A Reprint from *Tierra Grande*, the Real Estate Center Journal

By **Jack C. Harris and Kurt Hopfe**

Approximately 16 percent of home mortgages originated today are covered by private mortgage insurance (PMI). Many borrowers who pay PMI premiums do not understand what they are paying for and are unaware of the available alternatives. Yet, PMI premiums can be as much as $1,000 annually on a $100,000 loan.

PMI was highlighted recently by congressional efforts to make it easier for borrowers to cancel the insurance when coverage is no longer needed. It may have come as a revelation to many homeowners to learn that PMI may be canceled under certain conditions. In fact, a new Texas law requires that lenders notify borrowers annually of the cancellation procedure. It can be expected that more prospective homebuyers will have questions about PMI and the alternatives.

Understanding PMI

A mortgage loan is a secured debt in that something of value is pledged as collateral to ensure the borrower repays according to schedule. The collateral almost always is the real property being purchased, or refinanced, with the loan. A lender's recourse to sell the collateral in the case of default greatly reduces the risk of loss.

The lender's risk is reduced further if the borrower has a financial commitment to the property. A borrower who has equity in a property is a better risk. Consequently, a mortgage lender normally is willing to lend an amount that is somewhat less than the total property value. If the property is a home that the borrower will occupy, most lenders will provide a loan equal to 80 percent of the appraised value or the actual sales price, whichever is lower.

The remaining 20 percent of the purchase price must be supplied by the borrower. This requirement both provides a margin in case the value of the property declines and establishes a commitment on the part of the borrower to repay the loan. Accumulating enough cash to meet this requirement, however, is a difficult task for many prospective homebuyers, particularly those who do not already own a home.

This is where mortgage insurance comes to the rescue. There are companies that are willing to insure the lender against loss from borrower default. The insurance policy covers a certain percentage of the loan amount and is treated by the lender as a substitute for the borrower's cash investment. Through use of mortgage insurance, it is possible to obtain a mortgage loan for as much as 97 percent of the purchase price.

There are several key points that borrowers should understand about mortgage insurance.

The lender is the beneficiary of the insurance policy. The homeowner benefits from the lender's willingness to provide a loan for a higher percentage of the purchase price and

New homebuyers may consider the alternative of a larger down payment to lower their private mortgage insurance premium.

relatively little cash from the borrower. If the borrower stops making payments and the lender is forced to foreclose, the insurance company will make good on its commitment for a specified percentage of the loan amount. The property is sold (and the lender or the insurance company may be the buyer) and the proceeds are applied to retire the debt and pay interest due and expenses.

The insurance company pays any deficiency within coverage limits but has no obligation to reimburse any loss incurred by the borrower. In fact, the borrower may be liable for a deficiency if sales and insurance proceeds do not fully cover the lender's costs. Until a few years ago, insurance companies could pursue borrowers for deficiency judgments, but Texas law now precludes this.

Although the borrower is not the beneficiary of a mortgage insurance policy, it is customary for the insurance premiums to be paid by the borrower. The premium is calculated as a specific percentage of the principal balance of the loan. For example, a 0.75 percent premium applied to a loan balance of $100,000 costs the borrower $750. Basically there are three ways a PMI premium can be paid:

- A one-time payment at closing.
- An annual payment made at closing and at the loan anniversary date each year. Lenders often provide for this fee in an escrow account to which the borrower contributes each month.
- A monthly payment. The premium rate is applied to the loan balance at the anniversary date, and this amount is divided into 12 equal monthly payments. Usually, a reserve of several months payments is required at closing.

For annual and monthly payments, the amount can be based on the outstanding balance at the beginning of each year or on the original balance. In the latter case, there usually is a rate reduction after so many years. The net effect of either method is to gradually reduce the fee during the life of the loan. The one-time premium can add substantially to closing costs—as much as 5 percent of the loan amount. This makes this payment plan somewhat impractical for borrowers trying to conserve cash. In some circumstances, however, the fee might be financed. The one-time and annual-level fees may be refundable if the borrower repays the loan before the end of the premium term. This potentially valuable feature is offered as an option.

The premium amount varies with the loan characteristics. Features that extend the risk exposure of the insurer raise the premium and vice-versa. Here are some examples using rates quoted by Mortgage Guaranty Insurance Corporation (MGIC). Consider a $100,000 mortgage loan covering 95 percent of the cost of the home. The interest rate is fixed for the 30-year loan term. The lender requires insurance coverage for 25 percent of value, and the borrower chooses to make monthly premium payments. The annual premium is 0.67 percent of the balance or $670 for the first year of the loan. This translates into monthly premiums of $55.83. The following examples illustrate how the premium changes if certain loan characteristics are altered.

