Recent Developments in the UK Housing and Mortgage Markets

by Michael Coogan

The United Kingdom housing market finally seems to have returned to something like normality in the wake of one of the most severe downturns it has ever experienced. For the U.K.’s mortgage lenders and their borrowers, the early 1990s were characterized by high levels of indebtedness, significantly higher levels of mortgage arrears and possessions (foreclosures), high mortgage rates, and reduced profitability on mortgage lending.

During 1997, however, nominal house prices returned to their pre-recession levels and volume of lending improved significantly. Nevertheless, continuing cuts in state support, even after the election of a new government, as well as the prospect of greater influences from Europe on the U.K. economic environment, whether inside or outside a single currency, both created new challenges for mortgage lenders.

For the Council of Mortgage Lenders itself, 1997 was a year of change. It was the CML’s first year of operation as a free-standing trade association, as well as being a year during which major building society demutualizations occurred, changing the institutional profile of the mortgage lending market.

Now, as a result of the conversion of a number of major building societies to the banking sector, under a quarter of outstanding mortgage balances in the U.K. are with building societies, compared with three quarters a decade ago. It is these conversions which formed the rationale for the creation of the CML as an independent body, separate from the Building Societies Association, which provided CML secretariat services until the end of 1996.

HOUSING AND MORTGAGE MARKETS IN 1997

In 1997 average house prices returned to their pre-recession levels, the number of housing transactions improved to around 1.45 million and mortgage lending recovered to its highest level in six years. The number of mortgage possessions fell to 32,770, 57% lower than during the peak year of 1991, and the proportion of households with mortgage...
arrears of six months or more fell to around 1%, the lowest in eight years (see Figure 1). However, 1997 also witnessed five rises in interest rates, each being 1/4 of 1%, which meant that by the end of the year mortgage rates had risen and appeared set to rise further in early 1998, although still at historically low levels. In addition, the first Budget from a Labour Government for 18 years announced a further reduction in mortgage interest tax relief from 15% to 10%, to take effect in April 1998, as well as an increase in the Stamp Duty payable on properties worth more than £250,000.

One of the first decisions of the new government was to instigate comprehensive “zero-based” spending reviews. These call into question all aspects of public spending, including housing and benefits spending, and are still under way. In essence, these reviews start from the premise that no money should continue to be spent on support for housing (and other areas under scrutiny) unless a new case is made to do so. The reviews will undoubtedly give the new government the rationale to revisit and re-order its future spending priorities.

Table 1 gives some indication of the position of owner-occupation in the overall context of public spending on housing. As can be seen, expenditure on owner-occupation is already extremely modest, and the CML has urged the government in its review of housing spending not to curtail further the already modest, and decreasing, levels of support to owner-occupiers.

A number of other reviews with possible impacts on housing and mortgage lending have also been implemented by the government. The most high profile is a cross-departmental government review of the house-buying process, involving a number of relevant industry bodies. While out of office, the Labour Party launched a consultation on “gazumping,” where sellers who have previously agreed to accept an offer from a potential buyer subsequently renge on the agreement by accepting a better offer prior to the point when the sale becomes legally binding. This, of course, is a major problem in areas where house prices are increasing rapidly.

On coming to power, the new government decided to undertake a broader review of the whole house purchase process. To this end, it has commissioned a study which will track over 1,000 house purchases. The CML is represented on the Government Steering Group, which has been set up to oversee the study and which will subsequently consider what improvements might be necessary based on the findings from the study.

As part of a pilot to inform the larger study, the government has published its initial findings, which compare the perceived U.K. position on costs associated with house purchase and estimated average times for completion and completion with a number of other countries around the world (see Table 2). In the government’s initial view, it is clear that the total transaction costs of house buying and selling in England and Wales are among the lowest of all the countries reviewed.

Average timescales in each country produced by the government indicate that the total time taken in England and Wales to agree terms (exchange) and to complete are among the longest of those countries reviewed (see Table 3).

The new research should be completed by July 1998. Options being discussed for improving the current process in England and Wales include the seller (prior to offering a property for sale) assembling standard information and documentation which would be shown to prospective purchasers. This initiative is aimed at promoting greater disclosure of information at the outset, which would demonstrate a seller’s commitment to the sale and reduce the factors upon which transactions are aborted between offer, acceptance and contract.

<table>
<thead>
<tr>
<th>Table 1. The U.K. Housing Market: Key Statistics</th>
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<tr>
<td></td>
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<tr>
<td>1980</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Total number of UK households (million)</td>
</tr>
<tr>
<td>Number of owner-occupied households (million)</td>
</tr>
<tr>
<td>Proportion of owner-occupied households (%)</td>
</tr>
<tr>
<td>Percent of owner-occupiers with a mortgage</td>
</tr>
<tr>
<td>Number of households with mortgage arrears</td>
</tr>
<tr>
<td>Number of properties taken into possession by lenders</td>
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<tr>
<td>Average new mortgage (£)</td>
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<tr>
<td>Annual cost of mortgage tax relief (£m)</td>
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<tr>
<td>Annual cost of ISMI (support for unemployed home-owners) (£m)</td>
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<tr>
<td>Annual cost of Housing Benefit (support for low-income tenants) (£m)</td>
</tr>
<tr>
<td>Public expenditure on investment in social housing (£m)</td>
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</tbody>
</table>

4  HOUSING FINANCE INTERNATIONAL
### Table 2. Costs Associated with House Purchases

<table>
<thead>
<tr>
<th>Country</th>
<th>Costs on £60,000 property</th>
<th>Costs with tax</th>
<th>Costs on £120,000 property</th>
<th>Costs with tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia (NSW)</td>
<td>2.7%</td>
<td>5.2%</td>
<td>2.3%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Canada (Ontario)</td>
<td>6.7</td>
<td>8</td>
<td>6.3</td>
<td>7.5</td>
</tr>
<tr>
<td>Denmark</td>
<td>5.6</td>
<td>8</td>
<td>4.4</td>
<td>6.8</td>
</tr>
<tr>
<td>France</td>
<td>6</td>
<td>14</td>
<td>6</td>
<td>13.5</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>6</td>
<td>7.5</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4</td>
<td>10</td>
<td>3.5</td>
<td>9.5</td>
</tr>
<tr>
<td>Portugal</td>
<td>10</td>
<td>18</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>South Africa</td>
<td>7.8</td>
<td>13</td>
<td>7.5</td>
<td>14</td>
</tr>
<tr>
<td>Sweden</td>
<td>5</td>
<td>6.5</td>
<td>5</td>
<td>6.5</td>
</tr>
<tr>
<td>USA</td>
<td>7.8</td>
<td>8.3</td>
<td>6.4</td>
<td>6.8</td>
</tr>
<tr>
<td>England &amp; Wales</td>
<td>2.5</td>
<td>3.5</td>
<td>2.5</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Notes:
1. The "with tax" figures include the equivalent of stamp duty (acquisition tax) but not VAT where that tax is levied. The incidence of VAT varies from 8% in Portugal to 25% in Denmark.
2. In Denmark for purchases involving flats the costs are 1% higher than those indicated in the table above.
3. For Hong Kong the illustrative property prices in the table are academic because of the high property values prevailing in that jurisdiction, there are unlikely to be residential properties available in the market at the levels indicated.

### Table 3. Estimated Average Timescales for Exchange and Completion (weeks)

<table>
<thead>
<tr>
<th>Country</th>
<th>Agree Terms (price, etc.)</th>
<th>Completion</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>2</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Canada</td>
<td>1</td>
<td>4–5</td>
<td>5–6</td>
</tr>
<tr>
<td>Denmark</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>France</td>
<td>1–3</td>
<td>5–13</td>
<td>6–13</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1–3</td>
<td>3</td>
<td>4–6</td>
</tr>
<tr>
<td>Portugal</td>
<td>2–4</td>
<td>4</td>
<td>6–8</td>
</tr>
<tr>
<td>South Africa</td>
<td>1</td>
<td>4–8</td>
<td>5–9</td>
</tr>
<tr>
<td>Sweden</td>
<td>2</td>
<td>2–4</td>
<td>4–6</td>
</tr>
<tr>
<td>USA</td>
<td>1</td>
<td>5–6</td>
<td>6</td>
</tr>
<tr>
<td>England &amp; Wales</td>
<td>6–8</td>
<td>4</td>
<td>10–12</td>
</tr>
</tbody>
</table>

Notes:
1. The following assumptions have been made in calculating these figures:
2. The buyer does not have a house to sell before he can proceed with the proposed purchase (i.e., the timescales relate to the purchase and not the combined time of both selling and buying).
3. The buyer will take legal advice in countries where lawyers are involved before signing the contract (assumed average of one week).
4. The parties do not desire a delayed completion date.
5. In countries where the seller (or agent) has to do preparatory work before putting the property on the market (such as survey, provisional agreement/contract for sale) no time allowance has been included in the above figures.

Other options being considered include prospective buyers obtaining a mortgage certificate or "in principle" mortgage offer, indicating the amount of mortgage loan a lender is prepared to advance, based on the buyer's financial status.

It is anticipated that a consultation paper summarizing the survey results and putting forward options for changing the process will be published in the autumn. The review could dramatically change the conveyancing process in the U.K. to speed up completions between serious sellers and borrowers, thus reducing stress and wasted costs which are incurred where problems such as "gazumping" are allowed to flourish.

### CODE OF MORTGAGE LENDING PRACTICE

A major initiative in the U.K. mortgage market during 1997 was the introduction of the CML's Mortgage Code, a code of practice designed to cover the whole of the mortgage lending process, from the marketing and selling of mortgages to their ongoing administration, including handling arrears and possessions, and putting in place a requirement for all lenders to have independent redress arrangements.

The Mortgage Code came into effect for lenders on July 1, 1997, after extensive consultation with regulators and consumer groups, as well as the mortgage lending industry itself. It introduces a structured framework for the selling of mortgages which did not previously exist, categorizing the sales process into three different types of service. These are: (1) advice and a recommendation as to which mortgage to choose; (2) information on the different types of mortgage product to enable the customer to make an informed choice of which to take; or (3) information on a single mortgage product only, if only one mortgage is offered or if the customer has already decided.
Whichever level of service is provided, confirmation in writing by the lender of which service was provided is required. In cases where a product recommendation was provided, there is also a requirement to confirm in writing the reasons for the recommendation.

Throughout 1997, considerable progress was also made on a number of parallel initiatives to the Code itself. From July 1, a new Mortgage Code Arbitration Scheme, managed by the Chartered Institute of Arbitrators, came into force for lenders not already within an existing Ombudsman Scheme. It is compulsory under the Code for the few members not within a relevant Ombudsman Scheme to refer unresolved mortgage complaints to arbitration. In each case, the ombudsman or arbitrator has the power to make monetary awards to consumers.

In October, the Chartered Institute of Bankers, one of the U.K.’s leading professional training bodies for the financial services industry, launched its Certificate in Mortgage Advice and Practice—CeMAP. This qualification relates to the requirements of the Code, and it introduces for the first time a focused training course for mortgage advisers. It was designed to complement the existing training and competence arrangements for financial advisers selling investment products under the Financial Services Act 1986 in the U.K., and will be examined for the first time in 1998.

Extending the Code

At the time of the launch for lenders, the CML made it clear that it wished formally to extend the Code to mortgage intermediaries by spring 1998. Intermediaries account for perhaps 50% of the mortgages sold in the U.K., so to be really effective, the Code needed to cover the selling practices of intermediaries as well as of lenders themselves.

The CML has during the year been in regular contact with the new government, the Office of Fair Trading, consumer organizations and other interested bodies, to keep them informed about the Code’s progress and, in particular, on the proposals to extend it to mortgage intermediaries.

This development work was finalized on time, and in early 1998 a letter was sent to some 50,000 intermediaries inviting them to register their support for the Code. The register is due to go live and be accessible by members of the public by the end of April 1998.

After that date, for the first time there will be a comprehensive list of intermediaries in the U.K. market who introduce mortgages and who, by virtue of registering, are under-taken to comply with the Code. Copies of the Code and consumer literature will be provided to all registered intermediaries for their use in dealing with customers, which will reinforce the key messages to borrowers about the mortgage sales process.

The government has indicated that it will continue to watch the Code’s progress closely. The CML believes it is essential that the industry continues to demonstrate to the government its commitment that the Code can, and will, enhance consumer protection and provide an effective form of regulation. If it does not, the government has made it clear that it will act and intervene by statute.

SUSTAINABLE HOMEOWNERSHIP

During the recession of 1989 to 1993, the number of households in mortgage arrears of six months or more rose from 161,280, or 0.9% of all those with a mortgage at the end of 1989, to a peak of 352,050 (3.5%) in 1992. The number of homes taken into possession also rose from 15,810 in 1989 to a peak of 75,540 in 1991. Both arrears and possessions then fell back substantially. In 1997, 119,040 households (1% of all mortgagees) were in arrears of six months or more and 32,770 houses were taken into possession. However, the industry view is that possessions are not likely to fall much further (see Figure 2).

The impact of the recession and then the recovery on income support for mortgage interest (ISMI) was considerable. ISMI is the state benefit which is available, in extremely limited circumstances, to assist mortgage borrowers in meeting their interest payments and so to remain in their homes. The cost rose from £339 million in 1990 to £1.21 billion in 1993 before falling away to £867 million in 1996 and £800 million in 1997.

Over the last five years the government has reduced ISMI in a variety of ways. In particular, in October 1995 it significantly cut assistance by requiring eligible households to wait nine months before they could get ISMI and introduced a standard rate of
interest which was to be paid regardless of the actual amount due. This standard rate is an average based on the figures of a number of building societies in the market. It is estimated that, had the post-1995 arrangements been in place in the U.K. recession in the early 1990s, arrears would have been some 50% higher than they actually were.

**Enhancing the Safety Net**

In the light of these experiences over the 1990s, the CML has been undertaking another major initiative to consider how to improve the sustainability of homeownership by enhancing the safety net available to those who fall into mortgage arrears due to a change in circumstances after the loan has been taken out.

Such arrears cases are now both more common and more difficult to predict than they used to be, because the U.K. labor market has become characterized by higher levels of risk of unemployment as a result of more flexible employment practices, greater levels of self-employment and fewer sources of “guaranteed” employment. When they do occur, they are now also more difficult to manage because of the cuts which have occurred in the provision of state support. As a result, the CML has been working with the insurance industry to devise a package of proposals to submit to the government, which would provide a better support framework based on contributions from both the private and public sectors. The overall level of public spending on homeownership is only about 1/12 of total public expenditure on housing, even though the tenure accounts for some 2/3 of the U.K.’s housing.

This makes it an extremely cost-effective form of tenure for the government. However, it is recognized that current government thinking favors self-provision against the risk of income loss, so the industry has tried to conceive a framework in which state support is limited only to a “last resort” part of the overall package of protection measures. Work on this continues and is likely to intensify during 1998.

**EUROPEAN DEVELOPMENTS**

The regulation of mortgages has moved nearer to center stage in Europe in 1997. First, in June the European Commission published *Financial Services: Enhancing Consumer Confidence*, which was its overview document following up an earlier Green Paper on *Financial Services: Meeting Consumers’ Expectations*.

Crucially, in the context of mortgages, the Commission recognizes the industry view
that the Single Market is still at an embryonic stage of development. There is a wide diversity of lending practices across different member states, significant differences in the treatment of taxes and in subsidy arrangements, and in national laws on property in member states. Nevertheless, the Commission believes that consumer information about mortgages and the availability of redress where necessary are key.

This message was reinforced in the context of a new “dialogue” between credit industry representatives in Europe and consumer bodies, chaired by Commission officials, at a number of meetings in the latter half of 1997. The aim of the dialogue, involving some 14 different industry organizations and consumer bodies, was to assess the scope for voluntary action as a substitute for European legislation on financial services. At the request of the consumer bodies, the first focal point of the dialogue has been mortgage market regulation.

**Drafting a European Code**

Recognizing the build up of pressure to demonstrate that mortgage regulation is effective across Europe, in 1997 the European Mortgage Federation set up an ad hoc group to prepare a draft European-wide code of practice covering mortgages. This has been based on the U.K. Code of Mortgage Lending Practice, which was seen as a good model for providing clear principles that would ensure effective consumer information and redress.

In November 1997 the long-awaited report from the consultants empirica, sponsored by the Consumer Affairs Directorate General, DG XXIV, was published. It has provided detailed background information on the operation of the mortgage market in each member state. In its conclusions, it has recognized that the status quo relating to mortgage regulation is not tenable.

However, it has suggested that the proposed draft code being prepared by the European Mortgage Federation provides a “promising start.” The juxtaposition of the Commission’s communication on financial services, the dialogue between the financial services industry and consumers, and the background research report on the current mortgage market situation across Europe means that detailed proposals to regulate the mortgage industry, either through a voluntary code or by a Directive, are likely to develop in 1998.

Also in 1997, the European Commission finally reached a common position on its Directive covering the calculation of the annual percentage rate of charge, and it is expected that in due course the U.K. government will bring forward proposals for implementation of the Directive. A draft Directive on regulating the distribution selling of financial services has been prepared by the European Commission. This complements the existing Directive which applies to the sale of goods at a distance. In 1998 the CML will be seeking to ensure that its provisions do not undermine, or conflict with, other potential regulatory developments on mortgages which are under discussion.

**OUTLOOK FOR 1998 AND 1999**

The outlook for the housing market in 1998 and 1999 in the U.K. is one of a continued, albeit cautious and modest recovery. There are several reasons for this.

First of all, the general economy is expected to turn sharply in 1998. The effect of incremental increases in rates and the possibility of a further increase in the new year, along with continued commitments to tight controls on public spending and public pay, suggest that economic management will not be relaxed. In addition, the effect of demutualization windfalls will have tailed off.

Economic growth is therefore expected to decelerate from its current high levels. This is expected to fall back quite sharply up to the middle of 1998 and then to pick up again to around its long-term trend in the following year. In the labor market there is expected to be little new growth in employment during 1998, and the unemployment situation is expected to stabilize with perhaps some increase during the year.

**Borrower Caution Looms**

The slowdown in growth will undoubtedly have implications for confidence, and this coupled with a more flexible labor market is likely to make borrowers more risk averse and consequently less willing to take on large debt, particularly given that many borrowers are still suffering from reduced if not negative equity following the price falls of the last recession.

Consumer price inflation is expected to pick up early in 1998, but to slow down midyear to around its longer term trend of 2.5% to 3%. Interest rates may rise by one more 0.25% early in 1998 but are then expected to remain stable for much of the year and to fall to 7% at the end of the year. Interest rates are expected to fall further to end 1999 at about 6.5%.

In 1998 and 1999 the housing market is expected to stay on a relatively modest recovery path. The recent increase in interest rates is likely to have an impact in the first part of the year, as will the reduction in mortgage interest tax relief for borrowers with loans up to £30,000 from April. The low levels of transactions experienced since the beginning of the 1990s are expected to take some time to unwind.

**Workout to Come Slowly**

While negative equity has been eroded in many parts of the market as house prices
Table 4. Summary of Forecasts

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<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>House Prices (% change year on year)</td>
<td>5.8</td>
<td>5</td>
<td>5-6</td>
<td>5-6</td>
</tr>
<tr>
<td>Transactions (in 000s)</td>
<td>1.24</td>
<td>1.44</td>
<td>1.50</td>
<td>1.55</td>
</tr>
<tr>
<td>Gross Advances (in £bn)</td>
<td>71.2</td>
<td>77.4</td>
<td>81</td>
<td>89</td>
</tr>
<tr>
<td>Net Advances (in £bn)</td>
<td>18.9</td>
<td>24</td>
<td>27</td>
<td>30</td>
</tr>
</tbody>
</table>

have increased, reduced equity remains a sobering influence (as it is not possible to provide a deposit to be able to move). Combined with increased caution, this means that, while there is likely to be some pent-up demand, the long bottleneck will take some time to work out. The CML has therefore adopted a cautious view that transactions will increase to around 1.5 million in 1998 and to 1.55 million in 1999.

