How A Credit Cards Works

Have you ever stood behind someone in line at the store and watched him shuffle through a stack of what must be at least 10 credit cards? Consumers with this many cards are still in the minority, but experts say that the majority of U.S. citizens have at least one credit card -- and usually two or three. It's true that credit cards have become important sources of identification -- if you want to rent a car, for example, you really need a major credit card. And used wisely, a credit card can provide convenience and allow you to make purchases with nearly a month to pay for them before finance charges kick in.

That sounds good, in theory. But in reality, many consumers are unable to take advantage of these benefits because they carry a balance on their credit card from month to month, paying finance charges that can go up to a whopping 23 percent. Many find it hard to resist using the old "plastic" for impulse purchases or buying things they really can't afford. The numbers are striking: In 1999, American consumers charged about $1.2 trillion on their general-purpose credit cards.

In this article we'll look at the credit card -- how it works both financially and technically -- and we'll offer tips on how to shop for a credit card. (Experts say this should be a project on the scale of shopping for a car loan or mortgage!) We'll also describe the different credit-card plans available, talk about your credit history and how that might affect your card options, and discuss how to avoid credit-card fraud -- both online and in the real world.

Let's start at the beginning. A credit card is a thin plastic card, usually 3-1/8 inches by 2-1/8 inches in size, that contains identification information such as a signature or picture, and authorizes the person named on it to charge purchases or services to his account -- charges for which he will be billed periodically. Today, the information on the card is read by automated teller machines (ATMs), store readers, and bank and Internet computers.

According to Encyclopedia Britannica, the use of credit cards originated in the United States during the 1920s, when individual companies, such as hotel chains and oil companies, began issuing them to customers for purchases made at those businesses. This use increased significantly after World War II.

The first **universal credit card** -- one that could be used at a variety of stores and businesses -- was introduced by Diners Club, Inc., in 1950. With this system, the credit-card company charged cardholders an annual fee and billed them on a monthly or yearly basis. Another major universal card -- "Don't leave home without it!" -- was established in 1958 by the American Express company.

Later came the bank credit-card system. Under this plan, the bank credits the account of the merchant as sales slips are received (this means merchants are paid quickly -- something they love!) and assembles charges to be billed to the cardholder at the end of the billing period. The cardholder, in turn, pays the bank either the entire balance or in monthly installments with interest (sometimes called **carrying charges**).

The first national bank plan was **BankAmericard**, which was started on a statewide basis in 1959 by the **Bank of America** in California. This system was licensed in other states starting in 1966, and was renamed Visa in 1976.

Other major bank cards followed, including MasterCard, formerly Master Charge. In order to offer expanded services, such as meals and lodging, many smaller banks that earlier offered credit cards on a local or regional basis formed relationships with large national or international banks.

What Credit Card Numbers Mean

Although phone companies, gas companies and department stores have their own numbering systems, **ANSI Standard X4.13-1983** is the system used by most national credit-card systems.

Here are what some of the numbers stand for:

The first digit in your credit-card number signifies the **system**:

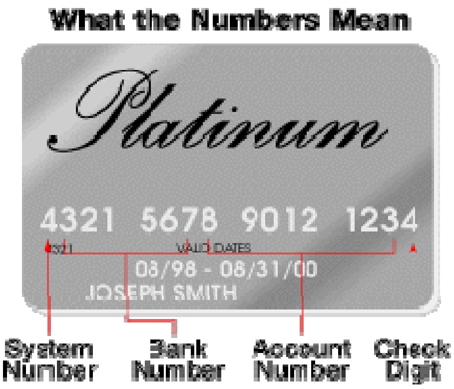
- **3 - travel/entertainment cards** (such as American Express and Diners Club)
- **4 - Visa**
- **5 - MasterCard**
- **6 - Discover Card**

The **structure** of the card number varies by system. For example, American Express card numbers start with 37; Carte Blanche and Diners Club with 38.

- **American Express** - Digits three and four are type and currency, digits five through 11 are the account number, digits 12 through 14 are the card number within the account and digit 15 is a check digit.
- **Visa** - Digits two through six are the bank number, digits seven through 12 or seven through 15 are the account number and digit 13 or 16 is a check digit.

- **MasterCard** - Digits two and three, two through four, two through five or two through six are the bank number (depending on whether digit two is a 1, 2, 3 or other). The digits after the bank number up through digit 15 are the account number, and digit 16 is a check digit.

In the next section, we'll look at the stripe on the back of a credit card.



The Stripe on a Credit Card

The stripe on the back of a credit card is a **magnetic stripe**, often called a **magstripe**. The magstripe is made up of tiny iron-based magnetic particles in a plastic-like film. Each particle is really a tiny **bar magnet** about 20-millionths of an inch long.

