

Asset-Backed
Criteria Report

**U.S. Credit Card ABS Rating
Criteria and Validation Study**

Analysts

Cynthia Ullrich
Director
+1 212 908-0609
cynthia.ullrich@fitchratings.com

Claire J. Mezzanotte
Managing Director
+1 212 908-0503
claire.mezzanotte@fitchratings.com

Darryl Osojnak
Senior Director
+1 212 908-0602
darryl.osojnak@fitchratings.com

Ebru Demir
Director
+1 212-908-0602
ebru.demir@fitchratings.com

Financial Institutions

Christopher D. Wolfe
Managing Director
+1 212 908-0771
christopher.wolfe@fitchratings.com

Operational Risk Group

Stephanie Petosa
Managing Director
+1 212 908-0720
stephanie.petosa@fitchratings.com

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Correction

This report was originally published on July 10, 2006. Reference to a report on page 2 was amended.

■ Summary

This report provides investors with an overview of the credit card industry, describes the various financing methods used by credit card debt issuing entities, and explains the criteria Fitch Ratings uses for rating securities backed by credit card receivables. The key analytical considerations of Fitch’s rating approach for credit card asset-backed securities (ABS) remain in place. The methodology has been refined due to evolving financial structures, regulatory changes, and industry developments. Most recently, regulatory intervention has prompted Fitch to focus on purchase rate and servicing fee levels.

Fitch has also updated its Credit Card ABS Model. The changes incorporate:

- Fitch’s new USD London Interbank Offered Rate (USD LIBOR) scenarios.
- An adjustment to compensate for basis risk between prime rate (used to price most variable credit card lending) and USD LIBOR (used to price most ABS).
- An earlier impact of chargeoffs on yield and monthly payment rate (MPR) achieved via a delinquency stress.
- A servicing fee vector, which can be used to increase the fee over the life of the deal.

Additionally, Fitch has validated the stress scenarios used in the model. In order to benchmark and recalibrate Fitch’s current credit card collateral stresses to historical observations, Fitch conducted a volatility study of credit card performance. The study considered extreme movements in yield, MPR, chargeoff, delinquency, and excess spread based on the historical observations from 1989–2006, and reviewed aggregate performance as well as performance for the prime, subprime, and retail categories. The dataset was robust, as it was composed of more than 38,000 observations per performance variable from 123 trusts, as well as more than 800 series issued from various master trusts. The period spanned various credit cycles and included:

- Two national recessions.
- Intense competition and high originations volumes.
- The growth of subprime lending.
- Extensive industry consolidation.
- Bankruptcy spikes associated with reforms.
- Regulatory intervention.
- Material accounting changes.

The study validated that the stress scenarios, when compared with a confidence interval derived from historical observations, were commensurate with the risks addressed by the associated rating. The scenarios used for MPR and chargeoffs were more conservative than actual observed performance; however, Fitch acknowledges that macroeconomic conditions have the potential to be more severe than

October 17, 2006

Referenced Criteria

- “Interest Rate Risk in Structured Finance Transactions: USD LIBOR,” dated March 15, 2006.
- “Counterparty Risk in Structured Finance Transactions: Swap Criteria,” dated Sept. 13, 2004.
- “Counterparty Risk in Structured Finance Transactions: Qualified Investments Criteria,” dated June 30, 2004.
- “Commingling Risk in Structured Finance Transactions,” dated June 9, 2004.
- “Rating U.S. ABS Seller/Service,” dated April 20, 2006.
- “Rating U.S. Credit Card ABS Seller/Service,” dated Oct. 17, 2006.
- “Special Purpose Vehicles in Structured Finance Transactions,” dated June 13, 2006.

those observed in the course of this analysis. Fitch will continue to perform periodic validation studies and update stresses as necessary. Appendix 1 details this validation study, as well as information on the Northeast study, which is the source of the original dataset from which Fitch’s stresses were derived.

■ Credit Analysis

Fitch’s ABS group is responsible for rating securities backed by credit card receivables and works in tandem with the operational risk group that assigns seller servicer ratings to securitization transaction sponsors. The security ratings assigned by Fitch address the payment of interest and principal in accordance with the transaction’s legal documents; however, credit card ABS transactions do not stipulate repayment of principal on any specific date — instead, they define an expected payment date, with the caveat that principal may be paid earlier or later than that date. Ratings also reflect the quality of the collateral’s performance variables and servicing, allocation of cash flows and transaction waterfall as dictated in the legal documents, and the analysis of a transaction’s legal structure. For each requested rating, Fitch sizes credit enhancement levels using the proprietary Credit Card ABS Model, which serves to incorporate Fitch’s qualitative and quantitative analysis as more fully described in the following sections.

■ Collateral Performance Variables

Credit cards are unique among consumer loans, in that issuing entities have the ability to change terms on the

underlying obligations rapidly and selectively. The credit quality of each cardholder is reflected in the cardholder’s credit limit and annual percentage rate (APR), which are based on the cardholder’s ability to meet debt payments (i.e. the higher the risk, the lower the credit limit and the higher the APR). Many issuing entities use sophisticated credit-scoring models and well-trained credit analysts to determine the cardholder’s probability of default. This default probability is used to assign pricing and credit lines. However, the terms of the product are flexible enough to be changed with a minimum of one month’s notice.

However, examining the credit limits and APRs of a portfolio does not always give a true picture of the issuer’s total risk. Some issuing entities might be more aggressive in assigning high limits to lower credit quality borrowers. Some might not have well-developed credit-scoring models. Finally, some may try to gain market share by offering very low interest rates, possibly at the expense of credit quality.

Chargeoffs

Chargeoffs are loans written off as uncollectible by the issuing entity. Chargeoffs occur either through contractual delinquency or bankruptcy of the cardholder. Most issuing entities fall under the regulation of federal banking authorities and are subject to guidelines established by the Federal Financial Institutions Examination Council. These guidelines require issuing entities to charge off accounts at 180 days of delinquency and 60 days after notification of bankruptcy of an obligor. Typically, 30%–50% of chargeoffs for an issuing entity can be attributed to bankruptcy. The variation depends on the quality of the underlying receivables; for example, subprime borrowers have demonstrated high overall chargeoffs, with lower bankruptcies relative to contractual chargeoffs.

Portfolio Yield

Portfolio yield is made up of periodic APR charges, annual fees, late payment fees, overlimit fees, and, in most cases, recoveries on charged-off accounts and interchange. Interchange is income from the card associations (Visa, MasterCard, and Novus, among others) that is paid to the issuing bank as compensation for taking credit risk and funding receivables, the amount of which varies from 1%–2% of charge volume. Most of these components are relatively stable and represent a small percentage of the yield. Interest income, as derived from an account’s APR, on the other hand, accounts for a large majority of the yield and is

the most volatile. Moreover, as issuing entities price each account for its level of risk, those issuing entities catering to the subprime market generally will have higher yields than those in the prime market.

Monthly Payment Rate

The MPR includes monthly collections of principal, finance charges, and fees paid by the cardholder; it is stated as a percentage of the outstanding balance as of the beginning of the month. It is an important variable, as it determines how long a bond remains outstanding in a deteriorating economic environment. Reductions in MPR may come from a decrease in the number of cardholders who pay off their entire bill every month and/or from an increase in the number of cardholders making smaller monthly payments.

Historically, minimum payment requirements have ranged between 1% and 2% of outstanding balances. However, guidelines released by federal bank regulators in 2003 caused some issuing entities to increase the minimum payment requirements to ensure cardholders are amortizing their balance over a “reasonable” time horizon and not just paying finance charges and fees. As a result of the changes, minimum payment requirements have changed to cover all interest and fees plus 1% of principal, resulting in a monthly payment of 2%–3% of outstanding balances.