House prices are also expected to follow a modest path. The expected slowdown in the economy in 1998 and the possibility of an increase in unemployment will add to caution. The CML, therefore, expects that price rises will remain subdued, in the region of 5%-6% in 1998 and at a similar level in 1999.

With rising transactions and house prices, mortgage lending will, by definition, also rise. The CML expects that gross advances will reach £81 billion in 1998 and around £89 billion in 1999. Net advances are expected to climb to £27 billion in 1998—11% higher than in 1997—and to £30 billion in 1999 (see Table 4).

There are, however, many factors which could affect these predictions of the housing market in the next couple of years. There is a risk that recent increases in interest rates will not have been sufficient to cool the economy and that monetary policy will need to be tighter than anticipated. In addition, the fundamental review of government spending could have further implications for the housing market, either directly or indirectly.

There remains the possibility that the Chancellor will decide to announce further reductions in mortgage interest tax relief in his next budget. If this takes place, there will be a negative impact on house prices. In addition, tight public spending controls (including those on public sector pay) would have a subduing effect on other aspects of the economy, which could increase caution further.

On the other hand, the personal sector balance sheet is quite healthy, and saving has been running at high levels. It may be the case that the personal sector has consolidated and that confidence will grow during the next couple of years, albeit in a stable fashion. This would be encouraging news for the housing and mortgage markets.

CONSUMERS' VIEW OF LENDERS

Given the recent recession in the U.K. housing market, and the introduction of the new Mortgage Code as an alternative to the government introducing statutory regulation of mortgages, observers outside the U.K. might be forgiven for thinking that consumer confidence in mortgages and housing must be low. However, this is far from the case.

Recent market research undertaken for the CML found that over 80% of adults want and expect to be homeowners 10 years from now, a proportion which has varied remarkably little in recent years. In addition, it is pleasing to note that 86% of mortgage holders said that they were either very (48%) or fairly (38%) satisfied with their lender's service since taking out their loan. Only 2% were very dissatisfied and 4% fairly dissatisfied.

These findings reinforce the fact that, to a large extent, the initiatives which the mortgage lending industry has been taking in the U.K. are driven by a desire to ensure the continued efficient operation of the mortgage market, rather than as a response to perceived difficulties. The vast majority of people will, of course, have taken out their mortgages before the introduction of the Mortgage Code, so the CML hopes that, with the new universal set of minimum standards which the Code introduces, even these positive views may be improved over time.
Housing Credit in France: Main Aspects and Recent Changes

by Claude Taffin

The situation of French real estate and mortgage markets has not been for a long time as favorable to homeownership as it is now. Prices and mortgage rates have sharply declined and the creation of the 0% loan has given a new impulse to social ownership.

However, households are reluctant to make long-term investments because of the economic environment: low growth, high unemployment and general fear of the future, which appears to be more uncertain than ever. The percentage of homeownership, which had been steadily increasing for years is now almost stable at 54%, which is below the 60% average in the European community.

**MAJOR TRENDS**

**Volume**

The mortgage market improved between 1995 and 1996. The new housing credit to households increased 35% at 310 billion Fr. but 30 billion Fr. are attributed to renegotiations (prepayments followed by a new credit in the same bank or another one) of previous fixed-rate mortgages. Another part of the activity in 1996 was due to the termination, at the end of the year of three measures intended to boost the housing market:

1. Lowering local taxes from approximately 7% to 5% on second-hand purchases.
2. Extension of the use of loans on savings plans (PEL) to secondary homes and consumer goods, an increase of the maximum amount (+20%) and the possibility of splitting the right to loan between different operations.
3. Easing of conditions of eligibility for 0% loans on second-hand buying. (See below.)

An increase is expected again in 1997. According to first estimates, new credit (excluding renegotiations) rose from 280 to 290 billion Fr (see Table 1). As interest rates for borrowers continued to go down during the first half of the year and stabilized in the second half, the volume of renegotiations also was more important than in 1995 and may have reached 40 billion Fr.

**STRUCTURE OF THE MARKET**

**Fixed Versus Variable Rates**

Until recently, fixed rates have always been favored by lenders and by borrowers. Things began to change in 1986 with disinflation; but, a few years later, the rates went up. The difficulties of British borrowers added to the bad image of variable rates. As the Scrivener law (1979) put a double ceiling to the prepayment penalty (the greater of two amounts: 6 months’ interest on the repaid part of the principal or 3% of the outstanding), one may

| Table 1. Housing Credit to Households; Production 1995–1997 (renegotiations excluded) |
|-----------------------------------------|---|---|---|
| PAP                                     | 19.0 | 5.4  | 0.0  |
| 0% Loan                                 | 0.7  | 13.2 | 11.8 |
| Other Social Loans                      | 9.4  | 10.3 | 10.7 |
| PC-PAS                                  | 22.4 | 30.3 | 32.0 |
| Épargne Logement                        | 3.6  | 70.0 | 55.7 |
| Free Sector                             | 115.2| 149.1| 179.6|
| Total                                   | 230.3| 278.3| 289.8|

(In billion francs)

Claude Taffin is Director of Research, Crédit Foncier de France.
PREPAYMENT CAUSES AND CONSEQUENCES

Events that disrupt the normal repayment of loans can be classified in three categories:

A. "Non market" prepayments justified by various reasons external to credit itself (moving, divorce, heritage, etc.)

B. "Market" prepayments, which we call "renegotiations," when the prepayment is followed by the subscription of a new loan contract with the same lender (B2) or another one (B1) in the same proportion.

C. Simple rearrangement of the loan, through an additional clause to the same contract. This avoids penalty and origination cost, as it does not imply or get recorded as a prepayment of the initial loan.

"A" is permanent; "B" and "C" only occur when rates go down. In 1996, A and B (measured prepayments) were approximately the same amount of outstanding: 30 billion Fr. Although not well measured, case C may also be 30 billion Fr.

In cases A and B1, the maximum penalty applies most often (3% of the outstanding). Cases B2 and C are the result of a global negotiation with the lender, including the rate of the new credit, its origination cost (1%) and the penalty, which is often waived.

Lenders consider that the real cost of a prepayment is 6% instead of the 3% they receive. They have tried to obtain a revision of the law (Scrivener, 1979) that would increase the ceiling of 3% in the case of market prepayments and offer, as a compensation, to waive it in cases of unwanted prepayment (mobility linked to job or divorce).

Two phenomena explain that increase:

1. The return to a normal hierarchy between short-term and long-term rates, which results in a difference between variable and fixed rates that can reach 200 bp.

2. The vigor of the competition between banks and specialized institutions which forces the latter to concentrate their production on variable rates. Indeed, they have to borrow on the market all the sums they lend, while the banks have below-market resources (deposits, EL).

On the other hand, the specialized lenders have know-how and an organization that enables them to propose a variety of sophisticated and flexible loan profiles.

In fact, most variable-rate mortgages include a protection against the risk of an unlimited increase. Lenders who buy such caps price them both through the rate and the introduction of a prepayment penalty (between 1% and 3% of the outstanding), which does not exist when the rate is a pure variable one. This limitation of the risk assumes two different shapes, the former favored by banks, the latter by specialized institutions:

- Putting a ceiling on the variations of the rate (e.g., initial rate plus or minus 2 or 3 points); the initial rate may be attractive and the ceiling high, or the contrary.
- Indexing both the term and the annuity in a combination which may be complex.

Most lenders offer a free option for passing to fixed rates using either internal or, more often, external references such as government bonds of the same maturity plus margin. The variation of the rate is always linked to an external rate, which is most often the 12-month Paris Interbank Offer Rate (PIBOR—sometimes the 3-month). It is usually averaged on a period of one month, at least, but some lenders only refer to the daily rate on the anniversary day of the contract. As an example, the 12-month PIBOR (monthly average) decreased from 4.7% in January 1996 to 3.3% in January 1997.

Banks versus specialized lenders. Financial deregulation in Europe opened to large companies a direct access to the markets and prompted banks to turn the focus of
their business towards households, at the expense of specialized institutions. This move was accelerated in France by the first wave of renegotiations (1986–1988) made possible by the limitation of prepayment penalty. The change is attractive as soon as the difference between rates reaches 2 points, at least when the term is not too close.

In theory, low interest rates are favorable to specialized lenders, because they have low operating costs and get all their funds on the markets, whereas the banks are in the opposite situation.

However, a second wave of renegotiations started in 1994 and again in 1996–1997 (after a pause in 1995). Banks are able to price fixed-rate credit as low as 6% when 10-year government bonds are at 5.5% and are accused of dumping, even by the Governor of Banque de France, M. Trichet. The fact is that:
- Banks have an abundant EL treasury (see box below) which, by law, may only fund housing credit.
- They do not pay great attention to the cost of credit. They use housing credit to bind customers, expecting to make money from other products (deposits, credit cards, savings). To summarize their attitude, one could say that they have a customer and not a product approach.

As a consequence, the market share of specialized institutions declined from 18% to 13% between 1995 and 1996.

Of course, the competition between banks and specialized institutions mainly concerns the most promising segment of the borrowers, who in fact benefited from renegotiations. But the market shares of social ownership were also redistributed in October 1995. The PAP, monopoly of Crédit Foncier (75%) and Crédit Immobilier (25%), disappeared and the 0% loan, which has a standardized distribution, like PC and PAS, was introduced. (See Table 1.) Banks first took over 65% of the market but lost some ground in 1997 to the benefit of Crédit Immobilier (12%) and Crédit Foncier (14%), which is now the second lender behind Crédit Agricole (29%). Crédit Mutuel (13%), and Banques Populaires (4%) combine for more volume than major commercial banks, which together hardly reach 15%. The market share of Caisse d'épargne is 12%.

All lenders are not interested in social ownership, and the market shares in housing credit to households are different. It is obvious that Crédit Agricole is the first lender to housing. It is more difficult to say who are the followers, as available statistics only concern a part of the market (see Table 2).

The way the main loan is priced shows no discrimination towards low-income borrowers, which was one argument used by the opponents to standardization. In fact, the hope of increasing the market rests on this part of the population and, as the general level of credit demand remains low, the competition among lenders includes all types of borrowers. More than the level of income, the lenders tend to favor "virtuous" borrowers, i.e., those with significant savings, including, in the first rank, EL. EL proves the capability of a continuous effort to save and permits lenders to anticipate the same attitude with the loan.

REGULATED PRODUCTS
Épargne-logement

The basic features of épargne-logement have remained unchanged since it was introduced in French accounts in 1965 and plans in 1970 (see box). It is a loan-linked

| Table 2. Housing Credit to Households; Market Shares in 1996 |
|---------------------------|--------------------------|
| **0% Loan** | **All Loans** |
| Establistements Spécialisés | 27.0% | 12.8% |
| Crédit Foncier | 13.7 | 4.5 |
| Crédit Immobilier de France | 11.8 | 4.0 |
| UCB | 1.5 | 3.7 |
| BHE | 0.0 | 0.6 |
| Banques Généralistes | 14.4 | 19.7 |
| Société Générale | 8.7 | 1.6 |
| La Hénin | 3.7 | 5.7 |
| BNP | 3.7 | 5.7 |
| Crédit Lyonnais | 0.1 | 1.2 |
| Banques Étrangères | 0.1 | 0.9 |
| Banque Woolwich | 0.3 | 0.3 |
| Caixabank | 0.3 | 0.3 |
| Sociétés Coopératives et Mutualistes | 49.8 | 53.9 |
| Crédit Mutuel de France | 15.0 | 13.0 |
| Crédit Agricole | 30.2 | 29.1 |
| Banques Populaires | 4.6 | 11.8 |
| Caisse d'Épargne | 12.6 | 12.4 |
| Total | 100.0 | 100.0 |

Source: FAS for 0% loans and survey by Courrier du Logement.
Contractual savings for housing, or "épargne-logement," was introduced in France in 1965 in order to make up for the lack of long-term credit and previous savings. The system has two branches: accounts (CEL), created in 1965, and plans (PEL), launched in 1969.

Only a natural person is entitled to open a CEL or a PEL, and only one of each per person is permitted. They both consist of a contract between the bank and the person by which the person is committed to making deposits and the bank to providing a loan at a given interest rate and of a given amount at the end of the saving period.

The minimum saving period is 18 months for CEL (with no maximum) and four years for PEL (with a maximum of 10 years). The deposits on PEL may not be withdrawn before the end of this period, or the amount of the state premium will be reduced, while the CEL deposits can be withdrawn. There is a maximum amount of deposits, not including interest, and a minimum amount for the initial and the following deposits.

At the end of the saving phase, a loan must be immediately available to the saver who asks for it. This loan must be used to finance:

- The construction or purchase of a new housing unit, either principal or second home, for personal use or for renting.

The purchase of a second-hand housing unit, in this case, second homes are excluded.

- Repair, improvement or energy saving works in any kind of housing unit.

- The purchase of SCPI (French version of real estate investment trust).

- EL loans may not finance the purchase of land if the purchase is not tied to a building operation.

The basic principle of the system is the link between the amount of interest earned on the savings and interest to be paid on the loan. The amount of interest on the loan is equal to the amount of interest earned multiplied by 1.5 in the case of CEL and 2.5 in the case of PEL. That multiplier has a leverage effect on the amount of credit available. It implies that only some of the savers become borrowers; otherwise, the system would not be balanced.

The savers who do not borrow are called the "good brothers." Savers who do not need a loan for themselves may pass their "loan right" to a member of their family, provided that the person concerned has his own PEL or CEL.

In order to have a sufficient proportion of good brothers, it is necessary to keep the interest rate paid to the savers attractive. In order to reach this goal, the state intervenes in two ways:

1. A state interest subsidy, "interest premium," is added to the interest paid by the bank upon fulfillment of the contract.

2. Full interest—that paid by the bank plus the state premium—is tax free, except that it was recently made subject to social taxes of 10%.

There is a second link between the savings and the loan: the interest rate of the loan is equal to the interest rate of the savings paid by the bank plus a spread designed to cover the loan servicing fee of the bank. The spread is 1.5% (CEL) or 1.7% (PEL).

Épargne-logement has become one of the most important financial savings products in France. By the end of 1996 there were 14.5 million PEL and 7.7 million CEL. On average, two households out of three had a PEL and one out of three a CEL. The number of PEL increased by 15% in 1996; 3.5 million new PEL were opened that year.
remained attractive (relative to market rates). On the other hand, the volume of new
credit declined. Indeed, plans that are presently reaching their term have a bor-
rowing rate of 6.32%, which is higher than any capped variable rate and even than the
best fixed rates. So, the cash ratio (out-
standing loans/savings) plunged from 41% in 1992 to 27% at the end of 1996; and the
outstanding savings reached 1087 billion Fr. This availability of funds for other loans
explains the attitude of commercial banks
towards loan pricing and also the temporary
measures taken in 1996.

0% Loan

The 0% loan succeeded the PAP in October
1995. In both cases, the lender receives a
subsidy from the state to lower the interest
rate. In the case of the PAP, it was designed
to offer a below-market rate. With the 0% loan, the rate never moves but the condi-
tions of repayment vary (duration of the loan
and of the period during which the repay-
ment is deferred).

Like the PAP, the 0% loan can be used for
construction or purchase of a new housing
unit, of a second-hand housing unit
requiring renovation, or the transformation
of a non-residential building into housing. In
the case of second-hand housing, the
building must be at least 20 years old and
the cost of work done must reach a
minimum of 35% of the total cost (work plus
purchase). This proportion was reduced to
20% in 1996 in order to boost purchases
and activity.

The amount of the 0% loan is limited in two
different ways:

1. There is a maximum amount, depending
   on the size of the family and locality. For
   a family of four people, it is 160,000 Fr. in
   the Paris area and 100,000 Fr. else-

2. The amount of the 0% loan is limited to
   one-third of the total amount borrowed
   and one-fifth of the total cost (purchase
   or purchase plus work).

There is a level of income above which one
loses the benefit of the loan. This level is
much higher than with PAP. It is around
27,500 Fr. per month for a family of four in the
Paris area. Another difference from the PAP
is that, for those who are eligible, the subsidy
becomes larger as the income is lower.

More precisely, there are seven categories
from 1 (lower income) to 7 (higher):

1. There is no repayment during the first 15
   1/2 years (or the duration of the main
   loan, if it is less) and the loan is reim-
   bursed during the next four years.

2. Twenty-five percent of the loan is re-
   imbursted during the first 15 1/2 years and
   75% during the next three years.

3. Fifty percent of the loan is reimbursed
during the first 15 1/2 years and 50%
during the next two years.

4. One-hundred percent is reimbursed in 15
   1/2 years.

5. One-hundred percent is reimbursed in 13
   1/2 years.

6. One-hundred percent is reimbursed in 10
   years.

7. One-hundred percent is reimbursed in 7
   years.

There are three other major differences with
the PAP:

- Crédit Foncier and Crédit Immobilier
  have lost their monopoly. The 0% loan is
  distributed by any lender who signed an
  agreement—there are about 30—with

the state and the FGAS (Guarantee
Fund for Social Ownership) which is in
charge of control and registration of the
loans. This decision, in autumn 1995,
was the starting point of the difficulties
for Crédit Foncier (see Appendix).

- The number of loans distributed each
  year is not limited. There is a budget
  envelope, but it is an estimate, not an
  allocation.

The estimate for the first year was
120,000 loans, for a cost of 7.8 billion Fr.
(i.e., an average subsidy is 65,000 Fr.,
average loan is 100,000 Fr.). Realization
reached 145,000 loans because the
lowering of the minimum amount of work
added 30,000 sales. The estimated 1997
production is 125,000 loans, among
which 100,000 (80%) financed new con-
struction (i.e., more than one-third of new
units, which total 272,000).

- All tax advantages that went with the
  PAP are cancelled: VAT low rate for
  building land, exemption from property
tax during 10 years instead of two, and
deductibility of interest from income tax.

OTHER PENDING ISSUES
Facing Growing Default Risks

As the number of "life accidents" such as
loss of job or divorce dramatically increased
during the 1980s, lenders became more
demanding in terms of guarantees. Credit
scoring remains based upon the payment-
to-income ratio. The maximum admitted has-
declined since the end of the 1980s; it is now
at 30%, or a little less, after discounting
housing allowance.

In fact, there is no standard. More attention
is paid to other heavy charges, such as
consumers credit or living allowance. On the
qualitative side, it is difficult to get a
mortgage when the activity is not stable
In order to encourage lenders to provide loans for moderate-income borrowers at a reasonable fare, the state created PAS (loan to social ownership) in 1993. The PAS is not a subsidized loan, such as PAP or the 0% loan, but the lenders agree to offer a below-market rate because, in case of default, their loss (if any) is covered by a dedicated fund: the FGAS.

Presently, the debate is focused on the issue of "securisation" (a barbarism, although the word is understandable). More and more, lenders ask borrowers to take out insurance to cover, shortly and partly, the risk of unemployment; but, as long as such insurances are only subscribed by those who are facing the greatest risks, they will remain expensive and dissuade others from subscribing. Among 0% loan customers in 1997, about 20% subscribed to this insurance. Some people consider making it compulsory, which would improve their efficiency and lower their cost.