The magstripe can be "**written**" because the tiny bar magnets can be **magnetized** in either a north or south pole direction. The magstripe on the back of the card is very similar to a piece of cassette tape (see How Cassette Tapes Work for details).

A magstripe reader (you may have seen one hooked to someone's PC at a bazaar or fair) can understand the information on the **three-track stripe**. If the ATM isn't accepting your card, your problem is probably either:

- A dirty or scratched magstripe
- An erased magstripe (The most common causes for erased magstripes are exposure to magnets, like the small ones used to hold notes and pictures on the refrigerator, and exposure to a store's electronic article surveillance (EAS) tag demagnetizer.)

There are three tracks on the magstripe. Each track is about one-tenth of an inch wide. The ISO/IEC standard 7811, which is used by banks, specifies:

- Track one is 210 bits per inch (bpi), and holds 79 6-bit plus parity bit read-only characters.
- Track two is 75 bpi, and holds 40 4-bit plus parity bit characters.
- Track three is 210 bpi, and holds 107 4-bit plus parity bit characters.

Your credit card typically uses only tracks one and two. Track three is a read/write track (which includes an encrypted PIN, country code, currency units and amount authorized), but its usage is not standardized among banks.

The information on track one is contained in two formats: A, which is reserved for proprietary use of the card issuer, and B, which includes the following:

- **Start sentinel** - one character
- **Format code="B"** - one character (alpha only)
- **Primary account number** - up to 19 characters
- **Separator** - one character
- **Country code** - three characters
- **Name** - two to 26 characters
- **Separator** - one character
- **Expiration date or separator** - four characters or one character
- **Discretionary data** - enough characters to fill out maximum record length (79 characters total)
- **End sentinel** - one character
- **Longitudinal redundancy check** (LRC) - one character LRC is a form of computed check character.

The format for track two, developed by the banking industry, is as follows:

- **Start sentinel** - one character
- **Primary account number** - up to 19 characters
- **Separator** - one character
- **Country code** - three characters
- **Expiration date or separator** - four characters or one character
- **Discretionary data** - enough characters to fill out maximum record length (40 characters total)
- **LRC** - one character

For more information on track format, see ISO Magnetic Stripe Card Standards.

There are three basic methods for determining whether your credit card will pay for what you're charging:

- Merchants with few transactions each month do **voice authentication** using a touch-tone phone.
- **Electronic data capture** (EDC) magstripe-card swipe terminals are becoming more common -- so is swiping your own card at the checkout.
- **Virtual terminals** on the Internet

This is how it works: After you or the cashier swipes your credit card through a reader, the EDC software at the **point-of-sale** (POS) terminal dials a stored telephone number (using a modem) to call an **acquirer**. An acquirer is an organization that collects credit-authentication requests from merchants and provides the merchants with a payment guarantee.

When the acquirer company gets the credit-card authentication request, it checks the transaction for validity and the record on the magstripe for:

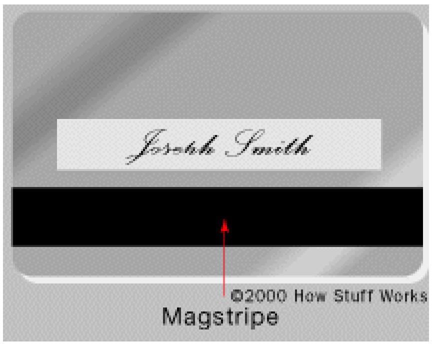
- **Merchant ID**
- **Valid card number**
- **Expiration date**
- **Credit-card limit**
- **Card usage**

Single dial-up transactions are processed at 1,200 to 2,400 bits per second (bps), while direct Internet attachment uses much higher speeds via this protocol. In this system, the cardholder enters a **personal identification number** (PIN) using a keypad.

The PIN is not on the card -- it is encrypted (hidden in code) in a database. (For example, before you get cash from an ATM, the ATM encrypts the PIN and sends it to the database to see if there is a match.) The PIN can be either in the bank's computers in an encrypted form (as a **cipher**) or encrypted on the card itself. The transformation used in this type of cryptography is called **one-way**. This means that it's easy to compute a cipher given the bank's **key** and the customer's **PIN**, but not computationally feasible to obtain the plain-text PIN from the cipher, even if the key is known. This feature was designed to protect the cardholder from being impersonated by someone who has access to the bank's computer files.

Likewise, the communications between the ATM and the bank's central computer are encrypted to prevent would-be thieves from tapping into the phone lines, recording the signals sent to the ATM to authorize the dispensing of cash and then feeding the same signals to the ATM to trick it into unauthorized dispensing of cash.

