Financial Innovation and Derivatives in Housing Finance

by Warren Edwards

Don't focus on derivatives. One of the most dangerous activities of banking is lending.

— Ernest Patrikis,
Federal Reserve Bank of New York.

INTRODUCTION

Should new structured financial instruments be sold to the retail client? Of course they should!

Product development must be a customer-driven approach and the financial markets must be tweaked to fulfill the needs of the retail client. One could say that all wholesale financial products have a retail client as an end user. If an investment bank sells a swap or equity option to a savings bank, that savings bank could use it to structure mortgage or investment products for its clients who are retail clients. Stretching this principle, a foreign exchange transaction with a corporation such as an airline or travel company could help the retail-customer-facing company to stabilize the prices of its holidays.

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But I believe that great care must be exercised in selling derivatives and other highly structured products direct to Joe Public. There is always the danger that the investor may claim, truthfully or otherwise, not to have understood the product and declare that it was miss-sold. Even selling structured products through intermediaries can be fraught with difficulty. Banks providing fixed-rate mortgages have had problems in demanding the replacement cost when such a mortgage is repaid early. For example, yield maintenance penalties and prepayment lockouts have been the subject of recent German Supreme Court cases.

This article looks at some of the issues surrounding retail financial innovation with a few interesting and revealing stories.

Derivatives for the Retail Customer

Retail derivatives have been used for the protection of the individual investor or borrower against a variety of risks.

Derivatives could allow house buyers to lock into the level of house prices while saving for a downpayment. Property futures were developed by the London Futures and Options Exchange in the early 1990s but for a variety of reasons did not succeed and, more recently, real estate futures have been launched in Chicago.

Borrowers can also protect themselves against rises in mortgage interest costs. Savings banks enter into fixed-floating interest rate swaps, or swaptions, and offer fixed-rate loans to clients.

Exchange rate protection could be available prior to a family holiday in the United States. In the late 1980s Barclays Bank offered low principal currency options through its branches.

All praiseworthy concerns, but the derivatives market is, in general, quite unsuitable for direct use by non-high net worth individuals. Most derivatives are, by nature, standardized. Individuals, however, have non-standard needs and risks. Any mismatch (basis risk) may well exceed the client's risk. Derivatives do, however, have an increasing place in retail banking and insurance. Fixed-rate and maximum rate mortgages can be provided by banks and savings institutions, with the financial institution covering its interest rate exposure to a subsequent rise in interest rates through the derivatives market. The client does not deal with derivatives, but is provided with a seamless package. He gets what he wants—a fixed-rate mortgage—and the bank manages the risk for itself in the wholesale futures and swaps market. Savings products with "embedded" derivatives are now commonplace. Zero-coupon deposit structures have been offered to the retail market. The interest rate risk for the savings bank is covered through structured zero coupon swaps.

Guaranteed Equity Investments

Since the late 1980s, guaranteed investment schemes have become commonplace from the U.K. to Ireland to Spain and South Africa. They all rely on derivatives to provide the downside protection promised, and they tend to be treated as deposits or insurance policies rather than equity unit trusts.

The earliest and, therefore, simplest of such guaranteed schemes were as follows: A principal sum was invested with a bank and a guaranteed return was provided at the end of five or seven years. "Double-your-money" schemes were popular at a time of high interest rates. To provide a 100% return in five years, a compound annual rate (CAR) of 14.9% is required. To double investments in seven years, only 10.4% is needed. The principal guarantee under these guaranteed investments was structured through zero coupon interest rate swaps. Often the return was exaggerated through the quoting of simple interest in bold large type in advertisements—20% per annum in the five-year case—with the CAR in much smaller type.
A more recent innovation takes the form of stock-market index-linked deposits or bonds offered by banks. The bank provides a deposit investment with the value rising in line with the growth in a stock market index with a guarantee of a return of original capital invested. But there is no interest on the deposit. The effective interest-free deposit allows the bank to protect itself by purchasing or constructing an option on the stock index. The term was typically five years. Zero coupon interest rate swaps provided the guarantee.

The investment would be treated in the United Kingdom either as a bank deposit or as a single premium insurance policy. Therefore the return being the difference between the deposit and the final maturity value was taxed either as interest or in accordance with the taxation on insurance policies. In most such cases, there was no actual equity investment by the retail investor so capital gains treatment did not apply—i.e., there was no capital gains tax free allowance. There is usually a difference between the costs and, therefore, returns of products treated as banking deposits, equity investments and insurance products as a result of differing taxation and regulatory capital requirements. It therefore pays to have a bank assurance framework for housing finance that not only seeks to cross-sell insurance products through the banking network but can also construct true bank assurance hybrid products to take account of such differences.

There have been many variations under the basic structure depending on the current level of interest rates and market volatility and, therefore, the pricing of the zero coupon swap and the equity option.

