 1975. The 1988 reform of the insurance system sought to provide life insurance companies offering annuities to retiring workers with a broad menu of long-term fixed-income instruments for their investment portfolios, including Endorsable mortgage credits, which can be bought from authorised originators.

Table 9: Unidad de Fomento (or Real) Interest Rates on Bond-Financed Housing (Annual Average for Selected Years)

Year	Mortgage Bond Rate	Bank Commission	Real Rate Paid by the Borrower
1991	6.21%	2.88%	9.10%
1997	6.35%	1.91%	8.74%
2006 (Jan-Nov)	4.79%	1.27%	6.06%

Source: Financial Information Review of the Superintendence of Banks and Financial Institutions—various monthly issues

Besides demand incentives, the insurance reform also promoted the supply of Endorsable mortgage credits with the creation of mortgage companies,[36] a new type of mortgage originator authorised to lend via Endorsable mortgage credits either on their own account or on behalf of insurance companies. Mortgage companies can also administer Endorsable mortgage credits on behalf of institutional investors that purchase Endorsable mortgage credits in the marketplace. Mortgage companies are under the supervision of the Superintendence of Securities and Insurance and today there are over 25 registered mortgage companies, although the number of active companies is closer to 15. The 1988 reform also gave commercial banks the right to lend under the Endorsable mortgage credits modality, but the regulatory authority in this case remained with the Superintendence of Banks and Financial Institutions, the supervisory agency of banks.

Banks and mortgage companies, then, share the same legal framework for the origination of Endorsable mortgage credits EMC. However, the law still leaves a few matters to the discretion of the regulator, so even when banks and mortgage companies tend to follow similar lending practices, the prudential regulations they face differ to some degree.

MAIN FINANCIAL FEATURES OF EMC

When Endorsable mortgage credits were reintroduced in 1988, they were well received by the market since they represented a competitive alternative offering more financial flexibility than Mortgage Bond-funded credits. The law allows two different types of loans under this lending modality. As in the case of Mortgage Bond-funded credits, Endorsable mortgage credits can be used for home financing or general-purpose lending. Today, only a fraction of Endorsable mortgage credits lending is for general lending purposes.

From the perspective of residential mortgage originators, a main attraction of Endorsable mortgage credits resides in that they can be sold to life insurance companies and other qualified institutional investors or pooled together and securitised by securitisation societies—the issuance of asset-backed securities is now a common occurrence in the Chilean capital market. To formalise the transfer of Endorsable mortgage credits, mortgage originators only need to endorse the notarised loan contract to an eligible buyer, which becomes the new creditor and acquires all the privileges, guarantees and rights of the old creditor. Borrowers simply have to be informed in writing whenever there is a change of creditor or service agent. This is a salient feature of Endorsable mortgage credits since in the case of other types of loans the Chilean norm requires that lenders seek and obtain the explicit consent of the borrower prior to a loan sale or transfer. Also important is that most Endorsable mortgage credits sales taking place in Chile are "clean" sales with no strings attached to the old creditor, as regulators do not allow repurchase agreements or partial sales in connection with Endorsable mortgage credits divestitures for the purpose of securitisation. An additional appealing feature of the Endorsable mortgage credits for mortgage lenders, since 1996, has been that these mortgages can use the same effective accelerated collection and foreclosure proce-

36 They are known under the Chilean law as "Agentes administradores de mutuos hipotecarios endosables" or administrative agents of EMC, which are basically mortgage companies.

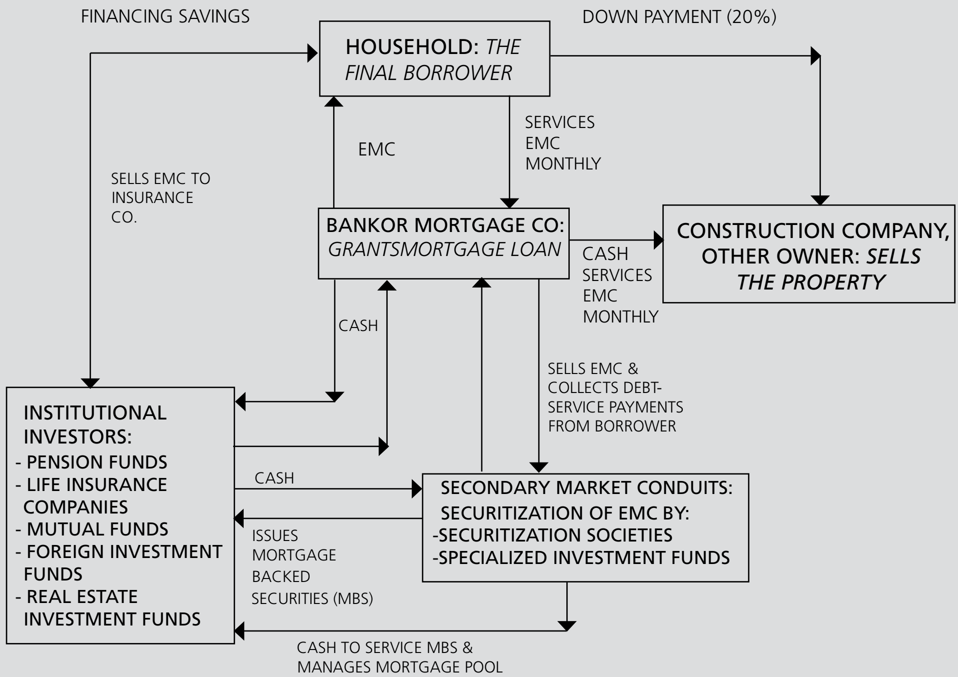
dures established for Mortgage Bond-funded lending in the General Banking Law.

The practice in Chile is that originators of Endorsable mortgage credits often provide investors buying Endorsable mortgage credits with debt-service and other administrative services for a fee. Originators, however, do not keep any of the credit risk once they sell the Endorsable mortgage credit, even when they continue to manage the relationship with the borrower. In the particular case of life insurance companies, the law forces them to delegate the administration of the Endorsable mortgage credits they purchase to a service agent.

Endorsable mortgage credit originators are expected to standardise their loan contracts and pre-register their templates with the real-estate registration office, thus reducing operating costs and facilitating the eventual sale and securitisation of Endorsable mortgage credits. It should be emphasised, however, that individual Endorsable mortgage credit contracts are not securities under the Chilean, even though they can be sold in the marketplace to a select group of eligible investors. In this respect, they are more limited than Mortgage Bonds, which are rated and publicly traded securities sold in the open market to just any willing investor.

Although Endorsable mortgage credit lending has similarities with Mortgage Bond-funded residential mortgages, there exist some important legal differences among them: a) home financing done using Endorsable mortgage credits is subject to a more liberal LTV ratio, with the law imposing a ceiling of 80 percent—versus the 75 percent in case of MB financing; b) there are no ceilings on the PTI ratio in the case of EMC—as opposed to the legal maximum of 25 percent Loan-To-Value ratio of Mortgage Bond financing c) Endorsable mortgage credits can be sold to third parties and removed from the seller's balance sheet—mortgages financed with Mortgage Bonds cannot be sold by the originating bank d) small-sized Endorsable mortgage credits can always be prepaid by the borrower although the lender can restrict this right if the original loan is larger than 5,000 Unidad de Fomento (some USD200 thousand today) and e) Endorsable mortgage credit prepayment procedures follow the general rules applicable to all loans, as opposed to special prepayment rules for Mortgage Bond-backed mortgages in the Banking Law. The diagram in Box 3 below illustrates a typical Chilean residential EMC transaction, which is then sold by the mortgage originator to an eligible investor in the capital market.

Box 3: Endorsable Residential Morgage-EMC Financing



THE MARKET IMPACT OF ENDORSABLE MORTGAGE CREDITS

It was mentioned earlier that Endorsable mortgage credit lending was a welcome addition to the residential mortgage business since it gave potential borrowers more options and a higher degree of financial flexibility. The option of being able to securitise large pools of Endorsable mortgage credits also was a very attractive feature of these lending instruments for originators and financial investors alike. Market experience has shown that Endorsable mortgage credits provide home owners with attractive interest rates and amortisation periods, similar to other mortgage alternatives in the marketplace. At the end of 2006, the portfolio of Endorsable mortgage credits financing residential mortgages amounted to the equivalent of some USD4.3 billion, which represented roughly 19 percent of the residential mortgage market in the country.

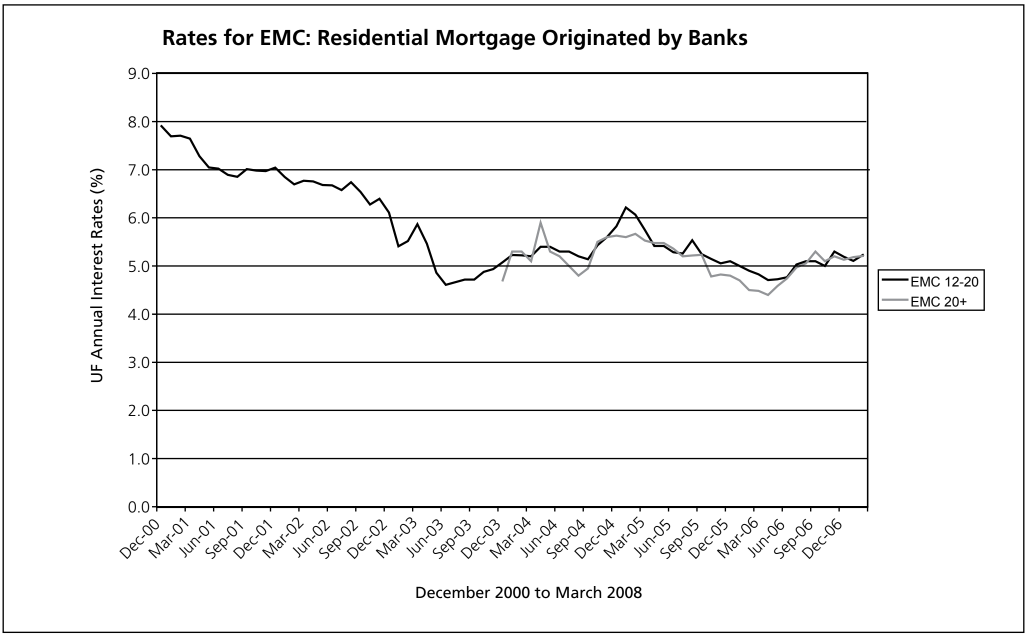
The overall market impact of Endorsable mortgage credits has been perhaps not as powerful as originally expected, in part due to the fact that life insurance companies - the intended prime candidates for purchasing Endorsable mortgage credits in the secondary market - have had other attractive investment options in the Chilean market for meeting their special portfolio needs. Although these companies still have plenty of room for purchasing additional Endorsable mortgage credits from originators,[37] in practice they have met a portion of their needs for long-term fixed-income securities with bank and corporate bonds especially tailored to their special investment requirements. They also have bought other types of structured debt, particularly following major changes to the securitisation legislation in 1999. On the supply side, commercial banks are the leading originators of Endorsable mortgage credit, but for them this is one among three different options for originating residential mortgages. In fact, for reasons that will become clearer later on, today banks have a marked preference for using non-endorsable mortgages for their housing finance activity. Bank figures for Endorsable mortgage credits financing residential mortgages were already presented in Table 8 above.

