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Report RL34393

*The Credit Card Market: Recent Trends, Funding Cost
Issues, and Repricing Practices*

Darryl E. Getter, Government and Finance Division

June 12, 2008

Abstract. This report examines developments in the revolving credit market, including recent trends in usage, funding, and repricing practices. Descriptive data that document recent U.S. household experience with credit card usage and delinquency information is presented. Next, the funding of credit cards, with a particular focus on the securitization process, is discussed. Credit originators are increasingly using securitization to fund revolving credit because this method minimizes the costs to fund these loans. There are payoff and default risks, however, that tend to increase funding costs for future credit card loans. An overview of credit card repricing practices is presented followed by a summary of possible policy responses.

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The Credit Card Market: Recent Trends and Regulatory Proposals

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June 12, 2008

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Summary

Rising consumer indebtedness and increased reliance on credit cards over the last two decades have generated concerns in Congress and among the general public that cardholders may be paying excessive credit card rates and fees. Specifically, some borrowers have reportedly been unaware of assessed penalty fees and interest rate increases. Consequently, legislation such as H.R. 1461, the Credit Card Accountability Responsibility and Disclosure Act of 2007 (introduced by Representative Mark Udall with 39 co-sponsors); H.R. 5244, the Credit Cardholders' Bill of Rights Act of 2008 (introduced by Representative Carolyn B. Maloney with 72 co-sponsors); and S. 1395, Stop Unfair Practices in Credit Cards Act of 2007 (introduced by Senator Carl Levin with nine co-sponsors) has been introduced in the 110th Congress.

This report examines developments in the revolving credit market, including recent trends in profitability, consumer usage, funding, and repricing practices. Information regarding issuer profits as well as descriptive data documenting U.S. household credit card usage and delinquency patterns are presented. Next, the funding of credit cards, with a particular focus on the securitization process, is discussed. Credit originators are increasingly using securitization to fund revolving credit because this method minimizes the costs to fund these loans. Payoff and default risks, however, may increase funding costs and result in repricing of such risks. A brief overview of credit card repricing practices is presented followed by a summary of possible policy responses.

This report will be updated as events warrant.

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Introduction

Financial innovations have increased credit availability for U.S. households over the last two decades. For households with collateral assets, financial innovations, specifically those in the mortgage market, have allowed households to leverage their balance sheets and finance large expenditures they might otherwise have had to forgo. Such developments can be advantageous because they make some households less sensitive to temporary disruptions in income or cash flow. Financial innovations, however, also make consumers more vulnerable to unexpected changes in asset prices. A sudden increase in the value of underlying collateral assets used to secure consumer borrowing, such as house prices, may entice some households to increase their borrowing; a sudden decrease may translate into financial distress.¹

Financial innovations similarly facilitated greater borrower access to revolving credit or credit card loans. Although all types of lending may reduce sensitivity to cash flow disruptions, unsecured lending can be used by borrowers who hold few, if any, collateral assets to draw upon to avoid a financial crisis. Furthermore, credit card borrowers may be less affected than those with collateralized or secured loans when asset values fall. Credit card borrowers, however, generally pay higher rates relative to secured credit borrowers. The relatively higher borrowing costs, fees, and repricing practices, therefore, may undermine or offset the financial benefit of being detached from a decline in collateral asset values, which adds to borrower financial distress.

Rising consumer indebtedness and increased reliance on credit cards over the last two decades have generated concerns in Congress and among the general public that cardholders may be paying excessive credit card rates and fees. Specifically, some borrowers have reportedly been unaware of assessed penalty fees and interest rate increases.² Because of this and other issues, legislation such as H.R. 1461, the Credit Card Accountability Responsibility and Disclosure Act of 2007 (introduced by Representative Mark Udall with 39 co-sponsors); H.R. 5244, the Credit Cardholders' Bill of Rights Act of 2008 (introduced by Representative Carolyn B. Maloney with 72 co-sponsors); and S. 1395, Stop Unfair Practices in Credit Cards Act of 2007 (introduced by Senator Carl Levin with nine co-sponsors) has been introduced in the 110th Congress.

This report discusses developments in the revolving credit market, including recent trends profitability, usage, funding, and repricing practices trends that have prompted new regulatory proposals. The first section provides a brief summary of information regarding issuer profits as well as descriptive data documenting U.S. household credit card usage and delinquency patterns. The next section analyzes the funding of credit cards, and specifically the securitization process in detail, since this method minimizes those costs. Conversely, payoff and default risks, which are also explained, tend to increase funding costs for credit card loans. A brief summary of credit card repricing practices is presented, followed by proposed policy responses.

¹ For more discussion about why households may increase their indebtedness, see Karen E. Dynan and Donald L. Kohn, "The Rise in Household Indebtedness: Causes and Consequences," *Finance and Economics Discussion Series 2007-37*, Board of Governors of the Federal Reserve System (August 2007), at <http://www.federalreserve.gov/Pubs/Feds/2007/200737/200737pap.pdf>.