Receivables Balance

An additional variable that Fitch examines is the pool’s receivables balance. The primary concern is how cardholders will behave with regard to the solvency of the seller. For well-underwritten, geographically diverse, general purpose card portfolios, Fitch expects that insolvency of the seller will not have a dramatic effect. Most consumers likely will not even know that the bank has gone into insolvency and will continue to use their cards. Given the profitability of the card business, the heavy premiums at which pools of accounts are bought and sold and the aggressive competition for market share, Fitch believes that portfolios such as these will remain active, with consumers continuing to use the card for new purchases

and with ongoing portfolio servicing, even if it is not by the original servicer.

On the other hand, cards issued from a private label portfolio owned and serviced by a single retailer will completely lose their utility if the retailer becomes insolvent and declares Chapter 7 bankruptcy. There will be no new purchases, and the outstanding principal receivables will amortize. This situation would likely trigger an early amortization period, during which the amount of principal collections available for reallocation from the seller’s participation would be reduced drastically. This would result in a longer payout period and increased exposure to a deteriorating pool.

Some issuing entities fall between these two extremes. For example, a portfolio that is heavily concentrated in a single co-branding relationship or affinity group may experience heavy run off if that relationship is canceled or offered less value to cardholders. However, it is unlikely that all cardholders would simultaneously cease using their cards, as they would for a bankrupt retailer.

■ **Summary of Collateral Performance**

Each month, Fitch calculates a weighted average based on the reported performance of securitized credit card receivables. Although the exact components of the indexes are not divulged, they are composed of a large subset of active trusts and are further categorized as either prime or subprime. Movements in the indexes are discussed in detail in Fitch’s monthly newsletter “Credit Card Movers and Shakers.”

For prime trusts, chargeoff rates have trended upwards as issuers have loosened underwriting standards in an effort to attract profitable mid-prime customers. This shift, coupled with lower weighted average coupon costs resulting from historically low interest rates, has led to an increase in three-month average excess spread despite lower yield. MPR has been climbing due to consumer preferences for alternative funding sources for their debt, such as home equity loans and lines of credit.

Fitch Prime Credit Card Index

(%, Years Ended Dec. 31)

	Chargeoffs	Gross Yield	Monthly Payment Rate	60-Day Delinquency	Three-Month Average Excess Spread
2005	6.20	17.33	18.20	2.66	6.18
2004	6.39	16.71	16.90	3.07	6.46
2003	6.61	16.64	16.04	3.51	6.18
2002	6.06	17.43	15.77	3.39	6.84
2001	5.84	19.06	15.79	3.30	5.92
2000	5.23	19.19	16.18	3.00	5.49

Fitch Subprime Credit Card Index

(%, Years Ended Dec. 31)

	Chargeoffs	Gross Yield	Monthly Payment Rate	60-Day Delinquency	Three-Month Average Excess Spread
2005	12.81	26.50	9.41	6.86	7.78
2004	16.24	26.58	8.55	8.96	6.22
2003	17.52	28.30	8.05	10.15	5.97
2002	15.03	27.77	8.12	8.94	7.88
2001	12.18	27.33	8.37	7.05	7.34
2000	9.77	25.89	9.53	5.60	6.62

Chargeoff rates for subprime portfolios peaked in 2003, but have now abated due to home equity borrowing as well as targeted regulatory changes. Gross yield has remained robust even in this period of historically low rates, and MPR also increased for this segment. Excess spread is higher, although more volatile than for prime portfolios.

■ **Seller/Servicer Ratings**

While Fitch’s credit card ABS ratings always have included a seller/servicer evaluation, the seller/servicer ratings formalize and standardize this information, providing a clear indication of both origination and servicing capabilities based on standard benchmark assessments. The seller/servicer ratings will be used to augment Fitch’s credit card collateral analysis and cash flow modeling when determining credit enhancement, serving as an added measure of any risk or benefit associated with the transaction.

Fitch’s seller/servicer review process determines the quality and effectiveness of an organization’s origination and servicing platform, as well as its compliance with stated guidelines, operational and financial stability, and soundness of internal control procedures. Fitch’s credit card seller/servicer rating criteria focus on three principal factors — corporate performance, originations, and servicing — each with various subcategories.

Due to the revolving nature of credit card deals, the ability to add accounts and receivables to a trust, and the reliance on cross-collateralization, seller/servicer ratings for credit card issuers include a review of the originations process. The present addition of accounts can affect the performance of outstanding certificates or notes, even if they were issued years ago. New account originations are vital for the stability of a credit card portfolio due to account and balance attrition caused by competition, chargeoffs, and principal repayments. As such, an issuer must maintain an account maintenance infrastructure that can easily digest the quality and volume of accounts booked. For credit card ABS, issuers must

continuously add receivables to their trusts to ensure that sufficient collateral is available to support outstanding ABS transactions. For issuers with significant securitization programs, this process generally involves adding relatively new or unseasoned accounts to their respective trusts. The increased emphasis on originations does not diminish the essential need for robust account management on an ongoing basis. Credit cards are revolving products that must be continuously underwritten by the seller/servicer to reduce not only the number of accounts charged off, but also the balances associated with them. Alternatively, issuers must continue to offer existing accountholders competitive terms or risk losing them to competitors. This balancing act is accomplished through the account management infrastructure, which allows the seller/servicer to reset product terms periodically, including account pricing, credit line adjustments, or to prohibit further usage when necessary.

■ **Collateral Performance — Base Case and Stress Scenario Considerations**

Credit card ABS performance can be influenced by many factors, with both positive and negative effects. Fitch develops custom stress scenarios at every rating level for each ABS issuing entity and financial structure by evaluating the collateral composition and performance variables. The stress scenarios are applied to the steady state assumptions (*see Setting Steady States, page 6*); both the scenarios and the assumptions are determined on a case-by-case basis and compared with an industry-wide benchmark. Even under the most severe economic scenarios, properly structured ‘AAA’ credit card ABS should repay investors 100% of their original investment plus interest on a timely basis. Securities rated in the ‘A’ and ‘BBB’ categories (subordinated certificates or notes) are subject to less severe scenarios than those used for ‘AAA’. The table on page 5 shows the credit enhancement necessary to cover accumulated shortfalls during the early amortization period for the different rating categories using both fixed- and floating-rate coupons.

Fitch Base Case Stress Scenarios

(%)

Variable	Steady State Assumption	Fitch Stress Scenarios			'BB' Northeast	
		'AAA'	'A'	'BBB'	Study	Timing
Yield	17.0	35.0	25.0	20.0	Flat	Down – Overnight
Monthly Payment Rate	12.0	45.0	35.0	30.0	11.6	Down – Overnight
Chargeoffs	7.0	4.5	3.0	2.3	1.8	Six-Month Ramp
Purchase Rate	100.0	0.0	0.0	0.0	—	—
Model Inputs						
Yield	—	11.05	12.75	13.60	17.00	
Monthly Payment Rate	—	6.60	7.80	8.40	10.61	
Chargeoffs	—	31.50	21.00	16.10	12.60	
Purchase Rate	—	100.00	100.00	100.00	100.00	
Enhancement (Fixed-Rate)	—	14.3	7.5	4.8	—	—
Enhancement (Floating-Rate)	—	16.8	9.0	5.0	—	—
With 100% Purchase-Rate Stress						
Yield	17.0	35.0	25.0	20.0	Flat	Down – Overnight
Monthly Payment Rate	12.0	45.0	35.0	30.0	11.6	Down – Overnight
Chargeoffs	7.0	4.5	3.0	2.3	1.8	Six-Month Ramp
Purchase Rate	100.0	100.0	100.0	100.0	—	—
Model Inputs						
Yield	—	11.05	12.75	13.60	17.00	
Monthly Payment Rate	—	6.60	7.80	8.40	10.61	
Chargeoffs	—	31.50	21.00	16.10	12.60	
Purchase Rate	—	0.00	0.00	0.00	0.00	
Enhancement (Fixed-Rate)	—	26.0	14.8	9.3	—	—
Enhancement (Floating-Rate)	—	30.0	17.5	10.0	—	—

In stressing a portfolio's yield, competitive position is a critical factor, since a highly priced portfolio will be under pressure to reduce rates to maintain market share. Regulatory risk is another consideration in Fitch's stresses, as the possibility of a federally imposed interest rate cap is often raised. In the base case, Fitch stresses yield at the 'AAA' level by assuming an overnight decrease of 35%. As a result, the example shows the steady state assumption of 17% is reduced by 35%, which creates a model input of 11.05%.

