The French Secondary Mortgage Market

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INTRODUCTION

This paper is a description of the secondary mortgage market in France. A secondary mortgage market provides the legal and economic mechanisms by which individual mortgages, interests in pools of mortgages, or claims collateralized by mortgages can be refinanced and traded. Secondary mortgage markets serve to link local markets for personal savings and mortgage credit to the broader capital markets and thus stabilize the flow of funds to the primary mortgage market.

There are three categories of mortgages in France: free market, regulated and subsidized. The terms of free market mortgages are determined within a relatively competitive market for financial instruments and according to the security offered by the collateral and stability of the borrower's income. Free market mortgages, composed 68% of originated mortgages in 1990, see Diamond & Lea, 1992 (D&L). Prêts Convenuonnées (PC) are regulated loans whose terms and supply are set by Credit Foncier de France (CFF). The fixed rate mortgage is the preferred instrument issued to finance residential property in France. Mortgagors have the right to prepay their mortgage prior to maturity but can be charged a prepayment penalty up to an amount that is the lesser of six months interest or three percent of the outstanding mortgage principal.

Subsidized mortgages are of two types: loans that are tied to a savings plan (Plan Epargne Logement or E-L) and PAP loans (prêt aidé à l'accesion a la propriété). The E-L is a savings plan offering below market interest rates on deposits in return for a below market interest rate on a mortgage after the savings account has been maintained for 5 years. The PAP loans are subsidized by the government and originated by CFF.

Mortgages in France are originated by banks, finance companies and specialized mortgage institutions. The banks were funding 65% of the outstanding mortgages collateralized by residences in France as of 1990, finance companies were funding 13.5% and CFF was funding 14% (D&L). Credit Foncier de France, a private institution, acts on behalf of the state in regulating the primary and secondary mortgage markets and makes regulated, subsidized, and free market mortgages. CFF raises funds by issuing mortgage backed bonds. CFF bond issues are examples of asset based finance rather than securitization. CFF obligations seem to carry an implicit government guarantee or at least a "too big to fail guarantee."

In France the secondary mortgage market is characterized by three different mechanisms by which institutions, other than the specialized lenders such as CFF, can refinance and/or sell mortgages. Each method allows the originating institutions to alter the maturity and composition of its capital structure and mortgage portfolio to a different degree. Sections two, three and four describe the three systems. In section five we compare the three systems and in section six we offer a brief analysis of the prospects for mortgage securitization in France.

THE 1985 SECONDARY MORTGAGE MARKET

A formal secondary mortgage market (SMM) in France was introduced in 1985 (1985 SMM). The objectives of the 1985 SMM were to enable institutions to increase the maturity of mortgages without increasing the gap between the maturity of their assets and liabilities, and to increase the supply of capital available to fund mortgages by enabling institutions to effectively mobilize mortgage assets. The 1985 SMM specified which mortgages were eligible to be refinanced and the types of instruments the originating institution could issue to refinance its mortgage portfolio.

The mortgages eligible for refinancing via the 1985 SMM must have the following characteristics:

- Mortgage must be for the construction or acquisition of a primary or secondary...
residence;

- Maturity of the mortgage must be between 10 and 20 years;

- Minimum LTV must be 80% with the exception of Prêts Conventionnels (LTV 90%).

To qualify for access to the 1985 SMM credit institutions are required to have at least 20 million francs of capital. Institutions with less than the required 20 million FF have to obtain a guarantee from a bank with at least 40 million of capital. Only institutional investors are permitted to buy the notes issued in the 1985 SMM. Notes issued to refinance mortgage portfolio in the 1985 SMM are bullet bonds that pay interest annually. The principal amount of the mortgage collateral must be maintained at a level which is equivalent to the outstanding principal of the mortgage bonds. The implications of this constraint is that as mortgages amortize or are refinanced the credit institution must originate new mortgages to replenish the collateral.

CFF is charged with making a market in SMM bonds. The 1985 SMM is not a liquid market and is becoming less so as the volume of notes issued in this market declines. The mortgage bonds issued in the 1985 SMM can be called after seven years at par plus 100 basis points. It is this call option that undermined the 1985 SMM. Investors had not valued the call option properly and in 1987 were unexpectedly confronted with significant losses as premium bonds were called.

CAISSE DE REFINANCEMENT HYPOTHECAIRE

In July 1985 the secondary mortgage market in France was refined by the creation of the Caisse de Refinancement Hypothécaire (CRH). CRH is a conduit between mortgages and the capital markets. The objective of CRH was essentially the same as was the creation of the 1985 SMM. CRH was intended to enable banks to lower the gap between the duration of their liabilities and that of their mortgage portfolios and allow the banks to recapture the funds that were flowing from the banking sector to the capital and money markets.