² For example, see Martin H. Bosworth, "Credit Card Fees Rise, Disclosure Statements Inadequate," at http://www.consumeraffairs.com/news04/2006/10/gao_credit_cards.html and Anita Hamilton, "Exposing the Credit-Card Fine Print," at <http://www.time.com/time/printout/0,8816,1715293,00.html#>.

Recent Profit and Consumer Usage Trends

The SourceMedia's Cards & Payments' 2008 Bankcard Profitability Study and Annual Report is useful for getting some understanding of industry profitability trends.³ According to this study, credit card issuers after-tax return on assets was \$18.08 billion in 2007, which was down from \$18.37 billion in 2006. Total revenue for Visa and MasterCard issuers increased from \$114.99 billion to \$117.76 billion over this period. Penalty-fee revenue increased to \$7.54 billion in 2007 compared with \$6.44 billion in 2006. Expenses, however, increased by 4% in part due to a 17% increase in charge-offs or account receivables deemed uncollectible due to missed payments.

The Survey of Consumer Finances (SCF) is useful for tracking consumer usage trends. The SCF, which is conducted tri-annually by the Federal Reserve Board, asks approximately 4,000 households to provide information about their income, assets, and debts. The discussion below follows observations reported by economists from the Federal Reserve from 1989 to 2001 and 2001 to 2004, paying special attention to credit card usage.⁴

SCF findings indicate that the number of households having at least one credit card rose from 70% in 1989 to 76% of households by 2001; this increase was attributed to several factors. First, households with riskier financial characteristics were granted increased access to revolving credit.⁵ A greater proportion of low-income households and households with lower liquid asset levels became new cardholders. Although risk-based pricing, the practice of charging riskier borrowers higher rates to reflect the credit or default risk, may have increased borrowing costs for some borrowers, there is evidence to suggest that it allowed for increased participation in consumer credit markets and fewer credit denials.⁶ Second, households over the 1989-2001 period increased their use of credit cards as a convenient way to make payments.⁷ Third, the SCF also indicates a greater use of variable rate credit cards, which fluctuate with market rates. Given more frequent usage of credit cards for making convenience transactions, it is arguable that

³ See "Credit Card Issuers' Collective After-Tax Return on Assets Drops 1.58% Cards&Payments' Annual Bankcard Profitability Study Reveals," at <http://www.marketwire.com/mw/release.do?id=854884>, which summarizes industry profitability trends between 2006 and 2007. SourceMedia provides market information to the financial services and related industries through various publications, seminars, and conferences. For more information, see <http://www.sourcemedia.com/Info.html>.

⁴ The SCF data is available at <http://www.federalreserve.gov/pubs/oss/oss2/scfindex.html>.

⁵ See Kathleen W. Johnson, "Recent Developments in the Credit Card Market and the Financial Obligations Ratio," *Federal Reserve Bulletin*, vol. 91, autumn 2005.

⁶ For discussions about how the increased use of risk-based pricing strategies led to fewer credit denials and greater credit accessibility for higher risk borrowers, see Raphael W. Bostic, "Trends in Equal Access to Credit Products," in *The Impact of Public Policy on Consumer Credit*, eds. Thomas Durkin and Michael Staten, Massachusetts: Kluwer Academic Publishers, 2002, pp. 171-202; Wendy M. Edelberg, "Risk-based Pricing of Interest Rates in Household Loan Markets," *Finance and Economics Discussion Series 2003-62*. Washington: Board of Governors of the Federal Reserve System, 2003; Wendy M. Edelberg, "Risk-based Pricing of Interest Rates for Consumer Loans," *Journal of Monetary Economics*, vol. 53, November 2006, pp. 2283-2298; Mark Furletti and Christopher Ody, "Another Look at Credit Card Pricing and Its Disclosure: Is the Semi-Annual Pricing Data Reported by Credit Card Issuers to the Fed Helpful to Consumers or Researchers?," *Payment Cards Center Discussion Paper*, Federal Reserve Bank of Philadelphia, July 2006; Kathleen W. Johnson, "Recent Developments in the Credit Card Market and the Financial Obligations Ratio," *Federal Reserve Bulletin*, vol. 91, September 2005, pp. 473-486.

⁷ Despite the increase in credit access and usage, higher risk consumers may not have borrowed as much as desired given that their borrowing costs were relatively more expensive. See Wendy M. Edelberg, "Risk-based Pricing of Interest Rates in Household Loan Markets," *Finance and Economics Discussion Series 2003-62*. Washington: Board of Governors of the Federal Reserve System, 2003.

households grew more responsive to the interest rate movements and preferred cards that would allow them to benefit from market rate declines. On the other hand, it is at least equally likely that lenders may have offered more variable rate cards to borrowers to benefit from market rate increases. Hence, these developments suggest increases in both the supply and demand for revolving credit, resulting in growth of the revolving credit market.