When the previous government launched the 0% loan in October 1995, it also announced that "securisation" would soon follow. Projected "securisation" was a free insurance against unemployment for social borrowers (i.e., those with a PAS). The principle was that a proportion of the annuity (30%) would be paid by an ad hoc fund during 18 months in case of unemployment and paid back after all other loans if the purchase could go on. This project has not been finalized and the debate is more open than ever.

Mortgage Registration and "Caution Mutuelle"

Mortgage registration is usually required for any housing loan whenever the amount or the duration is significant. But it is expensive: for a loan of 400,000 Fr., it costs 9,900 Fr. in the free sector, 6,600 Fr. for a PC or a EL loan, and 5,350 Fr. for a PAS. Moreover, there is an additional cost of 4,200 Fr. for lifting it, if necessary (otherwise, it falls automatically two years after the initial term of the loan). Most lenders now accept another form of guarantee, called "caution mutuelle," in order to distinguish it from "caution personelle," a guarantee brought by a natural person which continues to exist.

"Caution mutuelle" is provided by companies such as "Crédit logement" which guaranteed an amount of 35 billion Fr. of new credit in 1996.1 In this system the mortgage is not registered and the caution mutuelle provider guarantees that in the event of a default there is no priority claim on the property. In such a system, the risks are mutualized: the price to pay is higher than a mortgage registration, but a large part of it (more than 80% until now) is returned in the end. Of course, participants are strictly scored.

Statistics on market shares of "caution mutuelle" and mortgage registration only concern 0% loan borrowers. When the main loan is a PC, there are 75% mortgage registrations and 15% cautions (10% other guarantees) and, when it is an EL loan, the proportions are 50% and 25%. Obviously, caution is more often proposed to borrowers with higher income.

Foreclosure Situation

The Neiertz law has reduced the number of foreclosures by permitting the setting up of global plans. Its Article 12 gives the judge the possibility of canceling or reducing the amount of the debt when the voluntary sale of the property does not cover this amount—which is quite frequent because real estate prices have declined. This process can be compared to the prefdefault or short sale. Although it is at his own risk, the creditor must consider the alternate risk, which is to become legal owner after foreclosure but not easily obtain the eviction of the occupants.

The efficiency of global plans is often criticized and some would prefer to extend the notion of bankruptcy to natural persons. It already exists in the eastern part of France, where it was introduced by the Germans before 1918.

Securitization

French banks are using securitization to diversify their funding sources, increase the return on investment for shareholders and, in some cases, reduce the need for equity funds. Several recent reports emphasize the gap between French and English or American banks in terms of performance.

Securitization has been introduced in France by a December 1988 law. Since then a number of legislative easings have opened more widely the spectrum of eligible credit. Recently (July 1996), funds were authorized to issue new shares after their creation.

In fact, there has been an increase in volume of securitization due to a strong activity since winter 1996–1997, but it mainly concerns corporate credit (see Table 3). The latest operation involving housing mortgages was announced in June: Crédit Lyonnais issued the largest European fund, Titrilog 06-97. It is composed of housing credits to households and its amount is 9.5 billion Fr. However, this issue does not prove that securitization of mortgage credit is really taking off in France. Indeed, the characteristics of housing loans vary greatly from one lender to another. Lack of standardization is clearly an obstacle to the use of securitization as an ordinary way to raise funds. This situation should change
Table 3. Securitization in France: Situation of the Market, Oct. 31, 1997

<table>
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<td>4.0</td>
<td>6.5</td>
<td>3.5</td>
</tr>
<tr>
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<td>Total</td>
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<td>19.8</td>
<td>16.6</td>
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</tr>
</tbody>
</table>

progressively as French banks get closer to international standards.

APPENDIX

Crédit Foncier: The Fall of an Institution

France’s real estate crisis started in 1990 when interest rates went up and sales slowed significantly. From 1992, “defeasance” structures were created in order to shift losses away from the balance sheets of investors and lenders and to delay the final evaluation, which would expose the downturn. The general perception was that the crisis would be short and that real estate values would resume their progression. Only in 1997 were real estate loss estimates of up to 50 billion francs for Crédit Lyonnais and 30 billion francs for GAN, both state-controlled companies, made public.

The case of Crédit Foncier is different for several reasons: its status and its activities, involving public and private sectors, are unique and require individual treatment. An historical overview will explain the nature of the links between the state and Crédit Foncier.

140 Years at the State’s Service

Crédit Foncier de France (CFF) was created in 1852 and modeled after land banks that already existed in Germany and Poland. It was privately owned until 1996; the state had never directly owned a single share, and the stock had been popular and widely spread among private individual shareholders for whom it was a symbol of secure investment.

Nevertheless, the state had always appointed Crédit Foncier’s top management, one Governor and two Assistant Governors, traditionally selected from the elite corps of civil servants in the Ministry of Finance. This team had to work in conjunction with a Board of Directors; the arrangement was not problematic as long as CFF was healthy. The fact that a number of these directors had the same background as the governors could do nothing but help.

The historical mission of CFF was to provide mortgage credit to private investors and guaranteed loans to local authorities, all financed by the issuance of mortgage bonds. CFF’s activity boomed after 1950, when it obtained a monopoly of subsidized loans for private housing, which were provided in the public sector by Caisse des Dépôts, a state agency. From 1953 to 1973, CFF financed between 150,000 and 220,000 housing units each year, about 50% of the total construction during that period. Public support to housing investment subsequently declined, and, in the mid-1980s, the socialist government, which was trying to modernize housing finance mechanisms, warned CFF that its monopoly would be terminated and that it would have to diversify.

The Turning Point

CFF did diversify, in a period of euphoria when real estate investment seemed to be safe and highly profitable. It financed developers and created its own subsidiaries, which invested heavily, and without proper judgment, in expansive renovation projects in the “golden triangle,” the heart of Paris’ business district. When the economic situation began to deteriorate, CFF continued to invest and finance imprudently without heeding the warnings of its own experts. It tried to hide the gravity of the situation and continued to supply its shareholders with dividends, as it always had done. In autumn 1995, however, Prime Minister Alain Juppé’s administration gave the final stroke when it announced that subsidized loans for housing (the “PAP”) would be replaced by a new standardized product, the “0% loan,” which would be available from any lender. This announcement subjected CFF to the scrutiny of analysts and rating agencies, who began to discover the state of its affairs.

Within a few weeks, Crédit Foncier shares plunged and, compared to their highest level, lost nearly 90% of their value; so did its rating, and CFF was no longer able to raise funds on the market, as its refinancing spread dramatically increased. The government which, surprisingly, was not aware of the gravity of the situation, first reacted by trying to reassure investors and shareholders; it reaffirmed its backing of the institution. The Governor, Jean-Claude Collin, was fired in January 1996, and Jérôme Meyssonier, a professional banker, not a civil servant, was appointed.

Three months later the accounts for 1995 were made public, and abysmal losses of
10.7 billion Fr., due to massive provisioning of 13.6 billion Fr., were revealed. The consolidated own funds consequently fell to -2.4 billion Fr. and those of the head office to a level so low that the European ratio of solvency reached 0.5%. The minimum value that permits the issuance of new credits is 8%. The government then announced that it would back CFF for three months during a search for a credible major financial backer and would guarantee all the obligations of the institution. The government’s pledges prevented chaos on the financial markets, as the issued bond debt of CFF approached 300 billion Fr.

Death or Rebirth?

When the deadline arrived in July 1996, no suitable backer had been found, and the government announced the terms of the dissolution of Crédit Foncier.

First, Caisse des dépôts would launch a takeover bid on the state’s behalf, which would nationalize CFF.

Second, Caisse des dépôts would transfer its shares to a new state agency, Caisse nationale du CFF, which would have to honor the bonds of the former CFF with the guarantee of the state. All non-housing finance activities would stop, and a part of the housing finance activity would be transferred, with 1,500 employees (less than half the staff), going to Crédit Immobilier, CFF’s main challenger in the field of social ownership.

The plan, particularly the second part, which seemed to be a humiliation, caused an intense shock and incited a staff revolt; Governor Meyssonnier was sequestered in his offices for several days until the government appointed a mediator in January 1997. The mediator’s report concluded that CFF was viable under three conditions: recapitalization, downsizing and concentration of its activities.

Jérôme Meyssonnier undertook to restructure CFF, abandoning such peripheral activities as real estate development and lending to local authorities. He reduced the number of employees from 3,300 to 2,400 by implementing a successful early retirement plan. Meanwhile, the 1996 accounts showed a profit of about 800 million Fr. Figures for 1997 also should indicate a profit, though probably smaller. Several groups have applied for permission to acquire CFF, and their identities should be revealed as soon as data rooms are opened to them.

NOTES

1 Crédit logement is owned by several lenders; the largest shareholder is Crédit Foncier.
A French Secondary Mortgage Facility: Caisse de Refinancement Hypothécaire

by Loïc Chiquier

By contrast with specialized conduits, secondary mortgage facilities (SMF) facilitate the integration of housing finance in capital markets through a better risk-allocation between primary lenders and institutional investors. More abundant, stable and cheaper flows of private resources can be channeled to housing. Private or publicly owned centralized institutions may appear as a necessary intermediary step to guarantee capital market investors an efficient selection and standardization of risks, as well as larger and more regular issuance of liquid securities. Variants exist according to mortgage and capital markets. Two operational categories exist:

1. **Purchasers** of portfolios from retail lenders, creating a secondary market with a balance-sheet transfer of loans, passing some related risks from originators to investors. The transfer is funded by issued securities (bonds collateralized or not, eventually pass-through securities if the securitization is possible). Default risks usually are not passed to the final investors of securities, and are assumed by the facility or retained by originators through recourse purchases. Cash-flow risks are initially absorbed by the facility but may be passed to investors through issuance of pass-through securities. Examples: Fannie Mae in the United States, Home Mortgage Bank in Trinidad, a proposed SMF in Palestine.¹

2. **Lenders** which act as a liquidity facility to primary institutions, with loans backed by mortgage portfolios, funded by issued bonds or borrowed external refinancing lines. In this variant, the default risk remains with the originator but the facility can offer a variety of loan terms to meet primary lender liquidity and cash-flow needs. Examples: U.S. Federal Home Loan Banks, Swiss Central Mortgage Banks, Jordanian Mortgage Refinance Corporation.

**CAPITAL MARKETS AND HOUSING FINANCE IN FRANCE BEFORE CRH**

Until the 1960s French mortgage finance was dominated by Crédit Foncier de France (CFF), which issued mortgage bonds² according to the Law of 1852. CFF’s position was ambiguous, as it competed as a private lender but was assigned public missions (including the monopolistic distribution of state-sponsored subsidized loans). During the liberalization of capital markets, CFF became regulated and supervised as were other institutions but was still classified as a Specialized Financial Institution. Its rating implicitly benefited from a state guarantee that became explicit in 1995 when CFF suffered a crisis.

At CRH’s creation in 1985 CFF’s market share represented 12%-15% of the overall mortgage market, whereas deposit banks already made 50% of the total production. CFF has been one of the largest bond issuers (net stock over 300 billion Fr. or 10% of government securities). Despite its decline, CFF has been a reference for housing finance actors active in capital markets, including CRH. CFF’s crisis occurred in 1995. It is now in a condition of virtual bankruptcy and requires a prompt re-capitalization by new investors. This first European case for a mortgage bank to become bankrupt was caused by:

- A counter-cyclical exposure to risky

Loïc Chiquier is a former Director of International Activities, Crédit Foncier de France.
property loans related to a difficult switch from former state-aided loans;

• Improper governance and operation principles related to the deterioration of a formerly secure mortgage banking culture (multiplication of opaque uncontrolled subsidiaries, drift from core residential business, no external register of matching unidentified loans, lack of appropriate controls or conservative appraisals, etc.)

Historically the French mortgage markets have been regulated and segmented, resulting in constrained liquidity until the 1980s financial liberalization. Some earlier reforms since the 1960s tried to enlarge the housing finance sector through the following:

1. State subsidies for the mobilization of contractual housing savings in 1965, which are still funding many housing loans (by contract and by re-investment of excess flows in mortgage loans, thus making lending cheaper for large network banks).

2. A decentralized secondary mortgage market (Marché Hypothécaire [MH]) was also created in 1966. Primary lenders could issue longer term promissory mortgage notes. These were bullet bonds, which did not pass through flows from mortgage loans but were collateralized by identified loans. MH did enable new specialized banks to enter mortgage lending by giving them access to long-term funding at reasonable rates.

THE MARCHÉ HYPOTHÉCAIRE
BACKGROUND

MH is regulated by strict prudential standards set by the Law N°69-1263 of 12/31/69. The following standards are still met by CRH, which was created in 1985 as one specific operator on MH:

• The due balance of notes should always be matched by a sufficient balance of mortgage loans, and the average interest rate and residual maturity of pledged loans should also exceed those of notes.

• Mortgage loans must conform to a maximum initial loan-to-value (80% normally, sometimes 90%).

• Mortgage loans can only finance housing investments (not commercial property) and must be first-rank mortgages not more than two months of payment in arrears.

• Should loans become insufficient (amortized or lost eligibility), the collateral pool should be refilled.

• Pledged loans cannot be sold or used as guarantee to a third-party.

• Should a bank fail to service its notes, investors can transfer the whole portfolio of pledged loans with all related advantages and guarantees, without any formality or delay. The reference date for the collateralization remains the date of the issued note (even for further refilling loans).

• The list of backing loans must be regularly updated to CFF's control. CFF was even delegated larger supervisory powers over MH until 1988 (when this role was taken by Commission Bancaire) including:

  1. Qualification of banks authorized to issue notes on MH;

  2. Control of the rules applied to MH particularly on the pledged portfolios;

  3. Reports and proposals to financial authorities about any regulatory change.

This system enabled primary lenders to tap long-term funding from institutional investors in a regulated financial environment. Investors were large financial institutions (for example, Caisse Nationale du Crédit Agricole or Caisse des Dépôts et Consignations). MH inter-banking functioning was stressed in March 1986 by the exclusion of non-banking investors from MH and encouragement of banks to buy CRH's bonds after its creation.

Eligible loans to MH grew in nominal terms after 1974 (by 16% on average), but still less than total housing loans. In 1986 they represented 25% of eligible housing loans versus 50% in 1971. MH's regulation did not change as fast as new types of housing loans. The mobilization (proportion of pledged loans on MH) also declined, from 33% in 1978 to 25% in 1986. A break-down of circulating notes in 1984 revealed only 17% of notes with an initial maturity of more than 10 years (13% in 1986), whereas 49% had a term below five years. At best the average initial term of notes topped 6.5 years; this was already shorter than the average loan duration.

MH met a successful initial phase, but its efficiency as a funding tool gradually declined because of the poor liquidity of its bonds, shorter term funding, and growing tensions between investing deposit banks and borrowing specialized lenders. For these latter, the individual signature of each issuer became more significant than the mortgage-backing mechanism.

Rate Declines and Prepayment Problems

A serious blow occurred during the 1984–1987 period. The prior period (1980–1983) corresponded to high interest rates on fixed-rate loans. In 1984 and 1985 French banks faced painful prepayment waves when rates declined. Some banks then needed to prepay their issued promissory notes with
limited penalty fees. Some investors in MH reacted adversely and withdrew. MH’s inter-banking structure worsened the reaction: some deposit banks were funding specialized banks through MH but also competing as primary lenders in a more competitive market.

MH improved the French housing finance system but did not succeed in developing secondary mortgage markets.

The Minister of Finance ordered CFF to make proposals "to develop long-term liquid funds from capital markets in order to improve the stability of the housing finance system and reduce the cost of mortgage credits." The report proposed pass-through securities issued by an agency which could pool loans and issue collateralized bonds or MBS (if off-balance-sheet finance was desired). Other elements taken into account were:

- Capital markets were considered as not mature enough to buy securities other than bonds.
- Banks were unwilling to sell their loans since they had no capital adequacy concern and were achieving attractive margins.
- MH showed that individual access of lenders to capital markets produced poor results; centralized bodies would offer a secure intermediation between primary lenders and institutional investors. Larger amounts of diversified loans would also back larger bonds issued at a lower cost of funds.

**CREATION OF CRH**

The Articles 12 and 13 of the Law N°85-695 of 07/11/85 amended the prior Law in order to permit the creation of intermediary centralized bodies, which could exclusively issue bonds in exchange for similar amounts of MH’s notes purchased from primary lenders.

They are regularly supervised (by Law N°84-46 of 01/24/84) by Commission Bancaire which is also responsible for MH’s supervision. Since 1986 CFF has been a simple echo-chamber by receiving from lenders duplicate listings of their pledged loans to check the overall matching and publish statistics.

CRH was the unique resulting institution, but there is no legal restriction on entry by others. Its statutes as a joint-stock company were registered in October 1985. Its initial members were four rather specialized banks: Comptoir des Entrepreneurs, Union du Crédit pour le Bâtiment, Banque La Hénin, Sovac Immobilier.

CRH’s mechanisms are made transparent through its Statutes and Internal Regulation (both annexed in yearly report), which have been approved by shareholders.

Its objectives are very restricted. CRH can only issue bonds and buy corresponding promissory notes; this is far more restricted than a mortgage bank. CRH cannot issue any other debt or collect any deposits besides its bonds. It cannot take cash-flow transformation risk. Only tax and social security claims, which would be infinitesimal sums given its seven employees, are privileged creditors in the unlikely case of CRH’s bankruptcy. CRH functions as a transparent intermediary and a mutual tapping tool for Participating Mortgage Lenders (PMLs). PMLs must be CRH’s shareholders.

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**Equity Issues**

Its equity is financed by PMLs pro-rata to their debt exposure. There is a yearly adjustment of capital through exchanged shares, and a continuous adjustment of Tier-2 equity by subordinated loans from PMLs to CRH. Part of the rate is paid so as to maintain CRH’s capital adequacy ratio.

CRH’s paid-in capital has been 500 million Fr. since 1993 (initially set at 100 million Fr. until 1991). Equity is 790.4 million Fr. on 12/31/96 for a capital adequacy ratio of 8.36%. Yet CRH’s loans to PMLs are only 10% risk-weighted in order to reduce PMLs’ equity contribution to CRH, as the use of CRH’s loans requires PMLs to invest more equity into CRH (on average about 0.34% of their pledged portfolio in addition to their minimum usual 4% capital adequacy). This situation makes CRH less attractive than securitization as far as equity is concerned. CRH’s bonds are asymmetrically 20% risk-weighted for investors.

Since 1996 a callable equity advance can be requested by CRH from all PMLs, up to 3% of each debt exposure. This sum is treated off-balance-sheet and would secure the servicing of CRH’s bonds, should any insolvent PML fail to repay CRH, until the pledged portfolio would be transferred and generate sufficient flows. This callable sum was 2.67 billion Fr. at 12/31/96. It could cover the servicing of the portfolio for a period but may not replace the bullet capital of large banks. This move was a remarkable advance in a climate of more competing banks. It was made necessary to justify the security of CRH’s bonds and possibly to compensate for an unclear transfer process of pledged loans. It would have to be paid within 48 hours to eliminate any short-term liquidity risk, as PMLs are contractually due to repay CRH’s loans two days before CRH’s bond servicing.

CRH must transform its purchased promissory notes into bonds of the same terms, amounts and rate. It keeps no margin (it is nonprofit-oriented and supposed not to be exposed to any risk); it charges uniform rates to PMLs independent of the PML’s
individual condition. Reciprocally, PMLs are held collectively responsible for CRH.

**Activity Restrictions**

CRH’s activities are restricted to:

- Qualifying a bank as eligible after a financial analysis. CRH’s policy consists of accepting many members even if the imposition of later refinancing ceilings or extra pledged loans is required.

- Regularly screening demands from PMLs according to financial capacities and eligible loans.