CRH is a substitute for the 1985 SMM, and like the 1985 SMM, the notes refinanced by credit institutions via CRH are regulated by Credit Foncier de France.

CRH issues bullet bonds to finance the purchase of mortgage backed bonds from credit institutions. To date all bond issues have been fixed rate obligations, except FF43 billions indexed to the Paris Interbank Offer Rate (PIBOR) in 1988. The notes discounted by CRH are collateralized by eligible mortgages. Institutions that refinance mortgages through CRH must be shareholders of CRH. Refinancing via CRH does not remove the mortgages from the balance sheet of the original lender. Bonds issued by CRH can not be called but CRH makes tender offers for its bonds. The criteria for the mortgages that qualify to be refinanced with CRH are the same as those that can be refinanced via the 1985 SMM except for the additional restriction that mortgages must be the priority lien on the property. To have access to CRH, institutions must own a share of CRH’s capital. In order to own shares in CRH, institutions must meet CRH’s solvency and underwriting standards.

CRH is a valuable hedging vehicle for short funded mortgage lenders. Institutions can use CRH to match the duration of their assets and liabilities and thus decrease the volatility of their net worth. The shortcoming of CRH as a hedging vehicle is that it does not enable institutions to re-sell prepayment options they have sold to mortgagees.

The mortgage bonds issued by CRH were guaranteed by the Government until 1988 after which the government guarantee was withdrawn. After the government withdrew its guarantee, CRH changed the underwriting standards for mortgage pools it was willing to finance. Pools refinanced via CRH must be over-collateralized by 25%. As with the 1985 SMM the mortgage principal collateralizing CRH’s liabilities must be replenished as mortgages are prepaid and amortize. The spread of CRH bonds to the yield on government bonds (OAT) of similar maturity is actually lower today than it was when CRH bonds carried the government guarantee (see Figure 2). This may indicate that the liquidity of CRH bonds has increased by enough to compensate for the increased credit risk, and/or that investors still count on a quasi government guarantee.

CRH periodically discounts collateralized notes of (i.e., buys mortgage-backed bonds from) its shareholders and issues bonds backed by the pool of mortgage backed paper. CRH bonds give investors an undivided interest in the pool of collateralized mortgage notes. CRH serves as a marketing collective for its owners. Pooling the notes of individual institutions has permitted CRH to float larger issues than is possi-
Figure 2: Spread of CRH issues over OAT (Treasury bonds)

Securitization offers banks an efficient mechanism for liquidating as well as refinancing their mortgage portfolios. Unlike the 1965 SMM or the CRH, securitization enables a bank to isolate prepayment, interest rate, and credit risk associated with a pool of mortgages and then sell all or part of its exposure to these risks. Securitization enables institutions to reallocate capital from funding amortizing assets to supporting a portfolio of servicing rights.

The vehicle created by the 1988 securitization law to purchase financial assets from credit institutions is the Fond Commun de Crédence (FCC). The FCC is the functional equivalent of the special purpose vehicle utilized in the U.S. asset backed securities market. The FCC is a closed end debt mutual fund that finances mortgages by issuing securities backed by the mortgages which are in turn collateralized by real property, thus mortgage backed securities. The mortgage backed securities issued by the FCC give investors an undivided interest in the pool of mortgages owned by the FCC. The laws governing the securitization process have been revised since 1988, to allow insurance companies as well as credit institutions to securitize assets, and permit the FCC to use cash

The capital requirements for users of the CRH are higher than those for the SMM. First, participating institutions must purchase equity in the CRH equal to no less than 0.8% of the principal amount. The 0.8% is derived by multiplying the risk weight for mortgage backed bonds, 50%, by the risk weight of interbank loans, 20%, by the 8 percent capital requirement. One half of the 0.8% must be composed of core or tier I capital and one half can be supplementary or tier II equity. Tier I is raised by selling shares of CRH to the institutions that demand the discounting services offered by CRH. Shares are allocated in proportion to each institution's utilization of CRH's capital. CRH raises tier two capital by issuing prêts participatifs (participating loans, PP) to the owners of the institutions which own the shares of CRH. The PP are allocated to the institutions in the same proportion as tier I equity. The funds raised by issuing the PP are used to finance the operating expenses of the CRH, and profits are periodically distributed to the shareholders.7

Institutions using CRH financing must maintain FF 1.25 of principal for every FF 1 refinanced via the CRH. Thus, institutions financing mortgages through the CRH must use other sources of funds for the overcollateralized amount potentially reducing their ability to match fund the assets.

