

Securitisation of Mortgage Portfolios in Latin America: The Chilean Case¹

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1. THE MACROECONOMIC SITUATION IN CHILE

Following the recent recession in Chile, it is hoped that the gross domestic product (GDP) for 2003 will show an increase of around 3.5%. In recent years, the gross domestic product has been approximately US\$4,500 per capita. Chile currently has a population of around 15 million people. Inflation has been well controlled for a long time, and it is hoped that in 2003 the annual inflation rate will be below 3.5%. Whilst the exchange rate has been relatively stable, the Banco Central de Chile's reference rate has proved itself to be quite unstable and this, combined with the international recession, has been the cause of the country's reported limited growth.

In the decade leading up to 1997, the Chilean economy grew at an average rate of 6% per year, and it is hoped that this level of growth will be reached again soon. In 2000, the Banco Central increased its reference rate to 10%, which resulted in the halting of economic growth. The Ministry of Finance at that time wanted to maintain a high level of fiscal spending and the Banco Central was trying to ensure that this increased fiscal spending would be absorbed by lower private sector internal activity. It managed to achieve this, and now it is hoped that the Chilean economy can grow. Currently the reference rate is 2.9%, which is a substantially lower than it used to be.

The balance of payments is fairly stable. In 2002, revenue was generated from exports

to the value of US\$18.3 billion and recorded expenditure through imports totalled US\$15.8 billion. Foreign investment, which also fell very sharply, is recovering. The level of international reserves is sufficient for the country. Foreign debt is manageable and is worth around US\$40 thousand million; recently the State has issued sovereign bonds with investment rates which are very attractive to the international market. The level of unemployment is a quite high, 9.2%, which is the result of the aforementioned macroeconomic conditions. Prior to 1997 unemployment was around 4-5%.

2. HISTORY OF HOUSING FINANCE IN CHILE

When designing housing finance systems it is often forgotten that the economy works in cycles. The economic cycles are always present: sometimes they are longer, other times they are shorter but they are always there. It is therefore important to take them into account when designing mortgage finance systems and the way they work during adverse cycles in the economy.

Prior to 1960, housing finance was granted by the Banco del Estado and the savings and provident banks. The mortgage loan interest rates were nominal and as there was inflation, they succeeded in granting mortgage loans at negative rates of interest in real terms; in other words, they were practically giving away money to mortgage loan applicants, a situation which was

obviously unsustainable. Then, in 1960 the Sistema Nacional de Ahorro y Préstamo (SINAP) (National System for Saving and Lending) was created. This system attracted money from the investors and it was the only one which did so using Unidades de Fomento, an accounting unit that automatically changed in line with inflation. That meant that any investor who wished to protect savings from the impact of inflation, deposited money in SINAP. This system granted long term credit using short term resources. The system worked within the context of the adjustable indexed savings and credits monopoly, within which it appeared and developed. However, Chile subsequently provided banks with the authority to receive adjustable indexed public savings. As banks also offered products which were more profitable, SINAP ended up in a deep crisis and had to be dissolved, resulting in great losses for the State.

In 1977 a mortgage bond credit note system was created, which is still in existence today. Under this system, the person to whom a mortgage loan is granted is given a mortgage bond credit note, instead of receiving the money in cash. He or she has to sell the bond on the secondary market, in order to pay the vendor of the property. This system developed because of the privatisation of the savings system, which took place in Chile in 1981. In that year, pension fund administrators (PFA) were established requiring people to invest their retirement savings in these funds. They also had the option of choosing a life annuity at

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TABLE 1
Initiators of Housing Finance Operations in Chile

INSTRUMENTS	NUMBER OF OPERATIONS	AMOUNT IN MILLIONS OF DOLLARS
Transferable mutual mortgages		
• Administradoras de mutuos hipotecarios	6,300	280
• Banks	3,157	137
House leasing contracts	2,800	52
Mortgage credit notes		
• Private banks	18,988	749
• State Bank	33,953	348
Total	<u>65,198</u>	<u>1,566</u>
State Bank/Total Activity	(54%)	(22%)
MHE/Activated total	(15%)	(28%)

the point of retirement, which meant opting to have an adjustable income for the rest of their life, it being possible to do this with a life insurance company. These are the two most significant elements in the expansion of the capital market and the success which the housing finance system enjoys today.