The guarantee was sometimes reduced to less than the principal invested, say 90% of the principal amount to provide more for the equity option. Sometimes there was a guaranteed minimum maturity value of greater than the initial principal invested, say 110% of principal. This reduced the amount available to the bank to purchase equity options. Under the rationale of providing smoothing of equity markets, a variety of structures have been sold. Instead of providing a return based on the growth over a full five years, the growth is measured from the start date to the average level of the index over the final year. Assuming smooth growth in the final year, which is all one can assume at the outset, this effectively reduces the period over which index growth is calculated by half a year. This smoothing operation has been taken further. Not only is the final year's equity index averaged, but so also is the first year's index, reducing the effective growth period by another half year. It should also be noted that hedging costs are reduced, as average prices by their nature are less volatile than the prices themselves. Hence the sales of average rate options by many banks, while reducing the premiums, do not do so in line with the reduced risk.

Later, the equity linking was spread to more than one country's stock market index. Nationwide Building Society's "World Guaranteed Equity Bond" provided an investment linked to the average performance of six world markets with a return of capital guaranteed if left for six years. The return was calculated on the difference between the average of the first year and the average of the final sixth year. Maximum returns are linked to twice the investment, or 12.25% CAR. All this averaging serves to dampen returns. An investor would be far better off with six separate guaranteed equity bonds guaranteeing return of capital but providing benefits in line with market growth in the individual markets.

Barclays Bank's subsidiary, B2, markets a product that provides linkages to equity returns through a monthly savings scheme while guaranteeing the return of capital invested.

I recommended such an investment with a prime Spanish bank (the index being the Spanish stock market index, the IBEX35) to my sister-in-law in Banyoles. However, I was astonished at the bank's approach of only answering broad questions and only on the telephone. Given the undoubted standing of the institution concerned, a brochure providing full details of the investment in print was surprisingly not forthcoming. If highly structured transactions are sold cheaply over the telephone, then financial institutions must ensure that its telephone operating staff are adequately trained to cope with searching questions. Perhaps this is a contradiction. The Internet could prove ideal in that the bank selling the product could even provide a several-thousand-word explanation of its products at negligible cost. No staff training would be required as customers would be expected to read the literature and understand the product themselves. Questions could be answered not by lowly-paid and hardly-trained telephone sales staff but via e-mail, which would allow a considered answer which would then be posted up on a "frequently asked questions" page ready for the next potential customer.

Mortgages

In March 1999, Nationwide, the U.K.'s largest building society, launched a euro-rate mortgage in the U.K. In itself, this was nothing new. A number of U.K. banks, including Barclays and Abbey National, had already offered such mortgages soon after the introduction of the euro. But what was different was that while being linked to the interest rate environment in Europe, the European Tracker Mortgage operated entirely in sterling. As far as the borrower was concerned, there would be no exchange rate risk on the interest payments or on the repayment of principal.

Nationwide's chief executive, Brian Davis said: "For those who are keen to link their mortgage to European interest rates, it is the first mortgage available in the U.K. to provide that opportunity with all payments required in sterling."

To me, this mortgage is a curious hybrid as it appears to serve the needs of interest rate speculators rather than hedgers. It is not a natural hedge for those with euro income or assets, nor is it a natural liability for purely U.K.-based borrowers. But it serves those who wish to benefit from lower current euro interest rates.

The Nationwide product involved a ten-year variable rate mortgage with rates set at 1.75% above the European Central Bank (ECB) base rate, with a discount of 1% in the first year. During the first 10 years the interest rate will continue to be set at 1.75% above ECB base rate and will reflect changes. At the end of the 10-year period the rate will revert to Nationwide's standard sterling variable rate. This compared with true euro mortgage rates of 1.5% above Euribor.

Under this mortgage, the margin over inter-bank euro rates was set higher than if the loan rate was at a margin above inter-bank sterling rates. The margin over inter-bank rates was also higher than competing mortgages where the loan itself was denominated in euros. The mortgage, therefore, represented a bet on sterling remaining outside the euro and, therefore, had consistently higher interest rates.

The pricing of the mortgage includes very stiff redemption fees. Early redemption fees will be payable if all or part of the mortgage is repaid, or transferred to another product, during the first 10 years, as follows: years 1 to 5—nine months gross interest; years 6 to 8—six months gross interest; years 9 and 10 —three months gross interest.

In a falling interest rate environment, the ECB rate should lag Euribor and in a stable environment the ECB rate should be about 0.25% above Euribor.