To gain a more complete picture of the housing finance modality, it is necessary to provide some figures on the lending activities of mortgage companies. Superintendence of Securities and Insurance statistics show that the stock of Endorsable mortgage credits—own account and administered—by mortgage companies at the end of 2003 was equal to USD1,408 million and comprised 36,761 individual mortgage operations. At that time Endorsable mortgage credits lending by commercial banks was higher (Table 8). Since then, lending by mortgage companies has increased more rapidly than the origination of Endorsable mortgage credits by commercial banks. After confronting high levels of Endorsable mortgage credit prepayments in recent years, mortgage companies held 49,439 residential mortgage transactions in their books—own account or administered for investors—at the end of June 2007, for an overall outstanding value of 70.4 million Unidad de Fomento (equivalent to some USD2.5 billion at that time). From the perspective of its capacity to generate Endorsable mortgage credits, mortgage companies granted a total of 41,787 new residential mortgages between the beginning of 2001 and the end of 2006. During that period, they were clearly aiming at selling most of the mortgages they originated, as illustrated by the fact that by the end 2006, only 5.3 percent or 2,575 transactions of the Endorsable mortgage credits under their management were actually owned by mortgage companies. The rest they were actually administering for third parties.

Endorsable mortgage credits originated by mortgage companies are currently quite competitive in mortgage lending by commercial banks. This is crucial for these companies since in contrast with banks they do not engage in any other type of lending activity. Figures for the first half of 2007 show that their endorsable mortgages carried real interest rates (in Unidad de Fomento) in the range of 4.17 percent (mostly Endorsable mortgage credits>2,500 Unidad de Fomento) and 5.56 percent (mostly Endorsable mortgage credits <1,00 Unidad de Fomento) for loans with maturities of 21 to 25 years. By comparison, mortgage bonds issued by banks with maturities of 15 years or more had real interest rates (excluding the bank commission) in the range of 3.80 and 4.03 percent at that time (depending on the credit rating status of the bank). Assuming bank commissions on residential mortgages as those registered for 2006

37 As of December 2006, the investment portfolios of life insurance companies had the equivalent of US$2,562 million invested in EMC (residential and general-purpose EMC), accounting for 10.4 percent of their overall portfolios.

Chart 3



Source: "Financiamiento de Vivienda", quarterly report, SBIF (www.sbif.cl)

and shown in Table 9, it is safe to assume that mortgage companies do not have a lending rate disadvantage vis-à-vis commercial banks. Such a perception is reinforced by observing the interest rates charged by banks on Endorsable mortgage credits as seen in Chart 3, which provides information on long-term rates for bank-originated Endorsable mortgage credits during the present decade. The blue line shows banks' average Unidad de Fomento or "real" rates for residential mortgages with maturities of 12 to 20 years (Endorsable mortgage credits 12-20) and the pink line shows the rates for Endorsable mortgage credits with maturities longer than 20 years.

THE RECENT LOSS IN ENDORSABLE MORTGAGE CREDITS MARKET SHARE

As the residential mortgage business expanded and became more sophisticated in the last ten years, banks needed new and more financially flexible mortgage products besides Endorsable mortgage credit to offer their client base and compete in the most dynamic segment of the market, that is, the prime market of households in the medium and high-income segments—a point that will be revisited in more detail in a subsequent chapter. For lenders, Endorsable mortgage credit also raised an important operational issue.

Since Endorsable mortgage credit were designed to be easily transferred and sold by originators, the loan contract for these mortgages follow a standard template which cannot be easily changed or modified for any given specific transaction, except for the change of creditor. To modify the original terms and conditions in an Endorsable mortgage credit contract, it is more practical and often necessary to prepay the old loan and enter into a new credit contract - something that is expensive and often cumbersome—a similar inflexibility also exists in the case of Mortgage Bond-funded mortgages.

The stressful financial environment in the Chilean economy during the period between 1998 and 2002 served as an acid test for Endorsable mortgage credit and Mortgage Bond-funded mortgages. Financial hardship among households made debt restructuring and refinancing of residential mortgages a common event. Debt refinancing and mortgage prepayments received at that time the stimulus of tax incentives and ancillary cost reductions.[38]

Eventually came a period of strong financial and economic revival, as with many other economies around the world. From 2004 to 2006 there were sharp declines in domestic real and nominal interest rates, which brought mortgage rates to historical lows.[39] This paradoxically hurt the market share and prospects of Endorsable mortgage credit lending amid rapidly expanding demand for housing credit, as securitised pools of Endorsable mortgage credit started to show substantial prepayment levels as households sought to refinance their existing Endorsable mortgage credit in order to take advantage of historically low mortgage interest rates. According to Fitch Ratings, the international credit rating agency, the Annual Prepayment Rate[40] for prime mortgages (dwellings valued at 2,500 Unidad de Fomento or more—some USD70,000 equivalent in 2004) went from an average of 11.1 percent in the period June 2001-December 2003 to 39.8 percent in the 10-month period through October 2004. Investors in mortgage-backed securities—of which Endorsable mortgage credits are the principal component—were hurt in the process, with losses mounting due to downgrades in credit ratings for these securities as prepayments deteriorated the quality of remaining pools and the attraction of these securities diminished in the marketplace. The end result has been a continued reduction in the relative share of mortgage-backed securities in the Chilean market in recent years—i.e.

38 Two special tax incentives were enacted by law to help resolving an inventory glut of new housing and the need to restructure already outstanding mortgages that followed the 1998 economic recession, which was made more financially painful by a liquidity squeeze and sharp interest rates increases by the Central Bank that year. In 1999, the government passed a temporary income tax exemption on debt-service payments paid by individuals on residential mortgages buying brand-new dwellings of not more than 140 square meters. More directly targeted to mortgage restructurings, the government passed a law eliminating stamp and other transaction taxes associated with the refinancing of residential mortgages. It also reduced ancillary costs associated with the process of mortgage collateralization. See FitchRatings (March 2005) for an account of the recent prepayment history in the Chilean residential mortgage market.

39 Judging by the trends observed in Charts 2 and 3, the historically favorable interest rate environment appears to have come recently to an end, particularly for nominal rates in view of rapidly accelerating inflation.

40 The APR is defined by the formula [(prepaid amounts in a given month) / (value of mortgage portfolio at the begging of month)] x 12.

new issues of these securities did not reach USD100 million in 2005.

Another phenomenon observed in recent years has been the aggressive competition among commercial banks to capture new residential mortgage business. The banks have been competing not only on interest rates but also on offers of new and innovative residential mortgage products. For this by far the preferred residential lending vehicle has been the non-endorsable mortgage credit modality, as illustrated by the recent rapid gains in market share for this type of mortgages. This lending modality will be discussed in more detail below.

THE NATURE OF NON-ENDORSABLE MORTGAGE CREDIT AND ITS MARKET PRESENCE

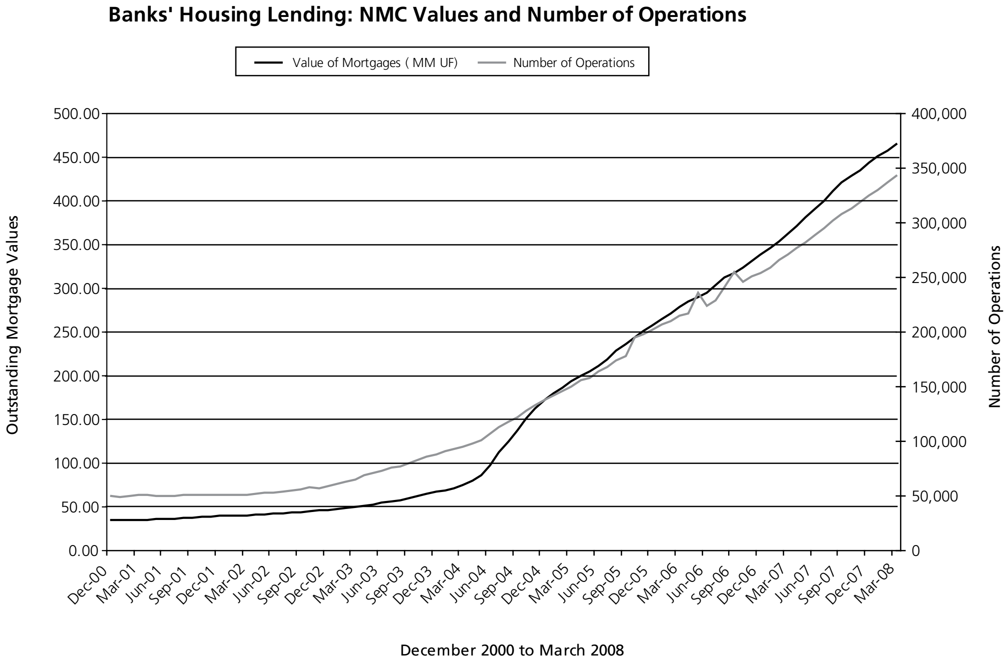
To start with, the name is somewhat misleading since non-endorsable mortgages are simply regular bank loans collateralised by residential real estate. These loans are granted by banks under their general faculty to extend credit. The name arises from the need to distinguish them from the Endorsable mortgage credit created by special legislation and listed in the General Banking Law as a separate and distinct mortgage-lending instrument. Commercial banks' legal basis for granting non-endorsable mortgage credit simply derives from the general capacity of banks to make collateralised and uncollateralised loans as stated in Title VIII, Article 69.3 of the General Banking Law. There are no specific dispositions or restrictions that apply to non-endorsable mortgage credit other than those that generally apply to bank lending. This gives this type of mortgage lending an inherent flexibility.