In 1998 mutual mortgage administrators were established and they authorised the life insurance companies to invest part of their technical reserves in transferable mutual mortgages. The life insurance companies provide life annuity or pensions that grant pensioners a fixed rate income for the rest of their life. The mutual mortgage is a good asset since it provides fixed rate funds in the long term. In Chile, the fixed rate mortgage credits in Unidades de Fomento, i.e. hard currency, are granted for a 30 year term, and in the case of the Hipotecaria La Construcción the average term is 27 years.

In 1994 the Securities Law was changed to create securitising societies. Through securitisation liquid assets were generated which could be bought by another investor without being homogenous, because nowadays for an individual to be able to buy a mutual mortgage, he or she has to refer to a lawyer to interpret the text, a business engineer to tell him or her which system of rates is being applied, etc. In contrast,

through securitisation, an individual only has to buy a bond which has already been classified by two risk assessment agencies. Perhaps some investors do not understand much about how the mortgage market works, but they do understand the classification of the instruments they want to buy.

In 1995, the Ley de Arrendamiento con Promesa de Compraventa was issued. This is another housing finance instrument, which although it has not taken off as well as had been expected, does remain useful to the low income sectors of the population who do not have sufficient resources to acquire a property but who are able to pay rent.

3. THE CURRENT HOUSING FINANCE SITUATION IN CHILE

The first table shows figures relating to the situation of housing finance by instrument in Chile. Each (or last) year the administrators of transferable mutual mortgages granted 6,300 mutuals totalling US\$180 million. The banks, which are also able to grant mutual mortgages, granted 3,157 mutuals with a value of US\$137 million. 2,800 housing lease contracts worth US\$52 million were set up. The private banks issued a total of 18,988 mortgage credit notes worth

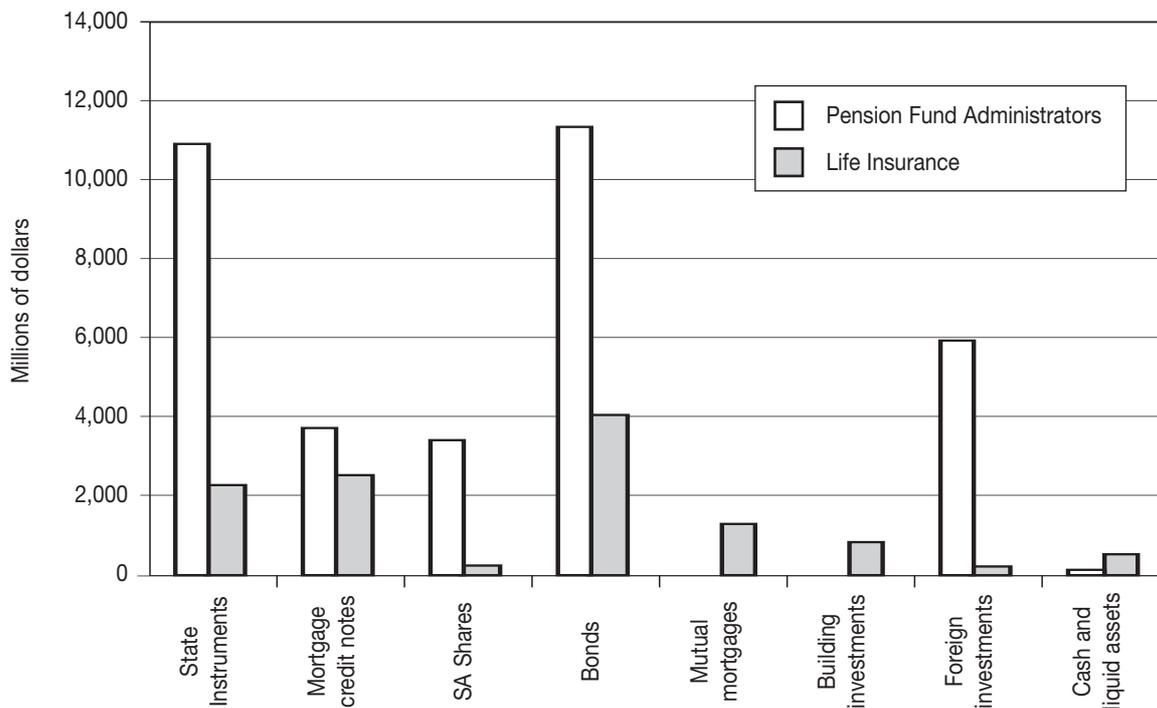
US\$749 million, and the Banco del Estado issued 33,953 mortgage credit notes worth US\$348 million.