- Limiting CRH’s exposure according to banking risks and the quality of pledged portfolios, through negotiating a certain degree of over-collateralization.

- Issuing Corresponding bonds and funding the proceeds into loans to PMLs.

- Controlling pledged portfolios through checking updated lists and completing random on-site inspections of PMLs, followed by corrective measures.

- Collecting equity from members in normal and extraordinary situations.

- Applying, if necessary, planned collateral recovery procedures. (This is still untested.)

**CRH Structure**

CRH’s main internal bodies are its Council and its Executive Directors.

The Council is active and has 12 members (fair representation of 36 PMLs). It takes decisions on CRH’s mechanisms, member’s eligibility and respective granted loans. It is assisted by a Risk Committee (restricted and technically oriented) which plays key preparatory and technical supporting roles.

Directors are limited to a President and a General Director appointed for six years. They must be trusted as neutral, prudent and dedicated to CRH’s mutual funding. They must find a narrow path for CRH’s sake, despite conflicting interests among PMLs, as there is no external non-PML moderating presence at the Council. The Director is involved in regular and confidential relations with each PML. CRH’s existence depends on his unique position leading a very limited staff.

CRH has designed a system of dilution of voting powers in order to limit possible control by one or a few major borrowers. (The absolute individual maximum is 15.4%.) Although CRH’s initial sponsors were specialized banks, its current structure is dominated by larger universal banks. Five of them now control more than 50% of the votes. This trend will be furthered in 1998, as the very first CRH loans to specialized banks fully amortized in December 1997, and the few new loans made in 1997 went to mutual banks.

CRH faces a problem of risk-concentration regulation. As it does not purchase portfolios, its direct lending exposure is made of large loans to PMLs which exceed usual large risk standards (credit exposure on a borrower individually below 40% and in total below 800% of equity). As CRH is a funding vehicle, it cannot meet such limits and thus is granted a delay to find redressing solutions. (Note: there is no possible formal legal exemption.)

**Financial Performance**

Almost all—98%—of CRH’s assets are loans to PMLs, which are perfectly hedged by issued bonds with symmetric cash flows. CRH keeps no margin or fee. Bond issuance fees (about 0.10%–0.15% spread) are accounted as expenditures by borrowing PMLs.

CRH’s equity is optimized for capital adequacy purposes. It is invested in riskless short-term monetary securities. Resulting incomes largely cover CRH’s operational non-financial cost, which is equivalent to 0.007% spread on the bond stock. CRH is a light and cheap structure. This funding vehicle is made to operate efficiently at low costs, not to make profits to PMLs’ detriment.

Its own specific criteria of performance are:

- A tight spread of its bonds over government securities (0.18% in 1996, which is equivalent to a AA+ rating).

- Availability and matching of CRH’s bonds to identified needs of PMLs.

- Minimum equity investment from PMLs in their funding of CRH.

**Bond Policy**

Bond issuance has been standardized as much as possible in order to familiarize investors. Bonds are:

**Single-bullet structure** (more familiar to institutional French investors).

**Non-callable** since MH’s crisis of 1987. Since 1994 PMLs can cancel CRH’s loans by exchanging them with related CRH-bonds purchased on secondary markets. This option was limited to 10% of total debt in 1994 but raised to 25% in 1995 and 35% in 1996. Approximately 3.5% of CRH’s portfolio was thus prepaid at the end of 1996 (2.18 billion Fr. during 1996 or 2.5% of its stock, which is still less than prepayment rates). This was little used in 1997 (0.24 billion).
12-year-term (average of 11.1 years, but 10.6 years for the private bonds issued since 1988 and more recently some 8-year term bonds).

Fixed-rate (for 96% of the total at 12/31/96). Only two floating-rate bonds were issued (one in 1989 for 3.9 billion Fr. at PIBOR 3 months−0.15%) but the other bond was actually swapped to fixed rate. CRH maintained its conservative policy despite critics (e.g., specialized lenders) desiring more variable-rate loans. Other PMLs viewed CRH only as a liquidity tool; they can hedge related interest-rate risks by derivatives.

CRH's spread over equivalent Treasuries has remained stable between 0.15% and 0.25%. No time series is available, but the trend would be declining. Its bonds traded in 1996 at 0.18% and in 1997 at 0.24%. (All French bonds traded at higher spreads at the end of 1997 in the context of much lower rates.) Similar spreads are obtained by large universal banks like BNP but specialized lenders fund at higher spreads (e.g., 38 bp in 1996). CRH remains attractive to them although some actually rely now more on other funding tools like securitization.

Table 1. CRH Bond Turnover Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>1994</th>
<th>1995</th>
<th>1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>With state guarantee</td>
<td>162%</td>
<td>112%</td>
<td>101%</td>
</tr>
<tr>
<td>Without state guarantee</td>
<td>64%</td>
<td>68%</td>
<td>68%</td>
</tr>
<tr>
<td>Weighted total</td>
<td>107%</td>
<td>86%</td>
<td>92%</td>
</tr>
</tbody>
</table>

Large issued amounts for liquidity purposes. CRH designed its bond issues to pool them according to similar patterns to facilitate larger lines to be traded on secondary markets. Thirteen lines are traded for an average amount of 6.8 billion Fr., corresponding to 74 bonds of an average 1.24 billion Fr. One line (18.3 billion Fr.) is still the largest non-government traded pool. The liquidity of CRH's lines have remained decent despite a slow decline, investors having less appetite for CRH's old lines than before because they now offer small residual terms.

Bonds are issued through a syndicated bidding process. This more competitive procedure replaced the former issuance through Banque de France.

CRH's securities are purchased by institutional investors, which consider them as attractive because:
1. CRH's mutual equity, no-risk policy, over-collateralized pledged portfolio.
2. Minimum yield over Treasuries for an attractive 20% risk-weighting.
3. Eligible investments to the excess treasury from contractual housing savings.
4. Possibility of selling as brokers CRH's papers among large clients or subsidiaries.
5. CRH's bonds are also treated as an eligible guarantee for advance funding from Banque de France.

CRH's Declining Presence on the Capital Markets

At 12/31/96 the net stock of bonds outstanding was 88.7 billion Fr. The net stock declined to 78.6 billion Fr. at 12/31/1997, reflecting the repayment of some bullet bonds (12 billion Fr.) and only 2 billion Fr. of new bonds issued in 1997. In January 1998 1.2 billion Fr. were issued. Despite few emissions since 1994, CRH's stock looked significant because of its single-bullet long-term bonds, but the decline now becomes more visible. The average residual term of CRH's lines has fallen to four years.

CRH has been far less used in recent years because of a slow down in the mortgage market until 1996 and the presence of attractive alternative funding solutions (stable savings, prepaid loans, back-up lines, securitization).

SECURITY ENHANCEMENTS OF CRH

Initial State Guarantee Replaced After Three Years

A state guarantee was initially granted to CRH subject to its maintaining the quality of pledged loans by either: (a) loan-to-value ratios capped at 66% (instead of 80%); or (b) more pledged loans through a minimum 125% collateralization.

The guarantee was a start-up sunset measure applied during only the first three years. These guaranteed bonds represented 41% of total CRH-issued bonds in December 1997.

After termination of the guarantee in 1988, CRH decided to maintain a minimum 125% over-collateralization in order to keep an excellent credibility on markets. This was not a legal requirement but a corporate decision.

In case of any PML's insolvency, the over-collateralization cushion is reassuring for investors, as it would pay for the extra costs of a transfer process (audit + servicing + resale). Investors also considered CRH's improved mutual signature, as larger universal banks entered CRH; good liquidity, thanks to a growing stock of CRH's traded large lines; and growing familiarity with CRH's transparent and zero-risk-oriented functioning.

Strict Regulations Over Pledged Mortgage Loans

Credit contracts should mention the possible cession to CRH. Experts believe this is
useless. PMLs found it difficult to include in old contracts. This may reflect doubts on CRH’s privilege in case of a PML’s bankruptcy.

The minimum initial maturity is set at 10 years. The maximum term is set at 20 years (up to 25 years for some PC loans).

Since 1988 variable-rate loans have been eligible provided they are not revised more often than once a year and that the resulting maturity remains in the 10- to 20-year range. Effective rates must be mentioned.

Only first-rank mortgages are eligible, despite innovative credit enhancement and mortgage insurance solutions—for example, Crédit-Logement which is also run as a mutual institution for and by PMLs. (Editor’s note: See the article in this issue of HFI, “Housing Credit in France: Main Aspects and Recent Changes,” by Claude Taffin.) Second-rank mortgages are also rejected even for low loan-to-value ratios, perhaps due to their negative image.

Eligible loans must record loan-to-value ratios below 80% at their origination, excluding loans whose current LTV may later fall. The average actual loan-to-value ratios of pledged loans may be small. Given all elements (amortization pattern, age of portfolio, LTV limit, over-collateralization), the value of collateral mortgages pledged for CRH represents more than 200% of its loans.

The 80%-limit is raised to 90% for social loans; PAP-loans are state-guaranteed but not Prêts Conventionnels. Loans to first-time owners also are capped at 90%. Equity can include soft loans. These exemptions, which create more risk, reflect housing policy objectives more than SMF’s financial rationales.

The framework has not been modified over the years because of an administrative regulatory environment. Pledged portfolios must protect investors under adverse environments, and decision-makers want to take time before measuring the impact of changing primary markets and accordingly revising MH’s regulation. Some of these rules were also designed to be consistent with other public housing programs. CRH has faced internal problems to get a consensus about such changes among the diverging interests of various PMLs.

Now at least part of this framework looks financially obsolete. At least one specialized bank complained about the fact it could not pledge more eligible loans. The reform is supported by a declining percentage of eligible loans (from 25.1% in 1993 to 19.6% in 1995). MH’s strict criteria could be modernized. This reform could be made consistent with another one required for mortgage bonds, although not going as far as including risky commercial property loans.

**CRH’s Over-Collateralization Policy**

Each PML should be inspected at least every two years. The number and identity of selected loans is determined by a statistical random formula. Once selected, a credit is to be controlled in any case by on-site visits.

In 1995 and 1996, 7% of inspected loans cases were found ineligible because of wrong terms, excessive declared balances and inadequate internal systems (for example, inability to extract mortgage titles rapidly). Inspected PMLs receive an individual report indicating a global ineligibility ratio applied to the whole pledged portfolio as an additional pledge, or buy-back of CRH’s bonds. No PML has refused this penalty. If one were to do so, CRH would stop granting new loans, disclose the issue to the Council, thus creating a negative banking reputation, and transfer the whole portfolio.

**OVERALL ESTIMATION OF RISKS**

Investors are protected by (a) a strong signature effect from co-guarantor PMLs and (b) a conservative but untested over-collateralization practice. CRH is bankruptcy-remote, as it could become insolvent only if simultaneously—a most unlikely event—several PMLs became insolvent and the transfer of pledged loans encountered practical difficulties while mortgage markets were damaged by falling house prices and sky-rocketing defaults.

In case of serious difficulties, a worst-case scenario would be some delays to service bonds and the suspension of any new lending operations. Given its light structure, CRH could easily be terminated. This event could weaken the availability of housing finance instruments and produce negative systemic effects.
Table 2. Strengths and Weaknesses of CRH

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure and simple procedures</td>
<td>Untested back-up (no stress test)</td>
</tr>
<tr>
<td>Protective legal framework from MH</td>
<td>Opacity of CRH towards each PML</td>
</tr>
<tr>
<td>Transparent ultra-specialized institution</td>
<td>Low adaptation to changing context</td>
</tr>
<tr>
<td>Mutual equity</td>
<td>Declining importance to paralysis</td>
</tr>
<tr>
<td>Conservative over-collateralization</td>
<td></td>
</tr>
<tr>
<td>Internal inspection (less reliance on external supervision)</td>
<td></td>
</tr>
</tbody>
</table>

Doubts still affect CRH’s capacity to maintain the servicing of a transferred portfolio. One PML (Comptoir des Entrepreneurs) faced temporary financial trouble in 1993, and CRH raised this possibility but eventually did not apply it. CRH may auction or insure a servicing among good professionals at a reasonable price, provided that the insolvent PML kept reliable data and minimum standardized proper procedures. A convention between CRH and PMLs could be signed, insuring the presence of such standards. But some PMLs were reportedly hostile to the related costs. This may become a serious obstacle.

From a risk-adverse investor’s perspective CRH has the following strengths and weaknesses.

The main impacts on CRH’s members are reduced liquidity risks; unchanged cash-flow and credit risks; reduced capital market financing costs, both through a limited funding spread and lower issuance fees through scale effects; and additional small equity requirements, plus callable off-balance-sheet advances.

**CRH FUNDING OVER THE BUSINESS CYCLE**

Net credit production of French banks collapsed after 1991 during a credit-crunch cycle, following a prosperous phase since 1985 which accompanied CRH’s creation. Production has revived since 1996 thanks to lower rates, but net stocks are affected by prepayments. Eligible loans to CRH have declined since 1985. Mobilization ratios (pledged notes as a percentage of eligible loans) reflect CRH’s use, and declined from 26.8% in 1986 to 17.3% in 1992 before stabilizing at 19%–22%.

CRH is cyclical with the evolution of mortgage business. During the expanding cycle of housing loans, its portfolio rose until CRH began to be marginally used in 1994. CRH did issue new bonds during 1996 (3.45 billion Fr.), but net stocks hardly changed because of prepayment options exercised by some PMLs (2.2 billion Fr.). The trend was hardly better in 1997 (0.24 billion only prepaid, but only 2 billion issued).

During its expanding cycle, CRH’s nominal portfolio rose relatively less than overall housing loans. This reflects a systemic decline of secondary mortgage markets despite CRH’s replacement of the MH (94.3% by 1996). CRH’s portfolio represents 3.9% of housing loans, which is even lower than the 5.9% of a declining MH in 1985. This percentage was 3.4% at the end of 1997. CRH has not developed a secondary mortgage market.

Average trends do not reflect individual situations, which are less comfortable for specialized lenders with more pledged loans. General and mutual banks (equal market shares for a total of 85%) can tap other stable and cheap retail liabilities, and have consequently used CRH less and show very low mobilization ratios.

The development of CRH during the second half of the 1980s was due to universal banks, although they used CRH less than alternative funding. CRH is just one of several useful funding sources. In 1997 CNCA and Crédit Mutuel were the main users of CRH, because their net treasury from contractual savings was less abundant to fund their new mortgages (Editor’s note: See Taffin article, cited above, for an explanation of contractual savings.)

From 1985 to 1990 specialized banks lost much of their market share, from 20% to 10%. As a result, CRH’s capital changed. At the end of December 1996, three groups of PMLs showed these percentages of capital and votes in CRH:

<table>
<thead>
<tr>
<th>Group</th>
<th>Capital</th>
<th>Votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial four founding</td>
<td>27%</td>
<td>31%</td>
</tr>
<tr>
<td>specialized banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Five largest universal</td>
<td>58%</td>
<td>50%</td>
</tr>
<tr>
<td>banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other 27 banks</td>
<td>15%</td>
<td>19%</td>
</tr>
</tbody>
</table>

This evolution was probably more pronounced at the end of 1997 as the bonds of CRH that were amortized were funding specialized lenders, while the new bonds issued by CRH in 1996 and 1997 funded universal banks.

Universal banks now control CRH’s destiny. They feel reluctant to reform CRH toward an
easier funding of specialized banks. The mutual signature effect may appear as strong as over-collateralization for CRH: as universal banks mostly support this signature, they find little motivation to cross-subsidize smaller banks.

CRH records 36 shareholders representing most of the total production of eligible loans. CRH is therefore not a closed cartel. But members have not much used CRH other than the previous nine main banks. Some new primary lenders have not joined CRH.

Universal Banks

Caisse Nationale du Crédit Agricole (CNCA) as of year-end 1996 represents 26.4% of CRH's loans and capital, and 14.4% of votes, which probably increased in 1997. Yet this exposure only represents 8% of its mortgage portfolio. Its net use of CRH has been moderate. CNCA benefits from a better signature than CRH on the capital markets. CNCA contemplates continued limited refunding through CRH to reduce its own direct total market exposure. It also likes to place CRH's bonds among subsidiaries and clients.

Other universal banks (Banque Nationale de Paris, Société Générale, Crédit Lyonnais) have nearly stopped using CRH since 1995 (Crédit Mutuel in 1997). Although they declared they were satisfied with CRH as a funding tool, they expressed no commitments about CRH's future. One bank quoted sufficient stable and cheap resources of its own (deposits, insurance life premiums, contractual housing savings) and its capacity to directly access capital markets at comparable prices.

Specialized Banks

Among the initial founders only UCB is still a major member, with 14% of capital and 13.5% of votes in 1996; but it has stopped using CRH since 1990 because of its rigid rules and a saturated eligible portfolio.

Other institutions represent about 3.5%--5.5% each of CRH's capital. They have virtually stopped participating in CRH's emissions since 1990 because:

- Cyclical factors as smaller banks faced worsened financial situations with consequent CRH tightening.
- Structural factors affecting the quantity of loans (credit crunch and prepayment flows) and ineligibility of recent housing loans for a CRH which is rather dominated by deposit banks. Specialized lenders are more innovative than universal banks, which rely more on FRM funded by contractual saving excess treasury.
- Concurrent development of alternative funding techniques, including (a) lines from mother shareholder financial institutions; (b) flow recycling from amortized and prepaid loans; inter-banking short-term markets funding a production of ARMs; recent growth of securitization, providing long-term funds and capital relief. CDE and UCB started in 1994 and were followed in 1997 by La Henin and Sovac.

As specialized lenders regain some market shares, CRH is facing a critical phase as to whether it will lose these clients. As the market strengthens, a key question is whether lenders will increase their use of CRH or increasingly turn to securitization. CRH must compete against MBS which provide a better solution to their cash-flow needs.

MBS in France must be rated and most of the pioneer issues were designed to obtain a AAA by internal credit enhancement. MBS are a form of long-term funding, with a better matching of flows, less over-collateralization than CRH and better management of capital adequacy. However, MBS are new and have achieved limited market acceptance to date which may imply sacrifices to obtain a good rating, including higher yields requested by investors (reported spreads at 0.4%) and large all-in initial transactions costs (agents, rating, swaps, legal work).

Two Scenarios for CRH's Near-term Future

1. If the mortgage market recovers, both CRH and MBS could develop.
2. Otherwise, CRH may need strategic reforms to avoid its wind-down.

In order to keep its competitiveness, CRH must proceed with a series of reforms. CRH prepared a number of legal reforms that are being debated with financial authorities. Additional reforms could include:

- Modernization of MH's eligibility framework and the relaxation of some over-collateralization rules.
- Modernization of MH's supervision, with a larger role played by CRH and CFF.
- Technical solutions for CRH's risk-concentration and risk-weighting issues.
- Rating by an international Agency.
- Closer analysis of funding needs, potentials of pledged portfolios, and issuance of diversified bonds (with various terms, including more medium ones, more floating rates and perhaps callable bonds) in order to better match cash-flow needs, despite CRH's restricted tasks and limited means.
- Qualify MBS as eligible collateral. PMLs could prepare MBS pools and decide to sell them or pledge them to CRH.
- Obtain the qualification of CRH bonds as mortgage bonds according to EC's de-
FINITION with advantages for investors and international European recognition.

- Examine a possible second CRH for specialized lenders, despite weaker equity.

- Examine the possible creation of a separate pass-through conduit which would price more cash-flow risks of PMLs and pass most of them to investors by MBS or callable bonds. Operations, skills, costs and risks would be different than current ones, and would be justified for a modified, diversified equity structure and profit-driven policy. MBS may also need a standardizing central agency.

