A POCKET GUIDE TO THE
Credit Card Industry
Introduction

Credit cards are among the greatest financial innovations of the twentieth century, providing low-cost access to unsecured credit for millions of American consumers and businesses every day. The credit card industry is very complex and many of the issues concerning the industry can be very difficult to grasp. This Pocket Guide is designed to provide a general understanding of how the credit card business works and to describe both the history of credit cards and the fundamentals involved in making them available to the greatest number of consumers. The hope is that this understanding will be helpful when considering important policy objectives.

First, the Pocket Guide reviews the evolution of the industry. It provides context for how and why the industry has developed and demonstrates how consumer demand, improvements in technology, and market-based incentives led to the creation of a highly efficient and broadly accessible credit product that is available to Americans of all income levels.

Second, the Pocket Guide describes the business of credit card lending — that is, how use of a credit card constitutes an unsecured loan, how such loans are funded, and how financial institutions manage the risks involved in making such loans. It also describes the enormous infrastructure that is necessary to support the seamless electronic payment system that is currently in place, and how the existing pricing structure makes all of this possible.

Finally, the Pocket Guide briefly raises some questions that policymakers should consider as they engage in any debate over credit card pricing mechanisms and practices, such as the impact that changes in policy may have on access to, and pricing of, credit cards.

Industry Foundations

Today, about 75 percent of American families have at least one credit card.¹ There are now more than 6,000 credit card issuers and roughly 2.5 billion cards in use worldwide.² Credit cards are accepted at more than 24 million locations in more than 200 countries and territories and are responsible for more than $6 trillion in total charge volume each year.

The modern credit card industry traces its origin to 1950, when Diner’s Club introduced its “charge card” and marketed it to wealthy consumers who could use it at a number of upscale restaurants in New York City. As a “charge card,” customers were required to pay their balance in full each month, but they liked that they could use their Diner’s Club card at multiple locations and did not have to carry as much cash in their wallets. Merchants were much happier to accept the card because Diner’s Club guaranteed payment. By 1955, Diner’s Club was accepted in more than a dozen countries and roughly 200,000 customers held one.

Drawing on the success of Diner’s Club, American Express and VISA entered the market in the late 1950s, followed by MasterCard in the late 1960s. These entities took the industry a step further because their cards could be used to purchase any retail item from any merchant that accepted the card. Also, the VISA card was the first to include payment options, giving customers the choice of paying only a portion of their outstanding balance each month rather than requiring that it be paid in full. MasterCard offered the same repayment flexibility beginning in the 1970s, followed by American Express and Discover in the 1980s.

These developments gave customers the freedom to make purchases and manage their personal finances in a manner that was entirely within their control, opening the door to a wider public and driving consumer demand even higher. By 1977, 38 percent of U.S. families had at least one bank-issued credit card, up from just 16 percent in 1970.³ By 1989, the percentage of families with at least one credit card had increased to 56 percent.⁴

¹ Based on the most recent consumer survey conducted in 2004 by the Federal Reserve. Federal Reserve Bulletin. 2006 at A31
⁴ Id.
Industry Innovation and Competition

While demand for credit cards continued to increase, making them available and practical on a broad scale required considerable technological innovation and investment. As many will recall, processing credit card transactions used to be a slow and cumbersome process, requiring manual use of carbon imprint machines. Thanks to significant monetary investment in electronic processing, credit card transactions now can be completed in just a few seconds. In fact, the processing systems credit cards now rely on can handle more than 10,000 transactions every second.

Technology promoted wider acceptance of credit cards by merchants and greater ease of use by consumers, spurring greater demand and stimulating industry competition. Indeed, with more than 6,000 card issuers and 2.5 billion cards in use worldwide, the credit card industry today is one of the most competitive in our economy.

Two factors help explain this evolution. First, by enacting the Fair Credit and Charge Disclosure Act in 1988, Congress mandated that credit card terms such as interest rates and principal fees be disclosed in a tabular format on credit card applications and solicitations. This made it possible for consumers to easily recognize credit card features and compare different offerings before deciding to open an account.

Second, in the early 1990s banks that were focused solely on credit card lending (“monoline banks”) entered the market and began to compete for new and existing customers by offering lower interest rates. Up until this time, credit card interest rates averaged roughly 18 percent for all cardholders. This meant that the most creditworthy customers were paying the same rate as less creditworthy customers. Since these monoline banks focused their resources entirely on the credit card business, they were able to segment consumers by risk and provide lower-cost options — primarily lower interest rates — to creditworthy customers, forcing other market players to do the same.