Fitch applies multiples of three to five times to the steady state assumption for chargeoffs via a linear increase over a six-month period, holding the stressed level in place until the bonds are repaid. The six-month period is commensurate with the 180-day charge-off guidelines promulgated by the Federal Financial Institutions Examination Council. Securities rated 'AAA' generally withstand scenarios whereby one in four cardholders are defaulting. For the base case 'AAA' example, a multiple of 4.5 times is applied to the 7% chargeoff assumption, which creates a model input of 31.50%.

When consumers are experiencing economic hardship, the risk of a missed payment is coupled with the risk of decreased magnitude of the payments

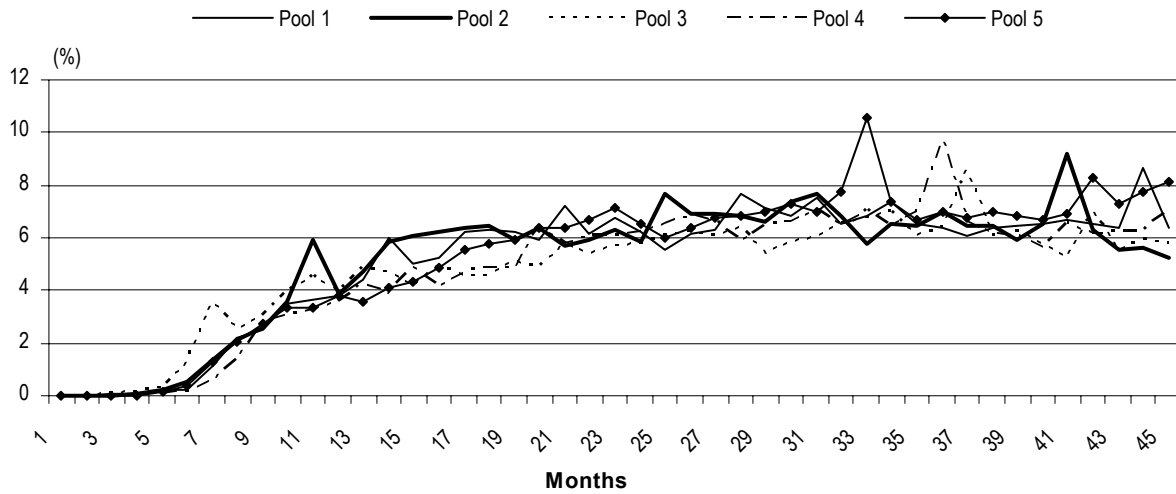
that are made. Payments of insufficient amounts and missed payments will result in escalating delinquency statuses that, if uncured, will eventually be charged off. Both instances will result in a depression in MPR. However, the MPR will also suffer if hardship results in payments that are lower than usual, yet in excess of the minimum due. Fitch develops a custom payment rate stress for each portfolio in order to appropriately stress portfolios for which credit enhancement levels are greatly dependent upon high MPRs. For the base case 'AAA' example, Fitch applies an overnight stress of 45% to the MPR steady state of 12%, which creates a model input of 6.60%.

Without applying any purchase rate stress, the AAA example outputs a fixed-rate enhancement level of 14.3% and a floating-rate enhancement level of 16.8%. A full purchase rate stress raises these enhancement levels to 26% and 30%, respectively.

Credit Enhancement

In determining credit enhancement across all rating categories, Fitch first assigns an expected, long-term value (i.e. a steady state assumption) to each of the key portfolio performance measures and then stresses those variables to varying degrees based on the rating level. Under stressed conditions, the transaction enters into early amortization and accumulates cash flow shortfalls

Vintage Data Analysis — Chargeoffs



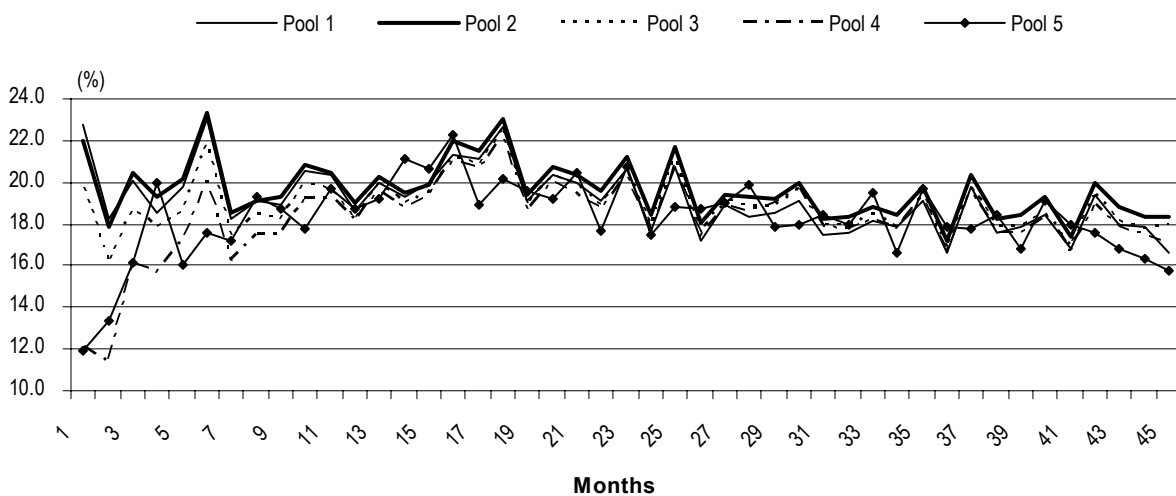
each month, until the security is repaid in full. The cumulative total of these monthly shortfalls during the payout period needs to be covered by available credit enhancement, hence higher ratings necessitate higher amounts of credit enhancement.