So how did the Nationwide hedge its bets? It did not run the exchange rate risk, as reported in the press. Instead, Nationwide bought a Quanto swaption. It bought a two-month option to enter into a 10-year interest rate swap to pay three-month Euribor and receive sterling three-month LIBOR. Both interest related amounts are determined using sterling principal. What is worth noting in such a swap is that the natural day basis is different between the two currencies. Sterling is quoted on a 365-day basis while Euribor is quoted on a 360-day basis. This makes a small difference of 7 basis points at interest rates of 5% or so, but will be significantly higher if such a structure was applied to currencies with higher interest rates. At rates of 15% seen in the U.K. a decade ago, the difference would be 21 basis points.

How was the Quanto hedged by the bank providing the hedge? Probably by finding someone for the other side. Quantos were first seen linked to dual currency notes where the interest was linked to one currency's benchmark but denominated and, indeed, payable in another currency.

Perhaps Nationwide could have cut out the middleman investment bank by creating its own deposit structure with interest rates linked to the ECB. Or it could have issued a Quanto bond or note structure to appeal to investors.

And finally, ...

I believe that raw financial derivatives should not be actively marketed to individuals. However, financial institutions should make use of the variety of options, futures and swaps available to satisfy their customers' investment and financing requirements. It is incumbent on these institutions, however, to ensure that their customers have absolutely no doubt as to what they are entering into and the risks inherent—including in the case of fixed-rate mortgages, any early repayment penalties or with respect to investments, premature payoff terms.

In the mid-1990s, the U.K.'s Britannia Building Society launched inflation-indexed deposits. I am not aware of how Britannia hedged the inflation risk in its liabilities but I do not believe that they used internal asset/liability management. No inflation-linked mortgage product was publicized by Britannia at the time. The key to successfully managed financial instruments is to create structured asset or liability instruments. But instead of going into the market to hedge such structures, savings banks should engineer liability or asset structures that have equal and opposite properties. This not only increases the margins, but enhances liquidity.

And many of the most successful retail financial products have not used derivatives at all. Paying interest on current accounts was deemed to be revolutionary not so long ago. And being prepared to provide flexible "one accounts," combining current accounts and mortgages with monthly salary income being used to temporarily reduce the client's mortgage, was deemed to be uneconomic. Now such flexible mortgages are commonplace. And some retail banks have introduced cash prizes in lieu of interest or "cash back" on taking out loans. These structures do not require derivatives. The most successful products are those that can be explained in a 30-second television sound bite. These have the inherent difficulty of being easy to replicate by competitors. Anything much more complicated could lead to complaints years down the line over mis-selling and misrepresentation.

IF.com, Halifax Bank of the U.K.'s Internet banking standalone subsidiary, has attempted to patent its flexible mortgage structures. I would be surprised if it proves to be successful because there seems to be little different in IF.com's structure to what has been available elsewhere for several years. However, the very process of attempting a patent has provided the impression of innovation and it has generated favorable publicity. Even if an innovative product proves to be unsuccessful, the market need not become aware of the lack of success. The publicity generated during the launch in the media will probably more than cover the development costs. In any case, the innovative reputation of the firm will be enhanced and the publicity will generate normal business, as it will be seen to be an institution that cared for its customers' needs.

GLOSSARY

Interest Rate Swap

An interest rate swap is a contractual agreement between two counterparties to exchange cashflows on particular dates in the future. The most common type of swap or "plain vanilla" swap involves one party, the fixed-rate payer, making fixed payments, and the other party, the floating-rate payer, making payments which depend on the level of future interest rates. The swap agreement stipulates all of the conditions and definitions required to administer the swap including the notional principal amount, fixed coupon, accrual methods, day count methods, effective date, terminating date, cashflow frequency, compounding frequency, and basis for the floating index. Interest rate payments are made on a notional amount and there is no exchange of principal. Interest rate swaps provide users with a means of hedging the effects of changing interest rates by changing the basis on which they pay or receive interest flows. For example, a company can convert floating-rate interest payments to fixed-rate payments if it thinks interest rates are set to rise. It can also use swaps to cut down mismatches between its assets and liabilities.

Option

An option contract provides the purchaser with the right, but not the obligation to purchase or sell an underlying asset for cash or in exchange for another asset at a specified price at a specified date or within a specified period. Call options give the purchaser the right to buy and put options the right to sell. Option contracts exist for many types of financial assets and liabilities and currencies.

Futures

Futures contracts are contracts in which the seller agrees to provide a certain standardized commodity or financial instrument to the buyer on a specified future date at an agreed-on price.

Cross-Currency Interest Rate Swap

The cross-currency interest rate swap involves the exchange of interest rate related cashflows in one currency for those in another over a period of time. Unlike single currency swaps, cross-currency swaps usually do require an exchange of principals on maturity and perhaps at the outset. Both the initial exchange and the final exchange are done at the same spot rate. Cross-currency swaps can be on a fixed/fixed, fixed/floating, or a floating/floating basis.