The most recent 2004 survey suggests the following changes from 2001.⁸ Approximately 74.9% of the U.S. families surveyed in 2004 had credit cards, and 58% of those families carried a balance. In 2001, 76.2% of families had credit cards, and 55% of those families carried a balance. These findings over a three-year period do not indicate a substantial change in credit card holding or borrowing rates. SCF data, however, do indicate that borrowing levels increased simultaneously as households had greater access to revolving credit at lower rates. In 2004, the median credit limit was \$13,500, which represents a 26.2% increase from 2001. The median interest rate on the household credit card with the largest balance was 11.5%, down by 3.5% from 2001. The median outstanding debt level for households carrying a balance was \$2,200, a rise in real (inflation-adjusted) terms of 10% from 2001.⁹

Despite higher credit limits and lower interest rates by 2004, the median outstanding debt level relative to the median credit card limit declined. The use of credit cards at levels below card limits suggests that borrowers have access to amounts of revolving credit to sufficiently cover their borrowing needs. The proportion of the median household-balance relative to the median level of credit available was 16.3% in 2004, which is 2.4% lower than 2001. Given that overall consumer indebtedness rose during this period, one possible interpretation of this result is that households relied more on other types of loans, such as mortgage or home equity loans, where the interest costs often are lower and tax deductible. In fact, the share of mortgage debt relative to other U.S. household liabilities rose by 8.6% while the share of other types of consumer lending declined by 17.1% between 1990 and 2006.¹⁰

Despite a smaller increase in revolving debt relative to mortgage debt, credit card delinquency rates have risen. A Federal Reserve statistical release shows that, as of November 2007, the percentage of delinquent credit card loans has been greater than the delinquency percentages of any other type of bank loans since the fourth quarter of 1995.¹¹ The delinquency rate averaged about 4.4% over this period, compared to 2.0% for residential mortgage (including multi-family and home equity) loans and 1.8% for commercial real estate loans. Although credit card delinquency rates began to decline after the first quarter in 2002, they have been rising since the first quarter of 2006.

Credit card delinquency rates for commercial banks, however, are not representative of the delinquency experience for the entire revolving credit industry, since only approximately 40% of

⁸ See Brian K. Bucks, Arthur B. Kennickell, and Kevin B. Moore, "Recent Changes in U.S. Family Finances: Evidence from the 2001 and 2004 Survey of Consumer Finances," *Federal Reserve Bulletin*, vol. 92, February 2006.

⁹ According to the business cycle dating committee at the National Bureau of Economic Research, the U.S. experienced a recession that began April 2001 and lasted through November 2001.

¹⁰ See CRS Report RL34538, *Rising Household Debt: Context and Implications*, by Brian W. Cashell.

¹¹ The Federal Reserve Board uses data from the Consolidated Reports of Conditions and Income, compiled by the Federal Financial Institutions Examination Council (FFIEC), to calculate a statistical release entitled "Charge-off and Delinquency Rates on Loans and Leases at Commercial Banks." Loans and leases are considered delinquent after 30 days, and charge-offs are the value of these loans and leases (net of recoveries) removed from bank balance sheets and charged against loss reserves. See <http://www.federalreserve.gov/releases/chargeoff>.

credit card loan originations remain on bank balance sheets. It is difficult to identify a single numerical measure to evaluate the health of this sector given the dramatic increase in credit card receivables that are now funded or financed via securitization in modern financial markets.¹² Despite measurement issues, higher delinquency rates ultimately translate into higher borrowing costs in this sector. The next section provides the institutional background to illustrate why this relationship may exist.

The Funding and Pricing of Revolving Credit

Credit cards were initially issued by department stores in the 1950s as a more efficient way to increase customer convenience and manage their accounts.¹³ Stores selling big ticket items such as major appliances eventually allowed customers to decide whether to pay in full or in installments subject to a finance charge. Once commercial banks recognized the profit potential from providing open-ended, unsecured financing to consumers, the general-purpose credit card became more popular towards the late 1960s.¹⁴ Of course, since this occurred prior to the rise of securitization, which will be discussed in more detail below, local banks set the rates on the credit cards they issued.

During the late 1970s and early 1980s, the rise in inflation made unsecured lending unprofitable, especially since state regulations limited the interest rates banks could charge. Credit card lenders responded by charging annual fees and restricting the number of credit cards issued to supplement the income loss. Banks also began moving their credit card operations to states with high or no interest rate ceilings.¹⁵ Inflation diminished towards the end of the 1980s; this development along with less restrictive interest rate caps, reduced the need to charge annual fees. In addition to falling inflation rates, the growth of banking on a national scale resulted in increased competition, which contributed to a drop in revolving credit interest rates below the 18% to 19% levels maintained through most of the 1980s and early 1990s.¹⁶ Whenever the Federal Reserve decided to lower the federal funds rate, card-issuing banks also had the option to pass their lower borrowing costs onto cardholders, which would translate into lower credit card rates.

The funding of revolving credit through securitization, which first began in 1987, also helped reduce the cost of credit.¹⁷ Securitization occurs when financial institutions that originate credit card loans choose not to retain the loans on their balance sheets.¹⁸ Loans originated in the primary market, where the credit card purchaser and the loan originator conduct business, are often sold in

¹² See Mark Furletti, "Measuring Credit Card Industry Chargeoffs: A Review of Sources and Methods," *Payment Cards Center Discussion Paper*, Federal Reserve Bank of Philadelphia, September 2003.