Indeed, credit card interest rates became such a competitive focal point that by the end of 2005, the average interest rate had dropped to roughly 12.5 percent. Other incentives, including no annual fees, no balance transfer fees, and better rewards programs spurred even greater competition. Because new federal law required the important terms to be disclosed on applications and solicitations, it encouraged open competition on interest rates and fees, and encouraged innovation and expansion of services. Consumers were empowered to price-shop and a very competitive environment for all credit card issuers developed.

Making Credit Cards Available to All Americans

With competition so intense and interest rates decreasing, credit card issuers were forced to refine their risk assessment capabilities to minimize losses. They were also forced to identify new market segments as a means for increasing their market share. This spurred widespread use of risk-based management techniques and made credit cards widely available. Risk-based management is the process by which banks assess the likelihood that a customer will be able to repay their loan. By accurately assessing the risk of individual cardholders, credit card issuers are able to offer better rates to more creditworthy customers and are also able to offer credit cards to a segment of deserving consumers who previously had risk levels that could not be accurately judged.

Consideration of credit risk is a long-standing banking practice, but a key development in the 1980s allowed credit risk to be managed in a more sophisticated, broad-based and objective manner. This development was the broad use of credit scoring. Credit scoring is the use of statistical data, such as income and past credit history, to measure the credit risk of an individual. It is a proven indicator of whether borrowers will be able to repay their loans. It has been around for decades, and many large institutions have developed their own sophisticated internal scoring systems to determine credit risk. However, such systems are too costly for most small institutions to maintain. When Fair Isaac and the three main credit bureaus — Equifax, TransUnion, and Experian — developed generic scoring models in the early 1980s, it paved the way for banks of all sizes to use credit scores more extensively.

As the 1980s gave way to the 1990s, further advancements in technology and communications allowed for greater speed and efficiency in storing and using data. This made credit scoring more objective and accurate. More important, it allowed banks to refine their risk-based management programs by making it cheaper and easier for them to rely on credit scores in helping consumers quickly get the credit they requested.

Risk-based management and the competition it helps foster are largely responsible for the ubiquity with which credit cards are used today. Through the 1990s, the percentage of families with at least one general purpose credit card rose from 56 percent to almost 70 percent. By 2004, the number had risen to almost 75 percent.

The Industry Today

Understanding the evolution of the credit card industry makes it clear that credit cards have gone from being a simple perk for wealthy people to being a powerful financial tool that is used by millions of Americans every day to purchase an ever-increasing number of retail products and services. Consumer demand, improvements in technology, and market-based incentives combined to make this evolution possible. These forces also created a very competitive industry. As industry innovation and evolution continue to move forward, industry competition increases, resulting in even greater choices for consumers.

Today, the industry is very complex, requiring extensive infrastructure and resources to support the electronic payment system many of us take for granted. Industry participants continuously spend large amounts of money and resources maintaining this system and developing further improvements to it, particularly in the area of fraud prevention. These factors have influenced the development of a pricing structure that ensures the perpetual viability and positive evolution of a product that is of remarkable benefit to consumers and merchants, as well as to local and national economies.

The Foundation of the Business

An accurate understanding of the credit card business begins with recognizing that every time a credit card is used the transaction constitutes an unsecured, open-ended loan from the issuing bank to the cardholder. The only security the bank has for the loan is the customer’s promise to repay, and the loan amount can be significantly increased and can be outstanding for a month, a year or even longer. Also, a cardholder’s ability to repay can change while the loan is still outstanding. Since these facts apply to millions of people each day, a premium is placed on the ability of lenders to adequately assume and manage the risk that cardholders suddenly may not have the means to repay their loan.

Hence, the ability of customers to make good on their promise, in accordance with the terms of the credit card agreement, is the foundation upon which the entire business of credit card lending rests.

Sources of Credit Card Loan Funding

As with any loan, banks must find ways to fund credit card loans. Banks do so either through consumer deposits at the bank, or by employing a funding strategy known as asset-backed securitization, whereby assets (credit card receivables) are sold to investors through the issuance of bonds and the money received is then reinvested in additional extensions of credit to consumers. Regardless of the funding source, there is a cost involved in obtaining the funds.

The cost of funds for issuing banks has declined dramatically in recent years. According to a recent report by the Government Accountability Office (GAO), the total cost of funds for every $100 in outstanding credit card balances declined from $8.98 in 1990 to $2 in 2004. This decline is the result of a gradual reduction of the prime interest rate, refinement of risk-based management techniques by banks, and stiffer competition among credit card issuers. It is also the result of increased reliance on asset-backed securities over the same time period. In fact, of the roughly $218 billion in total revolving consumer credit outstanding in January 1990, only about 10 percent was securitized ($23 billion). By January 2007, almost 50 percent ($429 billion) of the roughly $880 billion in total revolving credit outstanding was securitized.