The Banco del Estado dealt with 54% of the total number of transactions carried out through the housing finance system and 22% of the value, with an average amount of US\$44 thousand per transaction. The mutual mortgages have a total average of US\$44 thousand dollars per transaction, starting around US\$12-14 thousand. The property leasing societies reported 4.2% of the total number of transactions, which represented 3.3% of the market in terms of amount, with an average amount handled of US\$18,500, meaning that this alternative is directed towards a relatively low-value sector.

4. CHARACTERISTICS OF MORTGAGE LOANS IN CHILE

In Chile there is a wide range of mortgage loans on offer, and these credits are granted for terms of up to 30 years. In the case of the Hipotecaria La Construcción, there is a product called a self-adjusting mutual mortgage. This is a mutual mortgage with a 30 year term which offers two alternative ways of paying the instalments: a minimum and a maximum instalment and it is the debtor who determines which of these

CHART 1
Distribution of Investors' Resources in Chile by Investment Instruments



instalments to pay in each period. For example, if the debtor decides to pay the maximum instalment they will pay the loan off in 15 years, without any penalty for early repayment, as if they had taken the credit initially for this term. On the other hand, if they always pay the minimum instalment, they will take 30 years to repay the loan. If the debtor elects to pay one or the other instalment depending on the amount of money available at that moment, the loan will be repaid sometime in between the two limits.

Mortgage loans are granted with a rate of interest fixed in real terms, starting from a yearly rate of 6.2% - however, the market average is just below 7%. What is important is that this real interest rate doesn't have any additional charges, as it is a real final rate; only retirement and title insurances are added, and these are optional. There are alternative variable rates of interest which are around 3.5%, but these

are nominal rates; this rate could be maintained for one or two years but there is the risk that when one wants to move to a fixed interest rate, this will not be possible.

Generally, the transferable mutual mortgage grants up to 80% of the value of the property, and this percentage can be higher with a second mortgage; in the case of the Hipotecaria La Construcción, up to 90% or 95% of the value of the property may be granted for a second mortgage.

Finally it should be mentioned that banking system arrears are around 4.5%, which is a fairly good level when taking into account the recent recession. In the case of Hipotecaria La Construcción, the rate of arrears for the mutuals is no higher than 2%. These rates of arrears are very good for debtors, but if the counterparty has made a high level of prepayments, that could give rise to problems when it comes to repaying the investors.

5. INVESTOR RESOURCES

The two big institutional investors whose performance is linked with the housing finance system are the pension fund administrators (PFA) and the life insurance companies. The PFAs, as has been indicated previously, were created in 1981 to manage the individual savings accounts. The life insurance companies manage the life annuities. Previously, this type of product did not exist because the indemnities were nominal and very high rates of inflation were recorded, and with this type of revenue they have become a significant factor in the financial system.

At 31 March 2003, the PFAs were administering resources totalling approximately US\$35 billion, whilst the life insurance companies were administering a total of US\$12 billion. The former could invest up to 50% of their portfolio in mortgage credit notes. The life insurance