CONCLUDING LESSONS FOR EMERGING COUNTRIES

CRH has been a light and efficient SMF which has during less than a decade partially revived secondary mortgage markets and helped specialized lenders to safely develop their operations. Its robustness and transparency are credible among investors. It carries very few financial risks (only agent PMLs' risks backed by mortgage portfolios). It is mainly affected by business risks which in the present market may lead to paralysis and gradual liquidation.

Its security is mainly based on the prior legal framework of MH, and simple, secure and transparent mechanisms, including standard residential mortgage loans, over-collateralization, legal privilege over PML's bankruptcy, and perfect matching imposed between loans and bonds.

CRH's mutual banking equity and pledged portfolios look efficient and inexpensive (costs, equity, skills, reliable data) for countries of emerging bond and mortgage markets. Its development can rapidly occur without an explicit or implicit state guarantee. Some minimum legal credibility must still be perceived for mortgage collateral. Excessive over-collateralization also reduces refinancing volumes to primary lenders and raises their cost of funds. The standardization of pledged credits and issued bonds should not become too rigid. An organization like CRH does not require a large concentration of human capital. One or two key executives are necessary, but they are sufficient.

Pure secondary mortgage markets (purchase of loans) require more equity and risk-control skills. The separation of the liquidity-risk function from other risks often looks like a reasonable first step. A central private structure helps to issue larger amounts of liquid bonds and spread equity efforts through more banks. Its management was well balanced between the interests of bondholders and of PMLs. But CRH found it hard to work with diverging PML groups.

It played an interesting stabilization role during a transition phase of growing mortgage markets. But it should not be seen as an exclusive or permanent funding solution. It is more naturally used by smaller banks and enlarges the lending competition. In inflationary conditions, single-bullet bonds are less of an issue than deferred interests.

A liquidity facility can lead to some degree the development of the market because it is not as dependent on standardization and performance information as securitization. However, all good organizations must adapt to a changing environment. CRH has been too conservative in recent years but is hopefully adjusting its functioning after improving its main refinancing and backing procedures. Since 1994 CRH may have missed one financial evolution: it can now either speed up its reforms or just let its decline take over.

NOTES

1 Some facilities, like Cagamas in Malaysia, correspond to a mixed situation as the purchasing institution requires originators to buy loans back after a given period and to assume meanwhile all default risks, but still is paid through portfolio cash flows.

2 Should a mortgage bank fail to service its bonds, investors are transferred by privilege over any bankruptcy a sufficient portfolio of mortgage loans (permanent matching of stocks and flows). Mortgage banks are often made specialized for a supposed better expertise and transparency. Most of them have become subsidiaries of universal banks. Fourteen EC countries have been developing variants of mortgage bonds, which funded on average 20% of mortgage loans, but with much larger proportions in Germany and Denmark. In France the eligible loans for CFF's bonds are first-rank mortgage estate loans, or benefiting from a public guarantee, with loan-to-value ratios below 60% after an appraisal. Unlike German banks, no external trustee is responsible for the key matching between banking loans and bonds.

3 The fee was equivalent to 1% per residual year after some delays. This was less than the corresponding credit prepayment risks, as client's up-front prepayment fee is legally capped at 3% of the prepaid balance, which is by and large insufficient to cover some rate losses. For example, since 1995 to 1997 interest rates have declined by 2.5%, for an average term of 12 years.

4 By a Resolution of its Council (October 1995) and General Assembly (February 1996). This represents an important and recent effort from the current Executive Board to make CRH's operations more transparent and effective. It has been annexed in the last yearly financial reports.
Some PMLs may make more use of this option, for example, to pay less taxes on their prepayment fees when they can find cheaper refinancing liabilities.

CRH was applying in 1996 a yearly 6% ratio. This exceeds prepayment ratios observed during the difficult 1996 year, namely 2.2% of prepaid loans, 2.3% of refinanced loans in a different PML, 2.2% of restructured loans in the same PML, with a large proportion which should keep their eligibility to CRH. In any event, CRH’s hypothesis is more than conservative when applied over 10 years or more.

CRH has never been rated, as its bonds were rather purchased by domestic investors. A rating may not be required on domestic markets if there is a prudential framework, although it may become necessary later. In CRH’s case, an attractive AAA-rating may require additional work, including an agreement between CRH and all PMLs about some minimum standards as to the respective servicing of loans, in order to make a potential transfer workable in case of a PML’s insolvency.
Real Investment Opportunities in Chile

by Pedro D. García

INTRODUCTION: A SNAPSHOT OF CHILE’S ECONOMY

Chile is a mid-sized country, population 14 million, that has successfully transformed itself into a leading, stable and strong free market economy. In 1997 it achieved its 13th consecutive year of steady GDP growth at an average annual rate of 6.6%, with the GDP amounting to nearly US$71 billion. The government’s macroeconomic policies have consistently fought against inflation, which has decreased from an average annual rate of 15.1% between 1988–1992, to 6.8% for 1993–1997, and is expected to achieve 4.0% between 1998–2002, very close to the inflation rates of the developed countries.¹

1998 and 2007 because of the expanding domestic consumption rates. The investment rate is approximately 25% of GDP and is expected to maintain this level for the next 10 years, being fueled mainly by the Chilean social security private pension funds and other institutional investors, such as insurance companies, mutual funds and investment company funds.

As of June 1997 all these institutional investors held investments amounting to US $47 billion, or 68% of GDP, with the pension funds alone managing roughly US$32 billion, or 45% of GDP, a figure that is expected to grow to 100% of GDP by the year 2015.² This increase will have profound consequences for business opportunities in Chile, given the pension funds’ eagerness for attractive projects in terms of investment return. However, the pension funds are also interested in projects abroad and have been obtaining authorization from the government to invest a greater percentage of assets outside Chile.

External debt amounted to US$26.8 billion in 1997 and is not a problem for Chile. The rating agencies have rated Chile’s long-term foreign currency debt as A+, the highest in Latin America.³

International Trade Activity

Chile’s economy is mainly based on free trade. In 1997 its exports were approximately US$16.8 billion. Imports amounted to US$19.7 billion, generating a slight trade balance deficit. The United States is our main trading partner, followed by the ASEAN countries, although trade with the European Union is growing, as it is with Latin American countries, thanks to the general economic recovery of the region. Chile has a low tariff rate, averaging 8%, unilaterally lowered during the last 10 years. In a continuous trade opening process, Chile has also signed free trade agreements with some relevant partners such as Mexico, Canada and Colombia. It also recently became a member of APEC, and since 1996 has been an associate of MERCOSUR (not ipso iure member because this tariff union still has higher tariffs), and is first in line for a planned NAFTA extension.

Chile is also becoming a capital exporter, with large companies investing heavily in our region: nearly US$8 billion or 9% of GDP are dispersed among Argentina, Peru, Bolivia, Brazil and Colombia, from power generation facilities to financial services companies to

Pedro D. García is Counsel for the Chilean Chamber of Construction. He is a lawyer from the Catholic University Law School at Santiago, where he also is Professor of Law and Economics, and he holds a Master of Laws from Duke University. This article was adapted from an address to the Fourth Annual Real Estate Finance Conference held by the Mortgage Bankers Association of America in Vancouver, Canada, September 1997.
real estate businesses. For example, some real estate developers are well positioned in Argentina, and others are starting to become so; a Chilean holding is now a partner of one of George Soros' Funds in making real estate investments in large extensions of land in Buenos Aires.

Foreign investment inflows reached US$4.3 billion in 1995, exceeded US$6 billion in 1996, and became a historical record during 1997, with US$8.1 billion. The main areas of foreign investment are copper mining production and the services and industry sectors. Issuance of American Depository Receipts (ADRs) of Chilean corporations traded on the New York Stock Exchange is also relevant, and amounted US$2.3 billion during 1997.

Legal, Regulatory Framework

The Chilean legal framework for foreign investment is very friendly. There is a simple and liberal Foreign Investment Act, dated 1974, that requires authorization for capital inflows involving more than US$5 million, provides foreign exchange guarantees and allows foreign investors to do business on the same basis as their Chilean peers. Repatriation of capital is permitted after one year, while investment returns can be repatriated regardless of time windows. The Central Bank also regulates foreign investment via capital inflows or credits, but in a more informal way and without foreign exchange guarantees. Special investment company funds for foreign capital were created in the late 1980s in order to have a special purpose vehicle facilitating foreign capital inflows.

However, foreign credit is more expensive than domestic sources of money, because the Central Bank, which is independent from the government, imposes a mandatory non-interest-bearing 30% reserve on long-term loans for the first year of the loan duration. In 1996, the Bank extended this provision to capital increases. The reasons advanced by the Central Bank in favor of this policy are the fight against inflation and the avoidance of speculative inflows of money (so-called "bird capital"). Given the recent experiences in the Asian currency markets and the similar experience with the Czech currency earlier this year, the concerns of the Central Bank cannot be considered to be without foundation, although we hope this will be a temporary protective regulation.

Foreign investment in the real estate sector in Chile is still thin and timid, although it has grown from US$36.3 million in 1995 to US$203.3 million in 1996, an enormous increase. Average real estate investment return was 8.2% in 1994 and 9.4% in 1995; however, for future years this rate will likely decrease for the reasons that we will see below.

Interest Rate Trends

Interest rates are still higher than rates in the developed countries (OECD). Currently, the short-term rate is around 8.5%. This rate was raised in February 1998 by the Chilean Central Bank as a cautionary policy because of the recent Asian financial turmoil. The average short-term rate during the period 1993-1997 is estimated to be 8.5%. Not considering the recent Asian crisis, the main reason for the difference has been that the Central Bank does not want to overheat the economy—i.e., generating an inflation increase—by an immediate growth of domestic consumption due to less expensive access to money. However, assuming that inflation decreases and the Central Bank relaxes the reserve for foreign loans and capital increases, short-term interest rates in Chile should gradually go down to an average of 5.5% during 1998-2002, compared with an estimated 3.5% short term LIBOR for the same period.

This total economic performance has permitted rising living standards for the Chilean population and promising prospects for real estate development. Wages grew in real terms at an average pace of 4.7% during 1990-1996. Adjusted annual per capita income at purchasing power parity was US$8,890 in 1994 and is expected to be US$11,600 by the end of the millennium, and US$16,500 in 10 more years. Many Chileans are overcoming poverty, a sad scourge that some years ago affected 20% of our population. Recent studies show that the private sector has contributed 70% of the improvement in living standards in comparison with the public sector.

Financial Sector Composition

The Chilean financial sector is very sophisticated. There is a continuous updating and upgrading process. Disintermediation is a key word: Banks (a concentrated industry; only 30 operate in Chile) have been lowering their spreads and are becoming more short-term lenders, as the powerful pension funds and the insurance companies have been investing more in long-term debt instruments. There are also investment company funds, a vehicle created to act as a specialized conduit for debt and equity investments by institutional investors. One kind of investment company fund is the real estate investment company fund, that collectively manage today US$513 million in real estate investment—still far from the legal limit of US$3 billion that they are allowed to invest.

Thanks to legal reforms, the newest development in the market is the securitization of assets and the introduction of mortgage-backed securities. Banks and other financial institutions are trying to win positions to capture this market. New regulations will allow banks to finance trade operations between third countries, and raise the percentage of their assets that the pension
funds can invest abroad. Congress is about to discuss legislation authorizing offshore investment and trading in foreign securities in the Chilean stockmarket. To date, the Chilean stockmarket is one of the largest in South America: it has 323 corporations registered, with total assets of US$84.7 billion and total trading volume of US$4 billion during the first half of 1997.13

HOUSING REAL ESTATE BUSINESS IN CHILE

Regarding housing business opportunities in Chile, some data will be of interest:

1. Investment in real estate housing was US$3.126 billion in 1995 and US$3.416 billion in 1996, representing a 9.3% increase from 1995 to 1996. Public sector housing investment is included in this amount and represented US$489 million during 1995 and US$498 million in 1996, a 2.1% increase from 1995 to 1996. Private sector housing investment was US$2.637 billion in 1995 and US$2.916 billion in 1996, a 10.6% increase. The estimates for 1997 were for a slight decrease, amounting to -0.5%, due to the increase in interest rates experienced in 1996.15

Housing investment in Chile is mainly private, but nearly 15% of this investment is done by the public sector via subsidies. The basic subsidy method is that the government builds the houses using private contractors chosen in a bidding process and pays a percentage of the price of the new house, while the acquirer pays the difference. The applicants for subsidies need to meet certain requirements: no current homeownership, earnings below a certain level and an amount of money previously saved. Subsidized houses constitute about 58% of the total number of houses built annually in Chile. In addition, the government provides a generous subsidy for housing acquisition in officially declared urban renewal areas, like Santiago’s downtown.

2. The 1992 official Chilean census showed an approximate deficit of 600,000 houses, with a total supply of 3.1 million houses as contrasted to 3.7 million needed at that time. Some 83.5% of Chileans live in urban areas, according to the 1992 census. The total number of houses built during 1995 was 135,600 and 141,000 during 1996. Santiago, the Chilean capital, represents roughly 50% of the total market for private housing without public subsidies. However, from 1992 to date, as a result of economic growth, Santiago has been decreasing its relative real estate development size compared with other main Chilean cities.

3. Apartment buildings are an important component of total available housing, particularly in the biggest Chilean cities. Although we do not have statistics for the entire country, the average sales time for the stock of apartments in Santiago is now bordering on 16 months. This long period is expected to increase due to the interest-rate increase that the Central Bank ordered in February 1998. Prospective buyers were affected by a general mortgage loan interest-rate increase as of January 1998.16

Optimistic Prospects

Prospects for the economy and real estate market are moderately optimistic for the next years:

1. Chile is close to full employment rates, with only 6.1% of its workforce unemployed as of the third quarter of 1998. The wage increases referred to above will probably keep pace during the next few years, triggering demand for better houses in all respects: size, quality, location, green areas, infrastructure, etc. Domestic consumption rates have been expanding, with an adjusted average of 5.7% between 1993 and 1997.

We can expect that some of the poorer social groups will leave public subsidies and become “bankable,” thereby providing more clients for private mortgage banks. Those who will continue depending on welfare will now have access to bigger houses and will be able to trade their current houses freely, which they cannot now do until some years after having acquired their houses. Middle- and upper-Chilean social groups will also look for improvements, updating their existing homes, moving to other areas or acquiring second homes for vacation purposes.

2. Chile will have lower interest rates so long as the Asian turmoil is stopped and inflation is defeated; this will stimulate housing acquisition and remodeling. In this regard, all mortgage debt in Chile is now contracted for on indexated terms, i.e., the amount of interest paid is linked to an index that reflects the average inflation rate over a period of six months (the “Unidad de Fomento” or “UF”). This index is adjusted daily and is determined by the Central Bank. The Chilean internal debt market is starting a slow path to deindexed or nominal financial instruments. These instruments would not have the problem of being burdened with the inflation concerns that currently hammer Chilean mortgage debtors.

3. Over a 25-year horizon, a total demand of at least 1.8 million new houses is expected. Population growth alone will require 470,000 houses, a number that could be bigger, given the decreasing number of persons living in the same
house (from an average of 4.39 inhabitants in 1982 to 3.95 in 1992). The mere replacement of existing houses could require 360,000 new houses for a 25-year horizon, and the difference from the total estimate of 1.8 million houses may well be filled by the economic growth alone.\textsuperscript{17} In addition, changing lifestyles will contribute to a surge of new residential market opportunities: single parents, young married couples, separated wives or husbands, and university graduates no longer living in their parents’ houses are becoming a fast growing market niche.

4. The scarcity of land in some important Chilean cities, due to zoning and planning constraints, and the advantages that recreational areas have when some property is held in common are two factors driving many real estate developers to promote more condominiums: the first factor is particularly relevant regarding the urban areas of cities like Santiago, Concepción or Vina del Mar, where apartment buildings have been flourishing during recent years.

The second factor is starting to be relevant in big recreational complexes, where houses and apartments are intertwined with club houses, golf courses and access to the beach. For example, a French consortium is now finishing a US$100 million luxury condominium complex in a beach location that is 100 kilometers from Santiago; and Chilean investors have been very successful in a condominium with recreational apartments having an average value of US$250,000. This appears to present an attractive business opportunity for foreign investors, such as management companies for large portfolios of residential real estate, since these projects would contain major maintenance responsibilities and cash flows.

Congress has recently enacted legislation that modernizes the old regulations on common property, dating from 60 years ago, and mostly leaves to the common proprietors decision-making authority over the crucial issues of a condominium, such as the distribution of common areas, and the decision to liquidate the condominium or rehabilitate it. This latter decision is very important with respect to older buildings. An Achilles’ heel for the improvement of the market for recreational and vacation properties could be the lack of adequate infrastructure. In this respect, however, the Chilean authorities are working on awarding concessions of tollroads in a Build Operate Transfer context and on improving the archaic Chilean airports.

**Housing Finance Trends**

We will now focus our attention on real estate finance from the standpoint of prospective house acquirers. Interest rates are now pegged to an 8.5% annual interest rate on indexed mortgage loans. Two years ago, the largest foreign Bank in Chile, Banco Santander, revolutionized the market by launching what it called “Super Hipoteca” (“Super Mortgage Loan”), cutting the interest then charged on mortgage loans to 7.8% and providing up to 90% of housing acquisition finance, while the previous amount was restricted to no more than a 75% loan-to-value ratio. Santander’s competitors reacted promptly in offering similar products, triggering an important reduction in interest rates, and also lowering the spread from 3% to 1.3%, thereby benefiting the consumer.

To date, the main players in housing finance are the state-owned Banco del Estado de Chile, with a 36% market share, followed by Banco Santiago (its principal shareholders being the Chilean Lukic family, the British Hong Kong and Shanghai Banking Corporation, and the Spanish Central-Hispano Bank) with a 28% market share.\textsuperscript{18} Interest rates are now stable and mortgage lenders are not willing to commit suicide by lowering the spread beyond the current point. Hence, they are competing for consumers by providing other services, such as shortening the time period for credit approval, providing lawyers to make the analysis of clear and marketable title, and registering the acquired property in the local records office.

Regarding financial instruments for house financing, the leading security is the "mortgage letter" ("Letra de Credito Hipotecario").\textsuperscript{19} This is a kind of long-term letter of credit that has roughly a 66% share of the market but is decreasing in volume of transactions. The mortgage letter of credit is issued by a bank, which sells this security to investors. Upon issuance, if the market value is less than the par value, the mortgagee must pay the difference to the bank. No prepayments are allowed, at least on convenient terms for borrowers. The main advantage of the mortgage letter is the fast legal foreclosure procedure, which makes it almost impossible for the borrower to oppose the foreclosure.\textsuperscript{20}

Another instrument, the "mortgage loan" ("Mutuo Hipotecario"), has been getting greater consumer approval during recent years. Banks and special purpose corporations (the so-called "Hipotecarias" or "mortgage corporations," a sort of mortgage bank) are able to make mortgage transactions, but the mortgage corporations are limited to house acquisition by individuals and within city limits, while the banks can lend for other purposes and without restrictions regarding corporations or urban limitations. The mortgage loan has varieties similar to those employed in the mortgage market of the United States; these are intended to capture market segments by the mortgagees. The main kinds of products are:
The Adjustable Payment Mortgage Loan, developed by Hipotecaria "La Construcción," where the debtor can opt for two kinds of monthly payments, either a 15- or 20-year payment schedule, without liquidated penalties. This loan is directed to persons with variable earnings, especially young professionals, who are expected to increase their wages over a period of time. This product resembles the Graduated Payment Mortgage (GPM) or Flexible Payment Mortgage (FFM), that permits a changing payment schedule.