¹³ For more information on the historical development of the credit card market, see Glenn B. Canner, "Developments in the Pricing of Credit Card Services," *Federal Reserve Bulletin*, September 1992.

¹⁴ A charge card must be paid in full every month, unlike a credit card.

¹⁵ See Glenn B. Canner and Charles A. Luckett, "Developments in the Pricing of Credit Card Services," *Federal Reserve Bulletin*, September 1992.

¹⁶ See Glenn B. Canner and Charles A. Luckett, "The Profitability of Credit Card Operations of Depository Institutions," *Federal Reserve Bulletin*, June 1999.

¹⁷ See the *Risk Management Credit Card Securitization Manual*, The Federal Deposit Insurance Corporation, at http://www.fdic.gov/regulations/examinations/credit_card_securitization/pdf_version/index.html.

¹⁸ The term "bank" may be used interchangeably to mean any type of financial institution that originates a credit card with a specified loan amount.

the secondary market, where the loan originator and an investor conduct business.¹⁹ The securitization of assets helps originators manage liquidity and credit risk, which then may translate into lower interest rates for cardholders. Given that approximately 60% of credit card loans are securitized, a more detailed discussion of the process is provided.

The Impact of Securitization on Funding Costs

Although loans may be funded using deposits or surplus capital, securitization may be a lower cost funding alternative for lenders.²⁰ When depository institutions fund loans with deposits, the terms of the assets (loans), specifically the timing of the receivables, may not match perfectly the terms of the liabilities (deposits) that must be repaid. Depository institutions, therefore, are required to hold certain amounts of capital reserves against such timing mis-matches and in the event the assets do not perform as expected. An opportunity cost, however, is incurred when capital held for regulatory safety reasons is not used for other, more profitable, lending activities or investments. Moreover, non-bank or non-depository institutions may enjoy a competitive funding cost advantage, since they are not subject to the same regulatory capital requirements as depository institutions. Even if greater capital requirements were not an issue, as in the case of non-bank institutions, originators would still incur servicing and monitoring costs if loans are funded from balance sheet activities. Hence, securitization allows for the off-balance-sheet funding of loans, which may lead to a reduction of funding costs and an elimination (to the depository institution) of risks associated with on-balance-sheet funding. These cost savings may or may not be passed on to cardholders in the form of lower credit card rates. Credit card interest rates, however, have become more responsive to issuers' costs of funds in recent years.²¹

The modern securitization process begins with a credit card issuer or loan originator who, after approving and making loans with unsecured lines of credit for a specified amount to numerous applicants, decides to securitize these assets.²² Next, the assets, which in this case are the loan receivables or repayment streams from the credit card loans, are sold to a trust that will be referred to as a special purpose entity (SPE).²³ SPEs are created as trusts, typically by financial institutions with a large amount of credit card originations, for two reasons. First, originators may sell assets to trusts without paying taxes on the sale of those assets. Second, the investors' rights to cash flows generated from the underlying assets are protected if the originator were to become

¹⁹ For a more detailed explanation of the securitization process, see Mark Furletti, "Overview of Credit Card Asset-Backed Securities," *Payment Cards Center Discussion Paper*, Federal Reserve Bank of Philadelphia, December 2002.

²⁰ See Charles T. Carlstrom and Katherine A. Samolyk, "Securitization: More than Just a Regulatory Artifact," *Economic Commentary*, Federal Reserve Bank of Cleveland, May 1992.

²¹ See Glenn B. Canner and Charles A. Lueckett, "The Profitability of Credit Card Operations of Depository Institutions," *Federal Reserve Bulletin*, June 1999. A publicly available index is typically used to express a component of the lending costs to the borrower and may be used to calculate the coupon payment accruing to a credit card asset-backed security investor. Hence, the use of a market index improves transparency for both the borrower and the investor, who is the ultimate lender. A market index plus a margin reflects the total borrowing cost or total investment return. The size of the margin or credit premium is tied to the default risk characteristics of cardholders included in the pool, which may be funded by credit card fees. For more information on the pricing of credit card asset-backed securities, see Mark Furletti, "An Overview of Credit Card Asset-Backed Securities," *Payment Cards Center Discussion Paper*, Federal Reserve Bank of Philadelphia, December 2002.

²² For a more detailed overview of the underwriting and loan approval process, see the *Credit Card Activities Manual*, The Federal Deposit Insurance Corporation, at http://www.fdic.gov/regulations/examinations/credit_card/.

²³ See Gary Gorton and Nicholas S. Souleles, "Special Purpose Vehicles and Securitization," Working Paper No. 05-21, published by the Research Department of the Federal Reserve Bank of Philadelphia.

insolvent or file bankruptcy. Hence, the SPE may be defined as “bankruptcy remote.” Given the associated tax and legal advantages, SPEs may not carry out any other activities unrelated to the specific purpose for which they were created. The SPE’s specific purpose is typically to transform individual receivables into new financial securities with specific risk and return characteristics, the next step of the securitization process.²⁴ Securities backed by credit card loans can be created for any desired maturity, since new receivables are continually added to the pool as older receivables are paid off by borrowers.

