

How Do the Payment Rate and Interest Rate Differ?

"I have recently heard advertisements for mortgages with the disclaimer that 'payment rate is not the interest rate.' How does that work?"

The interest rate is the rate used to calculate the amount of interest the borrower owes the lender each month. The payment rate is the rate used to calculate the amount of the payment the borrower is obliged to make each month. On most mortgages, they are one and the same, which is why it may be confusing when they are different.

Consider a 30-year mortgage for \$100,000 at an interest rate of 6%. The interest due from the borrower in the first month is .06 times 100,000 divided by 12, or \$500. Using 6% as the payment rate, the monthly payment is \$599.56. This is calculated from a formula that my editors find too complex to show here, but it is available on my web site.

The formula is derived on the assumption that the payment rate and interest rate are the same. It calculates the "fully amortizing payment", which is the payment that will amortize the balance over the term. If the borrower in my example pays \$599.56 every month, the 360th payment will be the last.

Now let's assume that the payment rate is only 3%. Using the same formula, the payment at 3% is \$421.61, but since the payment rate is below the interest rate, this payment is not fully amortizing. The borrower is now required to pay \$421.61 but because the interest rate remains at 6%, the interest due the lender continues to be \$500. The shortfall of \$78.39 must be added to the loan balance. The shortfall is called "negative amortization."

A payment rate below the interest rate is always temporary. Because all mortgages are designed to be paid off in full over their term, at some point the payment must be recalculated at the interest rate to be fully amortizing over the remaining life of the loan.

In my example, assuming this happened after 5 years, the payment would increase to \$679.55, which will pay off the \$105,469 balance at that time over the remaining 25 years. If it did not happen for 10 years, the balance would reach \$112,847, and the payment required to amortize it over 20 years would be \$808.48.

A small-type disclaimer that "payment rate is not the interest rate" almost certainly was attached to marketing materials for an option ARM. This is an extremely popular mortgage because of its low initial payments. In 2005 and 2006, about \$500 billion were written, many to borrowers who did not understand the difference between interest rate and payment rate. No one bothered to explain it to them at the time, but many have been catching on more recently, and wondering if they made a mistake.

The confusing thing about the most widespread version of the option ARM is that the payment rate and interest rate are the same in month one. The interest rate on this ARM adjusts monthly, however, and in month two the rate jumps. It can be 3 percentage points

or more above the payment rate starting in month 2, remaining there for up to 10 years, but a day of reckoning is inevitable.

The option ARM has been very aggressively merchandised. The focus has been low initial payments, with the inevitable rise in payments in the future deemphasized or ignored altogether. Existing disclosure rules provide no help to borrowers.

Recently a group of regulators from 5 Federal agencies expressed concern that many borrowers taking option ARMs were getting in over their heads without realizing it. Acknowledging that amending the disclosure laws would take too long, they proposed that lenders provide their own. The disclaimer about the payment rate not being the same as the interest rate may be a response. If so, it is pitifully inadequate, though it may provoke some borrowers (including the one who wrote me) to seek more information elsewhere.

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