Some banks have instituted a limited kind of Open-End Mortgage, by allowing prepayments (repayment before maturity) with no penalties.

Some mortgage loans allow the borrower to make their first payment six or seven months after credit approval and to suspend payment one month per year.

Finally, the scheduling for payment (that is, the loan maturity) varies from 15 to 25 years, depending on the lender.

Interestingly, Chilean mortgagees do not provide Variable Rate Mortgages (VRM) or Adjustable Rate Mortgages (ARM), as they are known in the American market, where the loan is tied to a market-interest-rate index or to a government bond rate, thereby benefiting the borrower when the interest rates decrease. The reason probably lies in the Chilean mortgage loans being tied to the Consumer Price Index, and the borrower paying an interest above the inflation rate as expressed in an inflation unit (the UF, stated above). Thus, Chilean mortgage lenders prefer the Price Level Adjusted Mortgage (PLAM). Chilean mortgagees are not as liberal as their Canadian peers, who offer the Rollover Mortgage, allowing both lender and borrower to renegotiate the interest rate each certain period of time.

Experiments With Leasing

A recent innovation in housing acquisition finance is housing real estate leasing, thanks to legislation enacted in 1993 and reformed in 1995. We do not have time to explain this innovation fully, which is intended to be an alternative to mortgage loans. Succinctly, a person without enough savings to purchase a house with the help of a mortgage loan can acquire a property from a special purpose corporation, the real estate corporation, by leasing the house and making installment payments to the real estate corporation, directly or through a special purpose thrift corporation, that invests the money in the same way that the Chilean pension funds are allowed to. The final payment makes the lessee proprietor of the house. The real estate corporations can sell the leasing contracts—with a mortgage security interest attached—to special purpose vehicles, the securitization corporations, who in turn will issue bonds and sell them into the secondary market.

Notwithstanding the creativity of the Act, housing real estate leasing has not developed as expected, and to date, only a few of these transactions have been closed, even when the government provided funds for 5,000 of these transactions during 1997 in the public subsidy context that we have already referred to.

The main reason for this cold reception is high transaction costs. These are the result of two factors: excess regulation in the law itself and excessive requirements that the administrative agencies have imposed upon the agents of the leasing system. These high transaction costs have made these leasing transactions more expensive than the new types of mortgage loans that have been introduced in the market, where the lenders provide up to 90% of the acquisition cost of a house.

From the securities market standpoint, the private pension funds are responsible for 80% of the total purchases of mortgage instruments, amounting to US$5.5 billion to date. Life insurance companies are also active participants in this market, with US$2.2 billion invested, given the long-term obligation nature of their life policies. In this context, mortgage securitization holds promise, and recent legal changes have paved the way for nearly 10 new bankruptcy remote special purpose securitization vehicles, the securitization companies, that are actively trying to buy mortgage loans and to issue bonds for institutional investors.

The market is reasonably interested, and the first mortgage securitization was projected by Hipotecaria La Construcción in 1997, amounting to a modest US$5 million, although the numbers have been increasing since then to intended securitizations of US$50 million or US$100 million per issue. Financial needs of institutional investors are the principal determinants for the kind of bonds issued in securitization transactions. For example, it is possible to issue "balloon" bonds, with interest and principal payments correlated with life insurance companies' requirements. It is also possible to issue Adjustable Rate Bonds, tied to interest rate changes in another significant financial instrument.

Another method of securitization could be a Deferred Payment Bond, where a bond series has preferred payment to others that are paid after the preferred. As we mentioned above, investment companies are expected to boost their participation from the modest US$0.5 billion that they manage in real estate investment, to the legal limit of US$3 billion, thereby providing pension funds and other institutional investors an alternate way to invest in mortgage-related securities.
Legal and Regulatory Requirements

In order for a security to be part of a securitization process, it is necessary to obtain a legal or a regulatory approval. To date, the instruments related to real estate finance that can be required in secured transactions are: the mortgage letter of credit; the mortgage loan; the housing real estate lease contract under the Housing Real Estate Leasing Act; and real estate leasing contract not submitted to this latter Act (for example, for commercial or corporate purposes).

From the standpoint of potential secured bond buyers, the mortgage loan is more attractive than the mortgage letter of credit, given that the lower interest rate of the latter does not generate an attractive spread for the securitization company. Transaction costs are also greater for mortgage letters of credit. Chilean regulations also require securitization instruments to be rated by two independent rating agencies. There is also another way of being involved in the securitization market, by buying shares of securitization investment company funds.27

The risk of the securitization process lies mainly in the adequacy of the Chilean legal framework for the sophisticated techniques that such a process requires and in the willingness of the Chilean regulators to let the markets work without harming consumers.28 This development process is very similar to the first steps of securitization in the United States, where judicial decisions overshadowed the development of what is now a trillion dollar industry.29 However, as we have shown, the enormous potential of securitization for real estate finance is both beneficial for the housing and commercial aspects of this industry.

Another development expected in the Chilean financial market for housing acquisition is the appearance of the government as second-tier banker, in a form adapted from the United States housing government-sponsored entities (GSEs), such as Fannie Mae, Freddie Mac, and Ginnie Mae. The Housing and Urban Development Ministry, with the advice of the American Administration and the MABA, is trying to move itself from the position of direct subsidizer to one of guarantor of commercial banking loans to persons that are expected to get involved in public aid as subsidy beneficiaries. The Ministry also sees opportunities for foreign investors in the development of insurance and other financial products to cover interest-rate risk and legal habitability warranties that the real estate developer is responsible for.

CONCLUSIONS

Chile has been a successful economy during recent years. It began the free market reforms that paved the way for a sustained growth earlier than many other Latin American countries, and changes in the political orientation of the executive and legislative powers have not substantially altered the free and friendly economic environment that we Chileans enjoy. Real estate business opportunities are open for nationals as well as for foreign investors, while both the legal regime and the business community do not discriminate on the grounds of nationality or country origin of financial resources. The prospects are moderately optimistic even in the long term, both in the housing and in the commercial areas. Mortgage operations represent a good portion of the financial necessities, and Chile's sophisticated market is fertile ground for potential investment.

APPENDIX: CHILEAN FINANCIAL INSTRUMENTS FOR HOUSING ACQUISITION

Mortgage Letter
("Letra de Credito Hipotecario")

The transactions underlying this instrument are the following:

1. A bank takes a mortgage for housing acquisition in a given amount and term. This mortgage is granted by a potential housing purchaser.

2. The bank issues certificates (securities) for the same amount of the acquisition value of the property. It offers the certificates to investors. The bank can also give the certificates to the borrower. Investors buy the certificates at a discount. The certificates are redeemable by paying coupons. These coupons include amortization and interest.

3. If the bank sells the securities, it gives the product to the borrower. If sold under face value, the borrower must pay the difference between the face value and the market price of the security. Thus, the bank does not lend the money directly to the borrower; it gives him "credit letters" or mortgage-backed securities ("letras"). These securities are sold in the capital markets. Since these are bearer instruments, they have great liquidity in the secondary market.

The mortgage transaction between the bank and the "borrower" requires a mortgage, contained in a public deed given before a Notary. This mortgage is registered in the Public Records Office. The mortgage is an asset of the bank, while the mortgage letter belongs to the investor who bought it. The mortgage letter constitutes a bank's liability and an investor's asset.

Therefore, the bank is a creditor of the borrower and a debitor to the investor. The borrower must make anticipated monthly installment payments that include amortization, interest and fees. Fees are the only amount of money that the bank perceives for these transactions.

The only risk assumed by the bank is the default by some debtors. The investor who
has purchased the notes bears the risk of the originator’s solvency, the debtor's default and the quality of the guarantees that the debtor has given. If a debtor is allowed to prepay and indeed does so, for purposes of keeping the parity correlation between letters of credit and loans granted, the bank must retire from the market letters of credit with the same series and amount.

The mortgage letter of credit constitutes a sort of securitization. A pool or series of letters is sold to institutional investors, especially Chilean private social security pension funds or life insurance companies. The sale price is expressed as percentage of the unpaid amount of the letter of credit plus accrued interests. The investor can sell the letter, given the fact that it is issued to the bearer.

Mortgage Loan
(“Mutuo Hipotecario”)

Banks and special purpose corporations (the so-called “Hipotecarias” or “Mortgage Corporations,” a sort of mortgage bank) are able to make mortgage transactions by extending loans backed with mortgage guarantees. However, mortgage corporations are limited to house acquisition by individuals and within city limits, while banks can lend for other purposes and without restrictions regarding corporations or urban limitations.

The mortgage loan is a mortgage-backed security. The loan is transferable by endorsement of the document on which it is expressed. It consists of money, not certificates. The borrower gets the money he needs for housing acquisition directly from the lender, without selling any certificate to investors.

It is the lender who sells mortgage-backed securities to life insurance companies and other legally allowed investors. The sale price includes a discount on the payments that the debtor must make periodically. Payments are made according to the rate of return agreed upon with the purchaser of the contract, plus a risk premium. The agreed rate is less than the rate at which the mortgage loan was entered into. Therefore, the fee for the originator is not expressed in the rate.

The principal risks for the mortgage loan are the solvency of the debtor and the nature of the underlying guarantee. Mortgage loans can be used in mortgage-backed securitizations; they can be pooled and converted into assets with great liquidity and low risk. Mortgage letters of credit are also legally permitted to be securitized; but, as mentioned above, they are in fact a kind of securitization.

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NOTES

1 Sources: Chilean Census Bureau Office (INE); Fontaine and Paul Associated Consultants; Economic Research Department, Chilean Chamber of Construction.


4 The Economist Intelligence Unit, “Investing, Licensing and Trading Conditions Abroad,” February 1997 (EIU, Chile).


6 Chilean Foreign Investment Act, Law Decree No. 600 of 1974; Central Bank of Chile, Chapter XIV of the International Exchange Regulations. The Central Bank’s regulations are more flexible: a change requires only agreement of the Bank’s Board, while the Foreign Investment Act needs a legislative act of the Congress.

7 Source: Central Bank of Chile. This amount only includes direct inflows to real estate corporations and does not consider the contributions made to investment companies that may have been funneled to real estate investment.

8 EIU, Chile.

9 Fontaine and Paul; Economic Research Department, Chilean Chamber of Construction.

10 Economic Research Department, Chilean Chamber of Construction.

11 Fontaine and Paul.


15 Id.

16 El Diario, January 28, 1998. Average annual real interest rates were updated from an 8% to a 10-11% range.


18 Capital, Negocios y Mundo, (Chilean business magazine), August 1997.

19 Financial instruments are explained with more detail in an appendix of this document.

20 The defenses for the borrower are unrealistic: payment of the debt; statute of limitations or lack of enforceable title against the mortgagee. The regulations for this security are contained in the Chilean Banking Law of 1960, in its Title XII, added in 1978.


22 Charles H. Wurtzebach and Mike E. Miles, Modern Real Estate, (5th ed. 1994).

23 Id.


25 Chilean securities Market Act of 1991, Title XVIII, regarding securitization companies, added in 1994, that structure these entities as corporations rather than commercial trusts.

26 Securitization, Hipotecaria La Construcción (Chilean Mortgage Lender Corporation), 1996. In addition, the mortgage letter of credit is in fact a kind of securitization, because it is actively traded in the secondary market and mainly bought by the Pension Funds.

27 Id.

28 Among the weaknesses, we could mention the following: more regulations than other countries regarding securitization; underdeveloped market for interest-rate-risk hedging; and legal requirements that are not strictly related with financial aspects, such as minimum equity level per securitization company, debt-equity ratio for the total amount of secured instruments issued by one securitization company and diversification of credit originators. Daniel Yarur, Securities Superintendent (Chilean Securities Regulatory Agency), "The Chilean Securities Market: Regulations on Mortgage Securitization and Housing Real Estate Leasing Contracts," supra Note 2, and Securitization, Hipotecaria La Construcción, supra Note 26.

A Booming Housing Mortgage Market in Shanghai

by Jonson Cheng Cong

China's infant mortgage industry saw a gradual prospering in the 1990s. If you go to any subbranches of the China Construction Bank in Shanghai, you will see crowds of people queuing for mortgage applications. Most of the other commercial banks in China are preparing to join the new retailing business—housing mortgage loans.

At present to own a house is every city dweller's dream. Wherever you go, what Chinese city inhabitants are concerned with most is housing. Actually, an urban family can afford most other common consumer durables, except a house, as the result of nearly 20 years of the state policies of reform and opening-up. Today credit consumption is being accepted by more and more Chinese people, so it is not surprising that the mortgage industry is experiencing a quick development.

This paper aims to analyze the present conditions of the housing mortgage market in Shanghai and to provide a glimpse of its foreseeable future. It also proposes a deposit-loan linking mechanism for mortgage finance. The analysis will be valuable for international housing financial experts who want to study the Chinese housing mortgage market and those foreign bankers who are assessing the feasibility of entering the housing finance market in Shanghai.

OVERVIEW OF SHANGHAI HOUSING POLICY TRANSITION

Traditional Policy Bottlenecks

The traditional welfare-based urban housing policy retarded housing industry development. Before 1990 the government was the single provider of shelter to urban inhabitants in China. Workers' houses were invested, built, distributed, managed and repaired only by local governments. Houses built were normally distributed to dwellers without any payment. Therefore, a house was not a commodity but welfare in the form of a "physical home" offered gratis by the government.

There was no housing market, and consequently houses were allocated not by the market but by the administrative power, which caused severe unfairness of social wealth distribution between the people of different classes. Under such a welfare-based system, governmental housing investment could not be recouped because of the lack of funds circulation. Governments at all levels had to take the burden of both incessant new house building and old house repairing.

House building never met the expanding dwelling needs. Figure 1 shows how small the scale of Shanghai's housing investment was compared with the city's GDP during the 1970s and the 1980s. Figure 2 illustrates the changes in the per capita living area of Shanghai urban residents.

In the 1980s in the city's downtown, the per capita living area was just around 6 square meters. Even now there are still many third- or fourth-generation families in Shanghai living in just one poor room, normally less than 20 square meters. For the sake of zero profit, no entities had the incentive to engage in the housing industry. Housing supply lagged largely behind the urban inhabitants' demand.

Housing Policy in Transition

The city's housing policy is in a transition from the centralized planning economic system to a new market-oriented one. Shanghai spearheaded housing system reform throughout the country in 1991. The reform program included establishing a housing provident fund system, raising public housing rents, subsidizing public house tenants and selling publicly owned housing units to tenants at preferential prices.

All these measures have generated some positive progress towards a market-based housing system. The housing provident fund financial system provides steady funding for
local residential housing investment and accelerates house construction. The local residential living standard in urban districts leaped from 6.60 square meters living area per person in 1990 to 9.00 square meters in 1997. The consciousness of housing consumption opportunities has energized urban dwellers and thus paved the way for further housing reform.

**Housing Provident Fund**

Today the housing provident fund system is the mainframe of Shanghai’s housing finance. The housing provident fund, founded in 1991, is a mutual-help financial system, legally stipulated in the local act named Regulations of Shanghai Municipal Housing Provident Fund System, which was promulgated in 1996. The regulation requires all employers, either public or private, and their employees to take part in the system with each party contributing a certain percentage of the employee’s monthly wage to the fund reserve.

Starting from July 1, the percentage was raised by 1%—from 5% to 6%—from a level which had been unchanged for six years. Thus, an employee’s monthly provident fund total contribution is 12% of her or his wage. The proceeds are mainly used for social housing development and mortgage loans; the rest is invested in Treasury bonds. At present, about 4.50 million employees contribute to the fund reserve, which totaled 16.2 billion RMB yuan, i.e., US$1.96 billion, by the end of 1997.

Figure 3 shows that the fund reserve expanded sharply in the last six years at the annual growth rate of 69%. Figure 4 shows the fund asset portfolio by the end of 1997.

**MORTGAGE MARKET ANALYSIS**

The housing mortgage market in Shanghai consists of two sectors: the provident mortgage and the commercial mortgage. The policy-oriented provident mortgage loan is becoming the pillar of financial services for local employees’ housing consumption, while the commercial mortgage serves not only the employees’ participating in the provident system but also other local residents. By the end of 1997, the volume of provident mortgage loans reached 4.6 billion RMB yuan and the commercial reached 3.0 billion.

**How Provident Mortgage Service Works**

The housing provident mechanism was initially designed to financially support housing development for the local citizens. In May 1992, one-and-a-half years after establishment of the provident system, the
so-called provident mortgage service (PMS) was introduced to fund contributors.

All the aspects of the PMS are stipulated in the regulations of the Shanghai Housing Provident Mortgage Service, promulgated by the fund management center. The following brief review of the provident mortgage loan will be useful for understanding the way in which it works.

1. Criteria for the PMS application. Only those employees who participate in fund contributions can apply for a provident mortgage loan. At least 30% of the price of the house they want to purchase is required for the lump sum downpayment.

2. The loan amount is decided by the minimum of three parameters.

a. Loanable Amount (LA), defined in the formula $LA = \sum W \times 35\% \times 12 \times Y$, in which $W$ stands for the sum of monthly wages of borrower and other family members who are willing to repay the loan together, and $Y$ for the years of loan term. The LA formula implies that the repayment is based on 35% of the repayer’s income, in case the income grows at a faster rate than the loan’s interest rate.

b. LTV: 70% of the price of the house to be purchased (80% will be considered possibly in 1998).

c. Ceiling Amount (CA): 100,000 RMB yuan at present, considering that a core family buys a house unit valued 150,000 yuan [=60 (sqm) 2,500 (yuan/sqm)], in which the lump downpayment is 50,000 yuan (approximately 30% of the house value) and the rest can be supported by a provident loan. CA will be increased to 120,000 RMB in 1998.

3. Term. Borrowers can choose a loan term ranging from 1 to 15 years and the range is expected to be increased to 20 years before long.

4. Guarantee. PMS demands that the house which a borrower buys be mortgaged to the lender, i.e., the estate credit department of China Construction Bank Shanghai Branch, which is the
exclusively authorized commercial bank for the city's housing provident financial business.

5. **Insurance.** Borrowers should also purchase insurance policies for the house to prevent a loss in case of accidental damages. The premium is annually 0.5% of the house value.

6. **Interest rate.** The provident fund system runs in a closed circulation, isolated from the open capital and monetary market. The loan interest rate is the depository interest rate plus a spread of about two percentage points. The deposit interest rate of the provident fund is positioned at a low level near the three-month term deposit interest rate, so as to lower the cost of funds collected and reduce the borrower's interest burden. The loan interest rate rises as the term lengthens. At present, the average interest rate of the provident mortgage is 5.004%, 4 percentage points or so less than that of commercial loans.

7. **Repayment.** The repayment is based on the periodical installment and normally on the cycle of a month. The monthly installment is calculated through the formula below.

\[ M = P \times i + P \times i / (1 + i) - 1 \]

\[ M = \text{monthly installment}; P = \text{principal of loan}; i = \text{interest rate per month}; T = \text{number of repayment months}. \]

**What Is Behind the Boom?**

If we take a close look at the provident mortgage development in the last six years, some valuable aspects of the system are evident:

The inhabitants concept of housing commercialization is strengthened.

Figure 5 shows the growing annual aggregate amount of provident mortgages granted. During the last six years, the number of borrowers and the annual loan volume of provident mortgage have increased at the rate of 90.8% and 184.5% respectively.

Traditionally the Chinese people have had no concept of credit consumption. They normally plan living expenditures within the scope of the sum they earn. However, as housing reform proceeds, people are gradually accepting the consumption idea of 'borrow and enjoy first.' The strong incentive of moving out of the crowded house shared by parents, kids and even grandparents is one of the underlying reasons why people accept borrowing so quickly despite hundreds of years of Chinese tradition of saving.

