



UNIT 7 – 1

Finding the Right Mortgage for You

For most people, a home mortgage is the biggest single debt obligation they will incur in their lifetime. To complicate things, there is also a dizzying array of mortgages out there from which to choose. Finally, there are numerous sellers – each of whom is convinced that they have the best mortgage for you and would therefore love to have your business. In short, finding the *right* mortgage will be difficult, although you can do some things to make it easier on yourself.

First, be sure to take the time to understand the basic workings of a mortgage as explained in sections 6-1, 6-2 and 6-3 of the previous unit. As it turns out, most of the mortgages you will see are derived from the basic fixed and variable rate mortgages. There are also many hybrids of the two, and so there is no substitute for being as well informed as possible.

Second, remember that everyone who tries to sell you a mortgage is doing so because they want to make a profit on the transaction. How much profit they make will be in part determined by how much (or how little) you know about the contract they want you to sign. So, don't buy from the very first person you talk to – think about contacting three or more lenders to find out what they have to offer, and plan to do a lot of comparison shopping while you are at it.

Third, don't panic because this is something that you *can* do – and millions of people do it every year. Also, don't be afraid to ask questions, and if you don't get a good answer from one lender, then ask another one.

Case Study Application

The case study, as before, is designed to illustrate some of the key points made in the lesson. However, there is now some new information in the case for Bill and Rhonda to consider and so their decision is a bit more complicated. Even so, their situation may be very much like one that you might face someday.



CASE STUDY: BILL AND RHONDA'S DILEMMA

Bill and Rhonda have a combined income of \$86,000 and they want to buy a home that will require a modest \$140,000 mortgage. They have saved enough money for the down payment, but their problem is now more than just trying to figure out how much they will have to pay monthly and how long they will have to make the payments. The problem is that there is a whole array of mortgages from which to choose.

It turns out they found that their first option was still on the table – that of an 8% fixed rate, 30-year mortgage that would result in a monthly payment of \$1,027.27. Bill and Rhonda could actually afford to make a slightly higher monthly payment, but they want to know if other options would be better.

For example, they recently saw a TV ad that promised a 3/1, 7%, 30-year single reset mortgage that will have an unknown future monthly payment. Their research on mortgages also turned up some other variants such as graduated payment mortgages (GPMs), growing-equity mortgages (GEMs), interest only mortgages (I-O), and, one that is sometimes called a “teaser rate” mortgage.

Finally, there are a number of personal matters that are also relevant to the decision. For one, Bill and Rhonda plan to start a family shortly and they would like to have the house paid off before the oldest one goes to college. For another, Bill's job appears to be fairly secure for the next 10 years and while he has no immediate plans to move, his income is heavily dependent on bonuses which cause his monthly cash flow to vary considerably. A further complication is that they know of a prominent economist who thinks that interest rates are likely to rise an average of 1% per year for the next four years, so they also want to take these expectations into account as well.

They expect to hear from a loan officer in a few days, so now they want to make some final plans with regard to the type of mortgage that would be best for them. Risk is now becoming a primary concern, and so they both want to know a bit more about these hybrids before they choose.

Risk Aversion – Variable Monthly Payments?

As we saw in [Figure 6-7](#) in the previous unit, interest rates generally rose from the early-1960s until the early 1980s and then declined after that. In fact, mortgage interest rates hit historic 40-year lows in 2003-04. They rose modestly after that, but then plummeted again in 2008 -- so it is highly likely that fairly soon rates will start going up again.

If anything, the historic pattern of interest rates suggests that fixed rate mortgages would be a safe bet now because the future monthly payments on



ARMs are more likely to go up than down. The future is not always clear, of course, so the borrower will have to decide if they want to run the risk of having the monthly payment change one or more times over the life of the mortgage. If you don't like this uncertainty, then the fixed rate mortgage may better suit your needs.

On the other hand, most ARMs or their variants (discussed below), start off with a lower initial interest rate, so you might prefer to take a chance that the lower initial rate will more than offset a rise in interest rates.

We can't answer the question of the best mortgage for you; all we can do is to encourage you to take your risk aversion (or lack of) into consideration as you make your final decision.