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8 GAO Increased Complexity in Rates and Fees Heightens Need for More Effective Disclosures to Consumers, GAO-06-929, September 2006 at 104.
10 Id.
In contrast to bank depositors, who rely on their accounts for savings or checking, investors in credit card securities consider only their return on investment and are very sensitive to any changes in market conditions. Increased use of the secondary market requires issuing banks to be more sensitive to their investors, but it also provides banks with additional capital and liquidity, making more funds available. Combined with more efficient risk management, greater market efficiency and a lower cost of funds, asset-backed securitization lowers the cost of doing business. The net result is lower credit card interest rates for customers and the ability of banks to extend access to credit across a broader spectrum of consumers.

Products and Market Participants

Along with the bank that funds credit card loans and issues cards to consumers (known as the issuing bank), the industry is composed of acquiring banks (who work with merchants), and interbank settlement networks (the entities that act as intermediaries between the two types of banks). Moreover, there are several types of credit cards that may be issued including general purpose cards and retail cards. Issuing banks and acquiring banks must be members of an interbank settlement network in order for customers to use their credit cards at retailers. A typical general purpose credit card transaction involves all of these players as well as the cardholder and the merchant (see diagram below).

Anatomy of a Credit Card Transaction

- Interbank Settlement Network (VISA, MasterCard, American Express, Discover)
- Issuing Bank
- Acquiring Bank
- Cardholder
- Merchant

1. account info.  2. transaction info.  3. authorization request.  4. authorization request.  5. authorization response and payment.  6. authorization response and payment.  7. payment.  8. monthly statement.  9. payment of monthly bill.

While in some instances one entity may perform multiple roles in completion of a transaction (e.g. American Express and Discover), the necessary investment to ensure that any transaction is properly completed has been substantial. Many contractual relationships and interdependencies that took years, and sometimes decades, to develop were necessary to bring the system to where it is today.

The Value Proposition to the Market Participants

Despite the number of parties involved, the infrastructure that supports the industry is so well developed that credit card transactions are completed in a matter of seconds. This did not simply happen by accident. Through a complicated balancing of incentives involving consumers, merchants, banks, and networks, each of these entities has been encouraged to participate in a system that benefits them all.

Cardholders must receive the necessary convenience, security, flexible payment options, and rewards programs to encourage them to want to use credit cards. Merchants must receive faster point-of-sale transactions, increased sales volume, reduced fraud risk, guaranteed payment, and a more positive experience for customers to be willing to accept credit cards. Issuing banks must have an adequate return on risk and repeated usage by cardholders to sustain the necessary investment in infrastructure. Acquiring banks must receive the necessary fees to cover the risk of guaranteeing payment to merchants. And, interbank settlement networks must receive fees for processing each transaction to continue to maintain and improve upon the existing system.

In all, this complicated system of incentives has led to the most efficient, cost-effective and remarkable payment system in the world today.

The Risk of Loss

Though there are incentives for banks to issue credit cards, the higher risks associated with credit card lending differentiate it from every other type of lending. As noted, credit card loans are not secured by any collateral and how much of the loan is repaid each billing cycle is entirely up to the customer. Some customers are convenience users who pay their balance in full every month, while others are revolving balance users, and switching back and forth between the two can be done with relative ease.11 Furthermore, cardholders can tap into their line of credit day or night, from almost anywhere in the world and over an extended period of time.

Hence, issuing banks must bear the uncertainty of never knowing how much, if any, of the loans they have made will be repaid. In fact, according to CardWeb.com, an on-line publisher of payment card information, issuing banks have had to account for charge-off rates that have ranged between 3.7 percent and 7.7 percent per month over the previous five years. Risks of this nature must be factored into every business decision issuing banks make, including how they price their products.

11 According to a recent GAO report, the six largest credit card issuers reported that almost 50 percent of cardholders are convenience users. GAO Increased Complexity in Rates and Fees Heightens Need for More Effective Disclosures to Consumers, GAO-06-929, September 2006 at 32.
### The Expense of Credit Card Lending

Credit card lending is also very expensive, requiring a large investment of time and money for application processing, billing, collections, customer service, payment processing, and other operating expenses. Issuing banks must be able to handle a large volume of cardholder accounts that are used for relatively small transactions. In fact, according to the Federal Reserve, the average credit card transaction is less than $100. Maintaining the complex infrastructure required to process the $2.5 trillion in transactions each year is costly. This infrastructure includes advanced computer systems, fraud protection programs, and a network of personnel that are available 24 hours a day, 7 days a week to handle customer service issues.