SECURITIZATION...

In 1988 the law enabling French banks to securitize their assets was adopted.8
flows derived from the original asset pool to purchase additional assets. These amendments to the original laws lower the transaction costs of securitizing mortgages and increase the flexibility of the FCC.

The structure of mortgage backed securities in France is subject to the following constraints:

- securities issued by the FCC must be enhanced by either a third party guarantee, a subordinate class of securities, or over collateralization,
- mortgage backed securities must be rated by a recognized independent third party,
- the FCC can not borrow funds.

The first two constraints are not serious impediments to securitization. Ratings provide valuable information to investors especially when the market is immature. Credit enhancement is simply a technique used to capitalize debt securities that are issued through passive vehicles such as the FCC. The ability to borrow would enable the FCC to tap funds when necessary, if the cash flowing into the FCC were insufficient to service the obligations of the FCC. In lieu of borrowing, the mortgagee can make a cash advance to the FCC. The FCC may issue multiple classes of securities which segment the cash flows derived from the mortgage collateral across risk and timing dimensions. There are no restrictions regarding which credit institutions can securitize assets or to the type of mortgages that can be securitized.

The capital requirements for securitization have been quite favorable for FCC securities credit enhanced through senior subordination. For example, if a bank creates a subordinate tranche equal to 10% of the securitized pool of mortgages, the capital requirement against this tranche is currently 8% of its principal amount (100% risk weight). As a result of this relative leniency in treatment, the technique of enhancing multiple classes of securities by issuing a subordinate class of securities has been the primary source of credit enhancement on asset backed securities in France.

As of June 1994 the capital requirement to fund the subordinate tranche(s) of an asset backed security will be 4% of the principal amount of the total pool. This change raises the capital requirement from 80 to 400 basis points. The immediate result of this change will be to remove any regulatory arbitrage opportunities that existed due to the relatively low capital needed to fund the expected losses associated with a mortgage pool. The peculiarity of mortgage-backed securities (MBS) issued to date indicates that this arbitrage opportunity was not strong enough to induce institutions to securitize mortgages. The other implication in the revised capital weighting of subordinate tranches is to make alternative forms of credit enhancement, such as financial guarantees or standby letters of credit coupled with financial guarantees, more competitive. A long term effect of the revision in capital regulation may be the development of a market for subordinate classes sold to institutions not bound by risk based capital regulations.

**COMPARISON OF THE THREE SYSTEMS**

Although all three techniques that permit credit institutions to repackage their mortgage portfolios co-exist, the CRH has grown at the expense of the 1965 SMM. This phenomena is illustrated in Figure 3.

Of the approximately 70 French securitization transactions 2 have involved mortgages. In 1991 Credit Foncier de France securitized FF1,637 billion of mortgages via the FCC "Foncier-FCC-1991". The FCC issued three classes of securities. Class A and B are senior to class C with respect to credit risk, while class A has a claim on all principal until it amortizes at which point principal would be paid to the class B securities. The lead underwriters for the transaction were Bear, Stearns International Ltd and Credit Lyonnais. Bear, Stearns and Credit Lyonnais, through their joint venture have also structured and privately placed an MBS issue for Crédit Martiniquais.

In order for the theoretical advantages of securitization relative to the CRH and 1965 SMM to be attained, transaction costs must be brought down to an acceptable level and investors must be confident that the securities will be liquid and that prepayment and credit risk are being priced correctly. French banks have had access to a stable supply of relatively low cost funds which has allowed mortgages to be funded at unrealistically low rates given their risk. The sources for French banks' relatively low cost of funds are identified by Diamond and Lea (1992):

- by law no interest can be paid on deposits of three months' maturity or less (including sight deposits), and

**Figure 3 : Mortgage Notes in the SMM (1965 SMM + CRH)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Notes in FF Billion</th>
<th>1965 SMM in %</th>
<th>CRH Notes in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>81.9</td>
<td>95.6</td>
<td>4.4</td>
</tr>
<tr>
<td>1986</td>
<td>98.1</td>
<td>86.2</td>
<td>13.8</td>
</tr>
<tr>
<td>1987</td>
<td>96.4</td>
<td>73.9</td>
<td>26.1</td>
</tr>
<tr>
<td>1988</td>
<td>96.3</td>
<td>60.6</td>
<td>39.4</td>
</tr>
<tr>
<td>1989</td>
<td>95.9</td>
<td>51.4</td>
<td>48.6</td>
</tr>
<tr>
<td>1990</td>
<td>94.1</td>
<td>41.9</td>
<td>58.1</td>
</tr>
<tr>
<td>1991</td>
<td>93.5</td>
<td>32.2</td>
<td>67.8</td>
</tr>
<tr>
<td>1992</td>
<td>94.8</td>
<td>23.8</td>
<td>76.2</td>
</tr>
</tbody>
</table>
• their (French banks) major savings accounts have rates regulated, and sometimes subsidized, by the state.