When transforming the individual credit card loans into new issues of asset-backed securities (ABSs), SPEs may subdivide them into various *tranches*, or groups of securities with specific risk and return characteristics. The ultimate lenders or purchasers of such assets are typically large investors, such as hedge funds, pension funds, or other financial institutions, who purchase securities from the different tranches. A common tranche arrangement, for example, is a senior-junior structuring. The senior tranche may be designated as the one that pays its investors first, but the yield may be lower than the junior tranche, which is designated to pay its investors last. When the securitizer decides to sell the tranches in the secondary market, the senior tranche will appeal to investors that prefer lower risk, quick paying investments, while the junior tranche will appeal to investors that prefer to take higher risks for the possibility of earning a higher yield. The senior-junior structuring is only one of the numerous disbursement structures securitizers use to entice investors. This particular structuring structure, however, is used throughout this report for the sake of illustration.²⁵

The structuring structure is used to satisfy the specific risk, return, and investment grade needs of investors in the secondary market. When the SPE can effectively identify and create ABS tranches satisfying specific needs, it can appeal to more investors and attract more credit to fund credit card loan originations in the primary market. For example, suppose the SPE is currently using the senior-junior structuring structure described above. The junior tranche would consist of the cash flow remaining *after* both the principal and yield to senior tranche holders and any losses associated with default were paid. The holder of the junior tranche, therefore, keeps whatever cash remains. This repayment structure reduces the credit risk for senior tranche holders, since junior tranche holders incur most of the credit risk. The senior tranche receives payment first, followed by the junior tranche; conversely, the junior tranche initially suffers the losses first, followed by the senior tranche. Of course, the junior tranche holder receives a higher yield or rate of return in exchange for assuming higher risk. The investors in the senior tranche would be adversely affected only if default costs exceed the value of payments that would have accrued to the junior tranche investors.²⁶ Hence, a structuring structure may also serve as a *credit*

²⁴ In many cases, two SPEs may be involved in the securitization process. The first SPE receiving the assets from the originator subsequently transfers these receivables to a second SPE that does the actual repackaging and creates the new credit-card backed securities, which are then sold to investors. Each SPE would be created in response to an accounting and/or legal issue that would make it difficult for cash in-flows and out-flows to occur without financial and/or legal consequences impacting the ability to issue, sell, and re-invest the securities.

²⁵ Note that only the loan receivables are collected and securitized. Hence, the sum of all cash payments received is disbursed according to SPE structuring guidelines, but individual loans do not have to be assigned to any particular tranches.

²⁶ The “liquidity crisis” of August 2007 was triggered by senior tranche holders reassessing the riskiness of their exposure to financial problems that exceeded expectations. See CRS Report RL34182, *Financial Crisis? The Liquidity Crunch of August 2007*, by Darryl E. Getter et al. Rather than rely solely upon a structuring structure, investors may also choose to purchase bond insurance, which may serve as additional credit enhancement.

enhancement, or a method of reducing the credit risk of senior securities, which may attract more investors, in particular those restricted to purchasing high quality investment grade securities.

Rather than sell all of the ABS tranches to third party investors, the loan originator may also want to act as an investor in its own asset-backed securities. Whenever the originator chooses to keep one or more tranches in its own portfolio, the retained tranche is referred to as *excess spread*. Suppose an originator retains a junior tranche, which now is subsequently referred to as the excess spread, then the originator is also providing credit enhancement to senior tranches issued by the SPE. Again, the junior tranche consists of the cash flow remaining after the principal and yield to senior tranche holders, and any losses associated with default, are paid. A holder of the excess spread tranche, therefore, has a strong financial incentive to effectively minimize defaults, which translates into lower funding costs or more investors as explained below.

Risks to Yield and Impact on Funding Costs

Lending activity must be considered a viable investment by investors regardless if the loans are funded on or off the balance sheets of originators. If funded on-balance sheet, loans may be backed by capital, or the asset values may be hedged using swaps or other derivatives. If lending activities are funded off-balance sheet, the pools of receivables are rated by credit-rating agencies, and maintaining a positive excess spread becomes important for attracting funding for future ABS issues. The excess spread should yield what investors would consider a viable return, in particular if the excess spread tranche is being used as a credit enhancement for senior ABS tranches. This section discusses risks that may lead to a reduction in the profitability of credit card lending.

Convenience Users and Early Amortization Risk

The yield or profit from credit card receivables is dependent upon whether borrowers make minimum payments or pay off their balances every month. Consumers have the option during each billing cycle to pay the minimum balance, pay off the entire loan, or pay something in between. When credit cards are used for convenience transactions rather than for borrowing, this does not generate any investor yield. In addition, early amortization, which occurs when the outstanding balance of a credit card account is suddenly paid off, also reduces yield. (Early amortization also occurs when a credit card is paid off and the balance is transferred to another card issued by a competing card issuer.) A reduction in yield ultimately makes investing in credit card receivables less appealing to investors, a development which itself increases the funding costs to provide these loans in the future.