Setting Steady States

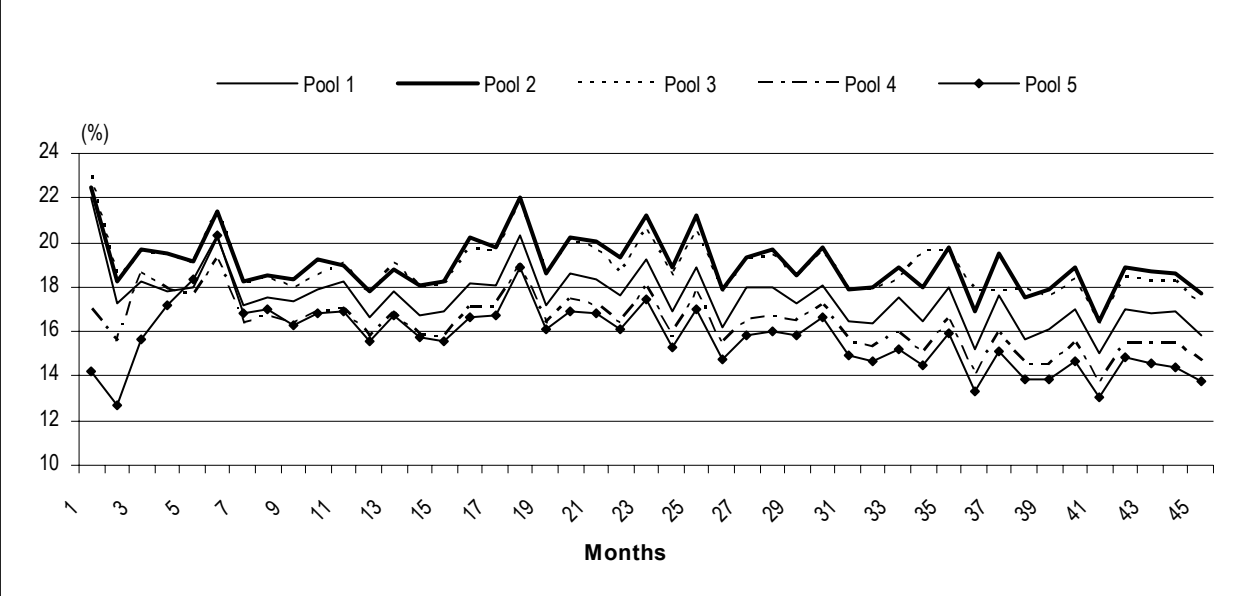
Key performance variables for credit card transactions are yield, chargeoffs, MPR, purchase rate, servicing fee, and investor coupon. The steady state concept is Fitch’s forward-looking

determination of how a given variable will perform over the next 18–24 months, taking into consideration recent performance trends and historically observed reactions to exogenous events. The steady states assumptions are not sized to include potential additions or removals, since these are evaluated prior to execution. Fitch derives steady states by analyzing the historical performance and volatility of the key variables, including vintage/static pool analysis. Pools of accounts exhibit distinct performance patterns as they season. Chargeoffs, yield, and MPR tend to achieve a steady state

Vintage Data Analysis — Yield



Vintage Data Analysis — Monthly Payment Rate



approximately 18–36 months after origination. This allows time for teaser rates, balance transfers, attrition, and early delinquencies to work their way through the pool.

This approach ensures that conservative assumptions (relative to actual portfolio performance statistics) are in place prior to applying the stress scenarios. Using steady state assumptions as the starting point from which to stress the portfolio offsets the impact of rapid growth, frequent additions, and new marketing campaigns, which may distort short-term collateral performance. The extent to which each variable is then stressed is dictated by the structure of the transaction, the quality and characteristics of the credit card portfolio, and the potential basis risk and interest rate volatility.

For unseasoned portfolios, vintage data is a key tool in setting steady states in addition to historical performance and peer comparisons. Vintage data helps remove the effects of portfolio growth by tracking a campaign of originations throughout its life. This enables Fitch to identify changes in underwriting guidelines and cardholder behavior. As illustrated in the vintage charts on this page and on page 6, the performance of different portfolios can vary substantially over time. To account for this and to ensure the assignment of conservative steady states, Fitch evaluates the portfolio in its entirety, applying higher weights to the poorer performing pools and giving less credit to better performing less seasoned pools. For example, using the vintage charts, Fitch

would likely assign a chargeoff steady state in the 7%–8% range, a yield steady state in the 18%–19% range, and an MPR steady state in the 17%–18% range, respectively.

For highly seasoned pools, Fitch relies on a combination of vintage data and historical performance to derive steady states. In addition to vintage analysis, Fitch evaluates historical performance volatility for each variable and calculates standard deviations, which are then applied to historical averages. The resulting expectation is viewed in conjunction with the vintage analysis to determine which would yield a more accurate steady state assumption.

Purchase Rate Stress

In accordance with trust documents, new receivables generated by trust designated accounts will be continuously purchased by the trust with excess allocated principal collections. It is important to consider purchase activity and how it affects the level of principal receivables in the trust and principal allocations to bondholders. As such, the higher the purchase rate (or the more stable the receivables pool), the faster ABS investors get repaid in an amortization scenario.

A full purchase rate stress has significant implications from a cash flow modeling perspective. Assuming all else is equal, a transaction with a full purchase rate stress (i.e. no new purchases being allocated to the trust) would need more credit enhancement to cover shortfalls

during a stressed, early amortization environment. The reason why additional enhancement is needed is that principal collections are allocated on a fixed basis between the seller interest and investor interests during the amortization period. That fixed percentage is established at the onset of the early amortization period and held constant until the investor interest is paid in full. This is an important structural attribute, as investors benefit from a larger allocation of principal collections throughout the payout period than they would in a fully amortizing or liquidating pool scenario.

When assessing credit enhancement levels, Fitch applies both full and partial purchase rate stresses to general purpose prime card programs. The reason for this is that most issuers are highly rated banks and finance companies with diverse funding options, and there exists an active market for portfolio purchases. Retail card programs usually are applied full purchase rate stresses, with the assumption that in a bankruptcy scenario, stores close and there is no other use for the cards. Subprime general purpose portfolios typically are applied a full purchase rate stress, reflecting the assumption that many cardholders have limited purchasing ability given their low available credit limits and the possibility that charging privileges may be revoked in an early amortization scenario.

The key assumption underlying a purchase rate stress when assessing credit enhancement levels is that the controlling entity (i.e. the company through other funding sources, a third-party purchaser, the Federal Deposit Insurance Corp. [FDIC], or the bankruptcy estate) needs to continue to finance new purchases during the amortization period. If this entity becomes unable or unwilling to do so, charging privileges will be terminated, and additional shortfalls will be incurred on the portfolio during the payout period.

Servicing Fees

From a ratings perspective, assumptions regarding the size and priority of servicing fees are important considerations, as they influence available cash flow and ultimate loss coverage. Changes to those assumptions will have a direct impact on credit enhancement levels. When analyzing the creditworthiness of a credit card securitization, key considerations are whether the stated fee adequately compensates an issuing entity or the backup entity to service the portfolio, and whether cash flow scenarios are being modeled with the servicing fee appropriately positioned in the waterfall. In situations where the stated servicing fee does not adequately cover actual costs in Fitch's opinion, a higher fee is modeled

throughout the stressed environment. The higher fee results in additional credit enhancement necessary to cover shortfalls during the amortization period.

As with chargeoffs and, for floating-rate transactions, interest rates, servicing fee assumptions are key expense-side considerations, as they influence available cash flow and ultimate loss coverage. As previously stated, key servicing fee assumptions, from a ratings and credit enhancement perspective, address the placement of the servicing fee in the cash flow waterfall and the adequacy of the fee to cover servicing costs. Changes to these assumptions will have a direct impact on credit enhancement levels and/or existing ratings, all else being equal.

With respect to the placement of servicing fees in the waterfall, Fitch models servicing fees in a senior position, or *pari passu* with class interest, during its stress scenario. This holds true regardless of what the underlying documents state. This approach is based on Fitch's expectation that a replacement or backup servicer will always command a senior position during distressed situations.

In terms of the actual servicing fees paid, Fitch ensures that the fees paid adequately cover the costs incurred in the stressed environment regardless of what the actual documents provide for. In doing so, Fitch analyzes the seller/servicer's financial strength and operating expenses, its servicing history and expertise, and the portfolio composition and account type. Fitch also incorporates peer comparisons into its analysis to ensure that an appropriate market rate is being charged for portfolios with similar compositions.