- With regard to the case study, if Bill and Rhonda were adverse to risk, and if they expected interest rates to rise slightly before 2010, then which mortgage (fixed or variable) would they prefer?

Debt Aversion and Future Cash Flows

Some people simply don't like to be in debt to anyone, and they may want to pay off the mortgage as soon as possible. Other people might be planning to retire in 15 years, and even others might have young children who will be going to college in another 15-20 years. All of these things could have an impact on the duration of the mortgage.

For example, someone who plans to retire in 15 years would be well advised to turn down a 30-year mortgage, especially if they expect to have a lower income after they retire. As for the family with young children and future college expenses, they may want to take out a 15- or 20-year mortgage so that they can get one big expense out of the way before another one occurs.

If any of these things applies to you, then you might want to give some thought to the *duration* of the mortgage. If this is the case, we strongly urge you to create a table such as that in [Figure 6-3](#) in Unit 6-1 so that you can better evaluate your alternatives. A shorter mortgage comes with a larger monthly payment, but if you can afford it, you will also pay less interest to the bank in the long run.

- Do any of the situations in this section pertain to Bill and Rhonda? If so, what are they?
- Based on the information given, and assuming that they could afford the monthly payment, what duration would be best for Bill and Rhonda?

Tax Consequences (Again) of a Mortgage

In Unit 6-1, we saw that there were some important tax consequences of having a mortgage. For example, someone in the highest tax bracket would save



\$0.35 in federal taxes for every \$1 of mortgage interest paid. On the other hand, someone in the 15 percent tax bracket (approximately \$60,000 and under), only saves \$0.15 in taxes for every \$1 of interest paid. Don't think that getting a big mortgage automatically entitles you to recoup large tax savings because the savings are also dependent on your income level.

Instead, ask yourself how much you can afford to pay and plan accordingly. More than likely you may have enough other surprises such as unforeseen medical expenses, car repairs, and maybe even some temporary job losses to go along with your regular monthly credit card and car payments.

Other Mortgage Hybrids

More than likely you'll be faced with many variants such as two-step mortgages (or "resets"), graduated payment mortgages (GPMs), and growing-equity mortgages (GEMs), interest-only mortgages and, finally, "teaser rates." Fortunately we've already explored the mortgage basics, so these new variants are easy to understand and they actually give you more choices.

Two-step (reset) mortgages: The **reset** is a mortgage that adjusts the interest rate (and hence the payment) a specific number of times during the life of a mortgage. For example, consider the case of a 30-year, 5/25 or 7/23 reset that adjusts the interest rate and the monthly payment just once. In the case of the 5/25, the initial rate is fixed for 5 years and then reset once for the remaining 25. Likewise, the 7/23 keeps the initial rate for 7 years, and then resets it once for the remaining 23 years of the mortgage.

Whether or not these resets are best for you depends on the level of interest rates over the next 30 years. If rates are likely to be higher in 5 or 7 years than they are now, then the new monthly payment will be higher for the remainder of the mortgage. Even the most talented economist can't see that far into the future, so the resets are not necessarily for those who are adverse to risk.

Graduated payment mortgages: The **graduated payment mortgage (GPM)** usually has a low initial payment during the early years of the mortgage. The payments rise gradually at first and then level off for the remainder of the loan. This might be helpful for a new couple who are just starting out and cannot otherwise afford the normal monthly payment on a fixed-rate mortgage.

However, the GPM is not without risk. The entire schedule of payments may be known at the outset, which takes some of the uncertainty out of the mortgage, but the couple will also have to have better paying jobs in the future if they are to meet the higher future payments. Whether or not they will be actually able to do so is always unknown today.

Perhaps the biggest problem is that the initial payments are so low that interest is actually *added* to the mortgage making the amount owed even larger.