Default Risk

A revolving credit loan is higher in credit or default risk relative to other forms of bank lending. For credit card receivables that have not been securitized, these types of loans involve much higher operating costs and greater risks of default per dollar of receivables than do other types of lending.²⁷ For securitized credit card receivables, the default risk of these loans generates uncertainty surrounding the cash flowing into the excess spread. In both cases, defaults increase future funding costs.

²⁷ Glenn B. Canner, "Developments in the Pricing of Credit Card Services," *Federal Reserve Bulletin*, vol. 78 no. 9, September 1992. A more detailed discussion about the costs of credit card operations is also included.

The risk in revolving credit lending is derived from several factors. First, the loan is unsecured, which means the card holder has put forth no collateral assets that can be used to repay the loan in the event of default. Second, the card holder has the option to use the card when unemployed or lacking sufficient cash flow to cover routine expenses and payment obligations. The borrower may suddenly become highly leveraged (up to the credit card limit) without any prior notice. Without knowing whether or not the cardholder intends to pay off the balance at the end of the billing cycle, every transaction made with a credit card is potentially a new loan, and the outstanding principal balance can change at any time. Next, a credit card is also far more susceptible to fraud than other types of loan. Should unauthorized charges be made on a lost or stolen card, the Fair Credit Billing Act limits the liability for cardholders to \$50.²⁸ Hence, unrecoverable fraudulent charges may translate into sizeable losses for originators or investors.

Delinquencies may eventually turn into defaults, which are defined as 180 days delinquent. When borrowers initially fail to make timely credit card payments, the *servicer* attempts to contact the borrower within several days of delinquency to arrange payment. The servicer, and not necessarily the loan originator, is the designated collector of credit card payments (and forwards them to the SPE if the payment streams are being securitized). After 30 days, which is considered one complete billing cycle, the servicer must decide whether to cut off credit to the borrower and send the account to collections. Financial institutions may adopt various different policies for dealing with delinquencies. If, however, accounts are sent to collections, the Fair Debt Collection Practices Act (FDCPA) prohibits abusive, deceptive, and improper collection practices of third party debt collectors.²⁹ The collections process is regulated by federal guidelines.³⁰

If the credit card issuer owns the loans, contractual charge-offs (which are account receivables deemed uncollectible due to missed payments) must be written off the issuer's books after 6 billing cycles or 180 days of nonpayment, according to guidances issued by the Federal Financial Institutions Examination Council (FFIEC).³¹ When a borrower files for bankruptcy, accounts must be charged off 60 days after receipt of notification of the filing from the bankruptcy court. One expert estimated that 60% of charge-offs result from 180 days, or six billing cycles, of missed payments, and 40% of charge-offs are the result of bankruptcy.³² If the loans are securitized, delinquency and default costs generated from the accounts may be subtracted from the proceeds paid to the SPE, which may translate into losses to the excess spread tranche.

When revolving credit is securitized, issuers may find it difficult to attract investors to fund revolving credit loans without "implicit recourse." Implicit recourse refers to a perception among investors that credit card originators will repurchase non-performing loans from ABS-pools and absorb default losses, which may seem to negate the benefits of securitization.³³ A Removal of

²⁸ P.L. 93-495, as codified at 15 U.S.C. 1666j. See <http://fdic.gov/regulations/laws/rules/6500-500.html>.

²⁹ P.L. 90-321, as codified at 15 U.S.C. 1692 *et. seq.*, and as amended by P.L. 109-351, §§ 801-02, 120 Stat. 1966 (2006). See <http://www.ftc.gov/bcp/edu/pubs/consumer/credit/cre27.pdf>.

³⁰ For a summary of these guidelines, see <http://www.ftc.gov/bcp/online/pubs/credit/fdc.shtm>.

³¹ See the February 10, 1999, FFIEC press release entitled "Federal Financial Institution Regulators Issue Revised Policy For Classifying Retail Credits," at <http://www.ffiec.gov/press/pr021099.htm>.

³² See Furletti, "Measuring Credit Card Industry Chargeoffs: A Review of Sources and Methods."

³³ According to FASB 140 accounting rules, a "true sale" means the seller is no longer responsible for the subsequent performance of the financial assets sold. If poor performance is transferred back to the originator, then a true accounting sale of assets did not occur, and the originator should be required to hold capital against the value of the collateral. The only permissible exception to this recourse provision is when the originator wants to remove a delinquent account from a pool to offer a workout solution to the borrower. The exception was not designed to simply (continued...)

Account Provision (ROAP), which is a provision that exists in some credit card securitization agreements that allows issuers to remove delinquent accounts, or accounts with fraudulent charges, from an ABS pool, may be exercised. Exercising this option too often, however, may still imply that the tranche(s) should receive lower credit ratings, which could make it more difficult to attract some ABS investors.

Summary of Current Risks to Yield

More convenience users, early amortizations, and defaults reduce the yield on credit card ABSs. The impact on yield may be even more significant should all of these risks materialize simultaneously. Slightly more consumers, however, are carrying a balance and the median balance has increased, as discussed earlier in this report. Consequently, the payoff risk associated with an increase in convenience users has seen some decline. On the other hand, defaults are rising. Should defaults continue to accelerate, the increase in funding costs may encourage some lenders to re-evaluate the profitability of providing revolving credit. One option may be to curtail revolving lending activities and pursue more profitable business strategies. Another option may be to employ various repricing practices.

Repricing Credit

The previous historical discussion noted that fee income, a component of the total cost of borrower credit, was used to help cover the increasing costs to supply credit during the late 1970s and early 1980s. The securitization discussion shows how a particular funding method, that minimizes the liquidity and default risk for credit card originators, may translate into lower rates for cardholders. Interest rate charges and fees, therefore, change when costs change.

For example, when a borrower is delinquent, exceeds credit limits, or bounces payment checks, the borrower may now be viewed as a greater credit risk. At that point, lenders may consider the borrower as a candidate for being re-priced for the credit. Repricing is an extension of risk-based pricing in that higher risk borrowers shoulder more of the costs associated with having access to borrowing services. Penalties, increased fees, and increased loan rates are all tools available to credit suppliers to reprice the increased risk to yield. If cardholders are sensitive to increasing charges, then repricing may be used to encourage delinquent cardholders to repay their obligations faster and discourage them from further borrowing.

Repricing, however, can be initiated without any delinquency incident. When this happens, a borrower may shop for other card issuers that are willing to provide them with credit cards at lower prices or accept balance transfers. Hence, the lender's decision to charge higher interest and fees, whether to compensate for rising default risk or simply to increase profit margins, is likely to be affected by an assessment of the borrower's willingness to shop for and find other lower-priced credit.

(...continued)

allow issuers to absorb losses, for example, by removing early amortization accounts to enhance the performance of securitized tranches. For more details on this point, see Charles W. Calomiris and Joseph R. Mason, "Credit Card Securitization and Regulatory Arbitrage," *Working Paper No. 03-7*, Federal Reserve Bank of Philadelphia, April 2003.

Repricing practices typically include “hair-trigger” repricing and “universal default”; and, in some cases, “double-cycle billing” practices may have the same effect.³⁴ Hair-trigger repricing refers to imposing fees and higher finance charges on cardholders almost immediately after a payment is late without any grace period. Universal default occurs when a borrower defaults on a loan serviced by a lender, and other revolving creditors respond by increasing the lending rates on the loans they are servicing for that particular borrower, even if the borrower has not defaulted on those loans. Double-cycle billing is the practice of calculating interest over a two-month billing cycle period, as opposed to a one-month billing cycle, that may result in higher finance charges. Although double-cycle billing may not often be described as a repricing practice, in particular if this billing method is universally applied to all customers, the economic impact on cardholders can be similar to standard repricing strategies. If the consumer misses a payment or switches from being a convenience user to a revolver, the typical grace period, or a specified time period payments can be made without incurring any finance charge, is *retroactively* eliminated under double-cycle billing. Forfeiture of interest-free grace periods results in higher finance charges; therefore, risk-based repricing has automatically been captured by the billing method.

Proposed Policy Responses

Repricing practices are unpopular with borrowers because they are perceived to be changes in the credit terms that were not part of the original agreement when the card was issued. It is also possible that borrowers unknowingly agreed to such terms that were very difficult to understand.³⁵ Loan originators, however, are concerned primarily with the cash flow necessary to maintain lower funding costs, in particular at a time while defaults are rising. Moreover, maintaining cash flows sufficient to cover losses accruing to the lower tranche is also important if the subordinate tranche is being used as a credit enhancement for more senior tranches.

One response might be to eliminate repricing practices. A possible consequence of this response, however, could result in a reduction in cash flow and possible increase in bank charge-offs or excess spread tranches with insufficient returns to make this type of lending attractive to future investors. Economic theory, specifically the law of supply, suggests that firms are less willing to supply products to the marketplace at lower prices. Hence, credit card issuers could respond in a variety of ways to pricing restrictions. To recapture the fee income, issuers may increase loan rates across the board on all borrowers, making it more expensive for both good and delinquent

³⁴ For definitions of terms, see the following references. “Credit Cards: Increased Complexity in Rates and Fees Heightens Need for More Effective Disclosures to Consumers,” *GAO-06-929*, Government Accountability Office (September 2006) located at <http://www.gao.gov/new.items/d06929.pdf>; Sheila Bair, Chairman, FDIC, *Statement on Improving Credit Card Consumer Protection: Recent Industry And Regulatory Initiatives* before the Subcommittee On Financial Institutions and Consumer Credit of the Financial Services Committee, U.S. House of Representatives, June 7, 2007, at <http://www.fdic.gov/news/news/speeches/archives/2007/chairman/spjun0707.html>; Mark Furletti, *Credit Card Pricing Developments and Their Disclosure*, Federal Reserve Bank of Philadelphia, January 2003, at http://www.philadelphiafed.org/pcc/papers/2003/CreditCardPricing_012003.pdf; a glossary of revolving credit terms may be found at http://www.fdic.gov/regulations/examinations/credit_card/glossary.html; and see Testimony Before the Committee of Homeland Security and Governmental Affairs Permanent Subcommittee on *Investigations Regarding Credit Card Practices: Fee, Interest Rates, and Grace Periods*, March 7, 2007, at http://hsgac.senate.gov/public/_files/STMTCohenNCLC.pdf.