When modeling subprime portfolios, the increased servicing fee generally results in a 1:1 corresponding increase in credit enhancement (i.e. increasing the servicing fee by 200 basis points generates an additional 200 basis points in credit enhancement). For prime portfolios, the impact is slightly less than 1:1 given the shorter payout period.

Fitch evaluates the presence of any alternative servicing agreement as per the legal documents. In some trusts, a third party typically consents to service the portfolio for a predetermined fee in the event the original seller/servicer is no longer able to do so or if certain conditions are breached. Credit for the predetermined fee is based on a review of the backup servicing agreement, the types and level of servicing to be provided, the transferability of servicing operations and platform, and the financial and

operational strength of the parties involved. Depending on the terms of the agreement, any ongoing backup servicing fees would be modeled out of the trust cash flows.

Interest Rate Risk and Basis Risk

In the second quarter of 2006, Fitch developed new structured finance interest rate stress criteria for transactions involving USD LIBOR. The new criteria incorporate the probability of future interest rate movements derived from market expectations as evidenced by swap and swaption pricing. Four-week rolling averages of USD LIBOR swap prices are used to determine the term structure of interest rates while volatility is based upon swaption pricing. The mean reverting tendency of forward USD LIBOR helps to maintain stability. By taking advantage of information in the options market, rather than relying upon a methodology that applies fixed ramps to spot USD LIBOR, the new criteria is more adaptive and can incorporate dynamic market changes to expectations, such as the flattening of the yield curve or historically low interest rates. Actual USD LIBOR values within the credit card default model are updated monthly using Fitch's projected rates. In addition, Fitch publishes USD LIBOR vectors for each rating category, which are available for download each month.

Basis risk exists in credit card ABS since many of the transactions are priced using USD LIBOR, while the underlying collateral is largely dependent on the U.S. prime rate. An analysis of incidents of widening spread between three-month USD LIBOR and prime rate (three-month Treasury bill) between January 1990 and December 2005 showed a significant correlation between magnitude of the spread and underlying individual interest rates. Regression analysis showed that basis risk should be adjusted for interest rate changes as well as its independent movement. The basis risk for credit card ABS transactions is determined using Fitch's USD LIBOR projections and the historical relationship between spread and the USD LIBOR. Accordingly, basis risk varies for each rating category, and for rising and falling interest rate scenarios.

Investor Coupon

For fixed-rate ABS, Fitch uses the expected pricing level of the securities as the transaction's investor coupon expense. For floating-rate card securities, Fitch assumes that the investor coupon rises dramatically and haircuts the issuing entity's ability

to reprice the portfolio in such an environment; this results in spread compression, whereby the portfolio yield retains only a fraction of its initial spread over the index.

Additional credit enhancement is needed to cover the potential basis risk and interest rate risk between a rapidly rising investor coupon and lagging floating-rate or low fixed-rate credit cards, where trust expenses increase faster than trust earnings. This risk is issuing entity- and deal-specific and is estimated based on credit card interest rates, the frequency of credit card floating-rate resets, the investor coupon index, the frequency of investor coupon resets, and, to a limited extent, the issuing entity's ability to change credit card interest rates. The amount of additional enhancement needed may vary from 2.5% to more than 4.0%.

For example, if the ABS investor's coupon floats off the one-month USD LIBOR, a deal with credit cards that are priced off the prime rate and reset monthly would be exposed to less interest rate risk than a deal with cards that are fixed rate or reset quarterly. Therefore, the monthly reset portfolio would warrant less additional credit enhancement than the portfolio with fixed-rate cards.

■ Forms of Credit Enhancement

As unsecured revolving debt obligations, credit card receivables offer no collateral in the event of cardholder default. As a result, recoveries are limited to the strength of the issuing entity's servicing operation and/or their recovery outsourcing strategies and controls. To achieve investment-grade ratings, credit enhancement is needed to insulate investors from fluctuating payment patterns and cardholder chargeoffs, as well as other disruptions of cash flow to the trust. Common forms of credit enhancement are subordination, overcollateralization, spread accounts, and/or cash collateral accounts (CCAs). Most transactions use a class A/B/C structure, although some issuers, primarily those with limited operating history, may elect to purchase third-party support in the form of bond insurance.

Excess Spread

The yield on credit cards, which is high relative to other types of consumer loans, should cover the payment of investor interest in addition to the servicing fees, and still be sufficient to reimburse the trust for any receivables charged off during the month. The remaining yield, or excess spread, provides a rough indication of the financial health of a transaction.

Excess Spread Calculation

Variable	Components	Performance Factors	Impact on Excess Spread	Example (%)
Gross Yield	Finance charge collections and fee income, interchange, and recoveries	Floating- vs. fixed-rate APRs, issuer's ability to reprice accounts, and number of collection days per month, among others	Positive	16.0
Gross Chargeoffs	Delinquencies and bankruptcies	Underwriting criteria, servicing operations, chargeoff and re-age policies, and receivable growth rate, among others	Negative	(7.0)
Interest Expense	Certificate or note coupon	Fixed- vs. floating-rate indexed, credit quality, issue liquidity, investor demand, and interest rate environment	Negative	(2.0)
Servicing Fees	Fixed at closing	Portfolio credit quality, seller/servicer strength, and servicing transfer, among others	Negative	(2.0)
Excess Spread	N.A.	N.A.	N.A.	5.0

APRs – Annual percentage rates. N.A. – Not applicable.

Available excess spread may be shared with other series, used to pay fees to credit enhancers, deposited into a spread account for the benefit of the enhancers, or released to the seller.

Credit for excess spread may be given for tranches rated 'BBB' and below. Fitch analyzes the historical volatility of excess spread, and determines the amount of excess and the duration for which it is expected to be available for trapping in a spread account. Fitch's 'BBB' stress scenarios were derived from a study of several credit card portfolios in the Northeast in the early 1990s and provide a realistic benchmark on which the stresses are based. These stresses were recently validated. (*see Appendix 1 – Credit Card Stress Validation Study: Detailed Findings and the Fitch Northeast Study, page 19*).

If the deal is performing as expected, the cash flow from the pool of credit cards will be sufficient to make all principal and interest payments to investors and pay all expenses, with plenty of excess remaining. In the table on page 10, the 5% excess spread would have to be depleted (i.e. decrease in yield, increase in coupon, and/or increase in chargeoffs) before there would be a cash shortfall. However, if the excess spread falls below zero, other credit enhancement must be available to make up the shortfall.

Subordination

Senior/subordinate structures offer different types of investor ownership in the trust: senior participation in the form of class A certificates and mezzanine, and subordinate participations in the form of class B and C certificates or notes. In the first loss position, class C absorbs losses allocated to class A that are not already covered by excess spread, more subordinate tranches, or CCAs. Likewise, class B covers shortfalls once excess spread and class C have been depleted. Such draws on

the subordinate certificates or notes may be reimbursed from future excess spread, if available. Class C tranches typically have a dedicated spread account available to cover its shortfalls. Principal collections are allocated to the subordinate investors only after the senior certificates are fully repaid.

Overcollateralization

OC, also referred to as the excess collateral amount, is the difference between the amount of receivables backing a series and the principal amount of the series. It is used to provide extra enhancement to the deal by allocating additional receivables to a subordinated position. Since OC is the seller's retained interest in the deal, it is in the first loss position and absorbs shortfalls before the bottom-most tranche.