Swaption

An interest rate swaption is an option on a forward start swap to either pay or receive a fixed rate. Because there are two parties to a swap, the floating payer and the fixed payer, the swaption buyer has to make clear which leg of the swap he wants to enter. The right to pay fixed is called a "payers swaption." The right to receive fixed is called a "receivers swaption."

The MERS Reality: The Electronic Tracking of Mortgage Rights in the United States

by Katie Oppy

INTRODUCTION

Scenario 1: A mortgage closing table in a lawyer's office in any American town. The buyer and seller are attending with their legal representatives. The seller's lawyer is on the phone, obviously agitated. The problem: the chain of title for her client's property is not complete, and the last company listed as mortgagee of record went out of business two years ago. This situation will take time to sort and contact the current mortgagee of record to prepare and record the lien release. The closing likely won't take place today.

Scenario 2: *Mortgage Servicer A* plans to sell the servicing rights for 10,000 loans to *Servicer B.* While conducting the due diligence on the loan files, *Servicer A* discovered more than 2,000 assignment errors. According to the terms of the sale, *Servicer A* must correct the errors prior to the sale. *Servicer A* must hire a specialist to track and correct them. Each missing assignment will cost an average $22 to record. Each correction will cost an extra $10. Additionally, when *Servicer B* assumes the servicing rights, it must record a new assignment for each loan.

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These scenarios and other assignment-related complications happen with alarming regularity in the United States. The good news is they are happening less frequently. A 25-employee-company named MERS, the Mortgage Electronic Registration Systems, whose goal is to track the servicing and beneficial ownership rights for every loan in the U.S., is the driving force behind the improvement.

Overview of Mortgage Rights in the U.S.

When a mortgage is originated in the U.S., the lender often sells the loan to generate funds for further lending. Two aspects of a loan—servicing and beneficial rights—can be sold. Servicing is the contractual right to collect the monthly escrow, principal and interest payments. The beneficial right is the right to receive full repayment of the loan. The beneficiary legally holds the promissory note, although a custodian often physically has the note for safekeeping. These rights can be sold together or separately. In the U.S., servicing rights often are treated as separate financial assets bought and sold as a servicer adjusts its portfolio size and type to meet risk positions, capital requirements, and other criteria. Although beneficial rights seldom are traded, the promissory note can change hands two or three times before settling with the ultimate investor. For example:

Lender A originates a loan and, before the first loan payment is collected, sells Mortgage Bank S the loan's servicing and beneficial rights. Mortgage Bank S decides to retain servicing rights, but sells the beneficial rights to *Investor F.* As the servicer, *Mortgage Bank S* collects the monthly mortgage payment and keeps a percentage of the payment as a fee for servicing the loan. *Mortgage Bank S* sends the balance of the loan payment to *Investor F,* which holds the mortgage's beneficial rights.

Public Records

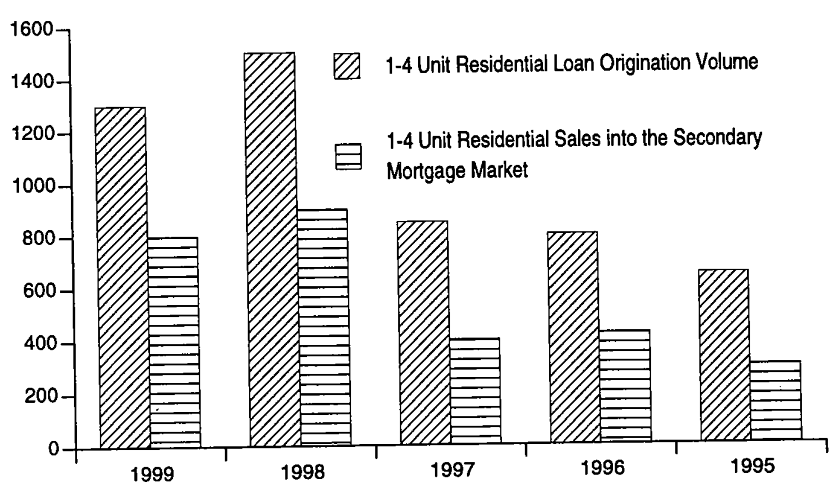
Public records are another important aspect of the loan origination process in the U.S. Once the loan is closed, the security instrument (mortgage or deed of trust) is recorded in the county land records, which creates a public notice of the lien on the underlying property. This recordation protects the lender by establishing a first lien on the property. Thereafter, anyone who needs property information can search the local public records. If a security instrument isn't recorded, the loan could be sold fraudulently to an unwitting party, who could record a security instrument and be in the first lien position. In the event of borrower default, the court first will pay foreclosure claims to the first lien holder, and then to any second or third lien holders of recorded security instruments. Therefore, it's critical that changes in loan ownership be recorded.