For the funding of these loan transactions banks aluch as the amortisation schedule, the Loan-To-Value and Payment-To-Income ratios, interest rate modality, fees and commissions, grace periods and the like. There are no doubt several reasons for the rapid market gains in non-endorsable mortgage credit since 2004, but the intrinsic contractual flexibility of thso have plenty of flexibility since they are able to use any of their traditional funding sources for this purpose. From a practical standpoint, all this gives great latitude to banks and their clients to freely agree on the terms and conditions when using non-endorsable mortgage credit. Thus, contractual terms and conditions for this type of residential mortgage can vary greatly, with ample room to define financial covenants sis mortgage modality certainly has been a main preference and intensive use among banks' prime customers. Chart 4 shows the explosion in non-endorsable mortgage credit lending during the current decade, whether measured in terms of the value of the outstanding portfolio or the number of transactions.

THE LEGAL UNDERPINNINGS OF MORTGAGE LENDING IN CHILE

Perhaps it is useful to briefly comment here on the civil-law tradition of the Chilean legal system and the consequences for mortgage lending. The Chilean financial system operates in a legal framework that restricts the activities of banks and other financial institutions to only those allowed by law and related financial regulations. In this context, lending instruments such as Endorsable Mortgage Credit and Mortgage Bond-funded residential mortgages have been the subject of specific laws aimed at addressing a series of weaknesses in the mortgage market. At the time of their

Chart 4



Source: "Financiamiento de Vivienda", quarterly report, SBIF (www.sbif.cl)

reintroduction into the Chilean market, the decision was made to tie these mortgage lending modalities to strict and comprehensive legal and financial regulations, so as to avoid the costly mistakes of the past in residential lending (i.e. the crisis of the savings and loan industry that finished this industry in the early 1970s). The idea of having dedicated legal frameworks for this kind of term lending was to generate market confidence in mortgage instruments among borrowers, lenders, investors and other stakeholders, at a time when there was plenty of uncertainty about long-term lending.

The experience of the past thirty years does tend to corroborate that that objective was achieved. Those two specialised mortgage lending instruments indeed created much more favorable conditions for the expansion of housing finance in the Chilean economy, where many of their features represented sound financial innovations. Endorsable Mortgage Credit and Mortgage Bond-funded mortgages positively impacted the market from the top down, adequately meeting the mortgage market challenges and requirements in the years that followed their reintroduction under new legislation. However, because of the degree of detail imposed by law on Endorsable Mortgage Credits and Mortgage Bond-funded mortgages—and which in practice have been hard to change—these two lending modalities have intrinsically suffered from a degree of financial and operational rigidity since their inception, something that has been accentuated by the codified nature of the Chilean legal system—as opposed to the greater financial flexibility offered by legal systems based on common-law traditions.

In the face of the rapidly evolving Chilean residential mortgage market, those two instruments appear not to have been capable of adapting fast enough to changing circumstances and financial needs of originators and borrowers alike—in fact few legal changes to Endorsable Mortgage Credit and Mortgage Bond-based lending have taken place in recent years.

RECENT NON ENDORSABLE MORTGAGE CREDIT LENDING ACTIVITY

Demanding competitive pressures on residential mortgage originators in the last ten years of so, in the context of much enlarged and sophisticated domestic financial markets, also appear to have contributed heavily to the sudden and rapid surge in **Non Endorsable Mortgage Credit** activity—to the detriment of Mortgage Bond-funded and **Endorsable Mortgage Credit** lending. The difficulties for mortgage lenders following the 1998 financial crisis have already been discussed—the implementation of massive residential mortgage restructuring focused on extending repayment schedules on existing loans. When some years later, most noticeably in 2004, housing finance activity had a strong comeback the new round of mortgage prepayments was not across-the board but concentrated on families in the prime segment of the mortgage market seeking better terms and conditions for their home loans. That year, the number of non-endorsable mortgage transactions went up 55.8 percent, with the increase in value terms of outstanding non-endorsable mortgage credit going up an impressive 161.7 percent on a year-end basis. It was in this context that the much more flexible non-endorsable mortgages proved their comparative advantage. The prime market's preference for non-endorsable mortgage credit has continued to strengthen, as aggressive competition among banks facing historically low long-term interest rates and attractive funding conditions continue to introduce new features into their mortgage lending activities. In this process, non-endorsable mortgage credit has become the instrument of choice for incorporating new mortgage features specifically targeted to that residential market.

A sophisticated assortment of new mortgage products suited to offer tailor-made solutions to prime borrowers is now available in the marketplace, with the majority of these new residential mortgage products relying on the flexibility inherent to non-endorsable mortgage credit. Many of these products are based on much more liberal lending practices, including the option of much higher Loan-To-Value and Payment-To-Income ratios - as compared with the rather conservative financial rules established by law for endorsable mortgage credit and Mortgage Bond-funded lending. For example, most leading banks now offer their prime customers up to 100 percent financing, loans with variable interest rates, initial grace periods and the choice of skipping a couple of monthly debt-service payments in any given year.

This new flexibility and relaxation of financial conditions, accompanied by relatively low term lending rates, have contributed to the rapid expansion in residential mortgage lending in recent years (see Chart 1). In this process, the expansion in non-endorsable mortgage credit explains the increase in residential mortgage lending registered by banks for all types of residential mortgages since the beginning of the decade. From another viewpoint, the market share of non-endorsable mortgage credit, in terms of outstanding lending values went from 12.0 percent in December 2000 to an impressive 69.3 percent as of March of 2008, when the non-endorsable mortgage credit portfolio of banks was valued close to USD20 billion. The fact that non-endorsable mortgage credit market participation is considerably smaller when measured in terms of the number of transactions—42.5 percent in March 2008 or 343,208 transactions—suggests that non-endorsable mortgage credit lending goes mostly to prime bank customers. This perception is reinforced by the relatively high average value of outstanding non-endorsable mortgage credit transactions on the books of banks, which reached close to USD54 thousand per loan in March 2008. (Unfortunately, interest rates that apply specifically to non-endorsable mortgage credit lending are not published by the Superintendence of Banks and Financial Institutions, but casual observation suggests that they are quite competitive.)

Another positive observation about non-endorsable mortgage credit lending is that despite the sharp recent increases in residential mortgage lending, it appears that the level of credit risk associated with this lending portfolio has remained well contained. For instance, the Superintendence of Banks and Financial Institutions figures show that the arrears index for the residential mortgage portfolio of the banking system was 1.07 in March 2008, demanding loan-loss provisions equivalent to 0.54 percent of the value of the portfolio.

FUNDING THE RECENT NON-ENDORSABLE MORTGAGE CREDIT LENDING EXPLOSION

A relevant question is: why has it taken so long for non-endorsable mortgages to play the dominant role they do today? After all, the capacity of commercial banks to extend non-endorsable mortgage credits is as old as the Chilean banking law.41 Prior to the current trend, banks often used non-endorsable mortgages in a limited way, mainly as complementary credit to endorsable mortgage credit and Mortgage Bond-funded lending, for example, to provide small additional loans to borrowers whose mortgage bonds were sold below par or to make additional financing available to preferred customers in need of bigger mortgages than permitted by the Loan-To-Value-ratio restrictions of endorsable mortgage credit or Mortgage Bond-funded lending.

As with the initial success of the other two residential mortgage modalities, the answer to the rapid expansion of long-term non-endorsable mortgage credit has to be sought in the funding side of the balance sheet of commercial banks. To support a lending explosion in non-endorsable mortgages banks had to find new and abundant sources of long-term funding in Unidad de Fomento. Otherwise, they were exposing themselves to major regulatory roadblocks requiring banks to keep long-term assets and liabilities in the same currency (Unidad de Fomento in this case) closely matched. For example, when banks use Mortgage Bonds to fund housing lending they have a perfect match from the start. That was in fact a leading factor explaining their

41 Statistics show that even well into the nineteen nineties, the market share of non-endorsable mortgages was relatively marginal, for example accounting for 6.3 percent of the value of all outstanding residential mortgages of banks in 1997.

popularity for many years in the 1980s and 1990s. In the case of endorsable mortgage credit, banks always have the option of selling or securitising these endorsable mortgages to cover potential funding mismatches.

When banks started favoring Unidad de Fomento-denominated non-endorsable mortgage credit for their residential lending business they could rely only partially on their traditional sources for long-term Unidad de Fomento funding, such as Unidad de Fomento-denominated time deposits and their capital and reserves. Of those two sources only their capital base was well suited for the job since banks' term deposits have relatively short durations for sustaining the type of long-term residential lending typical of the Chilean market—20-year home mortgages quite common. Capital funds on the other hand, are quite scarce42 and always in heavy demand from competing needs, as they are essential for leveraging lending activity and supporting credit growth.[43] Thus, in order to support the kind of rapid growth in residential lending and non-endorsable mortgage credit in particular, banks had first to find reliable and abundant new sources of long-term funding in the local currency.