The increasing length of the loan term is another proof of the increasing appetite for borrowing for consuming. Figure 6 says the average loan term increased from 5.78 years in 1992 to 8.90 in 1997.

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**Figure 5. Increase in Provident Mortgages**

![Graph showing increase in provident mortgages](image)

**Figure 6. Average Term of Mortgage Loans**

![Graph showing average term of mortgage loans](image)
Figures 7 and 8 show the correlation of loans and borrowers' age. It can be concluded that the younger people were those who first accept the idea of borrowing to purchase, to be followed by older people later.

A second major explanation of the boom is the good credit status of borrowers. So far, no bad loans have appeared. By the end of 1997, bad debts were nil and the less-than-six-month late repayment was only 0.04% of the total outstanding. By contrast, the bad debt of state-owned banks is climbing to an historical pinnacle.

**PROSPECTS FOR THE HOUSING MORTGAGE INDUSTRY**

Impacting continuation of the housing system reform are house building socialization and the income-linked housing supply policy.

The seven-year practice of housing reform shows that the expected results have been achieved, such as solution of the housing investment fund shortage, creation of a fledgling housing market and strengthening of the residential consciousness of housing commercialization. However, the housing connection between employees and employers hasn't yet been cut off. Employees' housing is generally taken for granted as a matter of free welfare to be provided by employers.

Employers (or working units) themselves still have to take the responsibilities of investment, construction, allocation and management of housing for their employees by themselves. Therefore, housing cannot develop as an industry with scale economy. The separation of housing resolution among all the working units causes macro disorder, as reflected in the lack of a general housing plan, no identification of different level income families in the housing supply, prices delinked with production costs and administrative corruption in housing allocation.

Both the central and local governments have perceived such kinds of problems and tried to establish an integrative housing policy, named the "socialized housing construction program." The proposed Shanghai program includes two major construction systems—one is government-supported social housing-development institutions, which target the construction of houses for
middle- and low-income families; the other is the commercial housing development bodies, including all the private real estate companies which build houses sold or let for high income families.

The income-linked housing supply policy purports that inhabitant houses are to be supplied according to family income level, i.e., high-income families purchase or rent through the market; middle-income families buy or rent houses supplied by the governmental housing development institutions; low-income families rent the low-rent houses provided by government.

Under such a socialized housing supply system, people's housing will become a new means besides the accumulative individual income taxation to balance the income of society's members indirectly. Thus, a housing supply system will be formed to function as an important part of the social security system.

Provident System Will Dominate Housing Finance Sector

As the Shanghai legislature enacted the law of Regulation on Shanghai Municipal Housing Provident Fund System in April 1996, the State Commission of Economic Restructuring immediately set up a survey team to conduct a legal draft of a management system of nationwide housing provident funding.

Undoubtedly, in some future period, the provident fund system will dominate the national housing finance sector. The production and consumption of urban residential housing will mainly be financed through the provident fund. In order to further develop and perfect the functions of the provident financial mechanism, Shanghai recently implemented some new measures.

Raised the collection percentage. From July 1, 1997, the employee's provident fund percentage was increased from 5% to 6% and so was the percentage of employer's subsidy for the employee's provident deposit. Therefore, an employee's provident fund is now 12% of his or her monthly wage.

Established a supplementary housing provident fund. Also starting in July 1997, a new system called 'supplementary housing provident fund' was promulgated, under which both those employees and enterprises in a profit-making status could voluntarily contribute up to 18% of an employee wage into his (her) account of supplementary provident fund deposit.

It was designed to transfer the traditional welfare-based free housing allocation to a "monetary housing remuneration" system. The supplementary system de facto regulates profit-making enterprises to subsidize their employees' settlement in the form of the supplementary housing provident fund so as to enhance employees capability to purchase houses from the market, together with the basic provident saving. By the end of 1997, nearly 1,000 working units had participated in the supplementary provident fund system. Most of these were foreign-funded enterprises.

Other Housing Financial Facilities to Be Encouraged

In order to maintain the rising economic trend that has existed during the 1980s and first half of the 1990s, the Chinese central government has determined to let the housing industry become a national economic growth pillar. One means to achieve that goal is to encourage all kinds of financial facilities to promote housing consumption in order to stimulate housing industrial development and hence to serve as an engine of growth for other industries.

In the beginning of 1997, the State Council selected Shanghai, Taiyuan of Shanxi Province and Chengdu of Sichuan Province as pilot cities to carry out the test program of housing saving, aiming to emulate the German 'Bausparkasse' system. The German government encourages citizens to participate in housing savings through the policy of depository subsidies. A depositor signing a Bauspar deposit contract with Bausparkassen can acquire a housing loan several years later, with the amount equal to the saving. The interest rates are normally as low as only 3%-5%. The pilot program is still in the phase of survey and design.

It is foreseeable that the competition between the provident and commercial mortgages will be encouraged and tested so as to perfect housing financial services delivery. The final beneficiaries will be common people.

Emphasis to Move From Production to Consumption

The statistics show that at present housing finance is overstressed on the production side. Funds for housing mortgages constitute less than 5% of all housing credits, and the provident mortgage provides only about 28.9% of the total funds credit. Finance was too inclined to construction and caused serious overproduction. It is estimated that nearly 100 million square meters of houses constructed are vacant throughout the country, and about one-tenth are in Shanghai. Yet common people's purchasing power can't keep up with rising house prices because of lack of financial support.

The financial emphasis will have to move towards personal house purchasing. It will be a more rational policy to support housing development through financing the housing consumption so as to maintain the supply-demand balance in housing market.
Setting Up Deposit-Loan Link

To optimize the provident fund flow, a deposit-loan linking mechanism will have to be created. There are both interior and exterior reasons for doing this.

Interior driving forces. At present the provident mortgage regulation disconnects a borrower’s provident deposit and mortgage loan and causes considerable unfairness. You can be granted a large mortgage loan even if you contribute little money to the fund reserve because the loan amount is calculated on the basis of your wage instead of the deposit you contribute to the reserve.

The point of unfairness is that the borrower is financed by utilizing funds offered by those who do not apply for a mortgage. The principle of mutual-help will be radically damaged should everybody apply for the provident mortgage. How can the management center organize a borrowers’ queue?

The conundrum of mortgage funding is that most fund contributors cannot be granted low-interest loans because of the limitations of the provident fund volume. The management center has no means to effectively manage mortgage demand.

Exterior pressures. The provident mortgage is experiencing a transformation from the demand-dominated to supply-dominated market. In May 1992 when the PMS was first introduced, the fund center was afraid of too few people demanding loans; however, today it is worried that the fund is not adequate to meet the expanding demand.

It is important to optimize the fund flow to needy families, mainly the middle- and low-income families, and those who contribute more money to the reserve. Figure 9 shows a projection of fund reserve volume in the next 10 years through 2006. Figure 10 forecasts the available provident mortgage supply in the same time.

How to Link? A Multiplier Model

- Definition of Multiplier \( \lambda \): Under the deposit-loan linked mortgage mechanism, the loanable amount (LA) is calculated by the formula \( LA = D \times \lambda \), whereby \( D \) stands for borrower’s provident depository sum, \( \lambda \) for the multiplier.

- Multiplier Model: The multiplier is obviously a key parameter for the determin-
multiplier changes.

The model gives a way to calculate the multiplier year by year. \( \xi(t) \) is the factor connecting multiplier of the next period with present, which can be named as connection coefficient. \( \lambda \) fluctuates as \( \xi \) varies. \( \xi \) is determined by changing the rate of three parameters, i.e., the macro planned supply of mortgage \( S \), the market demand changes \( c \) and the micro structure of the provident mortgage \( AD, AN \). \( S \) is managed by the fund center. \( c \) can be forecasted according to market trends. \( AD \) is based on the growth rate of employee’s average monthly wage. It is likely that \( AN \) will gradually decline to 2 because the core families are to dominate family lives. Formula 3 gives an analogue method to define the multiplier in the year of base.

The model offers flexibility for the policy-maker to decide the mortgage multiplier. In fact, the multiplier and annual planned mortgage scale can be interactively determined, and also mortgage scale should be planned with consideration of the market trend. For example, if the mortgage demand is sharply rising as the economy upsurges \( (c \) is increasing), the mortgage policy maker should increase the scale \( (S) \) and multiplier \( \lambda \) according to the model, so as to meet the borrower demand.

- Is the mortgage term still choosable under the multiplier model?

The answer is "No," there should be a minimum term \( (T_{\text{min}}) \) for the mortgage. Although the loan amount is mainly based on the product of deposit and multiplier \( (D \times \lambda) \), a borrower’s monthly average repayment must be within a certain percent of his income, otherwise the loan will be in a risk because the borrower has to decrease other everyday expenditure to make the loan payment. However, a person’s everyday expenditure cannot be extended indefinitely. Therefore, the minimum term lies at the point that the ratio of monthly average repayment-to-income is at the maximum. Empirical data of consumer expenditure structure in developed countries indicate the debt-to-income ratio should be reasonably upper limited at 35%-40%.

Establishing a Risk Protection System

Although borrowers are in a good status of repayment now, the mortgage loan system will be at a rising risk as the mortgage stock expands. A risk protection system can be established through credit insurance and founding a specific mortgage guarantee institution by the government. Also, a credit database of citizens should be established simultaneously on the basis of the due diligence survey.

Providing for Securitization

As mortgage lending rises, securitization of receivables will be one general solution for the fund center and banks to keep the liquidity of financial assets and balance the mismatch between assets and liabilities. At present, the author, appointed by Shanghai municipality, is pioneering a research team for the feasibility study of mortgage securitization in Shanghai.

CONCLUSION

As the Chinese economy advances towards the market system and the housing reform goes further, the housing mortgage industry in China will enjoy a thriving future and also contribute to the continuous growth of the national economy. The epitome of the whole country, Shanghai, is well poised to enfold both domestic and foreign housing finance entities who are far-sighted enough to make commitments for Chinese housing financial development.

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Reorganizing Housing Banks: A Case Study of the Fiji Housing Authority

by Dr. Jack Guttentag

INTRODUCTION

Housing banks are government-backed home lending entities that usually have subsidized fund sources and usually lend at subsidized rates. With the possible exception of the Housing Bank of Thailand, their performance has been uniformly poor. Subsidized funds have protected them against the discipline imposed by markets, which encourages inefficiency. Subsidized loan rates have often resulted in the intrusion of politics and favoritism into the borrower selection process. Credit losses have been high because of reluctance to enforce liens, along with a tendency of borrowers to confuse loans from a government entity with grants.

In recent years the failures of housing banks have become increasingly evident while the availability of subsidized funds has declined. The result has been a search for new directions and new mandates. The Housing Authority of Fiji (henceforth "HA") has been one of those caught up in this ferment. Visiting HA as an advisor in 1997, I had an opportunity to evaluate their existing reorganization program and to recommend the more radical changes that seemed to me to be required. This article is based on my report to HA.

CURRENT APPROACH TO A NEW MANDATE

HA was originally established "to enable workers to purchase or lease dwelling-houses at a reasonable cost." The Public Enterprise Act of 1986, however, requires HA "to operate as a successful business and, to this end, be as profitable and efficient as comparable businesses which are not owned by the state."

This new mandate created a conflict between the social objective of HA and the new requirement of profitability. The 1986 law recognizes the potential for such conflict and states that the agency "will be appropriately compensated for its non-commercial obligations and any funding will be made apparent."

In response to its new mandate, HA has taken the position that the cost of its "social and welfare-related tasks" consists mainly of the larger provision for bad debts than would have been needed had HA made all loans on a commercial basis. In 1997 it estimated the incremental provisioning cost and billed the government accordingly.

Blurring Commercial and Non-commercial Lending

If HA distinguished operationally between commercial and non-commercial lending, then loss provisions could be estimated separately for non-commercial lending, and this approach might be workable. Even in this case, however, billing the government for subsidy cost after loans have been made rather than before could prove problematic. The government is going to want control over subsidy expenditures before the expenditures are made. Under an approach where housing subsidies are based on loss provisions, government receives a bill after the assistance has been provided.

The fact that HA has only one category of loans for which it estimates loss provisions creates an additional problem. Loan loss provisions are educated guesses to begin with, and distinguishing the portion attributable to non-commercial policies makes such guesses even more tenuous. Further, since HA has an interest in making the proportion of its provisions attributable to non-commercial lending as large as possible, a credibility issue is almost sure to arise.

Since it will not be possible to establish definitively the portion of total losses attributable to non-commercial lending, it will be very difficult for the government to hold HA accountable for the efficiency with which HA conducts its commercial operations. Such accountability is another objective of the 1996 legislation.

Subsidized Lending Monopoly

In addition, under the current HA approach
HA maintains its monopoly over subsidized lending. This is inconsistent with still another objective of the 1996 legislation, which is to create a "level playing field" between government and private entities operating in the same market.

The balance of this paper outlines an alternative approach to resolving the conflict between HA’s social and commercial objectives that deals with these problems. It involves three major components:

- Creation of a new housing subsidy program, open to any lender, where the subsidy amounts are budgeted by the government before they are committed.

- Placement of HA’s existing portfolio in a “Management and Liquidation” department which would manage the runoff of loans and liabilities.

- Chartering a new HA as a government-owned bank that would be 100% commercial and subject to privatization after a specified period.

These three proposals will be considered in turn.

DEVELOPING A NEW HOUSING SUBSIDY PROGRAM

The housing subsidy program sketched below is designed to:

- Minimize arrears among households receiving subsidies.

- Make housing subsidy costs to government transparent and controllable.

- Maximize the efficiency of subsidy usage by households.

Developing a Contract Savings for Housing Program

Depository institutions, including HA with its new banking charter, would be authorized to offer special contract savings programs which will qualify households for housing subsidies. A household which completes a savings program would receive a housing subsidy equal to some multiple of the amount saved.

As an illustration, a household might save $50 per month every month for three years, accumulating roughly $2,000. If the subsidy multiple is 2, the government would award the household a subsidy credit of $4,000. The subsidy could be used in the ways described below to help in the purchase of a home.

There should be a maximum subsidy amount per household and a maximum sale price of home for which the subsidy can be used, with the maximum sale price indexed to the price level. If prices rise by 5%, the maximum sale price should also rise 5%.

Making the completion of a contract savings program a condition for receiving a housing subsidy will reduce arrears because households who complete the program have demonstrated that they have the discipline required to save. The savings requirement is also a sensible way to ration scarce subsidy dollars. In addition, to the degree that it induces some households to save more than they would otherwise, the program would increase national savings.

Administration and Control

Since the extent of the government’s commitment to make subsidy payments would be determined in part by the number of households starting and completing savings programs, the government needs accurate and up-to-date information on the magnitude of these accounts. In addition, it should reserve to itself the right to vary both the multiple and the minimum savings period as a way of controlling total subsidy outlays. (Of course, it cannot change these capriciously without undermining the credibility of the program.) HA is the logical entity to design, implement and administer the subsidy program.

Insurance Premiums on Small-deposit Loans

The subsidy amount should be usable by households to reduce the size of the required deposit, reduce the mortgage payment in the early years, or both. This flexibility would be a unique feature of the program.

In using the subsidies to reduce the required deposit, HA would establish a commercial standard deposit requirement, perhaps 20%. It would also establish a set of insurance premiums for complete loss coverage when deposits are less than 20%, such as the following:

<table>
<thead>
<tr>
<th>Deposit</th>
<th>Premium</th>
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</thead>
<tbody>
<tr>
<td>15%</td>
<td>1.0%</td>
</tr>
<tr>
<td>10%</td>
<td>2.5%</td>
</tr>
<tr>
<td>5%</td>
<td>4.5%</td>
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</tbody>
</table>

As an illustration, assume the maximum sale price on a subsidized transaction is $30,000, the household saves $2,000 and earns a $4,000 subsidy. If the household opted for the 5% deposit, it would cost $1,283 of the subsidy (4.5% of the loan amount of $28,500). The remainder of the subsidy would be available to reduce the mortgage payment in the early years.

Under no circumstances should the subsidy be available for the deposit itself, as opposed
to paying for the insurance premium needed to reduce the required deposit. If the borrower could use the entire $4,000 subsidy for the deposit, immediate resale of the house would put a $4,000 windfall in the borrower's pocket. This has been a problem with deposit subsidy programs in Latin America.

In the example above, the subsidy payment of $1,258 pays the insurance premium required to reduce the required deposit to 5%, or to $1,500. But the $1,500 must be paid out of the borrower's own funds. The household could use $1,500 of its accumulated $2,000 for the deposit, and retain $500 for other purposes.

**Meeting Early Year Mortgage Payments**

Subsidy recipients may also need help in meeting the mortgage payment in the early years of the loan, and any part of the subsidy that is not used to reduce the deposit should be available to reduce payments. The subsidy can be used more effectively if it is concentrated in the early years of the loan rather than spread out over the entire life.

Consider the household cited above which earns a $4,000 subsidy to purchase a $30,000 house and uses $1,283 to reduce the deposit to 5%. This leaves $2,717 of the subsidy for reducing the payment. The loan amount of $28,500 on a conventional mortgage at 11% (the assumed commercial rate) and a 25-year term would require a level payment of $279. If the subsidy were used to reduce the payment on this loan over its entire life, the new payment would be $270. This isn't much of a reduction.

If the subsidy were concentrated in the early years of the loan, however, and followed by payment increases that the borrower can afford, the initial payments can be reduced much more sharply. In the example, the $2,717 subsidy would allow any of the following possibilities:

<table>
<thead>
<tr>
<th>Table 2</th>
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<tbody>
<tr>
<td>Initial Payment</td>
</tr>
<tr>
<td>Annual Pmt. Increase</td>
</tr>
<tr>
<td>Highest Payment</td>
</tr>
<tr>
<td>Month Reached</td>
</tr>
</tbody>
</table>

The first column shows that the initial payment can be reduced to $203 if it is followed by annual payment increases of 4% for 12 years, reaching a maximum payment of $320 in month 145. The last column shows that the initial payment can be reduced to $186 if it is followed by annual payment increases of 7.5% for seven years, reaching a maximum payment of $299 in month 85.

All of the examples shown above require a subsidy of $2,717. The subsidy is placed in an escrow account from which monthly withdrawals are made to cover the difference between the payments made by the borrower in the early years and the interest payments on the loan. The withdrawals from the account decline over time as the borrower's payment rises.

In designing the program, the annual percent increase in the payment could be made uniform for all borrowers, or it might be allowed to vary with the preferences and capacities of the borrower.

The numbers in the table above are computer-generated using MARSDP, a mortgage design program developed by GHR Systems, Inc., which makes it available to developing countries free of charge.

**Relevant Experience in Other Countries**

The different components of the housing subsidy program described above have all been used in other countries, but not exactly in the same way, nor tied together in the manner proposed for Fiji.

Contract savings programs for housing are used in many countries as a way to encourage savings and qualify borrowers for housing loans. These programs sometimes are indirectly subsidized by government through tax or similar benefits, as they are in France and Germany. These subsidized programs have similarities to the program proposed for Fiji.

The private mortgage insurance industry in the United States and other countries base insurance premiums on the size of the deposit, with the premium paid by the borrower, exactly as proposed here. The only difference is that under the program proposed for Fiji, the borrower will pay the premium out of the subsidy the borrower has earned by completing the contract saving program.

Mortgages that reduce the initial monthly payment by supplementing that payment through withdrawals from a special account set up at the time the loan is made have been widely used in the U.S. The special accounts are called "buydowns." In the version proposed here, the buydown (subsidy) is the amount required to pay the difference between the payment made by the borrower and interest due the lender in the early years of the loan. We call this an "interest only buydown mortgage." However, in the U.S. the subsidy usually is provided by builders or other home sellers, and sometimes by borrowers themselves, rather than by government.