³⁵ The Government Accountability Office reported that disclosures of complex risk-based pricing practices in the credit card industry have become extremely difficult for consumers to understand. See “Credit Cards: Increased Complexity in Rates and Fees Heightens Need for More Effective Disclosures to Consumers,” *GAO-06-929*, Government Accountability Office (September 2006) at <http://www.gao.gov/new.items/d06929.pdf>.

borrowers to use revolving credit. Their other options may include increasing minimum monthly payments, reducing credit limits, or reducing the number of credit cards issued to people with impaired credit.³⁶

On the other hand, credit card issuers may choose not to respond by increasing the costs or limiting the availability of credit to borrowers. Some financial institutions have recently stated that they will no longer use pricing practices such as double-cycle billing and universal default.³⁷ When these announcements were made, there was no indication that subsequent increases in minimum payments or reductions in credit card issues would occur. Hence, it may be possible for other institutions to manage their cash flows and delinquencies without relying upon these more controversial pricing practices.³⁸

A response by regulators might be to enhance disclosures to borrowers so they are not taken by surprise when repricing occurs. The Federal Reserve has been engaged in studies that could lead to revision of Regulation Z, concerning the disclosure of consumer credit.³⁹ These consist of using consumer focus groups and individuals to determine what types of disclosures are effective with helping them understand the possible charges they could face. Upon completion of the interviews, the Federal Reserve expects to propose a format that may be considered more transparent for consumers to evaluate the credit terms and facilitate their usage of credit cards.

On May 2, 2008, the Board of Governors of the Federal Reserve announced proposed rules regarding credit card pricing practices.⁴⁰ The proposals would amend Regulation AA (Unfair Acts or Practices), Regulation Z (Truth in Lending), and Regulation DD (Truth in Savings). The purpose of the proposals are to prohibit unfair or deceptive bank practices in connection with credit card accounts and overdraft services for deposit accounts. For example, one proposed amendment to Regulation AA would prohibit banks from treating a payment as late until the consumer has been given a reasonable amount of time to make that payment, and a safe harbor would be given to banks that send periodic statements at least 21 days prior to the payment due date. Given that the double-cycle billing method eliminates an interest-free grace period for the consumer, the proposed rule would also eliminate this billing practice. Banks would only be allowed to apply rate increases to existing balances only when (1) the interest rate is variable; (2) a promotional rate expires; or (3) a minimum payment has not been received within 30 days of the due date.

³⁶ For studies on the regulatory effects of credit card rates and fees, see Diane Ellis, "The Effect of Consumer Interest Rate Deregulation on Credit Card Volumes, Charge-offs, and the Personal Bankruptcy Rate," *Bank Trends*, FDIC Division of Insurance, March 1998, at http://www.fdic.gov/bank/analytical/bank/bt_9805.html; and Jonathan M. Orszag and Susan H. Manning, *An Economic Assessment of Regulating Credit Card Fees and Interest Rates*, a study commissioned by the American Bankers Association, at http://www.aba.com/aba/documents/press/regulating_creditcard_fees_interest_rates92507.pdf.

³⁷ For example, see "Chase ends double-cycle billing" at http://www.bankrate.com/brm/story_content.asp?story_uid=20919&prodtype=today; and "Citi Announces Industry Leading Changes to its Credit Card Practices: To End 'Universal Default' & 'Any Time for Any Reason' Changes" at <http://www.citigroup.com/citigroup/press/2007/070301b.htm>.

³⁸ See Adam J. Levitin, *All But Accurate: A Critique of the American Bankers Association Study of Credit Card Regulation*, at http://works.bepress.com/adam_levitin/4/.

³⁹ See <http://www.federalreserve.gov/newsevents/press/bcreg/20070523a.htm>.

⁴⁰ Highlights of the proposed rulings can be found at <http://www.federalreserve.gov/newsevents/press/bcreg/20080502a.htm>.

The Federal Reserve has also proposed implementing the risk-based pricing provisions in Section 311 of the Fair and Accurate Credit Transactions Act of 2003.⁴¹ This rule would require creditors to notify consumers when an issuer used a credit report to grant credit at a relatively higher interest rate in comparison to rates offered to most of its customers, who are presumably more creditworthy.

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<http://wikileaks.org/wiki/CRS-RL34393>

⁴¹ P.L. 108-159. See <http://www.treas.gov/offices/domestic-finance/financial-institution/cip/pdf/fact-act.pdf>. More details about the proposed rule may be found at <http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20080508a1.pdf>.