The banks' solution to this dilemma has been large emissions of long-term senior and subordinated corporate bonds,[44] which they have sold mostly to institutional investors in the domestic capital market. Issuance of these medium and long-term corporate bonds normally denominated in Unidad de Fomento, was facilitated in the mid-1990s by large investment portfolios of life insurance companies and pension funds, which actively sought high grade long-term fixed-income securities. Banks responded to this opportunity by floating increasing volumes of bonds in the domestic capital market at competitive rates, which made it possible for residential non-endorsable mortgage credit to rapidly gain a presence in the their residential mortgage portfolios. By the end of March 2008, housing lending by commercial banks was valued at over USD28 billion representing over 23 percent of their overall loan portfolios, with most residential mortgages in the form of non-endorsable mortgage credit. At the time, the outstanding aggregate value of senior (USD10.1 billion) and subordinated (USD4.7 billion) bonds issued by commercial banks was equivalent to USD14.8 billion.

42 Capital and reserves represented 9.55 percent of all the financing available to Chilean banks at end-March 2007 while residential mortgages accounted for 20.5 percent of the overall loan portfolio of the banking system.

43 Banks operating in Chile normally have experienced rapidly growing loan portfolios and traditionally have been highly profitable. They normally capitalize a large share of their annual profits in order to support their rapidly expanding business activities while maintaining healthy solvency ratios, which stood at 11.8 percent for the banking system as a whole at the end of March 2008. Banks also access the domestic equity market from time to time to raise additional capital.

44 Chilean banks also issue subordinated bonds in order to improve their solvency ratios since a portion of this funding can be used to increase tier II capital—such bonds must comply with strict financial covenants imposed by the SBIF. This is a key reason banks are willing to pay the extra interest cost attached to that type of funding—when compared with issuing senior bonds. Funding from subordinated bonds accounted for 27.2 percent of capital and reserves of the Chilean banking system at the end of 2006, a ratio that is far above international standards and levels observed in banks in other Latin American countries. In 2006 alone, there was an 8.7 percent increase in the outstanding stock of subordinated bonds issued by banks.

Table 10: Recent UF Senior Corporate Bonds Issued by Commercial Banks First Half 2007

Issuing Bank	Amount	Interest Rate	Amortization	Credit Rating
Banco Santander-Chile	UF 5 MM (USD176.5 MM)	3.3% annual (real rate)	Single bullet paid on 1 June 2011	AAA
Banco del Desarrollo	UF 1.5 MM (USD53.0 MM)	3.5% annual (real rate)	Single bullet paid on 1 June 2017	A+

Source: Fitch Ratings, rating releases, May and June 2007

The attractiveness of these bonds as a source of mortgage funding is illustrated by a couple of recent examples of senior bonds floated by two banks active in the residential mortgage business. In fact, Table 10 illustrates the attractive durations and low interest rates obtained by Chilean banks in the domestic bond market by solely relying on the good corporate credit rating of the issuer:

These senior bonds, in addition to having attractive interest rates, offer a wholesale funding alternative to time deposits and the traditional Mortgage Bonds (valued at the equivalent of some USD9.9 billion in March 2008), without having any of their impact on operational costs.

In 2007 a couple of banks started to issue their senior bonds as a series of larger pre-approved bond line, which gave them extra funding flexibility, allowing them to better tailor bond issuance to their specific funding needs and to quickly take advantage of favourable capital market conditions.[45]

45 For example, Banco Santander-Chile registered the first bond line in mid-2007 for an aggregate value of UF 20 million (US$706 million at the time), with a 30-year time span to fully place it in the capital market. These are dematerialized, bearer corporate bonds without collateral attached, and with a prepayment option. These bonds are not convertible to shares of the issuer. Additional terms and conditions are defined when specific series of the bond line are registered with the regulator prior to their floating in the marketplace. The bond listed in Table 10 was the first series of this new bond line of Banco Santander-Chile.

HOUSING LEASES

Law No. 19.281 enacted in the mid-1990s established the legal and regulatory framework for financial leases for housing, a new option in the Chilean market for securing housing finance by potential homeowners. The legislation in fact created a new industry on the basis of long-term housing leases. As already explained in Section II, these are lease-to-purchase contracts which include a mandatory clause for transferring ownership of the leased property from the lessor to the lessee at the end of the lease contract if certain financial conditions are met by lessee. Today, there are nine house leasing companies operating in the Chilean market. Two of the companies are subsidiaries of commercial banks who are under the supervision of the Superintendence of Banks and Financial Institutions—they had market shares close to 40 percent in 2007. The other housing leasing companies are supervised by the Superintendence of Securities and Insurance, which are the regulators of corporations. According to industry figures, house leasing activity has expanded reasonably well for a new industry, with a volume of 25,370 leases signed between 1996 and 2006. A recent study of the Superintendence of Banks and Financial Institutions estimated that the participation of housing leases were at roughly 0.8 percent of the total outstanding housing debt in the country. Despite a good start, available figures have confirmed that home leases still play a marginal role in housing finance when compared with more than 800 000 mortgage transactions currently on the books of commercial banks.

So far the experience has been that households attracted to home leasing have limited access to residential mortgages and belong mainly at the lower end of the income scale. In fact, as already discussed in Section II, many poor families have received Ministry of Housing and Urbanism subsidy vouchers under its housing leasing programme. This programme has been a main promoter and supporter of the emerging home leasing industry.

The client base of home leasing companies is mainly households aspiring to dwellings priced at less than 1,000 Unidad de Fomento (>USD41 thousand today). Since commercial banks, with a couple of important exceptions, target their mortgage products only to borrowers seeking to finance dwellings priced over 1,000 Unidad de Fomento, those families that go to home leasing companies have limited financial options in the marketplace.

Casual observation suggests that housing leases are expensive for the lessee, who pays rental fees that carry an implicit high interest rate, often as high as 12 percent in real terms (on Unidad de Fomento-denominated contracts). In part the high financial cost of home leases appear to respond to relatively high operational costs in this new industry, which has limited opportunities for taking advantage of economies of scale— common for banks competing in the much larger residential mortgage market. But an even more relevant cost factor for this new industry is the higher level of credit risk it faces. For example, provisions to cover the losses of a leasing contract for the two home leasing subsidiaries of banks were equivalent to 1.4 percent of their leasing portfolios at the end of March 2007, as compared to the 0.47 percent in loan-loss provisioning at the time on the residential mortgage portfolio of commercial banks. The leasing companies might initially have underestimated their exposure to credit risk, as suggested by the recent sharp drop in the rate of return on capital experienced by the two leasing companies which are subsidiaries of banks. In fact, 2005 and 2006 were good years for housing finance in Chile and yet the data shows these two companies averaged annual real rates of return of just 7.1 percent on capital during the period, way below the annual average of 46 percent they registered in the preceding four years.

Home leasing companies have to rely on the capital market for their long-term funding needs. Their strategy has been to use their working capital to accumulate pools of leasing contracts that they then sell to securitisation companies that proceed to issue structured debt sold in the local capital market. The technical details will be reviewed in more detail in Section IV, where it will be shown that housing leases are packaged normally with endorsable mortgage credit in large pools sustaining a variety of asset-back securities. What is clear is that home leasing has had access to long-term funding and at a reasonable cost—securitised debt carrying a Unidad de Fomento rate in the range of 4 to 5.5 percent.

SALIENT FEATURES OF HOUSING LEASING FINANCE

Perhaps the principal advantage of housing leasing for the low to middle income household is that industry regulations allow a much lower down payment: at 5 percent of the price of the dwelling being leased, comparing favourably with the 20 percent of endorsable mortgage credit and the 25 percent of Mortgage Bond-funded mortgages. Home leasing is a good alternative for households aspiring to a home worth not more than 1,000 Unidad de Fomento and which have a steady, moderate income stream but low levels of personal savings to their name. These families can afford a relatively high monthly payment-to-income ratio but often are prevented from owning their own home because of the conservative loan-to-value ratios imposed on traditional mortgage lending due to existing financial regulations. Unable to secure a mortgage, young families have been forced to postpone their decision of owning a home, even in the face of an adequate level of family income. A long-term housing lease can be a good alternative to finance a home.

Available data suggests that the actual down payment of lessees is a couple of percentage points above the minimum 5 percent required. This is still more affordable than the 25 percent down payment normally required by banks for mortgages to low-income families—typically a Mortgage Bond-funded loan. From the viewpoint of the lessor, the advantage of having a lease contract is that the property stays registered under its name until the expiration of the lease contract, which facilitates legal procedures in the event of default or non-compliance by the client.

Lease service payments are made monthly by the debtor. Each payment has two components, with one portion covering the rent on the property, which is due to the lessor, and the other going to accumulate funds for the eventual purchase of the property. This last component is deposited into a special savings account, where funds earn interest and accumulate until there are sufficient funds in it to cover the pre-agreed purchase price on the leased dwelling. There is a mandatory clause to this effect in the leasing contract. It can happen that the special savings account accumulates sufficient funds before the originally scheduled closing date of the leasing contract. This could be the case for example if earned interest on the account is higher than anticipated or because the lessee makes non-mandatory contributions to accelerate the accumulation of funds in the account with the purpose of accelerating the transfer of ownership on the property.

The lessee has two options to make his/her monthly payments. They can be made directly to the leasing company (in which case they are called "direct" leasing contracts) or the lessee can sign a "methodic" savings contract with an authorised financial institution, the so-called "Administrators of Housing Funds".[46] In the latter option the lessee makes the monthly payments at the Administrators of Housing Funds, which is responsible for paying the rental fee to the leasing company and investing the rest in a savings account in the name of the lessee—deposits going into these special savings accounts play a similar role to the monthly loan amortisations in the case of residential mortgages. Funds in these accounts cannot be used or withdrawn by the lessee save for buying the leased property. Accumulated funds also provide additional collateral to the lessor, who can use funds in the account to cover losses in case of default and foreclosure. Any remaining funds, after covering expenses and residual losses by the lessor on the leasing contract, are giving back to the defaulting lessee.