If this isn't enough protection to ease your mind, there are now cards that utilize even more security measures than your conventional credit card: Smart Cards.



Smart Cards

The **"smart" credit card** is an innovative application that involves all aspects of **cryptography** (secret codes), not just the authentication we described in the last section. A smart card has a microprocessor built into the card itself. Cryptography is essential to the functioning of these cards in several ways:

- The user must corroborate his identity to the card each time a transaction is made, in much the same way that a PIN is used with an ATM.
- The card and the card reader execute a sequence of encrypted sign/countersign-like exchanges to verify that each is dealing with a legitimate counterpart.
- Once this has been established, the transaction itself is carried out in encrypted form to prevent anyone, including the cardholder or the merchant whose card reader is involved, from "eavesdropping" on the exchange and later impersonating either party to defraud the system.

This elaborate protocol is conducted in such a way that it is invisible to the user, except for the necessity of entering a PIN to begin the transaction.

Smart cards first saw general use in France in 1984. They are now hot commodities that are expected to replace the simple plastic cards most of us use now. Visa and MasterCard are leading the way in the United States with their smart card technologies.

The chips in these cards are capable of many kinds of transactions. For example, you could make purchases from your credit account, debit account or from a stored account value that's reloadable. The **enhanced memory and processing** capacity of the smart card is many times that of traditional magnetic-stripe cards and can accommodate several different applications on a single card. It can also hold identification information, keep track of your participation in an affinity (loyalty) program or provide access to your office. This means no more shuffling through cards in your wallet to find the right one -- the smart card will be the only one you need!

Experts say that internationally accepted smart cards will be increasingly available over the next several years. Many parts of the world already use them, but their reach is limited. The smart card will eventually be available to anyone who wants one, but for now, it's available mostly to those participating in special programs.

For more information on one particular type of smart card, check out How Blink Technology Works.

Credit Card Safety

Although the numbers are increasing, consumers are still not using their credit cards on the Internet nearly as much as e-tailers (electronic retailers) would like. That's why many cyber-merchants continue to offer a toll-free order number so that shoppers have the choice of calling their order in. Cyber-shopping may be convenient -- and some people do all of their shopping online -- but credit-card fraud is always a threat, both on the Internet and out in the real world. Hackers have found ways to steal credit-card numbers from Web sites.

To illustrate the importance of tight security, a network TV reporter, tipped off about loose security on an Internet Web-hosting site, was able to gain access to about 1,500 customer records, which included everything from credit-card numbers and payment records to comments about particular customers.

These are the kinds of stories that deflate consumer confidence. Some e-tailers blame consumer reluctance on the inability in cyberspace to make the kind of personal contact that a shopper gets when he looks into the eyes of a store merchant. Experts say that this kind of comfort level will be boosted when online payment methods and security measures are standardized -- much as they are in the retail and mail-order industries.

While Internet companies have taken responsibility for security breaches and resulting losses to credit-card users, there remains the growing problem of identity thieves who use stolen credit cards to make purchases on the Internet. And while unfair or fraudulent practices by credit-card companies are not commonplace, they do happen. The good news is that consumers are protected by law -- in case of credit-card fraud online or off, you are only liable for a maximum of $50 of the amount stolen.

And fortunately, the Federal Trade Commission (FTC) and the media are watching closely. In 1994, the FTC ordered TransUnion credit-reporting bureau to stop selling "sensitive" consumer data -- data on 160 million Americans -- to junk-mail producers. The FTC charged that TransUnion violated the **Fair Credit Reporting Act** by selling consumer information to target marketers who lack any of the allowable purposes listed under the act. TransUnion denies that it sold information that could affect customers' appealed the FTC's ruling, but lost.

If the mailing-list issue bothers you -- and it bothers most of us -- pay attention when you're completing that credit-card application. Some application forms now provide a box that you can check to allow or disallow the selling of your information to mailing lists. You can also protect yourself by taking your name off the credit bureaus' mailing lists.

One way to do this is to visit The Consumer Credit Reporting Industry Opt-Out Prescreen Web site. On this site you can fill out a form and opt-out of recieving pre-approved credit or insurance offers in the mail. You can also call 888-5-OPT-OUT 888-5-OPT-OUT (888-567-8688 888-567-8688). Alternatively, you can write to the major credit card bureaus and request that your named be removed from their mailing lists.

When you write to these companies, include your complete name, name variations and mailing address, Social Security number and signature and state clearly that you want your name removed from their mailing lists. You can write any of these major reporting bure aus and they will contact the other major bureaus with your request:

- **Experian Consumer Opt Out**, 701 Experian Parkway, Allen, Texas, 75013
- **Equifax Inc. Options**, P.O. Box 740123, Atlanta, Georgia, 30374-0123
- **Trans Union Marketing List Opt Out**, P.O. Box 97328, Jackson, MS 39288-7328

The Direct Marketing Association (DMA) tracks consumers who prefer not to receive solicitations by mail or phone. Check their Consumer Assistance site for more information. There are a lot of simple steps you can take to protect yourself and your credit card -- starting with making sure you sign it as soon as it arrives in the mail.

