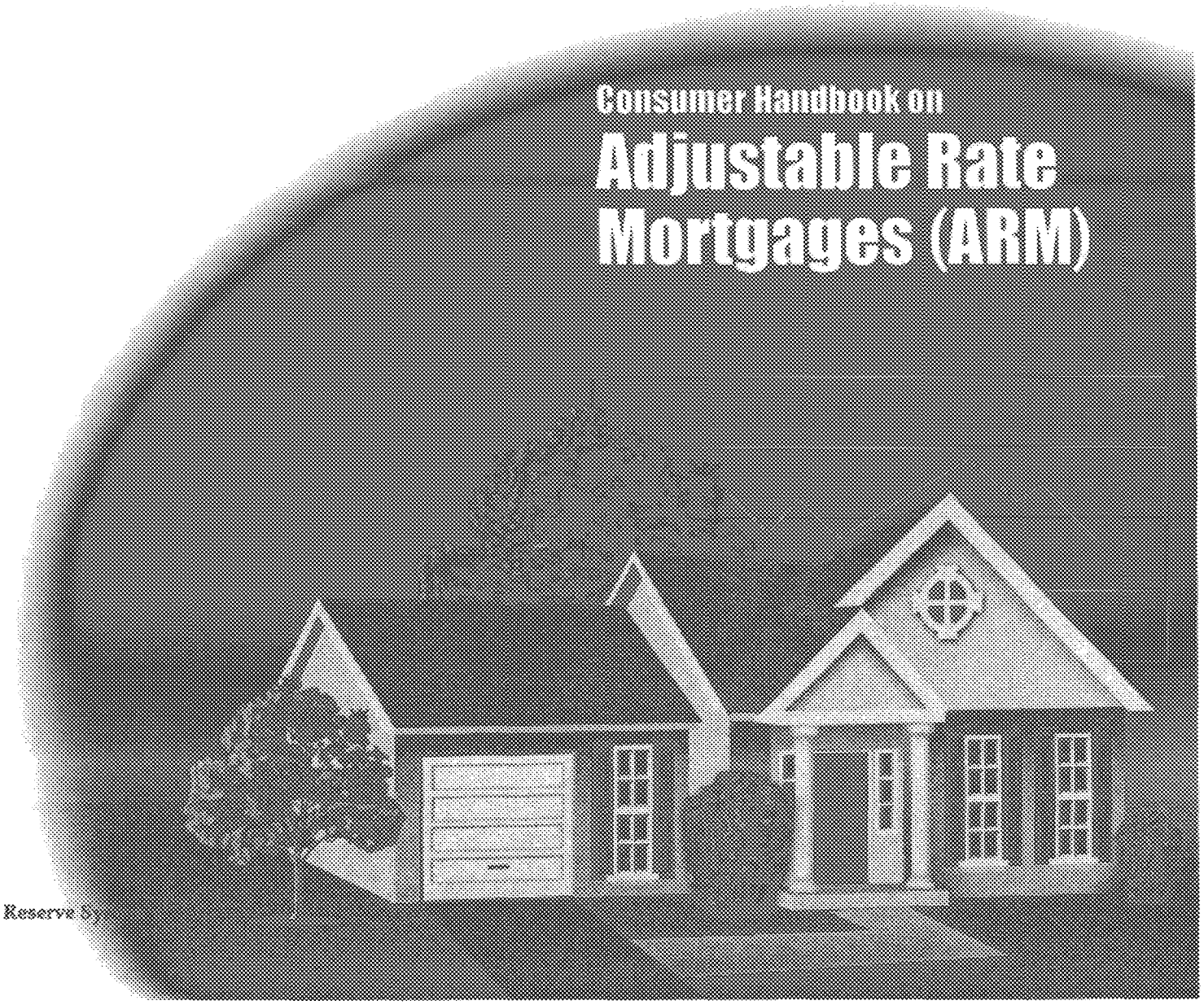
The Federal Reserve Board

Consumer Handbook on

Adjustable Rate Mortgages (ARM)



Board of Governors of the Federal Reserve Sy

Item #6709

The Federal Reserve Board and the Office of Thrift Supervision prepared this booklet on adjustable-rate mortgages (ARMs) in response to a request from the House Committee on Banking, Finance and Urban Affairs (currently, the Committee on Financial Services) and in consultation with many other agencies and trade and consumer groups. It is designed to help consumers understand an important and complex mortgage option available to homebuyers.