The Problems MERS was Created to Correct

In the early 1990s, trading or selling servicing rights became a huge business. (See Figure 1.) With the increased volume, came a mountain of paperwork to prepare and record the required assignments that accompany the transfer of loan-servicing rights from one servicer to another. Assignment preparers and county recorders couldn't keep pace. Assignments were late, in the wrong sequence, or not made, all of which caused huge problems (two examples were described at the beginning of this article). In 1993, a mortgage industry task force of Mortgage Bankers Association of America (MBA) member companies recommended an electronic registry to eliminate the need to prepare and record assignments. Thus, the idea of MERS was born. The MERS concept would allow mortgage lenders, servicers, warehouse banks and investors to reduce or eliminate their paperwork burdens.

The task force decided the Depository Trust Company (DTC), a participant-owned corporation which records securities transactions electronically, provided a good model. The DTC was created for the U.S. securities markets to eliminate paper certificates that recorded the purchase and sale of stocks, bonds and other securities. Today, it is difficult to imagine accommodating the volume of securities trading on U.S. stock exchanges if traders were required to use paper certificates to pass ownership rights.

Figure 1 Sales into the Secondary Market (in $billions)



Source: Mortgage Bankers Association of America, Online Fact Sheet, April 3, 2001

The MERS® System was designed to perform similar functions for the real estate finance industry. However, the task force decided MERS should concentrate on eliminating loan assignments by providing an electronic registry to track the servicing and beneficial ownership rights transfers. After a loan is registered on the MERS® System, transfers of beneficial ownership and servicing rights between members are tracked electronically. An 18-digit mortgage identification number (MIN) tracks mortgages registered on the MERS® System throughout the life of the loan. The MIN is placed on the security instrument prior to loan closing. MERS remains the mortgagee of record in the county land records as long as the beneficial ownership and servicing rights are sold to another MERS member. If those rights are sold to a non-MERS member, a traditional assignment out of MERS must be recorded in the county land records.

"The benefit to the mortgage company that registers its loans on the MERS® System is that it can then sell loans to another MERS member without requiring the recordation of a paper assignment in the county land records," explained Dan McLaughlin, MERS executive vice president, product division. "That benefits the seller."

McLaughlin added: "The mortgage buyer benefits from eliminating the need to ensure the assignment was recorded properly. So if you eliminate the assignment, you eliminate the follow-up work and paperwork costs."

To ensure widespread acceptance within the industry, MERS sought to have security instruments modified to contain MERS as the original mortgagee (MOM) language. MERS began to change decades of business practices after the two biggest mortgage funders in the U.S., the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Federal National Mortgage Association (Fannie Mae) modified their Uniform Security Instruments to include MOM language. Their approval opened the door for MERS to be incorporated into the loan at origination. The security instruments clearly define what company is the initial lender and that MERS holds only legal title to the interest granted by the borrower. But if necessary, MERS (as lender nominee) can exercise any or all of those interests, including the right to foreclose, to release and cancel the security instrument, and to take any other action required of the lender.

U.S. government agencies like the Veterans Administration, Federal Housing Administration, and Government National Mortgage Association (Ginnie Mae) followed Fannie Mae and Freddie Mac and approved MERS. Several state housing agencies also approved MERS language in their states' security instruments.

The California Housing Finance Agency (CHFA) took the approval a step further and mandated that it will buy only MERS-registered loans beginning January 1, 2002. California is the first member of the mortgage industry to mandate MERS.

"Our conversion to MERS does two things that strengthen CHFA's portfolio," said Clint Ingle, manager of the agency's $5.5 billion portfolio. "It allows us to absolutely verify we have deeds of trust in the CHFA name. That's something we can't do now, although we have checks and balances in place.

"The conversion also protects our bondholders. We can now verify the loan is recorded in MERS prior to purchase and we can stop the purchase if needed and require the deed of trust to reflect MERS," Ingle said.

MERS and Mortgage-Backed Securities

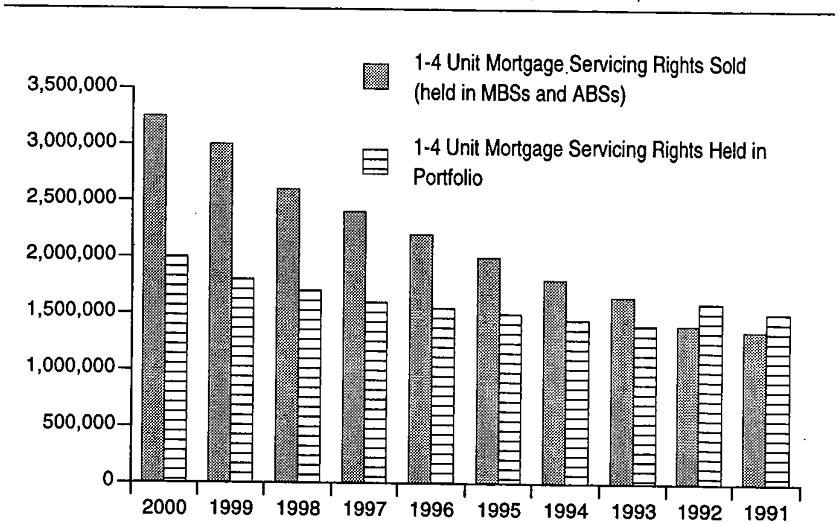
The mortgage-backed security (MBS) sector tested the viability of the MERS concept because a substantial number of mortgages are securitized in the secondary market (see Figure 2). In February 1999, Lehman Brothers was the first company to include MERS-registered loans in a MBS. The Wall Street-rating agencies found MERS loans didn't affect the MBS rating. Since then, Standard & Poors, and Fitch IBCA have all rated securities containing loans that name MERS as mortgagee of record.