ALTERNATIVES FOR SUBSIDIZING HOUSING LEASES

The Ministry of Housing and Urbanism subsidies have been crucial in making home leasing more attractive to homeowners. The original 1996 subsidy formula was modified in early 2004, although the Ministry of Housing and Urbanism kept the amount of the subsidy per household intact. Those lessees that got subsidies from the Ministry of Housing and Urbanism before February 2004 continue to receive the Ministry of Housing and Urbanism contribution in quarterly installments paid directly to the lessor or the Administrators of Housing Funds until the leasing contract expires, whereby the Ministry of Housing and Urbanism pays its quarterly installments only if the lessee has already paid his/her own contribution during the previous three months. The original subsidy formula was designed to complement the monthly payments of those lessees, who were meeting their contractual obligations under the leasing contract. The financial implication was that the subsidies being paid by the Ministry of Housing and Urbanism were in fact reducing the debt-servicing burden of compliant debtors, by directly reducing their Payment-To-Income ratio.

46 There are bank subsidiaries and compensation "cajas" currently authorized to take these deposits and act as AFI.

The new subsidy formula started to apply to housing leases signed from March 2004 onwards. Currently, as explained in Section II, the Ministry of Housing and Urbanism gives lessees an upfront subsidy that increases the down payment made on the leased property, so as to complement the initial payment made by the lessee at the signing of the leasing contract. Under the new scheme, the Ministry of Housing and Urbanism pays the subsidy upfront to the lessor with a tradable fiscal bond, which has a nominal value financially equivalent to the present value of the future stream of quarterly payments under the old the Ministry of Housing and Urbanism formula. The 2004 changes in the subsidy formula have had important implications for both parties to the leasing contract, giving an additional thrust to this new industry and making leasing contracts more attractive for securitisation and lessors alike. Firstly, under the new subsidy scheme the debt-to-value ratio is reduced significantly, which improves the relative value of the collateral and reduces the overall credit risk to which the lessor is exposed and, secondly, the upfront Ministry of Housing and Urbanism subsidy actually reduces the size of the debt that the lessee has to assume at the outset of the leasing contract.[47] Moreover, since the subsidy is paid upfront by the Ministry of Housing and Urbanism with a tradable bond, the amount of subsidy is in full and of a known amount, and it does not depend on the future debt-service record of the lessee—as it did under the old subsidy formula.

THE DOWN PAYMENT AND SAVINGS INSTRUMENTS

As in other economies, the down payment on a new home and the associated household savings necessary to materialise it have been important components of the financial package required by families aspiring to home ownership in Chile. The successful introduction of inflation-adjusted mortgage-bond financing in the late 970s relied on a conservative 25 percent down payment by the new homeowner. Even today, this is the preferred mortgage modality for financing home ownership among low-income families requiring a loan. A large down payment contributes more household equity to the financial package and certainly improves the credit risk profile of the residential mortgage portfolios held by lenders, but at the same time it can become a formidable barrier to home ownership. There can be different approaches to address this dilemma of trying to strike the proper balance between equity and debt in housing finance. In Chile, the recent trend has been towards a relaxation by banks of the Loan-To-Value ratio for residential mortgages, although this has benefited mostly those households aspiring to a higher priced dwelling. Meanwhile, at the lower end of the income scale, the Ministry of Housing and Urbanism has significantly increased the size of the explicit upfront subsidy given to the poorest families with the establishment of the Housing Solidarity Fund, which requires that

47 For example, in the case of a dwelling priced at 700 UF with a downpayment contributed by the lessee of 10 percent, the leasing contract was for 630 UF under the old subsidy formula. Under the new subsidy formula, the leasing contract is for 90 UF less, so as to take into account the upfront subsidy paid by MINVU, thus reducing the debt-to-value ratio from 90 percent under the old formula to the more attractive 77.1 percent under the new subsidy scheme [(700-70-90)/700]. In addition, calculations by FitchRatings indicate that it would take 76 months to reach the 77.1 percent debt-to-value ratio under the old subsidy scheme—and which now is the starting point for the lessee under the new subsidy formula (see FitchRatings (June 2005), page 5).

the poorest families do not assume a mortgage debt on their subsidised homes.

In the case of the poorest households with no access to formal term credit in financial markets, upfront fiscal subsidies are the essential ingredient for financing the purchase of adequate housing. Government policy and actions in Chile have traditionally met with relative success when concentrating the bulk of fiscal subsidies at the lower-end of the income scale. This notwithstanding, the Ministry of Housing and Urbanism experience of granting direct mortgages to the poor with fiscal resources—under its discontinued Basic Housing Program—ended up as a failure, which led to a drastic policy reformulation of its housing programme for the poorest segments of the population. The changes explicitly recognised that in the best of cases the poorest segments cannot assume a residential mortgage, so in order to meet their housing needs the state has to provide large upfront subsidies, which together with a small amount of prior family savings—10 Unidad de Fomento minimum per family, roughly USD400 equivalent today—these families can complete the financing of their homes. In essence, the capacity of the poorest families to save (before and after acquiring their own home) is now less relevant for home financing than under the old subsidy scheme-cum-mortgage.

The virtuous combination of Chile's extended period of sound macroeconomic policies with healthy and competitive financial markets has promoted the buildup of financial assets by Chilean families, while fiscal policies that tax consumption rather than income have stimulated the accumulation of household savings in the financial system.48 All this has made it easier for families to save for the necessary down payment on their home. In the case of households aspiring for subsidised housing, policies applied by the Ministry of Housing and Urbanism also have contributed to developing a culture of financial savings. In fact, the level and constancy of the saving effort by those bidding for housing subsidies is often the determining factor in the selection process. The Ministry of Housing and Urbanism actually reviews compliance by families with minimum requirements for eight socio-economic variables, including the certification by an accredited financial institution of the family's past saving effort.49 Under the old Social Assistance Committees Form most of the requirements to qualify for social programmes are part of the government's social protection net which were aimed at showing a real social need on the part of the potential beneficiary. With the new Social Protection Form the emphasis was on family vulnerabilities, with those classified as most vulnerable becoming eligible for state subsidies under the state various social programmes.

In the case of social housing programmes, most families seeking a subsidy have pressing social needs and vulnerabilities so most of them easily meet the socio-economic param-

48 For example, interest earnings are taxed only when funds are withdrawn from accredited financial institutions and not at the time they are accrued.

49 The certification by the financial institution must include information on the following variables: a) type of savings account; b) the minimum average account balance that the account holder agreed to maintain per semester; c) the accumulated amount of savings the account holder promised to reach; d) the actual amount (in UF) of savings accumulated in the account, including capital and interest; e) actual balances maintained in the account in past semesters; f) actual age of the account; and g) actual penalties imposed on the account due to excessive withdrawals.

eters demanded by the different Ministry of Housing and Urbanism programmes (as quantified by the Social Protection Form). Under these circumstances - assuming that the price of the dwelling stays within the ceiling of a given programme - it is often those families showing a good track record of a persistent and adequate level of savings who are the ones favoured for housing subsidies, particularly for the Ministry of Housing and Urbanism programmes under which households are expected to secure a residential mortgage with a financial institution for completing the financing of their home - that is programmes covering the more bankable households among those receiving subsidies. For these families, the priority is to start implementing a formal savings plan because a good track record with a bank improves their chances for both a Ministry of Housing and Urbanism voucher and a long-term loan from a mortgage originator. Currently, households selected to receive vouchers under the General Subsidy Programme need to accumulate at least 50 Unidad de Fomento (roughly USD2,000 today) in prior savings to meet the Ministry of Housing and Urbanism's minimum savings requirement. However, banks often demand larger contributions from family savings in order to meet the down payment requirements for a mortgage loan, particularly in the case of families aiming at the more expensive dwellings who are eligible for a state subsidy.[50]

From the perspective of the financial system, the savings account business in Chile traditionally has been dominated by the State Bank (Banco Estado), the state-owned commercial bank which is also the major provider of mortgages for households benefiting from the General Subsidy Programme and other Ministry of Housing and Urbanism programmes expecting beneficiaries to secure a mortgage - such as the PET and the Urban Renewal programmes. As in other countries, individuals in Chile have all sorts of motivations for opening savings accounts. Currently, some 12 commercial banks in Chile offer this type of financial product, with retirement, housing and education as the main themes for attracting clients.[51]

The figures in Table 11 show that savings accounts are popular in the Chilean market and with close to 12 million customers very likely the most massive of all banking services. The aggregated value of these accounts—USD4.3 billion equivalent at end-November 2006—is significant and in the case of the State Bank, a particularly relevant source of funding. However, the average amount maintained in these accounts is rather small—roughly USD357 equivalent at the end-November 2006—although sufficient to meet the 10 Unidad de Fomento in household savings required for accessing subsidies from the Housing Solidarity Fund. Clearly only a fraction of all these savings accounts are

50 In the case of a home priced at 1,000 UF, the expected MINVU subsidy is 90 UF and the minimum savings requirement 50 UF. Normally banks finance such a home with a MB-funded mortgage, which requires a 25 percent downpayment or 250 UF in order to meet banking regulations. That means that MINVU's minimum savings requirement of 50 UF is short 110 UF of the amount the family actually has to put down as a downpayment in order to meet the bank's mortgage lending requirements.

51 In Chile, there is also a separate voluntary retirement savings program for workers, which is different from the traditional savings accounts offered by banks. Savings for retirement are regulated by Law 19,768, which gives participating workers a series of attractive income tax benefits. Commercial banks are one among six different types of financial institutions, including traditional pension funds, offering these voluntary retirement accounts. Funds accumulated in these accounts cannot be used for financing a dwelling.