Thus, for example, for the commercial banks in 1989, deposits were 56 percent of their liabilities, of which 78 percent were sight deposits or special, regulated accounts.

As individuals in France reallocate their liquid savings from interest free deposits to money market funds, and the state sells its shares in French banks, these traditional sources of funds will be replaced with capital raised in the securities markets. Securitization provides capital relief through asset sale allowing institutions to meet regulatory and market requirements and/or to concentrate on fee producing activities such as loan servicing, the supply of credit enhancement and liquidity services.

Securitization can both alter the volatility of net worth and be a source of equity, while refinancing via CRH or 1985 SMM can only accomplish the former. The fact that refinancing via CRH requires more capital than it does via the 1985 SMM or securitization, has so far been offset by CRH's lower transaction costs and better pricing. The decision of Compagnie des Entrepreneurs, a shareholder of CRH (see Figure 1) to securitize mortgages may be a sign that securitization will grow at the expense of CRH.

Figure 4 summarizes the factors that an institution would have to quantify and analyze to measure the efficiency of refinancing via the 1985 SMM, CRH or by means of securitization.

Column 1 indicates if the refinancing system enables the mortgages to be removed from the credit institution's balance sheet.

<table>
<thead>
<tr>
<th></th>
<th>(1) On/off</th>
<th>(2) Capital</th>
<th>(3) Prepay</th>
<th>(4) Gap</th>
<th>(5) Fee for Spread</th>
<th>(6) Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMM</td>
<td>on</td>
<td>4%</td>
<td>I/M</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRH</td>
<td>on</td>
<td>4.8%</td>
<td>M</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MBS</td>
<td>off</td>
<td>0-4%*</td>
<td>I</td>
<td>✓</td>
<td>✓</td>
<td>S+CE+MF+R+T</td>
</tr>
</tbody>
</table>

* If credit enhancement is obtained through third party pool insurance or financial guarantees, the lending institution may have no risk based capital requirements. Alternatively, if credit enhancement is accomplished through senior subordination, the capital requirement would currently be 80 basis points rising to 400 basis points in June 1994.

It is not apparent whether these additional costs are not simply costs that are concealed in the intermediation system and made explicit by the securitization process. In other words, rating fees which make a security more liquid may take the form of increased marketing costs or a larger discount when securities are not rated. Fees paid to a company that is responsible for managing the FCC (Société de Gestion) may be funds that would otherwise be required to pay personnel responsible for managing the mortgages if they remained on the bank's balance sheet. The equivalence in notation across the columns of Figure 4 is not intended to state quantitative equality. For example, securitization may be a more efficient hedging vehicle than CRH. The checks in columns 4 and 5 do not address this point.
CONCLUSION

Theoretically securitization is a superior refinancing technique than the 1965 SMM and the CRH because it offers an institution more choices with respect to capital structure and risk profile. The theoretical benefits of securitization will only be realized if the pricing of MBS, underwriting costs, structuring costs, rating agency fees, legal fees, management fees and trustee fees do not consume the added value afforded by securitizations’ relative flexibility. Better information and more competitive financial markets will go a long way toward increasing the depth and scope of the French mortgage backed securities market. These developments would not only allow investors and mortgagees to correct price default and prepayment risk, but force them to do so.11

Two factors, one accounting and one economic, have slowed the development of securitization in France. Credit institutions have not been willing to securitize mortgages that would force them to realize losses on existing loans. Also, the demand for credit has been relatively low due to the general economic and specific housing sector depression. An economic recovery in France and the positive net present value projects that will accompany a recovery would give institutions an incentive to take their losses to free up valuable funds for new lending.

CRH may be able to utilize its position in the secondary mortgage market to facilitate the development of a market for MBS. CRH has the information regarding mortgage yields and mortgagees’ behavior necessary to price MBS effectively. CRH’s expertise in pooling the notes of credit institutions, enforcing underwriting standards, and issuing securities collateralized by relatively homogenous pools of mortgages is a solid foundation on which to build a securitization capacity. CRH could allocate capital to establish a management company that administers an FCC. The FCC would periodically discount pools of mortgages originated by the shareholders of CRH. The FCC would fund the mortgages by issuing MBS. The traditional method of refinancing via CRH could be used when institutions want to retain the benefits that accrue from financing mortgages, while securitization would enable credit institutions to raise capital, substitute spread income for fee income and re-sell positions in prepayment options. Securitization enables different dimensions of a pool of mortgages to be isolated and financed (credit, interest rate and prepayment risk) and thus offers investors unique opportunities for hedging and speculation. CRH would continue to act as a collective conduit to the capital markets for its owners.