Moody's Investor Service issued an independent *Structured Finance* special report, "Mortgage Electronic Registration Systems, Inc. (MERS): Its Impact on the Credit Quality of First-Mortgage Jumbo MBS Transactions." The report states the "impact on the credit quality of jumbo first-mortgage MBS transactions will be negligible." The most significant report finding specified that in transactions where the securitizer used MERS, new assignments of mortgages to the trustee of MBS transactions aren't necessary. The report also identified several areas that wouldn't be affected, such as the legal mechanism to put creditors on notice of a mortgage, the ability to foreclose and take real estate in lieu of foreclosure isn't materially affected, and credit enhancement levels for first-lien jumbo mortgages aren't increased.

Real-Cost Savings

When loan servicing is sold, an assignment of the mortgage to the new servicer is recorded in the county land records. The paperwork can take from one to 12 months and cost an average of $22 per assignment. For a one-time $3.50 MERS registration fee,

Figure 2 Mortgage Servicing Held in Portfolio vs. Sold (in $millions)



Source: Inside Mortgage Finance, February 2, 2001, Issue 2001:5, p.5.

that $22 assignment fee is eliminated regardless of how often rights are sold.

As MERS becomes more widespread, the cost-saving opportunities increase. In a May 2000 *Mortgage Banking* article, the mortgage banking firm Residential Funding Corporation estimated that purchasing MERS-registered loans saved the company $15 to $17 per loan. The amounts reflect the company's particular assignment savings minus the MERS registration fees. In the same article, Norwest Mortgage calculated an annual saving of $300,000 to $500,000. Norwest's savings included process improvements and the elimination of the need to track, correct and record missing or incorrect assignments.

Rick Scogg, president of Aurora Loan Services, estimated MERS saved his company hundreds of thousands of dollars annually. "We buy and sell servicing frequently. When we buy portfolios, there are payoffs and foreclosures the next day and therefore there is a delay in the lien-release process (for non-MERS loans). With MERS, we don't need to get attorneys to correct these, and that saves us thousands of dollars a year," Scogg said.

In special cases, assignments are prepared, but not recorded, for the transfer of rights to some investors. Some investors require these "ready to use" assignments to protect their interests if a servicer went bankrupt. Warehouse banks that lend money temporarily to a mortgage originator often require these assignments (warehouse banks are repaid when the loan is sold). The warehouse bank considers the unrecorded assignment as protection in the event the lender fails to repay the temporary loan. If that happens, the warehouse bank would record the assignment, which would transfer ownership of the loan from the lender to the warehouse bank.

However, MERS offers an alternative to the unrecorded assignment—the electronic tracking agreement (ETA). The ETA is an agreement between MERS, the warehouse bank and the originator, that, should the originator default, MERS will become the nominee for the interim funder in the public land records, thus perfecting the security interest of the warehouse lender.

MERS members realize additional cost savings in unexpected areas too. For example, when a check issued to pay the recording fee on a loan doesn't clear (known as a stale check), it must be tracked and possibly reissued. With MERS, the number of times this happens is substantially reduced along with a lower number of checks being cut for recording fees. One MERS member, Alliance Mortgage Company, estimates an additional $20 cost savings per loan when considering the time spent tracking and verifying stale checks. Before implementing MERS, Alliance pursued stale checks on approximately 25% of the checks sent to recorders offices.

MERS also benefits title companies. Title companies verify the title chain and insure against defects, so they're particularly sensitive to the problems in the assignment process. With MERS as original mortgagee, thumbing through paper-based records at the local county court house is reduced. Equipped with a MIN, title companies can verify the title chain electronically, and find very quickly which companies hold the servicing and beneficial ownership rights.

Who Owns MERS?