These tips are important and universal:

- **Sign your card** -- as soon as you receive it! (Obviously, this is only as effective as the clerk who's checking it.)
- **When you use your card at an ATM**, enter your PIN in such a way that no one can easily memorize your keystrokes.
- **Don't leave your receipt** behind at the ATM. Your PIN and account number from a discarded receipt could make you vulnerable to credit-card fraud. Also, don't throw out your credit-card statement, receipts or carbons without first shredding them!
- **Never give your credit-card number over the telephone unless *you* initiated the call**. Even when you place the call to a legitimate merchant (such as a mail-order company), never give your card number out over a cordless phone. Radio scanners that eavesdrop on these conversations are available for a few hundred dollars at any electronics store, and your voice can be received by one from a far greater distance than the maximum useful range of your cordless phone. One common **scam** is when someone calls you "back" right after you place an order, claims to be from the merchant and tells you that there was a problem with your card number -- would you mind giving it to them again? The best thing to do is ask for a contact name and call the merchant back at the number you used originally.
- **Ignore any credit-card offer that requires you to spend money up-front** or fails to disclose the identity of the card issuer.
- **Make certain you get your card back after you make a purchase** (one habit to observe is to leave your wallet open in your hand until you have the card back). Also, make sure that you personally rip up any voided or cancelled sales slips.
- **Always keep a list** of your credit cards, credit-card numbers and toll-free numbers in case your card is stolen or lost.
- **Check your monthly statement** to make certain all charges are your own, and immediately notify the card issuer of any errors or unauthorized charges. (More on this later!)

Now, you get a credit-card application and there's all this small print. Want to know what it's really saying?

Credit Card Applications

Before we get into shopping for a card, let's go over some important terms you'll encounter in credit-card brochures or discussions with potential lenders:

- **Annual fee** - A flat, yearly charge similar to a membership fee. Many companies offer "no annual fee" cards today, and lenders who do charge annual fees are often willing to waive them to keep your business.
- **Finance charge** - The dollar amount you pay to use credit. Besides interest costs, this may include other charges such as **cash-advance fees**, which are charged against your card when you borrow cash from the lender. (You generally pay higher interest on cash advances than on purchases -- check your latest bill to find out what you're paying for this service!)
- **Grace period** - A time period, usually about 25 days, during which you can pay your credit-card bill without paying a finance charge. Under almost all credit-card plans, the grace period only applies if you pay your balance in full each month. It does not apply if you carry a **balance forward**. Also, the grace period does not apply to cash advances.
- **Annual percentage rate** (APR) - The yearly percentage rate of the finance charge. **Interest rates** on credit-card plans change over time. Some of these adjustments are tied to changes in other interest rates, such as the **prime rate** or the **Treasury Bill rate**, and are called **variable-rate plans**. Others are not explicitly tied to changes in other interest rates and are called **fixed-rate plans**.
- **Fixed rate** - A fixed annual percentage rate of the finance charge
- **Variable rate** - Prime rate (which varies) plus an added percentage (For example, your rate may be PR + 3.9 percent.)
- **Introductory rate** - A **temporary**, lower APR that usually lasts for about six months before converting to the normal fixed or variable rate (This is a hot topic -- more about it later.)

Experts say that if you're smart, you'll do the same kind of comparison shopping for a credit card that you do when you're looking for a mortgage or a car loan. This is a good idea because the choices you make can save you money. The process is not a simple one -- here are some tips that should help you get started:

1. **Do some research** - There are plenty of places, both online and offline, where you can read about credit-card offerings and even get credit-card ratings, but since rates and plans change so often, it's a good idea to call the institutions you're interested in to confirm the information and to see if there are other plans that might work for you. A reliable and non-commercial resource is the Federal Reserve Board. Also, the non-profit consumer credit organization U.S. Citizens for Fair Credit Card Terms offers credit-card ratings from its research (and so do a lot of commercial organizations -- many of whom are also credit-card issuers).
2. **Make a list** - Make a list of credit-card features that fit your financial needs and rank the features according to how you plan to use the card and pay your monthly bill.
3. **Review the plans** - Review all of the information you've gathered on different plans. Pay special attention to the APR - - you want a low rate, but not necessarily the lowest. This is because, depending on your lifestyle and payment habits, you might benefit more from a card that offers cash rebates, discounts or frequent-flier miles.