Spread Account

For many trusts, the class C tranche derives credit enhancement from a dedicated spread account. The spread account is a dynamic reserve account, which is typically not prefunded. Deposits are made to the spread account when the portfolio begins to experience a deteriorating performance, which causes excess spread to fall below preset triggers. At that point, the excess spread still being generated is diverted to the spread account, instead of being released to the seller. In accordance with a predefined schedule, the spread account will continue to trap excess spread until the account reaches a certain level commensurate with the three month average excess spread. Fitch evaluates the ability of the spread account to trap funds by analyzing cash flows over a 12–18-month decline scenario. Withdrawals from the spread account can be made to cover interest on the class C piece, but principal payments are not made until either the class A and B pieces are paid in full or the legal final maturity date is reached.

Cash Collateral Account (CCA)

A CCA is simply a segregated trust account, funded at the outset of the deal, that can be drawn on to cover shortfalls in interest, principal, or servicing expense for a particular series if excess spread is reduced to zero. The CCA is funded by a loan from a third-party bank or cash contribution by the issuing entity; the loan will be repaid only after all classes of certificates or notes of that series have been repaid in full. Cash in the CCA will be invested in the highest rated short-term securities (i.e. qualified investments), all of which will mature on or before the next distribution date. Draws on the CCA may be reimbursed from future excess spread.

Insurance

Some first-time issuers, particularly those originating receivables in the subprime segment of the market, have issued credit card ABS that is fully supported by a bond insurer. In this event, the ratings on the insured bond will be linked to and will move with the financial strength rating of the insurer.

■ Master Trust Features

Master trusts generally are described as either socialist or nonsocialist, depending on its cash flow allocation mechanics. Generally, socialist trusts allocate collections and shortfalls across the trust based on the combined needs of all series. Nonsocialist trusts allocate based on each series' pro rata share. Either type of master trust may be set up with one or several reallocation groups. Most trusts have only one group, in which all series are included. Depending on the structure of the trust, series within the same group may share principal and/or excess spread, have the ability to discount, or fix allocations of finance charges.

Principal Sharing

For all series in the same group, the trust allows distribution of excess principal collections to any series in its accumulation or amortization period. Since a series in its revolving period has no principal payment requirements, principal collections allocated to that series are available for reallocation. In addition, principal collections in excess of a series' controlled amount are available for reallocation. The principal reallocation feature provides investors with more assurance of timely principal repayment, with no additional risk to other series.

Excess Spread Sharing

There are several ways excess spread may be shared within a series of a group. Some groups may be set up as a socialized group, whereby finance charge

collections are allocated to each series based on need. The interest expense for all series in the group will be the weighted average expense for each series. Thus, the highest coupon series will receive the largest allocation, and the lowest coupon will receive the smallest allocation. The excess spread for each series will be the same, since each has the same coupon expense. In effect, socialized groups or trusts share excess spread at the top of the cash flow waterfall. Citibank Credit Card Master Trust, Citibank Issuance Trust, Chase Issuance Trust (formerly known as Bank One Issuance Trust), HSBC Affinity Credit Card Master Note Trust I, and MBNA Credit Card Master Note Trust are examples of socialized trusts.

Other trusts may allocate finance charge collections, on a pro rata basis, based on size. Thus, each series will receive the same proportionate amount of finance charges, and the series with the lowest coupon expense will have the largest amount of excess spread. This amount will be available for reallocation to other series, particularly high coupon series, if its excess spread is reduced to zero.

Discount Option

Many trusts permit the transfer of receivables to the trust at a discount, which increases the portfolio's yield by including principal collections as finance charge collections. This allows an issuing entity to artificially increase excess spread. A potential risk of discounting is that a deteriorating pool of assets can continue to revolve with deeper discounts, which increases potential economic exposure during early amortization. Fitch will receive notice from the issuing entity prior to discounting or changing the discount rate.

Fixed Allocation of Finance Charges

This feature permits a larger percentage of finance charge collections to be allocated to investors after an amortization event, when cash is needed most. After an event is triggered, a portion of the seller's share of finance charge collections will be made available to cover shortfalls in interest or servicing expense (or chargeoffs) in the investors' share. For example, if the seller's interest totaled 10% when early amortization was triggered, 90% of finance charge collections would be allocated to the investor interest until it was repaid in full. In transactions without this feature, investors receive their pro rata share of finance charge collections throughout the payout period. Cash flow simulations show that this overallocation of finance charges provides a significant amount of support even under

Fitch Base Case Stress Scenarios with Fixed Allocation of Finance Charges

(%)

Variable	Steady State Assumption	Fitch Stress Scenarios			'BB' Northeast Study Timing	
		'AAA'	'A'	'BBB'	Study	Timing
Yield	17.0	35.0	25.0	20.0	Flat	Down – Overnight
Monthly Payment Rate	12.0	45.0	35.0	30.0	11.6	Down – Overnight
Chargeoffs	7.0	4.5	3.0	2.3	1.8	Six-Month Ramp
Purchase Rate	100.0	0.0	0.0	0.0	—	—
Enhancement (Fixed-Rate)	—	14.3	7.5	4.8	—	—
Enhancement (Floating-Rate)	—	13.7	6.3	2.7	—	—

stressful scenarios, thus reducing overall credit enhancement needs.

For example, compared with the credit enhancement shown in the table above, the model results for fixed allocation of finance charges are generally 200–300 basis points lower for prime trusts.

This feature does not provide any benefit in the event that Fitch determines that new receivables will not flow into the trust, as is the case with small retailers that are likely to file for bankruptcy protection under Chapter 7, where the principal balance of the trust declines in lock step with the amortization of the securitization. In this case, there is not any seller’s share available to provide additional cash flow shortfall coverage.

Allocations of Cash Flows

Regardless of whether the trust is a stand-alone or a master trust, the same general payout structures are used for credit card securitizations.

Revolving Period

During the revolving period, finance charge collections are used to cover trust expenses (chargeoffs, coupon, and servicing fees) and principal collections are used to purchase new receivables generated in the designated accounts or a portion of the seller’s or transferor’s participation, if there are no new receivables. If new receivables are insufficient to maintain the necessary balance, early amortization will be triggered as the seller’s or transferor’s participation would have fallen below the required minimum amount. In some cases, excess principal collections will be deposited in an excess funding account and held until the seller or transferor can generate more credit card receivables. The risk of early amortization induces the seller/transferor to maintain its participation at a level above the minimum. The revolving period continues for a predetermined length of time, which has ranged from two to 20 years.

Controlled Amortization or Controlled Accumulation

At the end of the revolving period, the controlled amortization or controlled accumulation period begins. In the case of controlled amortization, which typically runs for 12 months, principal collections are no longer reinvested, but are paid to investors in 12 equal monthly payments. The payments are sized at 1/12th of the invested amount, so investors can be repaid on a predetermined schedule. Some series may have longer or shorter controlled periods and, thus, may have smaller or larger controlled amortization payments. Any principal collected in excess of the controlled amount will be reinvested in new receivables, as in the revolving period. Interest will be paid only on the outstanding amount of securities as of the beginning of the monthly period.

Controlled accumulation follows a similar procedure, except that the controlled payments are deposited into a trust account, or principal funding account (PFA) every month and held until the expected maturity date. At the end of the accumulation period, the full invested amount will have been deposited into the PFA, and investors will be repaid their principal in a single payment on the expected maturity date. Funds deposited in the PFA will be invested in short-term, highly rated investments. Because the interest earned on these investments is likely to be less than the note coupon (i.e. negative carry), reserve accounts typically are funded prior to the commencement of the accumulation period. If funds in the PFA are not enough to repay investors on the expected payment date, principal will continue to be passed through to investors up until the legal final maturity date at which time the trust would sell the remaining receivables to pay investors, if necessary.

The length of the controlled accumulation period varies and can usually be reduced to one month if it passes a pre-defined “payment rate test” which, using historical performance, determines whether enough principal will

be collected in the month to make full payment to the investors. Fitch also considers what additional obligations may become due during that time period to ensure that cash flow is adequate to meet demand. Interest payments will be made each month on the total invested amount. With this structure, investors will continue to receive only interest payments throughout the accumulation period.