Such expenses limit the profitability of credit card-issuing banks. Indeed, the average return on assets ratio for credit card issuers is only about three percent. This means that for every $100 in loans a card-issuing bank has outstanding to consumers, on accounts that can be accessed 24 hours a day, 365 days a year, and all over the world with little constraint, that issuer can expect — if all goes well — to receive roughly $3 in profit at the end of the year.

### Interest Rates Based on Risk

Interest on credit card balances is the primary means by which issuing banks recoup costs and earn profits. In fact, roughly 70 percent of issuing bank revenue stems from interest. Issuing banks set interest rates based on the creditworthiness, or risk, of each borrower. In order to determine the interest rate that is appropriate given the level of risk, issuing banks rely on credit scores. Credit scores, both internal and external, provide a sophisticated analysis of the likelihood that customers will pay their balance. Credit scores include an evaluation of prior credit history and are constantly updated to take into account the fact that a consumer’s creditworthiness can change over time — sometimes very quickly.

Once they have issued a card to a consumer, issuing banks will also periodically check the credit score of that consumer to see if there has been any change in the consumer’s risk profile. If a consumer’s risk profile has improved, the issuing bank may offer a lower interest rate because it is common for competing banks to check a consumer’s risk profile for an opportunity to offer them a card with more favorable terms and lure them away from their current lender. The risk of losing a customer benefits consumers because it puts them in the driver’s seat by ensuring that issuing banks will be responsive to their concerns. It also keeps the overall price of credit card products down since both new and existing card issuers are constantly competing for the consumer’s wallet and both are constantly looking for ways to improve the consumer’s benefits.

The risk profile of a customer can also worsen. Though policies vary among issuing banks, troublesome behavior such as being late or missing a payment only once does not automatically trigger a re-pricing of interest. However, actuarial tables and long experience demonstrate that if a customer misses more than one payment or is late on a number of occasions, there is a greater likelihood that the consumer will not repay his or her credit card loan. As a result, the bank may increase the interest rate involved and/or reduce the amount of available credit as a way to respond to the greater risk. While such practices are consistent with the principles of safe and sound lending that banks must operate under, they also represent a primary rationale for the banks to be able to make loans to higher-risk categories in the first place. It is, in fact, this type of risk-based management that has allowed banks to expand credit access to segments of society that they previously deemed uncreditworthy because they lacked sufficient information to either judge the risk involved or price that risk accordingly.

### When Interest Applies

As noted, use of a credit card constitutes a loan. However, unlike nearly every other type of consumer loan, cardholders often have the ability to avoid having interest accrue from the moment the loan is made by simply paying their balance in full after they receive their billing statement. In fact, cardholders are often given additional time after the end of a billing cycle to repay the issuing bank, i.e., they are provided with a “grace period” during which payment must be received. Cardholders that pay their balance in full prior to the end of the grace period (i.e. convenience users) incur no interest charges and essentially receive the benefit of an “interest-free” loan for all purchases made with their credit cards. These interest-free loans are made possible in part by card system interchange fees paid by acquiring banks serving the merchants who originate card transactions. Although interchange represents only a minor portion of card issuer revenue, it helps to fund not only the interest free loans enjoyed by convenience users, but also the rewards programs enjoyed by cardholders around the country. On the other hand, cardholders that elect to carry a balance forward pay interest on that balance and on any additional purchases (see box below).

<table>
<thead>
<tr>
<th>Type of Loan</th>
<th>Monthly Interest Charged?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Card Loan</td>
<td>No (grace period applies)</td>
</tr>
<tr>
<td></td>
<td>Convenience Users</td>
</tr>
<tr>
<td></td>
<td>Revolving Balance Users</td>
</tr>
<tr>
<td>Car Loan</td>
<td>Yes</td>
</tr>
<tr>
<td>Home Loan</td>
<td>Yes</td>
</tr>
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</table>

Revolving balance users don’t take advantage of the grace period and pay interest which usually begins to accrue either from the time the loan was made, or from the beginning of the billing cycle after a balance remains unpaid, depending on the practices of the issuing bank. In essence, such revolving balance users have merely
As recently noted in a report by the GAO, industry fee structures have significantly changed over the last several years. Annual fees, for example, have almost completely been eliminated, while service fees and penalty fees have increased. This has coincided with a dramatic increase in the complexity of credit card products, as well as further refinement of risk-based management techniques and an increase in benefits to consumers (e.g., rewards programs, expanded access to credit, and lower interest rates).

Importantly, consumers can avoid these fees by simply paying their balances on time and being careful not to buy goods and services that would cause them to exceed their credit limit. Doing so gives consumers the ability to fully maximize the benefits of credit cards without incurring undue costs.