4. **Check out credit unions** - Look into the possibility of joining a credit union. Credit unions are non-profit, and they have lower overhead so they can charge lower interest rates. Credit unions are newer to the credit industry so they are eager to generate credit-card loans. However, you'll probably be required to open a share account or savings account to join. Credit unions typically are limited to a particular employer and its employees, but that's changing. Due to industry consolidations, credit unions are rapidly expanding their fields of membership. To find out which credit union you may be eligible to join, contact the Credit Union National Association (CUNA).
5. **Compare plans** - If you already have a credit card, be sure that you're making a good move before you swap cards. If you are a current cardholder and have a good credit rating, see if the institution that issued your card will lower your current rate. Don't be afraid to negotiate!

These are steps to take when deciding on a credit card. But your actual breadth of options depends in great part on your credit history.

Credit Ratings and Card Types

If you've had credit problems, you might have to settle for a card with a slightly higher rate. If you have poor credit or no credit, some banks will issue you a **secured credit card**. This means that you deposit money into a savings account that acts as collateral against your credit line.

The rate may be high, but a secured card offers you the convenience of a credit card while you work on rebuilding your credit. Secured cards are often the best option available to those with a bankruptcy in their past. Be sure to choose a secured card that pays you interest on your deposit!

On the other hand, if you have a very good credit score and would like a higher limit ($5,000 or more), check into applying for a **gold card** at the same interest rates but with a slightly higher annual fee. Most gold cards require that your annual income be at least $35,000, and **platinum cards** -- even higher!

With all of this money getting spread around, and lots more of it out there, it's no wonder why most of us are constantly receiving notice that we're "pre-approved" for an endless stream of credit cards. There's got to be a catch...

A word of caution about those "pre-approved" card offers you get in the mail: You may get an offer for a new credit-card account with a pre-approved credit limit just slightly higher than your balance on your current card. The **fine print** could reveal an extremely high interest rate and also state that, by accepting the offer, you agree to transfer the entire balance of your other credit-card account to the new, high-interest account. This is a trick, since you would never consciously choose to pay more interest each month. Read everything carefully so that you don't fall into this trap.

And before you toss this offer into the garbage, shred it so that no one can fish it out and try to **impersonate you**.

No matter what kind of card and plan you choose, you should have access to the following information under the federal **Truth in Lending Act** so that you can compare one loan to another:

- **Finance charges** in dollars and as an annual percentage rate (APR)
- **Credit issuer** or company providing the credit line
- **Size of the credit line**
- **Length of the grace period**, if any, before payment must be made
- **Minimum payment required**
- **Annual fees**, if applicable
- **Fees for credit insurance** (if any), which pays off your loan if you die before the debt is fully repaid

Card Types

There are basically three types of credit cards:

- **Bank cards**, issued by banks (for example, Visa, MasterCard and Discover Card)
- **Travel and entertainment (T&E) cards**, such as American Express and Diners Club
- **House cards** that are good only in one chain of stores (Sears is the biggest one of these, followed by the oil companies, phone companies and local department stores.) T&E cards and national house cards have the same terms and conditions wherever you apply.

You may also be familiar with what is known as an **affinity card**. This card -- typically a MasterCard or Visa -- carries the **logo** of an organization in addition to the lender's emblem. Usually, these cardholders derive some benefit from using the card -- maybe frequent-flyer miles or points toward merchandise. The organization solicits its members to get cards, with the idea of keeping the group's name in front of the cardholder. In addition to establishing brand loyalty, the organization receives some financial incentive (a fraction of the annual fee or the finance charge, or some small amount per transaction, or a combination of these) from the credit-card company.

No one card is right for everyone. Basically, the right card for you is one that's accepted where you shop and charges you the smallest amount of money for the services you use. Almost any U.S. business or establishment that takes MasterCard also takes Visa, and vice versa. So if you only spend money in the United States, you probably don't need both.

Credit Card Plans

Now we come to the core of the credit-card selection process -- which plan to choose. The costs and terms of your credit-card plan can make a difference in how much you pay for the privilege of borrowing (which is what you're doing when you use a credit card).

In the **disclosure form** from the credit-card issuer (usually a small, fine-print brochure), look closely at the credit terms we discussed earlier. Don't forget about specifics like **late charges** (usually $15 to $30) and **over-the-limit fees** (around $20 to $25). Consider these factors along with how you pay your bills each month.

For example, if you always pay your monthly bill in full, the best type of card is one that has **no annual fee** and offers a **grace period** for paying your bill before finance charges kick in. If you don't always pay off your balance each month (and seven out of 10 American cardholders fall into this category), be sure to look at the **periodic rate** that will be used to calculate the **finance charge**.