CHART 2
Chilean Model of Securitization

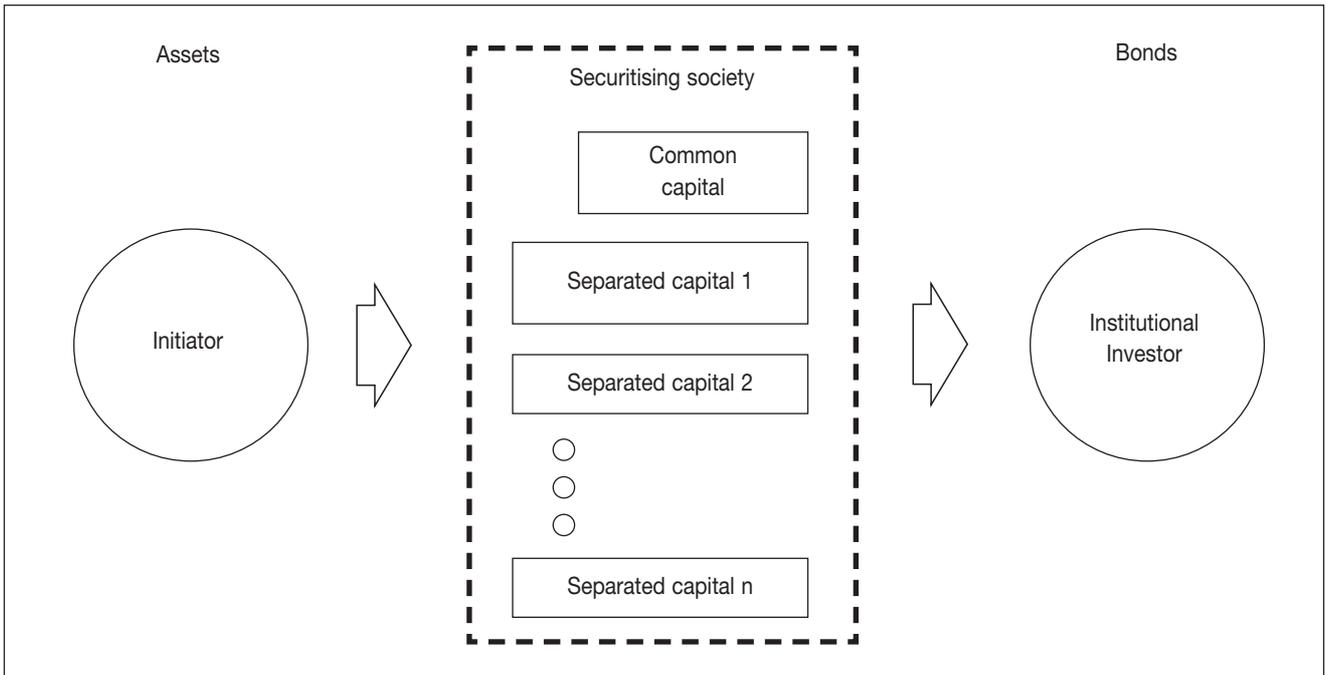
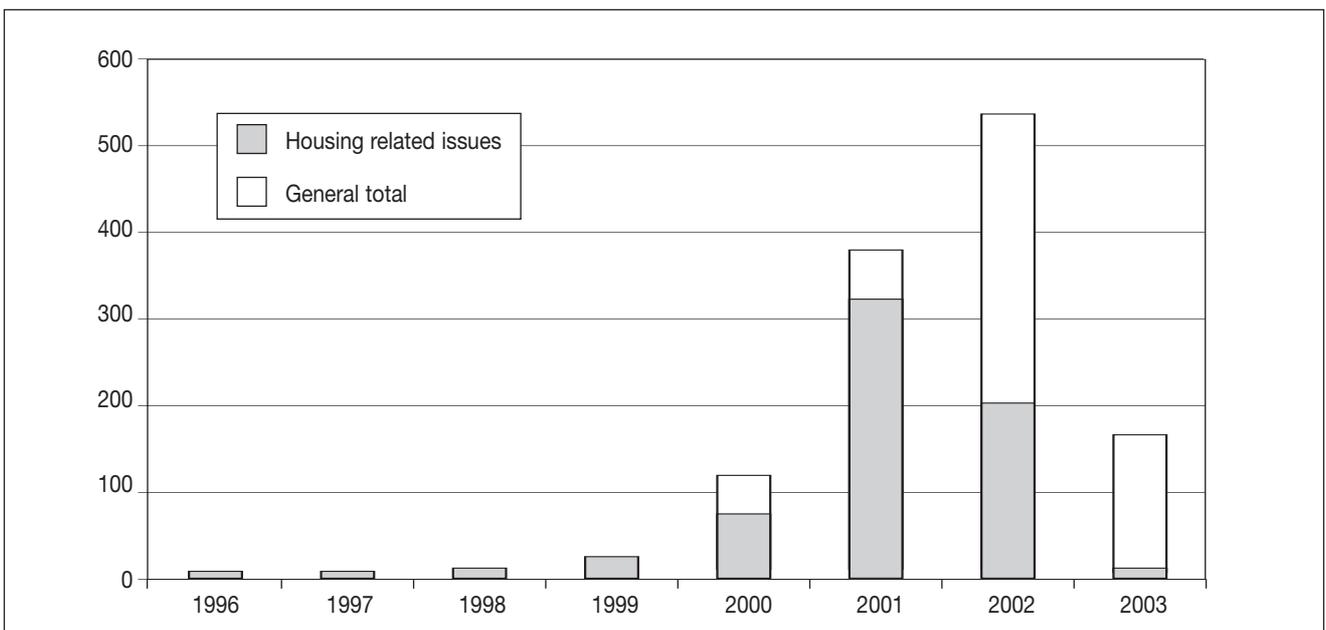