MERS is a member-owned and funded company based in McLean, Virginia. One of the unique and noteworthy characteristics of MERS is that in an industry known for its fierce competitiveness, industry players created a utility that benefits everyone. The MERS executive team reports to a board of directors that represents large, medium and small real estate finance industry firms. MERS is truly a member-driven organization and seeks input from its members before making policy and system changes.

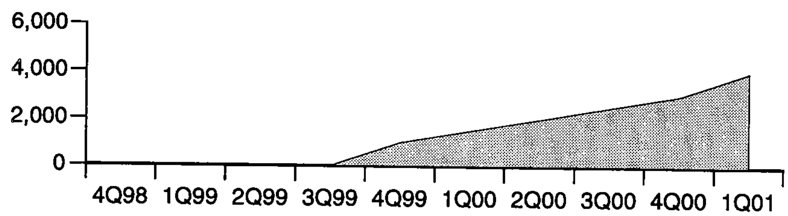
Another unique MERS characteristic is the initial arrangement with Electronic Data Systems (EDS), its technology partner. EDS agreed to fund the MERS® System development for a percentage of the transaction fees. This arrangement was necessary because the real-estate finance industry was reluctant to fund the concept although the industry agreed MERS solved the paper problem. MERS owns the system and now funds enhancements.

Other Important MERS Information

The MERS® System started life on a client/server-based platform. The system has since migrated to a web-based system that supports all functionality, including registering new loans, updating records, performing transfers of servicing and beneficial ownership rights, generating reports and running database queries. For members who have large volumes (registering or servicing over 1,000 loans per month), the system supports EDI X12 or flat-file transmissions.

The first two loans were registered on the MERS® system April 29,1997. A year later, the system only had about 59,000 registered loans. A year later, MERS ended 1999 with more than one million loans on the system, and by the end of 2000, MERS had 3 million registered loans. By April 2001, there were 4 million registered loans on the system, and daily loan registrations averaged more than 9,500 (see Figure 3). MERS President and CEO R.K. Arnold said, "We've achieved a solid 15% of the residential market, and we've generated enough momentum to hit a 30% share by the end of the year. Our mission is to register every loan in the United States on the MERS® System."

Figure 3 MERS Registrations (in 000s)



MERS membership is increasing too. At the end of 1997, there were seven members. Currently, there are more than 230 member companies registering loans, 83 being integrated (integration can take between one week and nine months), and more than 100 waiting to become members. "Twenty three of the top 30 lenders in the U. S. are actively doing business with MERS in one or more of their lines of business," said Carson Mullen, MERS executive vice president, customer division. "In most cases, these lenders have multiple lines of business being registered on MERS including correspondent loans, wholesale acquisitions and retail production of their own. The mixture varies, but the trend is toward increased use of MERS.

"We realized early that we must clearly define the excellent MERS value proposition and deliver up-front cash savings for originators to interest them in adopting MERS into their operations," said Mullen.

Redefining this emphasis on the production side of the business almost always involves trading partner relationships and has resulted in more rapid adoption of MERS as original mortgagee security instruments across the nation.

Mullen added: "Frankly, we've employed every type of peer pressure, economics and trading partner encouragement that we could. Most of our members have multiple trading partner relationships. Each new active MERS member has meant another link in what has become a very long value chain. We've got a lot more to do. In future years, we hope that MERS is able to squeeze out inefficiencies in the mortgage process and offer e-commerce benefits in a much wider range of mortgage processes." After much work by the MERS team and early supporters of MERS to get the word out, this effort is now being done by an increasing number of mortgage aggregators (mortgage firms that purchase closed loans from lenders) and others. Many aggregators are encouraging the use of MERS, and some have decided to purchase only MERS loans, which means their trading partners must be MERS members too.

In an effort to stay sensitive to industry needs and changes, MERS entered a co-operative effort with the American Land and Title Association (ALTA), which represents U.S. title companies. The effort produced MERS® Link, a browser-based service that queries the MERS® System for information important to title companies. Settlement agents can quickly determine the correct current servicer of loans by entering the property address, borrower name, borrower social security number or the loan's MIN. MERS® Link also allows the retrieval of information on more than one loan at a time, and a "hot link" to a servicer's web site if furnished.

MERS also offers a voice response unit (VRU) that settlement agents and consumers can access via the telephone. Once in the VRU system, users key in a MIN or applicable social security number to learn the name and telephone number of the current servicer of a loan registered on MERS.

How Does MERS Work?

There are several ways to incorporate MERS into a mortgage company's business practice. A typical scenario:

1. Close the loan on a security instrument that names MERS as the nominee for the lender and assign the loan a MIN.
2. Sell the servicing and beneficial ownership rights to an investor.
3. Once that sale is final, the lender registers the loan on the MERS® System, naming the investor as the beneficial and servicing rights owner. Registration is done via a web-based system called MERS® OnLine, or by uploading a batch file to the MERS® System.
4. The new investor/servicer takes responsibility for updating the loan record with information from county recorders' offices, along with any servicing event, such as a payoff or foreclosure. The system is updated using MERS® OnLine or batch files.
5. If the investor/servicer sells servicing or beneficial ownership rights to another investor and a separate servicer, the new servicer (assuming it is also a MERS member) is responsible for maintaining the information on MERS for that loan.
6. Only member companies that have a current interest in the loan can access

full information about it. In this case, the lender in Step 1 and the investor/servicer in Step 4 no longer have access to the information.