Table 11: Number of and Amounts Held in Savings Accounts in the Banking System

End of November 2006

	Up to 120 UF (<USD4,167)		120 UF – 500 UF (USD4,167 – 17,362)		More than 500 UF (>USD17,362)		All Accounts	
	# of Accounts	Amount US$ MM	# of Accounts	Amount US$ MM	# of Accounts	Amount US$ MM	# of Accounts	Amount US$ MM
State Bank	10.27 MM	1,748	153,711	1,180	18,816	590	10.44 MM	3,518
Other Commercial Banks*	1.63 MM	156	38,625	301	5,698	209	1.67 MM	811
Banking System	11.90 MM	2,048	192,336	1,482	24,514	799	12.12 MM	4,329

Source: SBIF- Información Financiera, November 2006 issue

* *Includes data for 11 private commercial banks offering savings accounts*

maintained in order to meet the Ministry of Housing and Urbanism's prior savings requirements for housing subsidies, but nonetheless still a large number of the savings accounts in the State Bank are opened under the umbrella of its housing savings account programme. These accounts have the following features:

- These are individual accounts
- Their maintenance is free
- They are accepted to apply for the Ministry of Housing and Urbanism subsidy programmes
- These accounts give holders access to optional life and disability insurance
- Interest in the account is accredited annually following an adjustment in the principal according to variations in the Unidad de Fomento
- Minimum life expectancy for these accounts is 18 months—number of months is agreed with bank when the account is opened
- Specific savings goals also are agreed with bank
- Maximum daily withdrawal is 30 Unidad de Fomento—larger amounts require 30-day prior notice
- Savings plan for the account is signed at the time of account opening

In summary, while the promotion of household savings has facilitated access to subsidised housing for Lower Middle Income families, a more pervasive and direct impact on the ability of Chilean families to afford home ownership, particularly among the middle class accessing the prime mortgage market, has resulted from the relaxation of the Loan-To-Value ratios by commercial banks and the massive use of Non-endorsable Mortgage Credits, and which has gone hand in hand with substantial drops in mortgage interest rates—today, as much as 400 basis points below the levels at the beginning of the decade in real terms. The extension of mortgage maturities also has been a relevant factor—now that banks offer mortgages with maturities of up to 40 years. Perhaps the main benefit of the housing credit bonanza of recent years has been across-the-board gains in housing affordability brought about by improved financial conditions for housing finance in the credit markets. Better affordability has meant that large numbers of previously borderline bankable households have become eligible for residential mortgages, weather they seek a social housing solution (priced at <1,000 Unidad de Fomento) or not.

CHAPTER 4

THE CAPITAL MARKET AS A SUPPLIER OF HOUSING FINANCE

The importance of having appropriate funding has been already highlighted as one of the pillars supporting the success of housing finance in Chile in the past 30 years or so. In this respect, banks and other originators have been able increasingly to rely on institutional investors in the domestic capital market for the growing amounts of long-term financing suited for their needs. Advances in housing finance certainly have contributed to the consolidated gains in the capital market, although many of the developments in the capital market have taken place for other reasons as well. In particular, the dynamic and competitive domestic capital market observed in Chile today owes a great deal to the application of a sound and consistent macroeconomic policy framework, which has steadily improved the country's sovereign credit rating over the years, placing the Chilean economy solidly within the investment grade category and firmly connecting its capital market with other markets around the world. This has had a positive impact on housing finance, which is highly sensitive to interest rate levels and relies on long-term forward-looking decision-making. Sharp drops in domestic lending interest rates to today's international levels and longer amortisation profiles have significantly improved affordability of housing credit for the average Chilean family. But again, the aim of capital market policies and their developmental objectives often have been indirectly motivated by the need to strengthen the supply of housing finance. The classical example in this respect was the urgent need to drastically reform the pension system, which in 1980 adopted individual mandatory and fully-funded retirement accounts for each worker to replace the deficit-ridden and actuarially broken pay-as-you-go publicly managed system of the past.

In Section III, the discussion focused on the origination process and the financial instruments used to support the rapid expansion of the housing finance industry. Now the emphasis will be on the supply of appropriate funding via the domestic capital market, by far the most important contributor of term financing to originators of residential mortgages and housing leasing. As already indicated, there are several other institutional investors besides Pension Fund Administrators currently operating in the domestic capital market. This Section IV will assess the role played by institutional investors and the fixed-income securities they demand for their investment portfolios.

THE NATURE OF CAPITAL MARKETS IN CHILE

MARKET PRESENCE OF INSTITUTIONAL INVESTORS

With the establishment of a network of private pension fund administrators (the so-called Pension Fund Administrators) in 1981, millions of workers instantly had a stake in the successful development of the domestic capital market; since then they have periodically seen the results of their investments in their individual retirement accounts. Initially Pension Fund Administrators were restricted to investments in the local capital market, a constraint that was gradually lifted and today they can invest a sizable portion of their portfolios in rated securities abroad. The number of retirement accounts in the Pension Fund Administrators has been growing in tandem with employment—there were over 8 million individual accounts in the Pension Fund Administrators system in March 2008—and the pools of retirement funds under their management have became increasingly more diversified across instruments, industries and financial markets. Funds under management have grown rapidly as a result of the steady inflow of fresh monthly contributions from workers and attractive rates of return on investments over the years. Pension Fund Administrators have remained by far the largest institutional investors operating in the Chilean market, managing not only mandatory but now also voluntary retirement accounts, a service in which they compete with other local institutional investors. All these savings for building a nest egg for retirement attract tax incentives.

Currently each one of the six Pension Fund Administrators operating in the market offers their affiliated workers five different investment pools to choose from and as of January 2008 they were managing an aggregated investment portfolio of close to USD112 billion under those investment pools, which must follow clearly defined investment guidelines imposed by the regulator.[52] Last January, 68 percent of the Pension Fund Administrators' portfolio was invested domestically and the rest in foreign financial markets.

Simultaneously with the establishment of the private pension system, it was necessary to introduce credible and secure options for workers entering retirement. Pension Fund Administrators offer plans of programmed disbursements those affiliates entering retirement from funds accumulated in their individual accounts. However, another option for retirees is an annuity bought from an accredited life insurance company with the funds accumulated in his/her individual Pension Fund Administrators account. Many retirees have taken this option as a way of securing a pension for life. Their numbers have increased as the private pension system reaches a more mature stage. Thus, the size of the investment portfolios managed by life insurance companies has grown rapidly in recent years, becoming second in size only to the Pension Fund Administrators' portfolios. Given the

52 These five investment alternatives are labeled A through E. For all AFPs, fund type A has the most aggressive investment policy and type E the most conservative in terms of the tradeoff between risk and reward. The long-term real rate of return (in UF) for funds type A was 13.35 percent from September 2002 to January 2008, while at the other extreme of the risk spectrum the return for funds type E was a much more modest 5.63 percent. The most popular and older funds are type C, which offer a balanced risk/reward alternative. These funds had a real rate of return of 9.77 percent for the period June 1981-January 2008.

long-term nature of their liabilities, these two large institutional investors have shown great appetite for long-term peso and Unidad de Fomento-denominated instruments, well suited for funding housing credit. Table 12 below gives an overview of the investment portfolios managed by the four largest institutional investors, which traditionally have demanded that type of fixed-income securities:

The sum of the investment portfolios of these four institutional investors is quite substantial for an economy the size of Chile. Indeed, their combined investments valued at some USD137 billion at year-end 2006 were equivalent to roughly 94 percent of that year's GDP. Also, the figures in Table 12 illustrate the striking growth rate experienced by the pool of assets under their management. In the particular case of banks, the drop observed in their investment portfolios between 2002 and 2006 reflects drastic reductions in their holdings of Central Bank bonds and notes during those years, in line with the acceleration in their lending activity following sharp drops in market interest rates and the pick up of activity in the domestic economy.

Although the figures in Table 12 show a great investment capacity by Chilean institutional investors, their investment options are many besides debt instruments suitable for funding housing credit. Indeed, there are all kinds of Chilean and foreign assets in their portfolios, including short and long-term fixed income securities, bank deposits, publicly traded shares, commercial real estate, venture capital funds and others. From the viewpoint of housing finance, the interest is in the appetite these institutional investors show for long-term fixed income securities and similar financial instruments—such as Endorsable Mortgage Credits. A list of the principal debt instruments present in the Chilean capital market is provided in Table 13. With the exception of Endorsable Mortgage Credits, these are debt securities denominated in pesos or Unidad de Fomento which are publicly traded in this electronic market:

Table 12: Investment Portfolios of Leading Chilean Institutional Investors (Year-end, in USD MM equivalent)

Institutional Investor	2002	2006
Pension funds	35,826	88,632
Life insurance cos.	12,393	24,838
Mutual funds*	5,911	15,559
Commercial banks**	11,979	7,909
Total	66,109	136,938

Source: SAFP, SVS, SBIF and BCCH

** Includes mutual funds denominated in local currency only*

*** Includes only instruments held for investment purposes*

Table 13: Stock of Term Debt Instruments and New Issuance in 2006 (In USD MM equivalent)

Unidad de Fomento or Peso-denominated	Stock Level Year-end 2006	Net Increase in Stock During 2006
Bank bonds (senior and subordinated)	7,396	2,130
Corporate bonds (all, at par value)	15,062	1,828
Structured bonds (all, at par value)	2,108	322+
Mortgage bonds (both types)	9,077	476#
Endorsable mortgage credits (both types)*	4,676	478
Treasury bonds (BTU series, denominated in UF)	2,070	148
Central Bank bonds & notes (with secondary market)	16,383	-3,277
Total	57,181	

Source: SVS, SBIF, BCCH and Santiago Stock Exchange

** Administered or owned by banks (Nov 06) and mortgage companies (Dec 06)*

 # New issues for Jan-Nov 2006

+ New issues during the year

The figures in Table 13 suggest that the market size for privately issued term debt in Chile is already quite robust—close to USD39 million for peso and Unidad de Fomento-denominated instruments at the end of 2006. Prospects for the future expansion of private debt in this market segment are also quite positive, given that the Chilean Treasury is expected to continue to run large fiscal surpluses for the foreseeable future—the exceptionally large fiscal surpluses of recent years are being invested in financial markets abroad. In the case of the Central Bank, by far the main issuer of public debt in Chile, its mandate is to keep inflation under control, so its debt issuance is entirely driven by the needs of monetary policy and the pursuit of its interest rate objectives. In the absence of crowding out by the public sector, the prospects for private debt issuers, including bank and others originators supplying housing finance, remain positive for the future. As already explained, the potential demand for this type of lending funds will be there from the already well-established institutional investors present in the Chilean financial markets.