Perhaps the most novel feature of the subsidy program proposed for Fiji is the way the components are put together. In most other countries, housing subsidies are used to reduce monthly mortgage payments. In a few countries subsidies are used to reduce the deposit. But there are no existing programs of which I am aware under which the household can allocate a fixed subsidy amount for either purpose.
Note that housing subsidies of the types proposed here do not provide subsidy recipients with a windfall that they can realize if they resell the property. Hence, there need be no restrictions on sale of properties purchased with the aid of these subsidies.

Making the Program Available to All Private Lenders

While the housing subsidy program should be administered by a new subsidy administration unit in HA and would be implemented first by the new loan unit of HA, once all the kinks are out of the program it ought to be available to any lender who wants to participate.

While this means that HA will be obliged to compete with other lenders on an equal basis in both subsidized and non-subsidized lending, it provides HA with political cover and credibility. If HA were the only lender that could offer subsidized loans, it would be much more difficult to induce the government to remove existing restrictions on HA. Further, in the determination of the insurance premiums paid by the government in connection with low-deposit loans, HA would be negotiating with itself. It is important that other lenders have an input into this process.

CREATING A MANAGEMENT AND LIQUIDATION DEPARTMENT WITHIN HA

I propose that HA create a new “Management and Liquidation” (M&L) department which will manage the existing portfolio until all the loans are paid off and the liabilities retired. This will allow the creation of a “New Loan” entity within HA that will start with a clean slate. It also will facilitate a focused effort to reduce arrears on the old portfolio.

Outsource Loan Servicing to Private Banks

Government lending entities the world over do a poor job of collecting payments from household borrowers, and HA is no exception. Hence, a first order of business of the new M&L department in HA should be to outsource loan servicing to the private sector. This involves the following steps:

1. Developing a “prospectus” setting forth, among other things:
   1. The duties and obligations of the servicer;
   2. The characteristics of the loans in the portfolio that affect the costs of servicing; and
   3. The powers of the servicing agent to impose late charges on borrowers in arrears.
2. Assessing the loan servicing efficiency of the private lenders in Fiji to determine which of them should be eligible to bid.
3. Setting forth the bidding procedure that will be used to select the winner.

The bidding for loan servicing is in terms of the fee that HA must pay the servicer, expressed as a percent of the loan balance. In the U.S., a customary fee is .25% on an annual basis, or .25/12 on a monthly basis. This payment is retained by the servicer from the interest payment received from the borrower before passing the remainder on to HA. If no payment is received from the borrower, no fee is retained by the servicer.

Consider a Range of Measures to Improve Collections

Like most housing banks, HA has high levels of arrears that are related to a culture that is excessively accommodating to borrowers, and to specific operational policies that reflect the culture:

1. Interest is not charged for the first two months.
2. A borrower in arrears does not hear about it from HA for six months.
3. Late fees are capped each year.

The combination of two interest-free months plus the six-month lag in reporting on arrears undermines borrower discipline. Furthermore, the practice of capping the late fee each year means that once the borrower hits the cap, there is no further cost to delaying the payment. All of these policies should be discarded.

Consideration should also be given to shifting borrowers not subject to payroll deduction and who are paid weekly to a weekly payment schedule; and borrowers who are paid every two weeks to a two-week payment schedule. The rationale for this is discussed later in connection with the development of an underwriting function for the newly chartered HA.

Interest-rate Risk on the Old Portfolio

HA’s existing loans are “discretionary adjustable rate mortgages,” meaning that HA has the contractual right to change the rate at any time. In practice, however, HA has rarely exercised this right. It has not been under any pressure to do so, because HA’s liabilities are long-term. For this reason, M&L will not have any significant interest-rate risk management problem on the old portfolio. On the new portfolio, however, it will be a different story, as discussed later.

Improving Liquidity Management

HA has undertaken important initiatives to convert large amounts of illiquid assets into
liquid assets and to reduce the delays involved in being paid by the provident fund. Once HA is in possession of sizable amounts of liquid assets, it should consider retaining a consultant to assist it in developing operating procedures for maximizing the earnings from these assets.

Improving Operating Efficiency

Important initiatives directed toward this objective have already been undertaken, including the outsourcing of functions that can be executed more economically by the private sector, elimination of redundant positions and the initiation of focused training programs for staff. When the more obvious opportunities for cost savings have been fully exploited, HA should consider retaining a consultant to prepare a detailed audit of possible cost savings from reorganizing the ways in which key functions are executed.

CHARTERING A NEW HOME LENDING ENTITY

Freed from the constraints imposed by an existing loan portfolio with an unknown amount of embedded losses, HA can create a new lending entity (henceforth “New Loan”) that would operate on a strictly commercial basis. New Loan requires a banking charter so that it can offer the contract savings program designed as a part of the proposed new housing subsidy program.

The expectation is that after New Loan builds value, it would be sold to the private sector with the profit realized by the government of Fiji. If New Loan fails to build value it should be terminated.

To be successful in building value, New Loan must shed not only its existing loan portfolio but also much of its existing non-commercial culture. Some of the major requirements of success are discussed below.

Capital and Guarantees

Since HA now has a capital deficiency which would be carried over to the M&L department, New Loan will begin life with zero capital. Hence, it will require continuation of the guarantee of its liabilities by the government of Fiji. This guarantee would be phased out when and if New Loan is privatized.

An alternative to continuation of the government guarantee is the conversion of debt owed the World Bank (WB) and the Asian Development Bank (ADB) into equity. While WB can’t do this, the government of Fiji, as the guarantor of the loan to WB, could become the equity-holder. ADB might be more flexible than WB in converting its loan into equity. In addition, IFC might be interested in providing equity. With sufficient equity, the government guarantee on New Loan liabilities could be avoided.

If existing debt is converted into equity, a portion would have to be allocated to M&L, equal to its estimated capital deficiency. If equity investors objected to that, and any new investor almost certainly would, the government of Fiji would be obliged to assume the deficiency.

Creating a Loan Underwriting Function

Perhaps the most extreme (and most important) manifestation of HA’s non-commercial culture is that it has operated without an underwriting function. Any applicant who can make a 10% deposit and has income three times as large as the mortgage payment can obtain a loan. The willingness of applicants to meet their obligations, as indicated by their past history, is not examined. Only if HA has adverse information about an applicant in its own files does it refuse an application.

The private banks refer to HA those loan applicants they don’t wish to serve. HA has become the dumping ground for “deadbeats”—borrowers with no intention of repaying their loan.

There are actually two functions that are involved in a determination of whether a particular applicant should receive a loan. One is “processing,” by which is meant the collection of the complete file of information that bears on the ability and willingness of an applicant to repay the loan. The person responsible for completing the file is a “processor.”

Underwriting involves a determination, based on the file of information compiled by the processor, that (a) the loan application should be accepted; (b) the loan application should be denied; (c) the loan should be approved subject to certain conditions; or (d) additional specified information is required. The person responsible for making this decision is the underwriter.

Underwriters are guided by an underwriting manual, which sets out the lender’s general philosophy, the criteria that should guide the underwriter and the procedures that are to be followed. It is desirable if the internal systems allow arrears experience to be traced back to the underwriters who approved the loans.

I can’t write an underwriting manual here, but let me offer some thoughts about the kinds of things that might go into it:

1. As a general rule, borrowers should be required to demonstrate their willingness to meet their obligations. The burden of proof should be on them, not on New Loan to show the opposite. Since there are no credit-reporting agencies in Fiji, recourse must be had to other sources of information. Possible sources of information are records of payment to landlords, utility companies or others.
2. Another potential source of information is the knowledge that people have about others in their local communities. Fiji is a relatively small place, and many people possess relevant information about others. Westpac Bank uses this source of information by making its branch managers responsible for recommending borrower applicants and providing evidence of the applicant's credit worthiness. If a loan subsequently goes three months into arrears, it goes back to the branch manager for collection. This works because the bank makes it clear to the manager that it expects the manager to document the case for the applicant, and that the manager will be held responsible if the loan doesn't work out.

3. A critical element in underwriting is the amount of other debt that an applicant may have. This is important both as a source of information on how well the applicant has done in paying off debts in the past, but also on the extent to which the applicant's income is already encumbered by the burden of paying off old debts. Underwriting rules typically limit the amount of old debts the applicant must service.

4. Borrowers whose payments are subject to payroll deduction, other things being the same, are less risky than others. However, payroll deduction is little help if the applicant has been in the habit of changing jobs every six months, or if the employer has a poor record of transmitting payments to HA. Length of employment and the record of the employer should both be important inputs in the underwriting decision.

5. Borrowers whose payments are not subject to payroll deduction might be better risks if they were required to pay New Loan on the same schedule as they are paid. If they are paid weekly, for example, have them pay New Loan weekly.

As shown in Table 3, a comparison of the arrears records of borrowers not subject to payroll deduction, who volunteer to pay more often than monthly, with those who pay monthly, supports this view. While loans not subject to payroll deduction have uniformly higher arrears than those subject to deduction, those not subject to deduction who pay more frequently have lower arrears.

<table>
<thead>
<tr>
<th>Table 3. Arrears as a Percent of Loan Balances, by Frequency of Payment</th>
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<td>Payroll Deduction</td>
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<td>Weekly</td>
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<td>Every Two Weeks</td>
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<td>Monthly</td>
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6. New Loan should monitor the records of individual employers in transmitting payments to determine how much reliance should be placed on payroll deduction by any given employer. Employers with exemplary records could be offered higher fees, or their employees could be given a small rate reduction which the employer could claim as an employee benefit. Such relationships with individual employers could be a useful marketing strategy for New Loan.

7. When lenders write loans on which the interest rate can increase, underwriting should take account of the borrower's capacity to absorb a payment increase in the future. This point is discussed further below.

8. Underwriting decisions need not be simply "yes" or "no." If there is not enough evidence of the applicant's willingness to meet his obligations, the loan might still be offered but subject to the requirement that the note be co-signed by a third party who does have a good record. Or the loan might be offered with a larger required deposit and higher rate to offset the risk. Making such determinations is what underwriting is all about.

Developing an Interest-rate Risk Management Strategy

New Loan would not have access to the long-term rate-subsidized funds that HA has enjoyed in the past. It would have to pay market rates, and its liabilities would be much shorter than they have been because long-term money would not be available to it on attractive terms. This is the classic problem of mortgage lenders everywhere.

To illustrate, suppose New Loan borrows money at 5% for one year and lends it out for 25 years at 8%, making a 3-point spread. If the rate on one-year money one year later is 10%, New Loan must raise the loan rate to 13% to maintain its spread; this would increase the mortgage payment by 46%, which could force many borrowers into default.

New Loan must develop an interest-rate risk management strategy that will prevent such situations from arising. It must be able to protect its spread against rate fluctuations, without imposing unreasonably heavy payment increases on its borrowers when interest rates rise.

Types of ARMs

To protect its spread, HA must be able and willing to increase the rate on old mortgages. Loan contracts that provide this privilege to the lender are called "adjustable rate mortgages" or ARMs. Broadly, there are three types of ARMs: discretionary, indexed and rollover.
Discretionary ARMs are offered by HA and the other lenders in Fiji, as well as by lenders in other countries that had been colonized by England. The discretionary ARM allows the lender to change the rate at any time (with notice), by any amount, for any reason. It thus appears to provide the lender with maximum flexibility. But in practice this flexibility has usually turned out to be an illusion.

Lenders who write discretionary ARMs almost always attempt to avoid frequent rate changes in order to avoid annoying borrowers and increasing servicing costs unnecessarily. (HA has been no exception to this rule.) The policy, which is usually implicit although sometimes it is stated, is to change rates "only when absolutely necessary." But when a situation demanding a rate increase ultimately arises, as it always does, lenders invariably find that they do not have the freedom of action they thought they had.

Adverse borrower reaction can be extremely strong, since the required rate increase, and the impact on borrowers' payments, is very large. The longer the period of rate stability, borrowers have enjoyed before the announced increase, the more indignant they will become.\(^6\)

The fact that every borrower is affected at the same time invites collective action, probably through the political process. Since the announced rate change is a policy decision made by the lender's board of directors, it is subject to outside scrutiny and political interference. This is an especially serious problem for lenders having any kind of official status.\(^7\)

Another drawback of discretionary ARMs is that there is no way to vary the amount of interest-rate risk imposed on borrowers based on their ability to bear risk. All borrowers are subject to the same risk of a rate increase.

Indexed ARMs, which are the dominant type of ARM in the U.S., base future rates on the movement of an interest-rate index. This makes rate changes completely mechanical rather than discretionary. Furthermore, since the rate adjustment date varies contract by contract, it is never the case that all borrowers are affected at the same time. In addition, the amount of interest-rate risk imposed on borrowers using indexed ARMs can vary widely through the use of rate adjustment periods of different length and caps on rate adjustments. However, indexed ARMs require the availability of a reliable rate index and are also very complicated for borrowers to understand.

Rollover ARMs fix the rate for a set period, at the end of which the rate is reset (and the payment recalculated) based on the current rate on rollovers at that time. Common rollover periods are 1, 3, 5, and 7 years. Usually the rate is higher for longer rollover periods. The rollover ARM is the standard loan type in Canada, and they are also used to a small extent in the U.S.

I propose that New Loan adopt the rollover ARM as its standard mortgage for the following reasons:

1. Rollovers are simple to understand. Each borrower knows that the rate is fixed for a set period and will then be reset (and the payment recalculated) based on conditions prevailing at that time.

2. Borrowers can be given a choice regarding the combination of initial rate and rollover period they prefer. New Loan underwriting will require that borrowers who select short rollover periods are better able to assume the risk of rate increases (see below).

3. Using rollover ARMs, New Loan will be forced to keep its rates in line with the market, since loans are always coming due and the rates at which they can rollover must be formulated.

4. Rollover ARMs lend themselves to a simple yet effective method of managing interest-rate risk called "match-funding."

Elaborating on this last point, assume that New Loan can borrow at 3.8%, 4.3%, 5% and 6% for 1, 3, 5 and 7 years, respectively. It might then offer rollover ARMs at 6.8%, 7.3%, 8% and 9% corresponding to the same rollover periods. The demand of borrowers for different rollover periods would then determine the amounts that New Loan borrowed at the various terms. On the balance sheet the distribution of rollover ARMs by rollover period would approximate the distribution of liabilities by term:

Avoiding Severe Payment Shock

A disadvantage of rollover ARMs is that borrowers are vulnerable to severe payment shock on the rollover date if interest rates have increased substantially. Hence, New Loan should adopt policies designed to soften such shocks.

One approach to softening the payment shock resulting from a large rate increase is to lengthen the term, but this works only if the initial term is short. If the initial term is 25 years, lengthening it has little effect on the payment. Hence, the policy should be to make initial terms as short as possible in order to preserve term-lengthening as a payment shock absorber. Furthermore, whenever the rate is reduced on a loan on which the remaining term is 15 years or longer, the payment should remain as it is and the term shortened.

In addition, it would be prudent to underwrite borrowers using the highest rollover rate, regardless of which rollover period they select. This means, e.g., that if rollover rates are 6.8% and 9% on one-year and seven-
year rollovers, respectively, the payment used to determine compliance with the 33% rule would be calculated at 9% even though the borrower has selected the one-year rollover. (The borrower would receive the 6.8% rate but the payment used in the 33% test would be calculated at 9%.) This will assure that the borrower selecting the short rollover has some capacity to increase the mortgage payment if necessary.

Developing a Competitive Marketing Strategy

If New Loan is going to be successful in competing in the private market, it must develop a marketing strategy that will emphasize its strengths. From a marketing perspective, rollover ARMs have marked advantages over discretionary ARMs. New Loan will be able to quote lower rates than other lenders, and they will be able to offer rate guarantees for set periods. If New Loan charges lower loan fees, they could emphasize that as well.

Another issue is new services that New Loan might offer that would enhance its attractiveness to consumers. HA has taken a significant step forward in developing a program to offer short-term loans as a supplement to housing loans.

In all probability, there are other services that might be added as well, perhaps including real estate brokerage, which appears to be underdeveloped in Fiji. HA already provides this service to its own borrowers, and New Loan might want to consider expanding the service and offering it to anyone.

An idea for a marketing theme arises from the practice of collecting payments from many borrowers on a weekly or biweekly basis. Borrowers who pay one-fourth of their monthly payment every week, or one-half every two weeks, actually make the equivalent of 13 monthly payments per year instead of 12. If they pay religiously, therefore, they amortize their loan on an accelerated schedule. HA now records their principal reductions in excess of the scheduled reductions as negative arrears.

New Loan could allow borrowers with negative arrears to skip payments. While weekly payers who skip four payments a year and biweekly payers who skip two payments simply stay on the same amortization track as borrowers who pay monthly, the privilege of skipping payments could be marketed as a reward for good payment habits.

An alternative to allowing borrowers to skip payments is to offer to pay them some or all of their negative arrears, perhaps at Christmas time. How about “The Loan That Pays You Back at Christmas”?

Still another possibility that opens when New Loan becomes a bank is to transfer the negative arrears into a deposit account. To see the kind of magnitudes that might be involved, consider a loan for $50,000 at 10% for 20 years and a monthly mortgage payment of $482.52. If the borrower makes weekly payments of $120.63, the four extra payments a year at 7% interest would accumulate to $20,723 over the 20 years. Not bad!

Privatization of New Loan

Since New Loan must be supported by government guarantees or capital, it should offer the prospect of a significant return to the government. The return would consist of the proceeds from the eventual sale of New Loan to the private sector. Absent this inducement, there is no reason why the government should capitalize New Loan.

HA should develop a business plan that makes the case for New Loan. I view this section as raw material that HA can mine for use in developing the plan. In addition, the plan should include:

- Spreadsheet projections of revenues and expenses which will support a target date and target price for sale to the private sector.
- Interim net revenue milestones which New Loan must achieve lest government “pull the plug.”
- A bonus incentive arrangement for management, payable only if the target price or better is realized by the target date or sooner.

Once the plan is accepted, management should be granted maximum autonomy in realizing the plan, including the provision of full banking powers and the elimination of any existing restrictions on the segments of the market in which New Loan can operate.

NOTES

1 These premiums are probably too high. Queensland Insurance charges only 6% of the difference between a 20% deposit and the actual deposit down to 5%. Its coverage is limited to the difference in deposit, however. The insurance premiums actually paid in principle should be the lowest premiums that private lenders would be willing to accept.

2 The Chief Manager of Westpac Bank indicated to me that he saw no reason why Westpac would not participate in a scheme of this sort.

3 I am reminded of a favorite aphorism of Peter Maurice, ex-CEO of Canada Trust: “Every market has a fool; and if you don’t know who the fool is in your market, it is probably you!”
4 Some U.S. studies have found that the ratio of existing debt service to income is a more important determinant of future payment performance than the ratio of mortgage payment to income.

5 In the U.S., some lenders will make a loan to a borrower who has a very bad credit record conditional on a 40% deposit and a rate 2% above the standard rate. However, many lenders will not touch such loans.

6 In India, lenders kept their rates fixed for so long that for all practical purposes loan contracts that are adjustable rate de jure have become fixed-rate de facto.

7 Lenders who write discretionary ARMs can avoid this type of problem by adopting a policy of changing the rate periodically—say every six months—even if the required change is very small. Borrowers then become aware of the rate change process and that rates decline as well as increase. No one rate increase, furthermore, is likely to be all that large. It will continue to be the case, however, that all borrowers will be affected at the same time.