One of the major factors to consider in a credit-card plan is whether it has a **variable or fixed interest rate**.

Whether the credit-card plan uses a variable or fixed rate in charging interest can have a significant effect on what you pay to use your card.

Credit-card companies that issue **variable-rate plans** use indexes such as the **prime rate**, the one-, three- or six-month **Treasury Bill rate**, or the federal funds or Federal Reserve **discount rate**. (Most of this can be found in the money or business sections of major newspapers. See the list of links at the end of this article for more information.)

Once the interest rate corresponding to the index has been identified, the credit-card issuer then adds a number of percentage points -- called the **margin** -- to this index rate to come up with the rate the consumer will be charged. In some cases, the issuer might choose to use another formula to determine the rate to be charged. These issuers multiply the index or index plus the margin by another number, the "**multiple**," to calculate the rate.

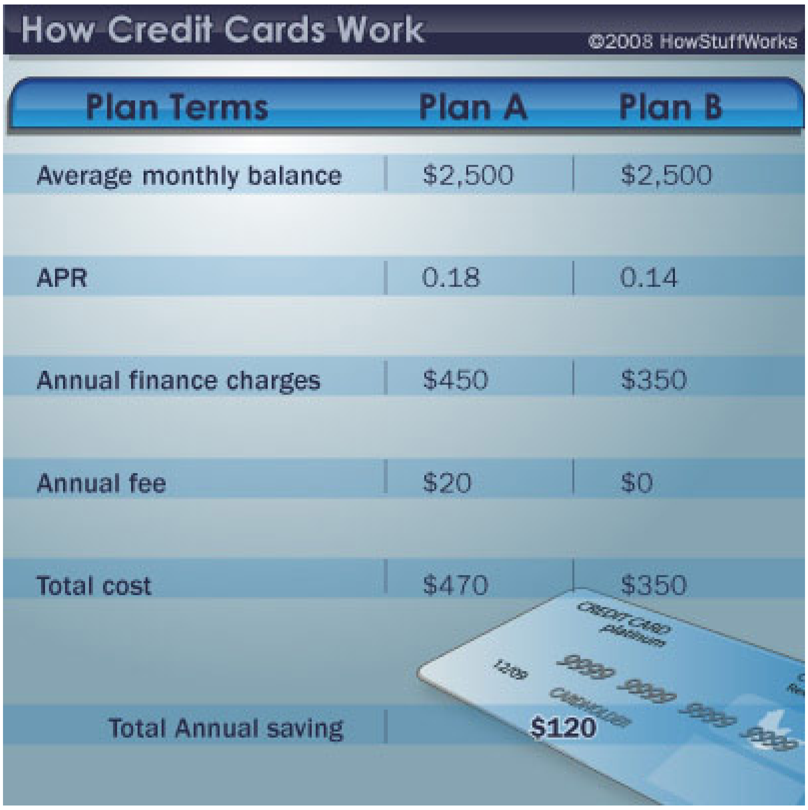
Take a good look at **fixed-rate plans**. They may be a couple of percentage points higher than a variable rate, but you will have the advantage of knowing what your interest rate will be. Variable rates are just that -- they change -- and can increase (usually the case) or decrease your finance charges.

If your rate is fixed, the Truth in Lending Act requires the lender to provide **at least 15 days notice** before raising the rate. In some states, there are laws that require more notice.

Some financial analysts argue that because a fixed rate can be increased with only a 15-day notice, this plan is not that different from a variable-rate plan, which is subject to change at any time. They advise looking closely at both plans. If you do choose a variable-rate card, check to see if there are **caps** on how high or how low your interest rate can go. If the lowest variable rate possible on your card, for example, is 15.9 percent, and rates are trending downward, you may want to switch your card to another lender.

Few experts will argue with the fact that a low interest rate is a good thing. To illustrate the importance of a low interest rate, let's look at a simple example of how much your **annual savings** might be if you switch to a credit-card plan with a lower interest rate and no annual fee. In our example, the average monthly balance carried forward equals $2,500, which is about the national average for consumers with credit-card debt. Total annual savings in this example -- $120.

Regardless of which plan you choose, you're going to be making payments. Let's take a look at how this is done.


How Credit Cards Work ©2008 HowStuffWorks

Plan Terms	Plan A	Plan B
Average monthly balance	$2,500	$2,500
APR	0.18	0.14
Annual finance charges	$450	$350
Annual fee	$20	$0
Total cost	$470	$350
Total Annual saving		$120

Monthly Payments and Finance Charges

Some credit cards, such as American Express, require you to pay off all of your charges each month. As a benefit, they usually have no finance charge, and sometimes no maximum limit. Most cards, including Visa, MasterCard, Discover and Optima, offer what is known as **revolving credit**. This means they let you **carry a balance**, on which they charge interest (finance charges), and they require you to make a **minimum payment**. The minimum payment is usually about 5 percent of your current balance or $10 -- whichever is more.