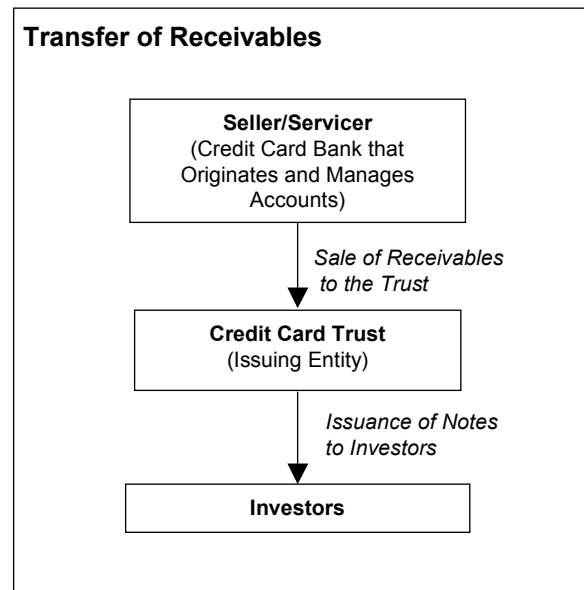
■ Financial Structures

Over time, many structural developments have taken place, from the advent of the master trust to the issuance of ‘BBB’ rated class C tranches. Together, with the emergence of Employee Retirement Income Security Act (ERISA) eligible issuance trusts, issuing entities have benefited from enhanced issuance flexibility, which has increased demand for credit card-backed securities. Fitch anticipates continued expansion in the investor base, as credit card-backed securities continue to gain acceptance as an attractive alternative for traditional fixed-income investors, while remaining a core asset for ABS investors.

Given the short average life of a credit card receivable, an amortizing structure, such as those used in automobile and mortgage deals, would prove inefficient. In an amortizing structure, the principal and interest collections on the pool of loans are passed directly through to investors on a monthly basis. An amortizing structure for credit card-backed securities would result in a short average life and lumpy, unpredictable repayment to investors. A revolving structure gives the issuing entity medium- to long-term financing and provides the investor with a predictable schedule of principal and interest payments, assuming early amortization is not triggered.

The typical transaction structure has three different cash flow periods — revolving, controlled accumulation or amortization, and early amortization. Each period performs a distinct function and allocates cash flows differently. This payment structure is designed to mimic a traditional corporate bond, in which interest payments are made every month, and principal is paid in a single bullet payment on the maturity date. In the revolving period, interest is paid, but principal payments have not yet commenced; in the controlled accumulation or amortization period, interest is paid and a defined amount of principal collections are directed to a designated account or paid immediately to the investor each month for the duration of the period; while in the early amortization period interest is paid and principal is repaid as quickly as possible.

Transfer of Receivables



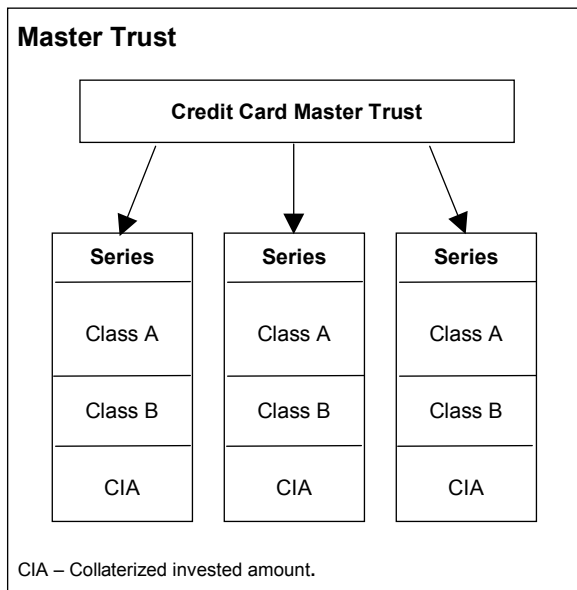
Collections on the receivables are categorized as either finance charge or principal collections. In each of the three periods, finance charges are typically allocated on a floating basis, as a percentage of the current invested amount to the receivables balance. Monthly finance charge collections are used to pay the investor coupon and servicing fees, as well as to cover any receivables that have been charged off in the month. Any income remaining after paying these expenses is commonly referred to as excess spread and released to the seller. However, principal collections are allocated differently during each of the periods.

A trust is either structured as a stand-alone or master trust (*see Trust Types, below*). Regardless of which, the same general payout structures are used for credit card securitizations.

■ Trust Types

Master Trust

The master trust structure allows issuing entities to sell multiple securities from the same trust, all backed by the same collateral pool of receivables. For example, say an issuing entity designates one million accounts (representing \$1 billion of receivables) to a trust, then transfers the associated receivables to the trust and issues multiple securities in various denominations and sizes. When more financing is needed, the issuing entity designates additional accounts to the same trust and issues more securities. The receivables are not segregated in any way to indicate which series of securities they support. Instead, the receivables are



pooled such that all of the receivables support all of the securities issued by the trust.

The efficiency of this structure benefits the investor, since the cost and effort associated with issuing a new series from a master trust is lower than creating a new trust for every issue. In addition, the pool of receivables will be larger and typically more diversified, making it less likely to be subject to seasonal or demographic concentrations; this homogeneity facilitates investments decisions. For example, if an issuing entity transferred only receivables from accounts originated in one year to a stand-alone trust, and the next year transferred all the receivables originated in that following year to a different trust, the two would perform differently based on the underwriting standards used, the terms (APR and minimum monthly payment) offered, and the effects of market competition on the offer and its relative attractiveness to consumers.

If a master trust had been used in the same example, both series would depend on the same pool of accounts, one-half of which were originated in one year and the rest in the following year. Credit differences between the two series would be derived from the structure of each deal, rather than the underlying receivables. However, investors must consider that the composition of accounts in a master trust pool may change dramatically over time, as new accounts are added and as some existing cardholders cancel or stop using their accounts. Fitch is notified of each addition and removal. The risk of a dramatic shift in pool composition through frequent and/or voluminous additions or removals is

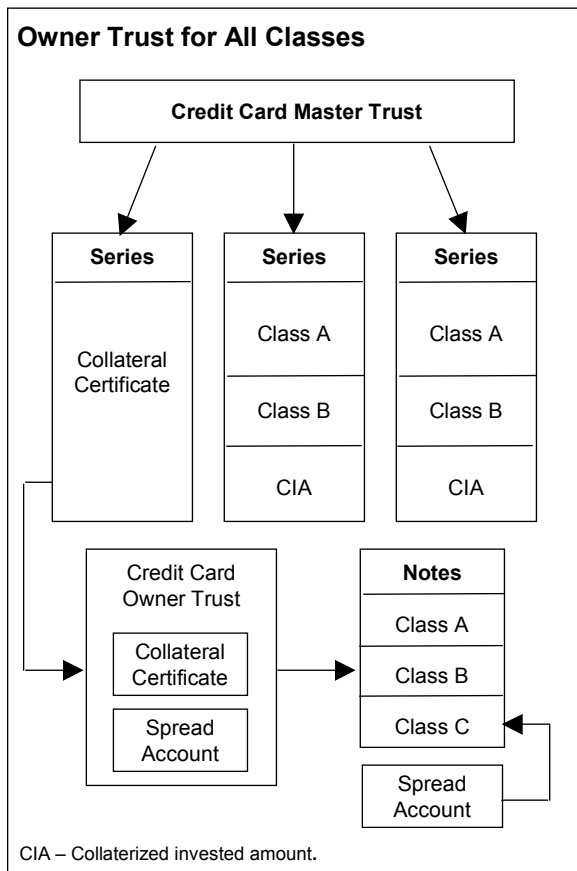
mitigated by means of Fitch’s continuous surveillance efforts, which include a review of the characteristics of accounts and a pro forma review of the effect of the removal or addition on the trust. Other efficiencies can be included in a master trust, including the sharing of principal and finance charges between series (*see Master Trust Features, page 11*).