CAPITAL MARKET REGULATION

Adequate regulation and supervision are essential to the success of any capital market, so a few comments on the subject are in order. The rules that apply to the emerging Chilean capital markets have been more the result of additions over the years than the result of a concerted effort to develop an integrated regulatory and supervisory framework—British style—set under one roof encompassing all financial activities and stakeholders. To be sure, there is great variation in the approach to financial regulation and supervision around the world and the debate continues among experts about the ideal formula. In the meantime, the Chilean experience with its disconnected financial regulation and supervision has not been a major impediment for the development of a vigorous and competitive capital market. This has been due to a persistent and dedicated effort by the authorities and private stakeholders to update and upgrade existing financial legislation and regulation every few years.

The regulatory authority supervising market participants and securities issuance and trading in the Chilean capital market—which today resides in the virtual world—is divided among various state agencies, each one with a reasonable degree of policy independence. Some coordinating instances and committees actually exist, but they are mostly ad-hoc and covering the most obvious and urgent needs. It is a worldwide phenomenon that the growing complexity of financial products combined with market globalisation and innovation is putting increasing pressure on financial regulators and supervisors. As in other places, there is a real challenge for the authority in Chile to keep the legal and regulatory frameworks applying to its financial markets ahead of developments—prevention is the key word for regulators judging by current events in international financial markets.

The continued success of the Chilean capital markets as a key contributor to term funding for housing, will depend on the upgrading of financial legislation and regulation to keep a healthy and efficient market. The list of agencies directly involved in the regulation and supervision of market players and the instruments participating in the Chilean capital market, is as follows:

- Central Bank of Chile—autonomous of the central government; issues norms on monetary, credit, financial and foreign exchange matters
- Superintendence of Banks and Financial Institutions—decentralized agency reporting to the Finance Ministry and the Central Bank; supervises and issues specific regulations that apply to commercial banks and other institutions that form part of the financial system
- Superintendence of Securities and Insurance—decentralised agency reporting to the Finance Ministry; supervises and issues specific regulations pertaining the securities and insurance markets, their operations and products
- Superintendence of Pension Fund Administrators—decentralized agency reporting to the Labour Ministry; supervises and issue specific regulations pertaining pension funds offering individual retirement accounts

THE MOBILISATION OF FINANCIAL RESOURCES FOR HOUSING FINANCE

In the context of the general picture of the Chilean capital market presented above, the information in Table 14 below is an attempt to measure the capacity of leading institutional investors to supply funding for housing credit at the end of 2006. All the figures in the table come from published financial statistics and have been converted from pesos to dollars using the exchange rate at the end of December published by the Central Bank.

The four financial instruments listed in columns (a) through to (d) are the preferred vehicles used by originators of housing credits for funding their residential mortgages and housing leases. These debt instruments also are often used for funding other lending activities besides housing and this is reflected in the figures in Table 14, which refer for example to all mortgage bonds and not only to those financing residential mortgages. The same is true for the other three instruments.

The way these debt instruments are used to fund housing credits has been explained at length in Section III. However, perhaps it is worth a reminder that bank bonds are the preferred funding mechanism for banks lending via non-endorsable mortgages. Also, the inclusion of structured bonds is relevant because this is an important funding vehicle for Endorsable Mortgage Credits and housing leases. These contracts are packaged into separate pools by securitisation societies, which then sell asset-backed securities in the capital market. Endorsable Mortgage Credits are sold by the originators directly to life insurance companies for their investment portfolios. In this sense Endorsable Mortgage Credits are funding instruments as well as lending vehicles for mortgage originators.

As seen in Table 14, by far the largest buyers of these four instruments are institutional investors, particularly pension funds and life insurance companies. The latter had 29 percent of their investment portfolios in these types of debt instruments (bonds and Endorsable Mortgage Credits) at the end of 2006. Pension funds, on the other hand, had allocated a smaller 9.3 percent to these papers, but because of the sheer size of their investment portfolios, they showed the largest absolute amount with USD8.2 billion equivalent invested in these term debt instruments.

From the broader market perspective, the outstanding amount in the hand of all investors for these debt instruments was some USD23 billion at year-end. Published data is incomplete and do not allow calculating the exact portion of these papers held by the institutional investors in Table 14, but from the partial figures in the table the percentage at the end of 2006 was high. At that time, the outstanding stock of these debt instruments was equivalent to almost 17 percent of the investment portfolios held by these five institutional investors, so they have the potential to purchase more or similar debt securities for their investment portfolios. There is, then, ample capacity in the Chilean capital market to fund sound housing credit activity and future expansions, mainly based on the investment power of institutional investors. As seen in Table 14 for example, in the case of the prevalent Mortgage Bond-funded mortgages the contribution to their funding by institutional investors was well over 90 percent at the end of 2006. Institutional investors also are the natural target for placing bank bonds since

Table 14: Institutional Investors and Funding Suitable for Housing Finance at End-2006 (In USD MM equivalent)

Institutional Investors	Mortgage Bonds (a)	Endorsable Mortgages (b)	Bank Bonds (c)	Structured Bonds (d)	Funding Suitable for Housing Finance (a+b+c+d)	Overall Investment	Structured Bonds (d)		Funding Suitable for Housing Finance (a+b+c+d)		Overall Investment Portfolios	
	US$ MM	% "!	US$ MM	% "!	US$ MM	% "!	US$ MM	% "!	US$ MM	%	US$ MM	%
1.Pension funds	3,982	43.9			3,814	51.6	446	21.2	8,242	9.3	88,632	100.0
2. Life-insurance cos.	2,760	30.4	2,562	57.4	1,877	25.4	n.a.		7,199	29.0	24,838	100.0
3. Other insurance cos.	70	0.8			45	0.6	n.a.		115	16.3	705	
4. Mutual funds	713	7.9			195	2.6	205	9.7	1,113	7.2	15,559	100.0
5. Commercial banks*	739	8.1	n.a.		n.a.		n.a.				7,909	100.0
Institutional investors 1to 5	8,334	91.8							n.a.			
Outstanding stock	9,077	100.0	4,464+	100.0	7,396	100.0	2,108	100.0	23,045	16.7		100.00

Source: Tables 12 and 13 plus complemented with additional statistics from the data bases of the SVS, SBIF, SAFP and BCCH

* *Figures include only investment portfolios of banks and not their lending activity. November 2006 figures n.a.: data not readily available*

+ *The stock of EMC includes only those loans owned or administered by banks and mortgage companies. It does not include EMC sold and administered by other parties.*

between pension funds, insurance companies and mutual funds they held over 80 percent of outstanding issues at the end of 2006.

THE ROLE OF STRUCTURED FINANCING

Until the introduction of Endorsable Mortgage Credits in the Chilean market in the late 1980s, banks had no option but to hold the residential mortgages they originated. Mortgage bonds have good acceptance in the capital markets, but the credit risk implicit in each residential mortgage stays with the originating bank. Endorsable Mortgage Credits allowed originators to shift the credit risk and the funding of mortgages to the capital markets, mainly to life insurance companies which have enough purchasing power to buy large quantities of Endorsable Mortgage Credits thus diluting the implicit credit risk in individual Endorsable Mortgage Credit transactions.

With the introduction of securitisation into the Chilean markets and the establishment of securitisation societies in the 1990s, it became possible to bundle Endorsable Mortgage Credits into separate asset pools and issue mortgage-backed securities. By the beginning of the current decade, improvements in the legal and regulatory framework for securitisation had transformed this into a viable financial activity. Table 14 shows USD2,108 million in outstanding securitised bonds at year-end 2006.

Securitisation societies today not only issue mortgage-back securities but also structured bonds backed by housing leases. Moreover, it has become common practice to mix Endorsable Mortgage Credits with housing leases involving subsidised housing into a single asset package for their securitisation. These asset-backed securities are competing in the marketplace with structured bonds relying on future cash flows, consumer loans, corporate bonds and obligations guaranteed by the state (some even denominated in USD). Table 15 below offers a summarised view of structured bonds outstanding in the Chilean market at the end of 2006:

Figures in Table 15 indicate that with 190 different series of structured bonds outstanding in the Chilean market—backed by 7 different types of securitised pools—there is already a significant amount of local experience with these debt instruments. Bonds issued to fund housing finance are an important actor in this market although the average outstanding value for these bonds—USD6.1 million at end-2006—is considerably smaller than that of other structured bonds present in the marketplace. This is due in part to bonds providing funding for housing finance are older, but another important factor were the heavy Endorsable Mortgage Credits prepayment levels earlier in the decade. Currently, the relevance of securitised bonds backed by Endorsable Mortgage Credits is strikingly small, particularly in contrast to the experience of more developed markets where similar securities are a backbone of the capital market.[53]

Securitisation has been a key funding vehicle for home leasing companies, as reflected in the relatively large number of structured bonds (101) backed either with pure leasing contracts (53) or in combination with Endorsable Mortgage Credits (48). The funding supplied by these bonds—USD642.5 million at year-end 2006—explains a significant portion of the originations under the home leasing modality. As discussed earlier, most housing leases go to finance social housing and carry high interest rates.