As the above scenario illustrates, MERS doesn't depend on automated county recorders offices or those with online capabilities. A 1999 survey by the National Task Force on Property Records found most offices were paper-based. About 25% of the more than 3,100 county recorders offices in the U.S. responded. The survey concluded that less than 4% of the respondents had Internet access, and that 20% planned to acquire access in the future.

Who Signs For It?

When a servicing event occurs, like a payoff, how does the current servicer process the lien release if the mortgage or deed names MERS as the mortgagee? If the loan goes into foreclosure, how does MERS execute the necessary documents?

The answer is a corporate resolution. The corporate resolution is a formal corporate act by the MERS board of directors, which authorizes members to act as an officer for MERS. Member company employees named in the resolution are known as certifying officers of MERS, and are typically the same employees who sign foreclosure and lien releases for the member. The corporate resolution has proven to be a very convenient, time-efficient and sensible method for handling servicing-associated documents.

What MERS is Not

MERS is not the owner of beneficial or servicing rights for loans registered on the MERS® System. MERS doesn't collect or lend money. MERS doesn't create or transfer interests in loans or create electronic assignments.

The Future of MERS

The 26 employees of MERS share a common goal: they want to see MERS as the mortgagee of record for every housing loan in the U.S. This includes multifamily, home-equity loans, reverse mortgages and all other home loan variations. That is when all MERS members, and others with a need for the information on the MERS system, will get the most benefit.

MERS Outside the U.S.

Currently, MERS is focused on the U.S. market. The domestic focus allows MERS to gain expertise in the legal, operational, and financial aspects of the concept. MERS also gains experience in introducing the concept to a marketplace, and making plans and adjustments for dealing with MERS as a mature and accepted standard.

However, it is understood that the MERS concept may work outside the U.S. The ability to serve as a single point of reference for property ownership information, and the ability to electronically track changes to ownership, might have appeal in other countries. Like the U.S., if property rights are tracked on paper, the MERS concept could automate those records. Alternatively, if the existing paper-based system remains, MERS could sit over the separate recording districts and offer one-point of reference for researching property rights nationwide.

For countries that have developed or are developing secondary mortgage markets, and the ownership change is accomplished through paper assignments, MERS could improve that process. In the event property rights tracking is embryonic, a MERS-type system could facilitate that growth.

Certainly, there are barriers to applying MERS outside the U.S., just as there were within the U.S. Successful introduction of an automated property rights system requires a level of technology acceptance and readiness by a country's mortgage finance industry. The legal framework must be in place so that property rights, changes to property rights, and access to data can be automated. If the corporate resolution model is needed, legal requirements regarding the use of signing authorities must be in place. Also, as in the U.S., the mortgage finance industry and the national, regional or local government responsible for property rights tracking must embrace the idea.

MERS works closely to identify and implement the most cost effective use of MERS for its members, but implementing MERS outside the U.S. will require an even higher level of customization and compromise.

CONCLUSION

Scenario 1:

A mortgage closing table in a lawyer's office in any American town. The buyer and seller are attending with their legal representatives. The property in question is shown in the county recorder's office as having one mortgagee of record for the past 20 years: Mortgage Electronic Registration Systems, Inc. The current servicer is identified via a computer. There are no breaks or irregularities in the chain of title, so the closing takes place uninterrupted.

Scenario 2:

Mortgage Servicer A plans to sell the servicing for 10,000 loans to *Servicer B*. While conducting the due diligence on the loan files, *Servicer A* is satisfied that all the loans were registered on the MERS® System at origination, which means there are no assignments. *Servicer B*, also a MERS member, agrees to pay a premium for the servicing. *Ser-*

vicer B may save up to $220,000 because it doesn't have to record new assignments.

Welcome to the new world of MERS. MERS has gone from fledgling concept to thriving reality in the U.S. in eight years. As more mortgage companies and housing agencies mandate MERS, the current 4 million MERS-registered loans will increase almost exponentially. The hurdles MERS has overcome were big and often discouraging. But MERS supporters understood its value and how it would eliminate huge mortgage industry inefficiencies and they broke down every wall they came against.

"Our challenge: How deep can we take MERS into the mortgage industry. To reach our goal of registering every real-estate loan in the U.S., we must make MERS better, simpler, cheaper and faster for everyone involved," Arnold said.