### Credit Card Fees

In addition to interest charges reflecting the cost to borrow money, issuing banks generally charge two other types of fees — service fees and penalty fees. Service fees reflect the cost of additional benefits provided to cardholders and are typically levied for things such as balance transfers, cash advances, and making a payment via telephone. These services fall outside the scope of the automated billing practices that most issuing banks employ. Hence, issuing banks incur additional costs when performing them, and the fees levied are intended to defray those costs as well as compensate for the convenience they provide to customers.

Penalty fees are charged primarily for late payments and purchases by cardholders that push their outstanding balance over their credit limit. They are designed to address the additional risk and to act as an incentive for cardholders to make timely payments and manage purchases that are below the contractually agreed upon credit limit.

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Important Points for Policymakers

Credit cards have become an everyday tool for everyday people to make purchases and manage their personal finances. In fact, according to the Federal Reserve, nearly 75 percent of American families now have at least one bank-issued credit card.\footnote{Based on the most recent consumer survey conducted in 2004 by the Federal Reserve. Federal Reserve Bulletin, 2006 at A31.}

Yet because credit cards are so simple and convenient to use today, it is easy to take for granted the decades of investment and innovation that were required to make it so. Understanding how the credit card industry evolved is important because it provides a solid foundation for understanding how market participants are able to make credit cards available to the greatest number of people at competitive prices. It also makes it easier to appreciate that consumer demand drove much of the innovation and that the pricing policies of card issuers are reflective of the high risks and competition levels associated with credit card lending.

As policymakers engage in any debate over the various issues involving the credit card industry, it will be important for them to weigh the consequences of intervening in this highly competitive and innovative market, as intervention could have unintended consequences. These may include the unintended consequence of reduced access to credit for some deserving individuals. Another unintended consequence may be loss of interest free loans to convenience users, fewer rewards program benefits, and higher costs for all cardholders. Finally, policymakers should be wary of the potential macroeconomic impacts that intervention may have and how the overall economy may be affected.

The credit card industry is still evolving and credit cards are a very dynamic product. It is important for customers to understand credit cards as fully as possible and to recognize how they are best used. Policymakers should focus their attention on increasing consumer understanding and be mindful that other policy changes may stymie further innovation and evolution of the industry.

Glossary

**Acquiring Bank**
A financial institution that has agreed to accept credit card deposits on behalf of a merchant; also referred to as a merchant bank.

**Average Daily Balance**
A method of computing finance charges by taking the closing balance each day of a billing cycle and dividing it by the number of days in the billing cycle.

**Charge-Off**
A debt that is deemed uncollectible and is written off as a loss to the bank.

**Convenience Users**
A credit card customer that pays his or her balance in full each billing cycle.

**General Purpose Card**
A credit card that is issued by an issuing bank, is sponsored by an interbank settlement network, and can be used wherever the sponsoring association’s logo is accepted.

**Grace Period**
The period of time between when a monthly credit card bill is sent and when payment is due, during which interest is not charged; grace periods are typically 20 or more days.

**Interbank Settlement Network**
An entity, such as VISA, MasterCard, American Express or Discover, that operates a global payment network that supplies authorization, settlement and related services for processing credit card transactions.

**Issuing Bank**
A financial institution that issues credit cards to customers and holds or sells credit card loans.

**Retail Card**
A card issued under a contractual agreement between a financial institution and a retailer for use only at that retailer.

**Revolving Balance User**
A credit card customer that pays only a portion of his or her balance each billing cycle, carrying the rest over to the next cycle.
Tips for Consumers

- Pay as much as you can, as soon as you can, and always pay by the due date.

- If you do not pay your balance in full, pay the remainder off as soon as you can. Do not wait for the due date. The sooner you pay, the less interest you will owe.

- Keep track of your balance by checking it online or by phone. Take into account that interest accrued can put you over your credit limit.

- To avoid paying your bill late:
  - Request a due date that suits you best.
  - Schedule automatic payments online.
  - Pay by phone; however, you may be charged a late fee.
  - Mail payments at least one week before the due date.
  - Call your credit card company if you are going to pay late; they may offer alternatives.

- Contact your credit card company in advance if you need a higher credit limit.

- Be honest with yourself — select a credit card based on how you are most likely to use the card, not how you hope to use the card.

- If you are having difficulties meeting your loan obligations, take action now. Ignoring the problem just makes matters worse:
  - Talk with your creditors.
  - Don’t charge more purchases until your problems are solved.
  - Contact Consumer Credit Counseling Services at 800-388-2227.