A model for CRH’s involvement with the securitization process exists in the Caisse des Dépôts et Consignations’ (CDC) establishment of CAR (Caisse d’Autorisation de Refinancement). The CDC is a conduit for the tax free savings accounts known as the Livret-A. CDC allocates the funds collected via the Livret-A to fund public projects. CAR is a financial institution through which CDC refinances loans that were traditionally funded with the tax free Livret-A savings accounts that are collected by savings banks. In 1987 53% of France’s housing savings were allocated to the Livret-A accounts, by 1990 the Livret-A only attracted 9% of savings, and in 1991 the Livret-A accounts composed 30% of savings.12 In reaction to the flow of funds from Livret-A savings vehicles more closely tied to the expected and current value of real interest rates, CDC established CAR to refinance its loans. The CAR has developed two methods of financing loans originated by CDC. The first method involves issuing fixed and floating rate notes to finance the purchase of CDC loans. The second method is the securitization of CDC loans. CAR owns 14% of EUROTITRISATION (ET) a management company for FCCs. CAR structures the securities and (ET) manages the FCC. As of 1991 ET managed 4 FCCs.

Another model is that of the U.S. secondary mortgage market. Federal National Mortgage Association (Fannie Mae) and The Federal Home Loan Mortgage Corporation (Freddie Mac) were the driving institutional forces behind the growth, development and maturation of the conforming (non-government insured) mortgage market. These institutions add value by acting as collective conduits for U.S. financial intermediaries through their imposition of standardized underwriting and servicing requirements that enable them to issue relatively homogenous and fungible MBS.

The CRH is a collective conduit for its owner and imposes underwriting standards on the mortgages it will refinance. The structure and mechanics of the CRH has added value by transforming the relatively small issues of collateralized mortgage notes issued in the 1965 SMM into large homogenous issues. CRH has a strategic position in the secondary market from which it can manage a collective securitization program. The collective conduit model may be an efficient way to stimulate the development of a deep market for French MBS. The development of the non-agency market for MBS in the U.S. (MBS that are not guaranteed by Fannie Mae or Freddie Mac) and the MBS market in the U.K. is evidence that the securitization of mortgages does not depend on the provision of implicit government guarantees.

The developing French market for asset backed securities gives institutions access to a broader and more diversified group of investors than they have via the 1965 SMM or CRH. The demand for debt collateralized by French mortgages is mature. The market for mortgage backed securities is the next logical step in the development of the French secondary mortgage market.

NOTES

1 All aspects of the E-L program are determined by the government. Deposit and premium rates have changed over time as market rates have changed. However, the loan rate is fixed at 1.7 percent over the bank’s interest payment rate. (D&L) In 1991 the rates on those loans
were 6.32 percent, or 5 percentage points below market, while the rates on the savings tied up to those loans were equal to 4.62 percent, see Diamond & Lea 1992.


3 There are still guaranteed bonds outstanding.

4 Foreclosure in France is a long and difficult procedure and thus diminishes the value of the mortgage collateral to the investor.


6 The notes discounted by CRH are treated as inter-bank loans for the purposes of risk based capital regulations.

7 Maximizing the return on shareholder equity is not the objective of CRH’s management. Shareholders do not evaluate their positions in CRH relative to alternative investments in financial institutions or the “market portfolio” but rather as a fee for access to the capital markets by way of CRH. CRH is managed as a passive conduit between the mortgagee and the investors in CRH obligations. In 1993 CRH earned a 8.44% return on its equity (tier I + tier II).

8 Law No. 88-121 (23 December 1988) articles 32.

9 The FCC can enter into interest rate and currency swaps.

10 According to the newsletter Asset Sales Report there is currently a MBS that is being structured by Bear, Stearns & Co.

11 Foreclosure is a time consuming process in France, primarily due to the considerable leeway mortgagees have vis-a-vis the mortgagees due to the Loi Néiertz. The Loi Néiertz establishes a formal legal process whereby individuals who are in financial distress and have acted in “good faith” can renegotiate their debts. In essence, it forces lending institutions to accept a judiciously imposed debt restructuring plan for such borrowers.

12 Source: CDC.

REFERENCES


Prospectus d'Emission for "Foncier-FCC1991".