Here are three of the ways used by financial institutions to calculate finance charges:

- **Adjusted balance** - This system, which consumer experts say **favors the cardholder**, takes the balance from your previous statement, adds new charges, subtracts the payment you made and then multiplies this number by the monthly interest rate.

- **Average daily balance** - This method, which is a pretty **even-handed** one and the **most commonly used**, works like this: The company tracks your balance day-by-day, adding charges and subtracting payments as they occur. At the end of the period, they compute the average of these daily totals and then multiply this number by the monthly interest rate to find your finance charge.
- **Previous balance** - This method generally **favors the card issuer**, according to consumer experts. The issuer multiplies your previous statement's balance by the monthly interest rate to find the new finance charge. This means you're still being charged interest on your balance a whole period after you've paid it down!

What you pay will vary depending on your balance, the interest rate and the way your finance charge is calculated. Here's an example that shows how much difference the interest rate can make in what you actually end up paying:

- **High-rate card** - Suppose you charge $1,000 on a 23.99-percent credit card. After that, you make no further charges and pay only the minimum each month. The payment will start at $51 and slowly work its way down to $10. You'll make 77 payments over the next six years and five months. By then, you will have paid $573.59 in interest for your credit privilege.
- **Low-rate card** - If you charge that same $1,000 on a 9.9-percent fixed-rate card, the minimum monthly payment will start at $50.41 and go down to $10. You'll make 17 fewer payments, finishing in six years and paying $176 in interest. This saves you almost $400!

Late fees and **over-the-limit fees** are a couple of newer charges that are used by pretty much all credit-card issuers now. And increasingly, issuers are drastically raising interest rates (to as high as 23.99 percent) after a **set number of late payments** (read the fine print and make sure you know whether the payment is considered **posted** on its postmarked date or on the date the bank or credit-card company gets it posted!). Unfortunately, once you have a couple of late payments, the credit-card company can charge you the inflated interest rate for the remaining life of the account. **Try to avoid this** -- all credit-card companies report your payment record to credit-reporting agencies and even a few late payments could cause you problems when you try to buy a car or a house.

And as most of us know, even credit-card companies make mistakes. The next section discusses how to make sure you're paying only what you owe.

Credit Card Billing Errors

One way to avoid billing errors and unjustified fees is to carefully go through your monthly credit-card statement, making sure all the transactions are legitimate and that other charges -- finance charges, late or over-the-limit charges -- are justified.

The **Fair Credit Billing Act** applies to credit card and charge accounts and to overdraft checking (but not to checks or debit cards). You can use this act to defend against billing errors, unauthorized use of your account, goods or services charged to your account but not received or not provided as promised, and charges for which you request an explanation or written proof of purchase. Here are some important steps to take when you encounter one of these problems:

- Write to your card issuer or creditor within **60 days** after the first bill containing the **disputed charge** is mailed to you. (Even if more than 60 days has passed since you were billed for the item, you still might be able to dispute the charge if you only recently learned about the problem.)
- In the letter, give your **name**, **account number**, the **date and amount of the disputed charge** and a complete explanation of **why you are disputing the charge**.
- Send your letter to the **address provided on the bill** -- do not send the letter with your payment. (To be sure that your letter is received and that you will have a record of its delivery, you might want to send it by certified mail, with a return receipt requested.)
- If you follow these steps, the creditor or card issuer must acknowledge your letter in writing within **30 days** after receipt and must conduct an investigation within **90 days**. While the bill is being investigated, you don't have to pay the amount in dispute. (The creditor or card issuer is not allowed to take action to collect the disputed amount, report the amount as delinquent or close or restrict your account during this time.)
- If it is determined that there was an **error** or that you don't owe the amount you're being held responsible for, the card issuer must **credit your account** and **remove any finance charges or late fees** relating to the amount not owed. For any amount still owed, you have the right to an explanation and to copies of documents that prove you owe the money. **If the bill is correct**, you must be told in writing what you owe and why. You will owe the amount disputed plus any finance charges.

There are a number of non-profit and non-commercial organizations that provide credit information and assistance to consumers. Check out the National Consumer Law Center and U.S. Citizens for Fair Credit Card Terms.

So, now that you know all this, let's find out what it takes to qualify for a credit card in the first place.

There's no way to know if you'll qualify for a credit card without doing some research. Some of the basic things that lenders look for include:

- **Good payment record** - If you pay your bills on time, you'll score major points with lenders. If you have a lot of late payments, this can hurt your chances of getting a card, and, if the lender decides to issue you a card, it's probably going to have a higher interest rate.