Growing equity mortgages: **Growing equity mortgages (GEMs)** are designed for borrowers who want to pay off the loan off early by having the equity in the loan grow as fast as possible. So, rather than make a standard \$665.30 payment for 30 years on a 7%, \$100,000 fixed rate mortgage, someone may opt to make additional monthly payments that will further reduce the principle. For example, if they wanted to pay off the loan in exactly 20 years they would make monthly payments of \$775.30.¹

The extra \$110 payment every month will reduce the principal exactly the same way that a single extra payment (see page 5 of Unit 6-2) shortens the duration of the mortgage. The only difference here is that the extra principal payment is made every month until the mortgage is paid off.

The GEM is ideal for people who either don't like debt and want to get it paid off as soon as possible, or for those who want to get the mortgage paid off before another expense like college tuition comes along.

Interest Only Mortgages: The typical interest-only (**I-O**) mortgage may have an initial period of about 5 years during which the monthly payment only covers the interest on the loan. Then, when the initial period is over, the payment increases so that the principal can eventually be paid off. So, initial payments are somewhat less, but you really don't make any progress reducing the principal until the payment increases.

For example, suppose you get at 25-year, \$200,000 I-O mortgage today at 7%, and that you only have to pay interest for the first 5 years. After that, it will convert to a \$200,000, 20-year mortgage at an unknown rate to be determined later. Once the initial interest only period is over, the loan will switch over to either a fixed or an adjustable rate mortgage, so be sure to ask to find out for sure.

The I-O mortgage may seem like a good idea if you think that housing prices are going to go up so much that you can sell the house for a hefty profit, but this is seldom the case as it will have to go up enough in 5 years to cover the fee that the realtor will charge for helping you sell it.

Even so, someone might want to get an I-O mortgage because they expect to get, or they expect their spouse to get, a better job in five years and therefore be better able to make the higher monthly payment that comes with the shorter portion of the mortgage – which is 20 years in this example.

Teaser Rates: A **teaser rate** is an unrealistically low introductory rate which, like many introductory credit card offers, requires the borrower to pay almost no interest for the first five or six months of the mortgage. Some teaser rates actually approach 0% as a way to attract borrowers. Because the initial

¹ Simply use the Kentucky Real Estate Commission mortgage calculator to find the payment on a \$100,000, 7%, 20-year mortgage.



payments do not even cover interest on the mortgage, you will owe more in 6 months than you initially borrowed (this is because the unpaid interest is added back to the principal). Payments go up sharply after the initial period though, so be sure to get a clear explanation of how high they go and how they are adjusted.

- Do you think that any of these mortgage hybrids would appeal to Bill and Rhonda? Why or why not?
- Which type of loan do you feel would be the least acceptable for Bill and Rhonda? Explain your decision.

Putting It All Together

Obviously no one solution fits all situations, but we can show you how to think about a problem like picking the right mortgage. To do so, we return to the PACED decision making model used earlier.

As we have already seen, the PACED model can be used to analyze any problem such as picking the right duration or choosing between a fixed, variable, reset, GPM, GEM or I-O mortgage. To do so, simply put down as many criteria as are important to you, and list as many alternatives as you can. Once you evaluate the matrix, you will have a clearer idea of what to do.

Finally, save your work and go over it later. More than likely you will think of other criteria that you would like to add to your list to make sure your decision is as sound as possible.

- Create a PACED matrix to help Bill and Rhonda evaluate the problem of the best *duration* of the mortgage. After evaluation, what type of mortgage do you think they will pick?
- Create another PACED decision making model to evaluate the *type* of mortgage they would most likely prefer. What criteria did you use and what was the result of your analysis?



The PACED Decision Making Model

Directions: Use the PACED Decision Making Model below to contrast the advantages and disadvantages of your problem. After you have evaluated to the issue, discuss the choice you would make. Complete the analysis by using these five steps in the decision making model:

Step 1: State the **P**roblem: _____.

Step 2: List the **A**lternatives in the first column.

Step 3: List the **C**riteria in the first row.

Step 4: Evaluate each alternative by placing a “+” or a “-” in the box below each criterion.

Step 5: Make your **D**ecision: _____
_____.

Criteria ↓ → Alternatives	1.	2.	3.	4.
1.				
2.				
3.				
4.				
5.				

Using the space below, explain why the alternative in step 5 above is the best solution to your problem:

