Subprime ARMs: Popular Loans, Poor Performance

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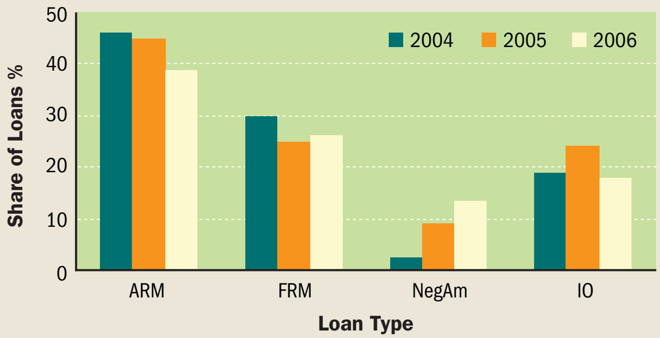
In recent decades, the expansion in credit availability has been a driving factor in American economic growth. Since the 1990s, customers have had greater access to credit to finance purchases, most notably home buying, thereby contributing to the booming real estate market. Although these consumers have had an avenue to finance their homes, the types of loans available to them have come under particular scrutiny.

Subprime Mortgage Market

Recent developments in the mortgage market allow a borrower with less than perfect credit to finance a home purchase with a subprime loan. Subprime mortgages are usually priced 125 or more basis points above the prevailing prime (market) rate at the time of origination. Borrowers who fail to qualify for prime financing terms usually have low credit scores. A borrower's credit score, together with a down payment and ability to document assets, determines whether he or she qualifies for a prime or subprime loan.

Subprime mortgages are almost always associated with prepayment penalties, high fees and high rates because subprime borrowers are viewed as riskier than those with high incomes and high credit scores. Because borrowers with less than perfect credit or with no credit history at all tend to have a higher probability of default and delinquency, they are charged higher prices to compensate lenders for risk.

Figure 1



Fraction of four subprime loan products originated and sold on the secondary mortgage market from 2004 to 2006. Data provided by LoanPerformance Corp.

There are several major types of loan products in the subprime mortgage industry.

Negatively amortized loans, so-called nontraditional mortgages, have payment schedules in which the borrower pays back less than the full amount of interest to the lender, and the remainder is added to the outstanding principal.

An adjustable rate mortgage (ARM), as its name indicates, is based on a floating interest rate—often a predetermined rate plus a margin. These rates are usually readjusted every 12, six or three months.

In contrast to ARMs, a fixed-rate mortgage (FRM) is based on an interest rate that does not change throughout the life of the loan—the borrower will have a constant payment at every installment period. These loans usually last for 15 or 30 years.

With interest-only mortgages, borrowers typically pay the interest only on a loan for a period of time. Then, after the interest-only period is over, the borrower can amortize the principal amount for the remaining life of the loan.

There are a significant number of loan-type combinations within both ARMs and fixed-rate mortgages. For some lenders, these different combinations can reach a level of several hundreds. For example, a fixed-rate mortgage can be an interest-only mortgage for a fixed period, after which a loan starts amortizing. The length of the interest-only period can vary, as well as the terms for amortization. For instance, there can be a balloon payment after the non-amortizing loan period is over. Similar combinations exist for ARM loans.

For potential home buyers who cannot afford any of the loan products described or who have less than perfect credit, hybrid loans may be a viable option to repair their credit and finance the purchase of their home.

The 2/28 hybrid loan is a loan for which the rate is fixed for the first two years; afterward, on the third year, it becomes an ARM for 28 years. In other words, its rate resets to the value of an index at that time, plus a margin. The margins are often high, so the rate on most 2/28s will spike after the first two years even if the market rates do not change during the period. At the end of the two-year period, prepayment penalties are usually present, which makes it more expensive for borrowers to refinance their mortgages.

The U.S. Mortgage Market

There were more than 3 million subprime mortgage loans originated and sold on the secondary market in the United States each year from 2004 to 2006. Among those, more than 45 percent were ARMs, about 25 percent were fixed-rate mortgages, about 10 percent allowed for negative amortization and approximately 20 percent were interest-only mortgages (Figure 1).

As one can guess, the majority of nontraditional mortgages originate in California. For example, among all securitized mortgages in the subprime market, more than 50 percent of nontraditional loans and more than 30 percent of interest-only loans originated in California. California also originates about 20 percent of all ARM loans in the United States.

Starting in 2004, only 1.5 percent of all ARM loans in the United States originated every year in the St. Louis metropolitan statistical area. This means that approximately 20,000 subprime mortgage loans were originated, pooled together and sold as asset-backed securities every year in St. Louis. However, if a substantial portion of these loans default, it could create a substantial local mortgage market crisis, which could lead to a local economic crisis.

Moreover, delinquent loans, even if they do not foreclose, tend to increase the cost of servicing loans and increase the losses for financial institutions involved in mortgage lending. As a result, an increase in delinquency rates can increase prices in both subprime and prime mortgage markets. Therefore, it is important to know the possible causes and remedies for any downturns in mortgage and economic markets.

Factors that Influence Delinquency

An analysis of the subprime mortgage market showed that traditional ARM loans were subject to higher delinquency rates than both conventional fixed-rate and nontraditional option-ARM loans. Also, ARM loans originated in 2005 and 2006 have higher delinquency rates than ARM loans originated in earlier years. In general, overall trends indicated that borrowers with lower credit scores (FICO), higher loan-to-value ratios and debt-to-income ratios tend to have higher delinquency and default rates on their mortgage payment.

Given that ARM loans are currently the most popular types of mortgage loans and, on average, do not perform as well as others, it is important to identify the primary factors for inferior performance, such as serious delinquency and foreclosure.

After applying a statistical model that allows estimating the probability of an outcome, such as probability of a borrower defaulting on one or more mortgage payments, the following factors seem to be the best explanation for the delinquencies and foreclosures:

- In comparison to other subprime applicants who have low loan-to-value ratios, subprime applicants with high loan-to-value ratios have a higher likelihood of default.
- A potential borrower's credit score is a strong indicator of possible future loan default. Applicants with lower credit scores have a higher likelihood of default versus those who have higher FICO scores.
- Overall macroeconomic conditions also influence how loans perform. For example, during recessions, loans tend to be delinquent one to two months.
- In an environment of high interest rates, lenders increase margins on ARMs and hybrid loans, thus raising the monthly payments. Thus, rising interest rates can result in greater delays in payment.
- When interest rates change frequently, it distorts borrowers' expectations regarding their future mortgage payments, which later leads to a higher likelihood of delinquencies. Borrowers who do not anticipate a rate change are caught by unanticipated increases in their mortgage payments. This, in turn, makes payments harder to make and delinquencies more likely.

Government Regulation

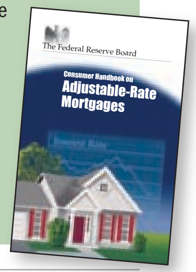
Because of the increasing popularity of, and relative ease of qualifying for, high-cost mortgages, the Home Ownership and Equity Protection Act (HOEPA) of 1994 sought to define high-cost loans and describe the process by which potential borrowers can identify interest rates and fees without financially committing to the loan. HOEPA defines high-cost mortgages as those with an annual percentage rate at least 8 percentage points higher than the comparable Treasury securities maturities. Under this HOEPA definition, lenders must explain to potential borrowers how much is being borrowed along with how the loan will be paid back in the form of interest and other fees. This explanation must be given to the borrower before the loan is closed, and the borrower has until three days after the loan closes to cancel the loan.

Booklet Explains ARMs

A revised *Consumer Handbook on Adjustable Rate Mortgages* is available from the Federal Reserve. The booklet includes information on "interest-only" and "payment option" mortgages, a mortgage shopping worksheet and a glossary.

Banks can distribute the earlier version until October 2007 but must begin providing consumers with the revised version after that.

Up to 100 copies are available free of charge by calling 202-452-3245. A printable version is also available on the Internet at www.federalreserve.gov/pubs/arms/arms_english.htm.



REFERENCES FOR MORE DETAILED RESEARCH

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