- **Control of debt load** - Lenders generally want to see that you are a good credit risk and that you aren't living beyond your means. Experts say that non-mortgage credit payments each month should not exceed more than 10 percent to 15 percent of your take-home pay.
- **Signs of stability, responsibility** - Lenders perceive things such as longevity in your home and job (at least two years) as signs of stability. Having a respected profession doesn't hurt either.
- **Lack of credit inquiries** - This one is a little strange. Whenever you apply for a credit card, the lender pulls your credit report from one or more of the major bureaus as part of the approval process. Each time a report is pulled, it's marked as an inquiry and stays on your credit bureau report for two years. Lenders perceive several inquiries on your report as indications that you're scrambling for loans and may consider you a poor credit risk. So, in order to beat this system, don't allow every credit-card issuer you speak with to pull your report.
- **Lack of available or unused credit** - Did you know that having credit cards that you don't use -- and have a zero balance on -- can hurt your credit? The rationale here, experts say, is that if you have all this available credit lying around, you could run it up at any time (even if you never have). **Get rid of the cards you don't use**. Be sure to ask the credit-reporting bureaus to remove the discarded cards from your report, noting that you -- not the creditor -- closed the account.

Once you qualify for a card, or several cards, there's always the chance that you'll end up spending more than you've got. A pretty good chance, actually. The next section discusses what you can do if you find yourself in credit-card debt.

Getting Rid of Debt

If your credit-card balance has crept up to uncomfortable levels, you're not alone. Millions of Americans have learned -- the hard way -- how easy it is to use and abuse their credit cards and how difficult it can be to pay them off.

Myvesta (formerly Debt Counselors of America) and the National Consumer Law Center offer these credit-card debt elimination tips

- **Always be aware of all of the fees** that may be associated with your credit card. (That means not tossing out the fine-print leaflets that come in your bill periodically!) Know the annual fees, current interest rates, finance charges, cash-advance fees and any other fees tied in with your card. This knowledge can help you make better decisions on how to manage your card.
- **Cash advances can be trouble!** You should only get cash advances when it is absolutely necessary. Higher interest rates (than you're paying for card purchases) are usually charged, and most banks also charge a service fee related to how much cash you're withdrawing. (The same applies to those handy, personalized "checks" the credit-card company sends you!)
- **Always be on the look-out for cards that offer lower interest rates**. Transferring balances from one card to another to take advantage of low introductory rates is a common practice among U.S. cardholders. Low introductory rates can be very helpful

in your quest to become free of credit-card debt. You should look for credit cards that offer a low intro rate (usually for six months), and transfer the balance from your previous credit card to that credit card. Before you take this step, however, make sure that, after the intro rate has expired, the new card offers the same (or lower) interest rate as your current card.
- Experts say that **making minimum payments is one of the most common mistakes** consumers make. You will save lots of money on interest and get to debt-free goals sooner if you pay more than what is required each month.

It's true that it's really easy to fall into the credit-card trap, and not so easy to get out. But don't give up -- there are non-profit centers across the country that will provide counseling to you and will even (at no or low charge) contact your credit-card company and try to get your rate lowered or a different payment plan worked out. Check out this brief book list:

- The Credit Repair Kit, by John Ventura
- All About Credit: Questions (And Answers) About the Most Common Credit Problems, by Deborah McNaughton
- What Every Credit Card User Needs to Know, by Howard Strong
- The Insider's Guide to Credit Cards, by Barry Klein
- Credit Card and Debt Management: A Step-by-Step How-to Guide for Organizing Debt and Saving Money on Interest Payments, by Scott Bilker

Using Your Card Abroad

Credit-card acceptance varies around the world. For example, in some countries (including France), Visa and MasterCard networks have been merged so that all merchants who take one, take them both. On the other hand, the cash-advance networks have not been merged. So, if you are in France, for example, almost any bank or ATM (if you have a four-digit PIN) can give you a cash advance on Visa, but only a few banks and cash machines (and all post offices) can give you a MasterCard cash advance.

In other countries (such as Italy), Visa and MasterCard networks have not merged. So, if you're going there, you might need both.

American Express and other T&E cards were originally aimed at an upscale market, catering to this group by offering check cashing, mail-holding and cash-advance services to traveling cardholders. (Now, Visa, MasterCard and others offer some of the same services.) AmEx and Diners Club are widely accepted in the United States, although not as widely as Visa and MasterCard.

In Europe, there are increasingly fewer places that accept only Diners Club or only American Express. In France, you can use American Express at more places than in the United States; in Italy, Germany, England and Greece, you can use it less, in general, except in shops with special appeal to tourists. Be sure to check out the credit-card situation before you travel.