- **If the borrower chooses annual level payments** (paying at the beginning of each yearly payment cycle), the rate is lowered to 0.64 percent. The annual premium is $640 per year (comparable to $53.33 per month). In addition, the borrower can get some of the premium refunded if the loan is repaid during the year. Incidentally, if the one-time payment option has been taken, the premium at closing is $4,400 with a refund privilege or $3,600 without refund.
- **If the lender needs only 22 percent coverage**, rather than 25 percent, the premium is reduced to 0.63 percent per year. Monthly payments are $52.50. Borrowers who know they will need PMI may want to find out how much coverage is required when shopping for a loan.
- **If the loan term is shortened to 25 years**, the premium is reduced to 0.65 percent ($54.17 per month). A 15-year term results in a reduction to 0.6 percent ($50 per month). In addition, lenders may apply a lower interest rate or require fewer discount points on shorter term loans.
- **A larger down payment** reduces default risk substantially and, thereby, lowers the premium. If a 10 percent down payment can be managed, the premium drops to 0.52 percent ($43.33 per month). A 15 percent down payment drops it to 0.43 percent ($35.83 monthly).
- **If the loan payment itself has the potential of becoming larger** during the term, the risk of default is higher. If the loan is an adjustable rate mortgage (ARM) with a 1 percent interest rate cap (whereby the interest rate cannot be adjusted more than 1 percentage point in any one year), the premium increases to 0.73 percent ($60.83 per month). If the cap is 2 percentage points, the premium is raised to 0.77 percent ($64.17 per month).
- **Finally, if the home purchased is not the borrower's principal residence**, all rates are raised by 0.14 percent, adding $11.67 to the monthly premium.

Canceling PMI

As the remaining term of a mortgage loan decreases, the risk of borrower default declines, as long as the economy performs reasonably well. Also, the ratio of loan amount to value declines as the principal amount is slowly repaid and the property's value possibly increases.

Consequently, the need for mortgage insurance declines over time and, at some point, the borrower may have the opportunity to cancel the coverage.

The right to cancel ultimately resides with the mortgage holder. This may be the original lender (in the case of portfolio loans), an individual or institutional investor or a major secondary market entity (Fannie Mae or Freddie Mac). Before considering cancellation, most mortgagees require a record of consistent and timely payments and verification that the outstanding mortgage principal is less than a specific portion (usually 75-80 percent) of the property's current value.

Borrowers should check with the company that services their loan for the exact requirements. This usually means a professional appraisal at the borrower's expense. The mortgagee may specify the appraiser's qualifications. If the insurance is canceled, the borrower no longer pays an insurance premium with the monthly payment. For annual and single-payment plans, the borrower may be eligible for a prorated refund, if such an option was acquired initially.

Because they are not aware of their opportunity to cancel, many borrowers pay insurance premiums even though the loan-to-value ratios on their loans have fallen enough to allow cancellation. That is why the Texas Legislature amended the state's insurance code to require lenders to notify borrowers each year regarding insurance cancellation. The requirement went into effect January 1, 1998.

U.S. Congressman James Hansen of Utah would go even further. He sponsored legislation to require lenders to automatically cancel PMI when the loan balance falls to less than 75 percent of value, assuming the borrower is current on the loan. Lenders would be required at closing to disclose how the insurance could be cancelled prior to the time of automatic cancellation. The loan servicer would have to tell borrowers each year how to cancel. Automatic cancellation would apply only to loans originated at least a year after the law is signed. (The bill, H.R. 607, passed the senate in November of 1997 but had not been signed into law as of the publication date.)

Evaluating PMI Alternatives

The following tables help evaluate the relative costs of PMI alternatives: FHA, higher interest rate or a second mortgage.

Table 1 indicates the interest rate that could be paid on a FHA loan to make the monthly payments equivalent to those on a loan with PMI.

Table 2 shows the interest rate that could be paid on a self-insured loan to equate payments to a loan with PMI. Table 3 gives the interest rate that could be paid on the second mortgage in an 80/10/10 arrangement to equate payment to a 90 percent loan with PMI. This analysis does not take into account the effects of tax deductible interest expenses. Assumptions include: amount of total debt is equal to 90 percent of value for each loan, PMI is paid as monthly payments, the FHA premium is financed into the loan, the term of all first mortgages is 30 years, the term of the second mortgage is 15 years and the interest rate on the first mortgage in 80/10/10 loan is equal to that on the 90 percent PMI loan.

Here is how the tables can be used. Suppose a borrower faces the prospect of a loan at 7.5 percent interest and a PMI premium of 0.50 percent per year. If an FHA mortgage can be found at an interest rate less than 7.87 percent, it will provide lower monthly payments compared to the PMI loan (Table 1, fourth row, second column). Likewise, a self-insured loan with an interest rate of less than 8.10 percent provides lower payments (Table 2). Table 3 shows that a second mortgage less than 9.99 percent, combined with a first mortgage at 7.5 percent, provides a lower payment.

Table 1. Equivalent* Interest Rate for FHA Mortgage**

Rate on PMI Loan	PMI (Annual Percentage) .25	.50	.75	1.00
6.00	6.32	6.43	6.74	7.03
6.50	6.40	6.91	7.21	7.50
7.00	7.08	7.39	7.69	7.97
7.50	7.57	7.87	8.16	8.44
8.00	8.07	8.36	8.65	8.92
8.50	8.55	8.84	9.13	9.40
9.00	9.04	9.33	9.61	9.88

*Interest rate that results in the same monthly payment.
**Mortgage Insurance Premium (MIP) of 2.25 percent financed into loan.

Table 2. Equivalent* Interest Rate for Self-Insured Loans

Rate on PMI Loan	PMI (Annual Percentage) .25	.50	.75	1.00
6.00	6.33	6.65	6.97	7.26
6.50	6.82	7.13	7.45	7.74
7.00	7.31	7.60	7.92	8.20
7.50	7.80	8.10	8.40	8.68
8.00	8.30	8.60	8.89	9.17
8.50	8.80	9.09	9.38	9.65
9.00	9.30	9.58	9.87	10.14

*Interest rate that results in the same monthly payment.

Table 3. Interest Rate on Second Mortgage* to Make Monthly Payment Equal to 90 Percent Loan with PMI

Rate on PMI Loan	PMI (Annual Percentage) .25	.50	.75	1.00
6.00	4.93	8.33	11.40	14.27
6.50	5.56	8.88	11.92	14.74
7.00	6.17	9.43	12.43	15.22
7.50	6.79	9.99	12.95	15.72
8.00	7.41	10.56	13.48	16.22
8.50	8.02	11.12	14.00	16.72
9.00	8.64	11.69	14.64	17.23

*Fifteen-year term, principal equal to 10 percent of value.

Avoiding PMI

Suppose a prospective homebuyer does not like the costs and hassles associated with mortgage insurance. What are the alternatives?

Save the cash. The prospective buyer can delay plans to buy a home until saving the cash required to get a loan that does not require insurance. In practical terms, that means saving enough cash to pay 20 percent of the home price plus all the closing costs that buyers normally pay (or negotiate with the seller to pay these costs). At today's home prices, this can easily run into tens of thousands of dollars. Moreover, the purchase can deplete savings and leave the buyer unprepared for an emergency.

Use FHA. A popular alternative, especially for first-time buyers, is a loan insured by the Federal Housing Administration (FHA). FHA insurance works much like PMI in that the borrower must pay insurance premiums to protect the lender from default. All FHA 30-year loans require payment of an up-front, one-time premium equal to 2.25 percent of the loan amount. This may be reduced to 2 percent if the borrower agrees to special counseling. First-time homebuyers are eligible for a further 0.25 percentage point reduction. Premiums for 15-year loans are slightly lower. The fee, however, may be financed as a part of the loan. A monthly premium, equal to one-half percent of the loan balance per year, is required as well.

This insurance cannot be canceled, although the borrower is eligible for a pro-rated refund if the loan is repaid within 84 months of origination. In addition, the monthly premium automatically stops after seven years for loans less than 90 percent of value and 12 years for those 90 to 95 percent of value. Terms are shorter for 15-year mortgages. Some borrowers prefer FHA to conventional loans because the qualifying ratios are more lenient, allowing a borrower to obtain a larger loan for the same qualifying income.

'Some borrowers prefer FHA to conventional loans because the qualifying ratios are more lenient, allowing a borrower to obtain a larger loan for the same qualifying income.'

Veterans. Military veterans may qualify for 100 percent financing through loans guaranteed by the Veterans Administration (VA). Because the loans are guaranteed, rather than insured, the borrower pays no insurance premium. Instead, eligible veterans obtain a certificate of eligibility good for a specified dollar guarantee. The guarantee acts like a cash down payment. The VA charges a funding fee that varies from 1.25 to 2.75 percent depending on the veteran's status and amount of down payment. This fee may be financed into the loan. The borrower may get a loan of four to five times the amount of the entitlement with no cash investment.

Pay higher interest rate. Many lenders, particularly "portfolio" lenders who hold mortgages after origination, will make a mortgage loan for more than 80 percent of value and not require insurance. The additional risk of such "self-insured" loans is taken on by the lender. As compensation, the lender charges a higher interest rate and may insist on an impeccable and well-established credit record. According to Mary Callegari, regional vice president of CTX Mortgage Company in Dallas, this type of loan has not proven popular with borrowers because of the higher interest rate. It should be noted, however, that homeowners who itemize deductions for income tax purposes can deduct interest expenses but not insurance premiums.