We believe a fully informed consumer is in the best position to make a sound economic choice. If you are buying a home and looking for a home loan, this booklet will provide useful basic information about ARMs. It cannot provide all the answers you will need, but we believe it is a good starting point.

People are asking . . .

"Some newspaper ads for home loans show surprisingly low rates. Are these loans for real, or is there a catch?"

Some of the ads you see are for adjustablerate mortgages (ARMs). These loans may have low rates for a short time—maybe only for the first year. After that, the rates may be adjusted on a regular basis. This means that the interest rate and the amount of the monthly payment may go up or down.

"Will I know in advance how much my payment may go up?"

With an adjustable-rate mortgage, your future monthly payment is uncertain. Some types of ARMs put a ceiling on your payment increase or interest-rate increase from one period to the next. Virtually all types must put a ceiling on rate increases over the life of the loan.

"Is an ARM the right type of loan for me?"

That depends on your financial situation and the terms of the ARM. ARMs carry risks in periods of rising interest rates, but they can be cheaper over a longer term if interest rates decline. You will be able to answer the question better once you understand more about ARMs. This booklet should help.

Mortgages have changed, and so have the questions that consumers need to ask and have answered.

Shopping for a mortgage used to be a relatively simple process. Most home mortgage loans had interest rates that did not change over the life of the loan. Choosing among these fixed-rate mortgage loans meant comparing interest rates, monthly payments, fees, prepayment penalties, and due-on-sale clauses.

Today, many loans have interest rates (and monthly payments) that can change from time to time. To compare one ARM with another or with a fixed-rate mortgage, you need to know about indexes, margins, discounts, caps, negative amortization, and convertibility. You need to consider the maximum amount your monthly payment could increase. Most important, you need to compare what might happen to your mortgage costs with your future ability to pay.

This booklet explains how ARMs work and some of the risks and advantages to borrowers that ARMs introduce. It discusses features that can help reduce the risks and gives some pointers about advertising and other ways you can get information from lenders. Important ARM terms are defined in a glossary on page 19. And a checklist at the end of the booklet should help you ask lenders the right questions and figure out whether an ARM is right for you. Asking lenders to fill out the checklist is a good way to get the information you need to compare mortgages.

What is an ARM?

With a fixed-rate mortgage, the interest rate stays the same during the life of the loan. But with an ARM, the interest rate changes periodically, usually in relation to an index, and payments may go up or down accordingly.

Lenders generally charge lower initial interest rates for ARMs than for fixed-rate mortgages. This makes the ARM easier on your pocketbook at first than a fixed-rate mortgage for the same amount. It also means that you might qualify for a larger loan because lenders sometimes make the decision about whether to extend a loan on the basis of your current income and the first year's payments. Moreover, your ARM could be less expensive over a long period than a fixed-rate mortgage—for example, if interest rates remain steady or move lower.

Against these advantages, you have to weigh the risk that an increase in interest rates would lead to higher monthly payments in the future. It's a trade-off—you get a lower rate with an ARM in exchange for assuming more risk.

Here are some questions you need to consider:

- Is my income likely to rise enough to cover higher mortgage payments if interest rates go up?
- Will I be taking on other sizable debts, such as a loan for a car or school tuition, in the near future?
- How long do I plan to own this home? (If you plan to sell soon, rising interest rates may not pose the problem they do if you plan to own the house for a long time.)
- Can my payments increase even if interest rates generally do not increase?

How ARMs Work: the Basic Features

The adjustment period

With most ARMs, the interest rate and monthly payment change every year, every three years, or every five years. However, some ARMs have more frequent rate and payment changes. The period between one rate change and the next is called the "adjustment period." A loan with an adjustment period of one year is called a one-year ARM, and the interest rate can change once every year.

The index

Most lenders tie ARM interest-rate changes to changes in an "index rate." These indexes usually go up and down with the general movement of interest rates. If the index rate moves up, so does your mortgage rate in most circumstances, and you will probably have to make higher monthly payments. On the other hand, if the index rate goes down, your monthly payment may go down.

Lenders base ARM rates on a variety of indexes. Among the most common indexes are the rates on one-, three-, or five-year Treasury securities. Another common index is the national or regional average cost of funds to savings and loan associations. A few lenders use their own cost of funds as an index, which gives them more control than using other indexes. You should ask what index will be used and how often it changes. Also ask how it has fluctuated in the past and where it is published.

The margin

To determine the interest rate on an ARM, lenders add to the index rate a few percentage points, called the "margin." The amount of the margin may differ from one lender to another, but it is usually constant over the life of the loan.

Index rate + margin =
ARM interest rate

Let's say, for example, that you are comparing ARMs offered by two different lenders. Both ARMs are for 30 years and have a loan amount of $65,000. (All the examples used in this booklet are based on this amount for a 30-year term. Note that the payment amounts shown here do not include taxes, insurance, or similar items.)

Both lenders use the rate on one-year Treasury securities as the index. But the first lender uses a 2% margin, and the second lender uses a 3% margin. Here is how that difference in the margin would affect your initial monthly payment.

In comparing ARMs, look at both the index and margin for each program. Some indexes have higher values, but they are usually used with lower margins. Be sure to discuss the margin with your lender.

Home sale price	$ 85,000
Less down payment	- 20,000
Mortgage amount	$ 65,000

Mortgage term 30 years

FIRST LENDER

One-year index = 8%

Margin = 2%

ARM interest rate = 10%

Monthly payment @ 10 % = $ 570.42

SECOND LENDER

One-year index = 8%

Margin = 3%

ARM interest rate = 11%

Monthly payment @ 11% = $ 619.01

Consumer Cautions

Discounts

Some lenders offer initial ARM rates that are lower than their "standard" ARM rates (that is, lower than the sum of the index and the margin). Such rates, called discounted rates, are often combined with large initial loan fees ("points") and with much higher rates after the discount expires.

Very large discounts are often arranged by the seller. The seller pays an amount to the lender so that the lender can give you a lower rate and lower payments early in the mortgage term. This arrangement is referred to as a "seller buydown." The seller may increase the sales price of the home to cover the cost of the buydown.

A lender may use a low initial rate to decide whether to approve your loan, based on your ability to afford it. You should be careful to consider whether you will be able to afford payments in later years when the discount expires and the rate is adjusted. Here is how a discount might work. Let's assume that the lender's "standard" one-year ARM rate (index rate plus margin) is currently 10%. But your lender is offering an 8% rate for the first year. With the 8% rate, your first-year monthly payment would be $476.95.

But don't forget that with a discounted ARM, your initial payment will probably remain at $476.95 for only 12 months—and that any savings during the discount period may be made up during the life of the mortgage or may be included in the price of the house. In fact, if you buy a home using this kind of loan, you run the risk of . . .

Payment shock

Payment shock may occur if your mortgage payment rises very sharply at the first adjustment. Let's see what would happen in the second year if the rate on your discounted 8% ARM were to rise to the 10% "standard" rate.

ARM Interst Rate	Monthly Payment
1st year (w/discount) @ 8%	$ 476.95
2nd year @ 10%	$ 568.82

As the example shows, even if the index rate were to stay the same, your monthly payment would go up from $476.95 to $568.82 in the second year.

Suppose that the index rate increases 2% in one year and the ARM rate rises to 12%.

ARM Interest Rate	Monthly Payment
1st year (w/discount) @ 8%	$ 476.95
2nd year @ 12%	$ 665.43

That's an increase of almost $200 in your monthly payment. You can see what might happen if you choose an ARM because of a low initial rate. You can protect yourself from large increases by looking for a mortgage with features, described next, that may reduce this risk.

How Can I Reduce My Risk?

Besides offering an overall rate ceiling, most ARMs also have "caps" that protect borrowers from extreme increases in monthly payments. Others allow borrowers to convert an ARM to a fixed-rate mortgage. While they may offer real benefits, these ARMs may also cost more, or may add special features such as negative amortization.

Interest-rate caps

An interest-rate cap places a limit on the amount your interest rate can increase. Interest caps come in two versions:

- Periodic caps, which limit the interestrate increase from one adjustment period to the next; and
- Overall caps, which limit the interest-rate increase over the life of the loan.

By law, virtually all ARMs must have an overall cap. Many have a periodic cap.

Let's suppose you have an ARM with a periodic interest-rate cap of 2%. At the first adjustment, the index rate goes up 3%. The example shows what happens.

ARM Interest Rate	Monthly Payment
1st year @ 10%	$ 570.42
2nd year @ 13% (without cap)	$ 717.12
2nd year @ 12% (with cap)	$ 667.30

Difference in 2nd year between payment with cap and payment without = $ 49.82

A drop in interest rates does not always lead to a drop in monthly payments. In fact, with some ARMs that have interest-rate caps, your payment amount may increase even though the index rate has stayed the same or declined. This may happen when an interest-rate cap has been holding your interest rate down below the sum of the index plus margin. If a rate cap holds down your interest rate, increases to the index that were not imposed because of the cap may carry over to future rate adjustments.

With some ARMs, payments may increase even if the index rate stays the same or declines.

The following example shows how carryovers work. The index increased 3% during the first year. Because this ARM limits rate increases to 2% at any one time, the rate is adjusted by only 2%, to 12% for the second year. However, the remaining 1% increase in the index carries over to the next time the lender can adjust rates. So when the lender adjusts the interest rate for the third year, the rate increases 1%, to 13%, even though there is no change in the index during the second year.

ARM Interest Rate	Monthly Payment
1st year @ 10%	$ 570.42
If index rises 3% . . . 2nd year @ 12% (with 2% rate cap)	$ 667.30
If index stays the same for the 3rd year @ 13%	$ 716.56
Even though the index stays the same in 3rd year, payment goes up	$ 49.26

In general, the rate on your loan can go up at any scheduled adjustment date when the lender's standard ARM rate (the index plus the margin) is higher than the rate you are paying before that adjustment.

The next example shows how a 5% overall rate cap would affect your loan.

ARM Interest Rate	Monthly payment
1st year @ 10%	$ 570.42
10th year @ 15% (with cap)	$ 813.00

Let's say that the index rate increases 1% in each of the next nine years. With a 5% overall cap, your payment would never exceed $813.00—compared to the 1,008.64 that it would have reached in the tenth year based on a 19% interest rate.

Payment caps

Some ARMs include payment caps, which limit your monthly payment increase at the time of each adjustment, usually to a percentage of the previous payment. In other words, with a 7½% payment cap, a payment of $100 could increase to no more than $107.50 in the first adjustment period, and to no more than $115.56 in the second.

Let's assume that your rate changes in the first year by 2 percentage points but your payments can increase by no more than 7½% in any one year.

Here's what your payments would look like:

ARM Interest Rate	Monthly Payment
1st year @ 10%	$ 570.42
2nd year @ 12% (without payment cap)	$ 667.30
2nd year @ 12% (with 7 ½ % payment cap)	$ 613.20
Difference in monthly payment =	$ 54.10

Many ARMs with payment caps do not have periodic interest-rate caps.

Negative amortization

If your ARM includes a payment cap, be sure to find out about "negative amortization." Negative amortization means that the mortgage balance increases. It occurs whenever your monthly mortgage payments are not large enough to pay all of the interest due on your mortgage.

Because payment caps limit only the amount of payment increases, and not interest-rate increases, payments sometimes do not cover all the interest due on your loan. This means that the interest shortage in your payment is automatically added to your debt, and interest may be charged on that amount. You might therefore owe the lender more later in the loan term than you did at the start. However, an increase in the value of your home may make up for the increase in what you owe.

The next illustration uses the figures from the preceding example to show how negative amortization works during one year. Your first 12 payments of $570.42, based on a 10% interest rate, paid the balance down to $64,638.72 at the end of the first year.

The rate goes up to 12% in the second year. But because of the 7½% payment cap, your payments are not high enough to cover all the interest. The interest shortage is added to your debt (with

Beginning loan amount = $ 65,000

Loan amount at end of 1st year = $ 64,638.72

Negative amortization during 2nd year = $ 420.90

Loan amount at end of 2nd year = $ 65,059.62 ($ 64,638.72 + $ 420.90)

(If you sold your house at this point, you would owe almost $60 more than you originally borrowed)

interest on it), which produces negative amortization of $420.90 during the second year.

To sum up, the payment cap limits increases in your monthly payment by deferring some of the increase in interest. Eventually, you will have to repay the higher remaining loan balance at the ARM rate then in effect. When this happens, there may be a substantial increase in your monthly payment.

Some mortgages include a cap on negative amortization. The cap typically limits the total amount you can owe to 125% of the original loan amount. When that point is reached, monthly payments may be set to fully repay the loan over the remaining term, and your payment cap may not apply. You may limit negative amortization by voluntarily increasing your monthly payment.

Be sure to discuss negative amortization with the lender to understand how it will apply to your loan.

Prepayment and conversion

If you get an ARM and your financial circumstances change, you may decide that you don't want to risk any further changes in the interest rate and payment amount. When you are considering an ARM, ask for information about prepayment and conversion.

Prepayment. Some agreements may require you to pay special fees or penalties if you pay off the ARM early. Many ARMs allow you to pay the loan in full or in part without penalty whenever the rate is adjusted. Prepayment details are sometimes negotiable. If so, you may want to negotiate for no penalty, or for as low a penalty as possible.

Conversion. Your agreement with the lender may include a clause that lets you convert the ARM to a fixed-rate mortgage at designated times. When you convert, the new rate is generally set at the current market rate for fixed-rate mortgages.

The interest rate or up-front fees may be somewhat higher for a convertible ARM. Also, a convertible ARM may require a special fee at the time of conversion.

Where to Get Information

Before you actually apply for a loan and pay a fee, ask for all the information the lender has on the loan you are considering. It is important that you understand index rates, margins, caps, and other ARM features such as negative amortization. You can get helpful information from advertisements and disclosures, which are subject to certain federal standards.

Advertising

Your first information about mortgages probably will come from newspaper advertisements placed by builders, real estate brokers, and lenders. Although this information can be helpful, keep in mind that the ads are designed to make the mortgage look as attractive as possible. These ads may play up low initial interest rates and monthly payments, without emphasizing that those rates and payments later could increase substantially. So get all the facts.

A federal law, the Truth in Lending Act, requires mortgage advertisers, once they begin advertising specific terms, to give further information on the loan. For example, if they want to show the interest rate or payment amount on the loan, they must also tell you the annual percentage rate (APR) and whether that rate may go up. The APR, the cost of your credit as a yearly rate, reflects more than just a low initial rate. It takes into account interest, points paid on the loan, any loan origination fee, and any mortgage insurance premiums you may have to pay.

Ads may play up low initial rates.
Get all the facts.

Disclosures from lenders

Federal law requires the lender to give you information about ARMs, in most cases before you apply for a loan. The lender also is required to give you information when you apply for a mortgage. You should get a written summary of important terms and costs of the loan. Some of these are the finance charge, the APR, and the payment terms.

Read information from lenders — and ask questions — before committing yourself.

Selecting a mortgage may be the most important financial decision you will make, and you are entitled to all the information you need to make the right decision. Don't hesitate to ask questions about ARM features when you talk to lenders, real estate brokers, sellers, and your attorney, and keep asking until you get clear and complete answers. The checklist at the back of this booklet is intended to help you compare terms on different loans.

Glossary

Adjustable-rate mortgage (ARM)

A mortgage for which the interest rate is not fixed, but changes during the life of the loan in line with movements in an index rate. You may also see ARMs referred to as AMLs (adjustable-mortgage loans) or VRMs (variable-rate mortgages).

Annual percentage rate (APR)

A measure of the cost of credit, expressed as a yearly rate. It includes interest as well as other charges. Because all lenders follow the same rules when calculating the APR, it provides consumers with a good basis for comparing the cost of loans, including mortgages.

Buydown

With a buydown, the seller pays an amount to the lender so that the lender can give you a lower rate and lower payments, usually for an early period in an ARM. The seller may increase the sales price to cover the cost of the buydown. Buydowns can occur in all types of mortgages, not just ARMs.

Cap

A limit on how much the interest rate or the monthly payment may change, either at each adjustment or during the life of the mortgage. Payment caps don't limit the amount of interest the lender is earning, so they may cause negative amortization.

Conversion clause

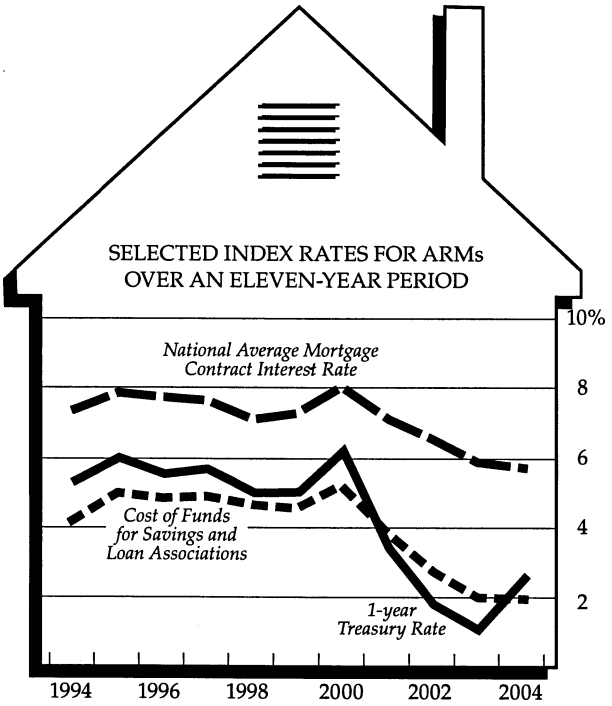
A provision in some ARMs that allows you to change the ARM to a fixed-rate loan at some point during the term. Conversion is usually allowed at the end of the first adjustment period. At the time of the conversion, the new fixed rate is generally set at one of the rates then prevailing for fixed-rate mortgages. The conversion feature may be available at extra cost.

Discount

In an ARM with an initial rate discount, the lender gives up a number of percentage points in interest to give you a lower rate and lower payments for part of the mortgage term (usually for one year or less). After the discount period, the ARM rate will probably go up depending on the index rate.

Index

The index is the measure of interest-rate changes that the lender uses to decide how much the interest rate on an ARM will change over time. No one can be sure when an index rate will go up or down. To help you get an idea of how to compare different indexes, the following chart shows a few common indexes over an eleven-year period (1994-2004). As you can see, some index rates tend to be higher than others, and some more volatile. (But if a lender bases interest-rate adjustments on the average value of



an index over time, your interest rate would not be as volatile.) You should ask your lender how the index for any ARM you are considering has changed in recent years, and where the index is reported.

Margin

The number of percentage points the lender adds to the index rate to calculate the ARM interest rate at each adjustment.

Negative Amortization

Amortization means that monthly payments are large enough to pay the interest and reduce the principal on your mortgage. Negative amortization occurs when the monthly payments do not cover all the interest cost. The interest cost that isn't covered is added to the unpaid principal balance. This means that even after making many payments, you could owe more than you did at the beginning of the loan. Negative amortization can occur when an ARM has a payment cap that results in monthly payments not high enough to cover the interest due.

Points

One point is equal to 1 percent of the principal amount of your mortgage. For example, if the mortgage is for $65,000, one point equals $650. Lenders frequently charge points in both fixed-rate and adjustable-rate mortgages in order to increase the yield on the mortgage and to cover loan closing costs. These points usually are collected at closing and may be paid by the borrower or the home seller, or may be split between them.

Mortgage Checklist

Ask your lender to help fill out this checklist

	Mortgage A	Mortgage B
Mortgage amount	_____	_____
Basic Features for Comparison		
Fixed-rate annual percentage rate (the cost of your credit as a yearly rate, including both interest and other charges)	_____	_____
ARM annual percentage rate	_____	_____
Adjustment period	_____	_____
Index used and current rate	_____	_____
Margin	_____	_____
Initial payment without discount	_____	_____
Initial payment with discount (if any)	_____	_____
How long will discount last?	_____	_____
Interest-rate caps:		
periodic	_____	_____
overall	_____	_____
Payment caps	_____	_____
Negative amortization	_____	_____
Convertibility or prepayment privilege	_____	_____
Initial fees and charges	_____	_____

	Mortgage A	Mortgage B
Mortgage amount	_____	_____

Monthly Payment Amounts

What will my monthly payment be after 12 months if the index rate:		
stays the same	_____	_____
goes up 2%	_____	_____
goes down 2%	_____	_____
What will my monthly payment be after 3 years if the index rate:		
stays the same	_____	_____
goes up 2% per year	_____	_____
goes down 2% per year	_____	_____

Take into account any caps on your mortgage and remember that it may run 30 years.

This booklet was originally prepared in consultation with the following organizations:

American Bankers Association
America's Community Bankers
(formerly the National Council of Savings Institutions and the U.S. League of Savings Institutions)
Comptroller of the Currency
Consumer Federation of America
Credit Union National Association, Inc.
Federal Deposit Insurance Corporation
Federal Reserve Board's Consumer Advisory Council
Federal Trade Commission
Independent Bankers Association of America
Mortgage Bankers Association of America
Mortgage Insurance Companies of America
National Association of Federal Credit Unions
National Association of Home Builders
National Association of Realtors
National Credit Union Administration
Office of Special Advisor to the President for Consumer Affairs
The Consumer Bankers Association
U.S. Department of Housing and Urban Development

With special thanks to Fannie Mae and Freddie Mac.

Revised: 2005 Reprinted: May 2005 100,000