Moreover, these credit originations have not experienced much of a prepayment problem, so the securitisation of these leasing contracts, in contrast with the securitization of Endorsable Mortgage Credits, continues to be attractive as a funding mechanism. Because of the relevance of structured bonds for credit supporting subsidised housing, it is perhaps informative to summarize the leading features of a recent securitisation of an asset pool composed both of leasing contracts and Endorsable Mortgage Credits. This is presented in Box 4 below:

Table 15: Stock of Structured Bonds Outstanding at end-2006 (In USD MM equivalent)

Type of Securitized Pool	Outstanding Par Value (Includes accrued interest)		# of Outstanding Series
	USD MM	Market Share	
1.Endorsable Mortgages (EMC)	106.2	4.4%	22
2.Leasing Contracts (LC)	300.5	14.3%	53
3.Bonds Mixing LC and EMC	339.3	16.1	48
All Bonds for Housing Finance (1+2+3)	746.0	35.4%	123
4. Other Pool Types (4 different types)	1,362.5	64.6%	67
All Structured Bonds	2,108.5	100.0%	190

Source:SVS

53 Table 14 shows that EMC owned or administered by banks and mortgage companies were valued at 4,464 million at the end-2006. If securitized EMC are added to that amount, EMC-backed bonds represented some 2.4 percent of outstanding EMC credit at that time.

Box 4: Structured Bonds backed by EMC and Housing Lease Contracts: March 2007 Securitization Society: Transa Securitizadora S.A. Eighth Separate Asset Pool—3 different originators

Issued Bonds: 4 series for a total of 272,800 UF (USD9.3 million), as follows:

Serie	Amount (UF)	Interest Rate	Rating (Fitch Ratings) National Scale
A (serviced quarterly; final payment Dec 1, 2014)	156,300 (57.3% of total)	4.15%	AA
B (serviced quarterly; grace period first 31 installments, final payment Dec. 1, 2021)	47,100 (17.3%)	4.50%	AA
C (balloon; single quota March 1, 2022)	11,400 (4.2%)	5.50%	BBB
D (residual bond; balloon; single quota June 1, 2022)	58,000 (21.6%)	5.00%	C

Main features of asset pool: 147 Endorsable Mortgage Credits and 280 leasing contracts

- Outstanding debt by households: 220,577 UF (USD7.5 million; average per household: USD18,142)
- Average interest rate (UF) paid by households (weighted average): 11.53%
- Debt-to-Collateral (weighted average): 77.6%
- Monthly debt service-to-household income: 19.6%
- Additional credit enhancement: 59% of EMC have MINVU guarantee in case of default
- Original maturity of asset pool (average): 207 months
- Outstanding maturity at time of pool securitization: 196 months

Source: Fitch Ratings—Structured Finance, Santiago

CHAPTER 5

LESSONS FROM THE CHILEAN EXPERIENCE

There are several lessons that flow from this assessment of the Chilean experience in housing finance, over the past three decades, much of which is straightforward and already discussed in the main text. This Section will highlight the general applicability, particularly those that appear useful for and replicable in other developing economies.

STATE INTERVENTIONS ON HOUSING

1. *Government intervention in the housing market requires a comprehensive and lasting social housing policy framework based on clearly defined guiding principles.* The Chilean social housing framework is comprehensive in nature covering many angles, including housing finance, social protection and fiscal elements, and well-defined mechanisms for establishing public-private partnerships. Moreover, while the guiding principles and key objectives have remained relatively unchanged for the past three decades, the government has been willing to learn from past experiences changing things that do not work and adapting specific programmes that confront social and market realities.

2. *Government housing policy actions need to focus on improving the social protection net and its associated programmes*. The Chilean experience shows that the executive branch of government needs to be efficient and diligent in the implementation of its housing programmes. Mistakes can be expensive given the high volume of fiscal resources needed to implement a credible set of housing programmes focused on home ownership and seeking high social impact. Not all household groups face the same housing issues or face the same needs and vulnerabilities, but the implementation of a sound social housing policy requires different programmes for different groups and the ability to change course when needed.

3. *Housing finance for the poor demands a sustainable and sizable fiscal contribution year after year*. The Chilean experience shows that a fiscal effort can make a big difference and noticeably improve the living conditions of family groups most in need. The key appears to have been a broad political consensus at the national level that such enduring effort is both necessary and worthwhile.

4. *Carefully targeted fiscal subsidies are the key for resolving the housing needs and vulnerabilities of the poorest segments of society*. Closely related to the previous point, the Chilean experience has shown that social housing policies have to be socially progressive in order to be politically sustainable. However, the Chilean experience indicates that sharp targeting of fiscal resources is not easy to achieve, even when there is the political will. It requires of a set of well-designed instruments and practices (i.e. a Social Protection Form-type of model) in order to focus action on the poorest. Ex-post actions are also required to gauge the impact (National Survey of Socio-Economic Characterisation survey) on targeted family groups and in order to take the necessary corrective measures.

5. *Properly designed state subsidies are vital ingredients of financial packages designed to pay for homes purchased by Lower to Middle Income families*. There are certainly many different ways the state can subsidise *Lower to Middle Income* families. The Chilean experience shows that it is important to use the right subsidy scheme to maximise the impact and avoid major distortions and moral hazard in the credit market. Upfront and explicit subsidies given to households for helping them with the down payment (subsidy vouchers) have worked well in Chile. They do not distort credit markets and can be more easily targeted to the poorest segments than subsidised interest rates, which do tend to benefit the biggest mortgage borrowers the most (i.e. high-income families).

6. Direct government lending does not work for those families who are non-bankable. The Chilean experience shows that it is necessary to be realistic and accept that the poorest and most vulnerable segments of the population normally cannot afford long-term residential mortgages, which, if granted by the government, end up mostly as unintended subsidies. These failed state mortgages also tend to limit even further the already restricted access to the mortgage market by the poor. In the Chilean case, state-issued partial credit guarantees supporting marginally bankable mortgage borrowers have worked much better than direct Ministry of Housing and Urbanism mortgages.

7. Direct government interventions to generate the supply of social housing might not be justi*fied beyond limited and temporary action*. In the Chilean case, the original motivation behind such interventions seems to have been the traditional "infant industry" argument, as the country faced an urgent need to start reducing its acute housing shortage while the construction industry was ill prepared to take the risks of generating a strong supply of housing for the poor on its own. In hindsight, it appears that the Ministry of Housing and Urbanism overstayed its market presence in the supply side of the social housing equation. These implementing social housing policies must be willing to review and assess supply issues frequently and let community-led initiatives increasingly take the lead. The transition to community-based housing projects under the Housing Solidarity Fund was not easy in the Chilean case and it took several years to get the supply of social housing to the poorest segments of society active again.

CREDIT MARKETS AND PERSONAL SAVINGS

8. *Development of a robust domestic long-term credit market supported by a dynamic capital market is an essential pre-requisite for sustainable housing finance*. It is not easy to accomplish this since several elements have to be in place for such a market to become a reality. In the inflation-prone environment of the Chilean economy during most

of the twentieth century, the indexation of financial instruments was a necessary step, although not a sufficient one. It was also important to establish the conditions for the development of a vibrant capital market based on institutional investors with a natural appetite for long-term fixed income securities. Without a rapidly expanding capital market is hard to see how Chile would have been able to develop the robust mortgage market it has today.

9. *The capital market clearly needs for its development a constant and robust stream of financial instruments supplied by residential mortgage originators*. The Chilean experience shows that there are strong synergies between mortgage originators and large institutional investors, who are always in need of investing for the long run. It is hard to overestimate the importance of pension funds and life insurance companies as suppliers of long-term funds for housing finance in Chile. Commercial banks and other mortgage originators simply do not have the type and volume of financial resources required to support a vibrant residential mortgage business. As recent international experience has shown, in this mutual dependency both originators and investors have big stakes in having sound residential mortgage origination practices, a reality that is also present in the Chilean financial markets.

10. It is important to have a realistic menu of mortgage options not only to meet various financial needs of different household but also to carefully tap available funding opportunities in the marketplace. Sound residential mortgage lending is the backbone of home financing, a credit-intensive activity geared to meet the financial needs of potential homeowners. All mortgage origination instruments present in the Chilean credit markets - Mortgage Bond-funded mortgages, Endorsable Mortgage Credits and Non-Endorsable Mortgage Credits - have been validated by the market and have provided a reasonable fit to a specific market need or allowed originators to bypass specific funding constraints. Alternative housing finance mechanisms such as lease-to-purchase contracts are also interesting options but they are likely to remain a niche product. Structured debt and securitisation of large assets pools have played a significant role in housing finance in the Chilean case, but it has proven not to be the principal or only option for a well-functioning residential mortgage market. Perhaps, Mortgage Bond-funded mortgages are a more realistic option for countries with an incipient development in their capital market, as it was true of Chile in the 1980s.

11. *Mortgage originators need to simultaneously control excessive credit risk and avoid asset-liability mismatches in their balance sheets*. Sound lending practices are a must, but in addition the Chilean experience has shown that another constant for sound mortgage financing, independently of the instrument being used, is the quality of the collateral backing such lending (i.e. conservative Loan-To-Value ratio practices) and the presence of a legal and regulatory framework that enhances the value of holding real estate collateral (i.e. expedited foreclosure procedures). As important as having sound mortgage origination practices is to keep interest and liquidity risk exposures well under control. That requires mortgage originators having a clear strategy for timely accessing long-term funding in local currency in the local capital market.

12. *Family savings are an important contribution to the typical housing finance package for all income groups*. The Chilean experience has shown that the promotion of family savings, particularly among Lower to Middle Income households, is important. The constancy and level of family savings often is a determining factor in the selection of

subsidy beneficiaries under the Ministry of Housing and Urbanism's housing programmes.

13. Besides, family savings almost always finance a portion of the down payment on a home, which in the case of Lower to Middle Income seeking a mortgage can be as high as 25 percent of the price of the dwelling.

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