CHART 3
Issue of Securitised Bonds in Chile, 1996-2003



companies could also invest up to 30% in transferable mutual mortgages; whilst the PFAs could not directly invest in this instrument. Today the insurance companies hold around US\$1,500 million in transferable mutual mortgages, which represents 13% of their technical reserves (see Chart 1). Securitisation is important because, amongst other reasons, the PFAs can invest in mutual mortgages through it. In the case of property leasing contracts, neither the PFAs nor the life insurance companies can invest in them directly, the only way to do this being via securitisation.

6. SECURITISATION IN CHILE

6.1 Securitisation model

Chart 2 shows the Chilean securitisation model, which incorporates the initiators, the securitising societies and investors. The assets (including the mortgages) are converted into bonds. Initially it was only possible to convert transferable mutual

mortgages and the property leasing contracts, but now it is possible to securitise any future flow of payments provided it is transferable.

The securitising society is a legal body which administers separated (bankruptcy remote) capital entities, which answer only to the bond holders and, therefore, are not at risk of the securitising society itself failing. The bonds which the securitising societies issue are classified by two risk assessors, and this classification assists the investor in their decision making. Bond structuring is a complicated financial process since there is complex financial engineering behind it. Thus, the life insurance companies are interested in investing their technical reserves in long term instruments, whilst the PFAs administer funds which appreciate daily and, therefore, benefit from the daily return. Further, it is possible to securitise mutuals with a short remaining life and which are maintained by life insurance companies, and convert them into bonds with a