Borrow the down payment. Instead of paying a higher interest rate on the entire loan, a combination of a first mortgage loan and higher-risk second mortgage can be arranged. The first lien loan covers 75 to 80 percent of cost, is priced at market rates and requires no insurance. A second mortgage, with a lien subordinate to the first mortgage, provides another 10 to 15 percent of acquisition costs and carries a higher interest rate. The borrower must provide the remaining 5 to 10 percent in cash.

Many mortgage brokerage companies offer such loan packages, relieving the borrower of the need to shop for two separate loans, with names such as "80/10/10" or "75/15/10" loans. (For examples, check the Internet at www.reliancemortgage.com/top10.html, www.missionmortgage.com/pmi.html and rampages .onramp.net/~mbtaxas/ nomi.html). The first number refers to the amount of first mortgage ("80 percent"), the second number is the second mortgage portion, and the last number is the down payment. The second mortgage not only has a higher interest rate but typically is of shorter maturity. When the second mortgage term expires, the total debt payment declines automatically.

Major purchasers of first mortgages do not allow second mortgage loans to be used as down payment. However, apparently it may be possible to arrange for the seller to take a note for a portion of the down payment and obtain a first loan without the lender's knowledge of the second loan. Not only is this a fraudulent practice, but it places the borrower at a disadvantage to the cooperating seller in negotiating a price for the home. What is saved in insurance premiums may be lost in a higher sales price.

Pledge securities. Some lenders provide 100 percent financing if borrowers pledge a portfolio of marketable securities to back up their obligation to repay the loan. These "pledged asset" loans typically require borrowers to establish an account containing the securities (stocks, bonds, funds, certificates of deposit) with the lender. The borrower can trade within the account and access any income generated, as well as recover the account when the loan is repaid.

What makes this option practical for cash-strapped borrowers is that the assets can be supplied by a relative. Thus, parents can assist with the purchase of a first home without lending or giving their children cash (which many lenders limit as a contribution to the down payment). An example of a pledged asset mortgage is that offered by Texas One Mortgage Company (www.io.com/~texasibe/pledged.html). The pledged asset they require is a certificate of deposit equal to at least 10 percent of value, but it must equal 30 percent to avoid PMI. Although the loan may cover 100 percent of value, the borrower must contribute at least 3 percent of costs (closing costs, pre-paid expenses or down payment) from their own funds.

PMI cannot be avoided without incurring costs. However, for some borrowers, one of these alternatives may be preferable. If the borrower has the ability to save enough cash to make a 20 percent down payment and does not mind committing that savings to the purchase, then delaying the purchase may be the way to go. If the borrower is eligible for a VA loan, it should be considered. Having a relative willing to pledge securities against the mortgage might enable the borrower to qualify for a pledged asset loan.

Dr. Harris is a research economist with the Real Estate Center at Texas A&M University. Hopfe is a global bank analyst with Texas Commerce Bank, a subsidiary of Chase.

REAL ESTATE CENTER

©1998, Real Estate Center. All rights reserved.

Director, Dr. R. Malcolm Richards; **Associate Director,** Gary Maler; **Chief Economist,** Dr. Mark G. Dotzour; **Senior Editor,** David S. Jones; **Associate Editor,** Wendell E. Fuqua; **Assistant Editor,** Kammy Baumann; **Assistant Editor,** Jenifer V. Hofmann; **Art Director,** Robert P. Beals II; **Circulation Manager,** Gary Earle; **Typography,** Real Estate Center; **Lithography,** Wetmore & Company, Houston.

Advisory Committee: John P. Schneider, Jr., Austin, chairman; Gloria Van Zandt, Arlington, vice chairman; Joseph A. Adame, Corpus Christi; Celia Goode-Haddock, College Station; Carlos Madrid, Jr., San Antonio; Catherine Miller, Fort Worth; Kay Moore, Big Spring; Angela S. Myres, Houston; Jerry L. Schaffner, Lubbock; and Pete Cantu, Sr., San Antonio, ex-officio representing the Texas Real Estate Commission.

Tierra Grande (ISSN 1070-0234), formerly *Real Estate Center Journal*, is published quarterly by the Real Estate Center at Texas A&M University, College Station, Texas 77843-2115.

Subscriptions are free to Texas real estate licensees. Other subscribers, $30 per year, including 12 issues of *Trends*.

Views expressed are those of the authors and do not imply endorsement by the Real Estate Center, the Lowry Mays College & Graduate School of Business or Texas A&M University.