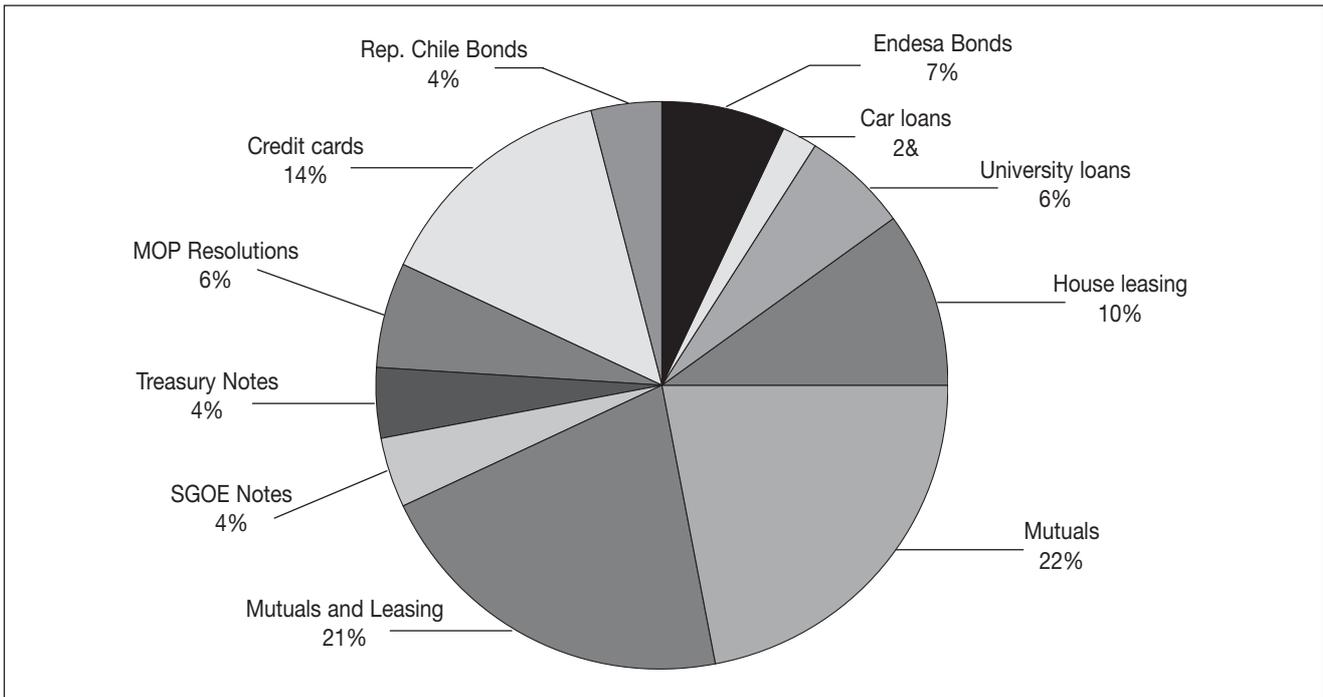
relatively short term so they can be sold to the PFAs.

6.2 Issue evolution

Securitisation began in Chile in 1994 and in during the first years, its level of activity was extremely low; by August 2003 securitisations worth US\$1,200 million had been put into effect (see Chart 3). On analysis of the issue of securitised bonds in relation to the housing sector, in Chart 3 it can be seen that until 1999 it was only possible to issue assets related to housing finance. To date, 53% of the total value of securitised bonds issued in the Chilean market is related to housing finance.

In addition to the transferable mutual mortgages and the property leasing contracts, the securitising societies have securitised other types of assets, including: university loans, car loans, public service company bonds (Endesa), Republic of Chile bonds, treasury notes, etc (see chart 4).

**CHART 4
Issue of Securitised Bonds in Chile**



Altogether in Chile there are ten securitising societies operating in the market, and securitisation has become a banking business, since some of the securitising societies are owned by banks. Chart 5 shows the issue of securitised bonds in relation to housing broken down by issuer.

6.3 Securitisation problems

Amongst the problems facing the securitisation process in Chile is the reporting of related operation limits, taking into account that some banks' own securitising societies. In practice, this problem has resolved itself through the exchange of issues. Another important aspect is the financial risk at the stage of collecting assets. Nowadays, with interest rates so variable for 30 year term mortgage

loans, no one dares to collect mutuals for securitising, since the impact of a change in the market interest rate could be high, especially if the interest rate increases.

Another problem that is reported even now is that the credit holders are charged a stamp tax. The idea is that the bond investor doesn't pay this tax again, but sometimes the value issued in bonds is greater than the value of the unpaid mutuals balance, which can create a distortion.

Something else that needs to be resolved is the payment of the tax on the yield. What actually happens is that the separated capital issuer and the collateral bond should not be subject to any tax until the bond matures, when it becomes clear if money has been made or lost. With respect to the cost of issues, what has happened is that

the cost of the bond structuring has fallen to very low levels. This explains to a certain extent why the banks have taken it on as another product in their portfolio of services.

On the other hand, the risk assessors have greatly increased the cost of the instrument. Six years ago there were six or seven risk assessors in Chile and now there are only three remaining, all with links to international companies. As the system requires two risk assessments and the administrator is also required to be classified, the costs have tripled. Another significant element is the concentration of the number of investors: 80% of the buying power of securitised bonds is concentrated in the hands of approximately seven investors, which could permit tacit agreements which allow them to obtain greater profits than might be possible in a less concentrated market.

CHART 5
Issue of Securitised Bonds in Chile, by Issuer