In addition to issuing investor securities, master trusts typically require the transferor to maintain an ownership interest (referred to as the transferor’s participation or seller’s interest) in the trust, often in the range of 4%–7%. This participation requirement performs several critical functions. It acts as a buffer to absorb seasonal fluctuations in credit card receivables balance, is allocated all dilutions (balances canceled due to returned goods) and fraudulently generated receivables that have been transferred to the trust, and provides additional incentive for the seller to maintain the credit quality of the pool since they own a portion of it. To ensure that the certificateholders’ or noteholders’ invested amount is always fully invested in credit card receivables, the size of the seller’s participation must remain at or above a minimum percentage of the trust receivables balance. The seller’s participation does not provide credit enhancement for investors, as it is allocated its pro rata share of collections and losses and is not available to cover principal shortfalls. Furthermore, it is only allocated excess finance charge cash flows from the receivables pool after payment of the investor coupon, the collateral pool servicing fee, chargeoffs, and other trust expenses. For trusts that do not require a minimum seller or transferor interest, additional credit enhancement is built into the transactions to cover fraud and dilution risk.

The seller is obligated to add credit card accounts to the trust if the amount of its participation falls below the required minimum. If the seller cannot provide additional accounts, early amortization will occur (*see the Amortization Triggers box, page 16*). Before a material account addition (generally defined as an increase of more than 20%, or after a series of increases exceeding 15% over three months) is completed, Fitch reviews the collateral composition of the pool to determine whether it is consistent with the point in time when credit enhancement levels were established. Furthermore, most master trusts permit the random removal of accounts and their associated receivables from the trust, subject to rating agency review.

Owner Note Trusts

The owner trust for the class C notes was developed for placement of what is commonly the most

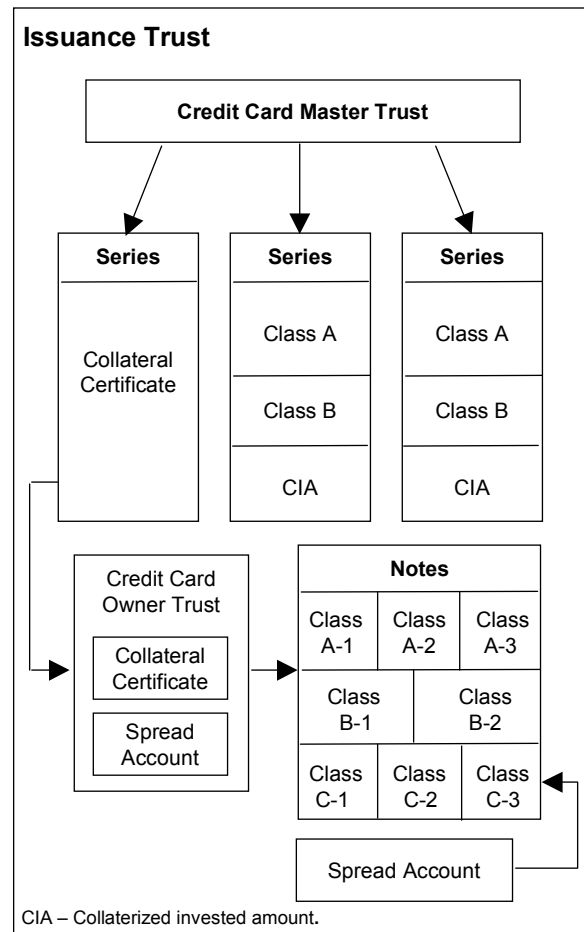


subordinated class of debt in credit card ABS, the collateral invested amount (CIA). This structure transfers the cash flows allocated to the CIA to an owner trust, which subsequently issues notes supported by its interest in these cash flows. Under this format, legal counsel has been able to provide a clean debt-for-tax opinion on the notes, making the notes ERISA-eligible and, thus, dramatically expanding the investor base.

Further enhancements to the owner trust structure enabled issuers to create Class A, B, and C ERISA eligible notes. A collateral certificate was issued by the master trust to an owner trust and the underlying cash flows were allocated to different tranches. This structure was later refined by establishing a new master owner note trust to issue notes directly without the need for the two step transfer (see chart above left).

Issuance Trusts

An issuance trust is a delinked structure, meaning that each class can be sold independently and can have different terms, maturities, and coupons. Most structures enables issuance of both traditional, match-funded A, B,



and C notes and independently issued senior and subordinate notes with unmatched maturities. By employing the latter “multiple issuance series” paradigm, issuing entities can manage financing opportunities more effectively by strategically tapping pockets of investor demand across ratings. The ERISA-eligible legal structure complements this flexibility by broadening the potential base of buyers to include the largely unused pension fund universe.

One of the unique features embedded in the multiple issuance series technology is that all of the subclasses of subordinated notes support the senior classes of that series (i.e. it uses cross-collateralization). Although notes can be offered on any date, senior notes may only be offered if the required subordinate amount, as outlined in the transaction’s legal documents, is available at issuance, without regard to the expected maturity of the subordinated notes. Therefore, subordinate notes, which support the senior notes, could have an expected principal payment date prior to the expected principal payment date for senior notes. In such instances, replacement

Amortization Triggers*

Seller/Servicer

1. Failure or inability to make required deposits or payments as per the legal documents.
2. Failure or inability to transfer receivables to the trust when necessary.
3. False representations or warranties that remain unremedied, typically for 60 days.
4. Certain events of default, bankruptcy, insolvency, or receivership of the seller or servicer.

Legal

5. Trust becomes classified as an investment company under the Investment Company Act of 1940.

Performance

6. Failure to pay principal in full on the expected final date.
7. Three-month average excess spread falls below zero.
8. Seller’s participation falls below the required level.
9. Portfolio principal balance falls below the invested amount.

Fitch believes these basic triggers address the possible worst-case scenarios applicable to the seller/servicer, trust, or portfolio. Some sample scenarios are outlined below.

Scenario	Covered By
Seller/Servicer Fraud	1, 2, and 3
Default of Seller/Servicer	4
Taxation of Trust	5 and 7
Rapidly Rising Chargeoffs	7
Federally Imposed Interest Rate Caps	7
Rapidly Declining Payment Rates	6
Whipsaw Interest Rate Scenarios	7
Economic Recession/Depression	7
Spikes in Dilution and/or Fraudulent Charges	8 and 9
Declining Pool Balance Due to Competition	8 and 9
Reduction in Credit Card Usage	8 and 9

*All credit card transactions contain deal- and issuer-specific amortization events. The events outlined above are basic, common triggers that are necessary for most transactions.

subordinate notes need to be in place before repaying the maturing subordinate notes.

If replacement notes are not issued prior to the subordinated notes’ expected payment date, the allocated principal collections will be deposited into a principal funding account designated for the senior notes they support until the senior notes become fully funded. This ensures protection remains in place for senior noteholders and may result in the subordinate notes being repaid later than expected. Timing of repayment of the subordinate notes under this scenario depends on the principal payment rate at that time. Fitch is comfortable with this mechanism, as it enables timely payment of interest and principal by each note’s legal final payment date under a stressed environment commensurate with the highest ratings assigned.

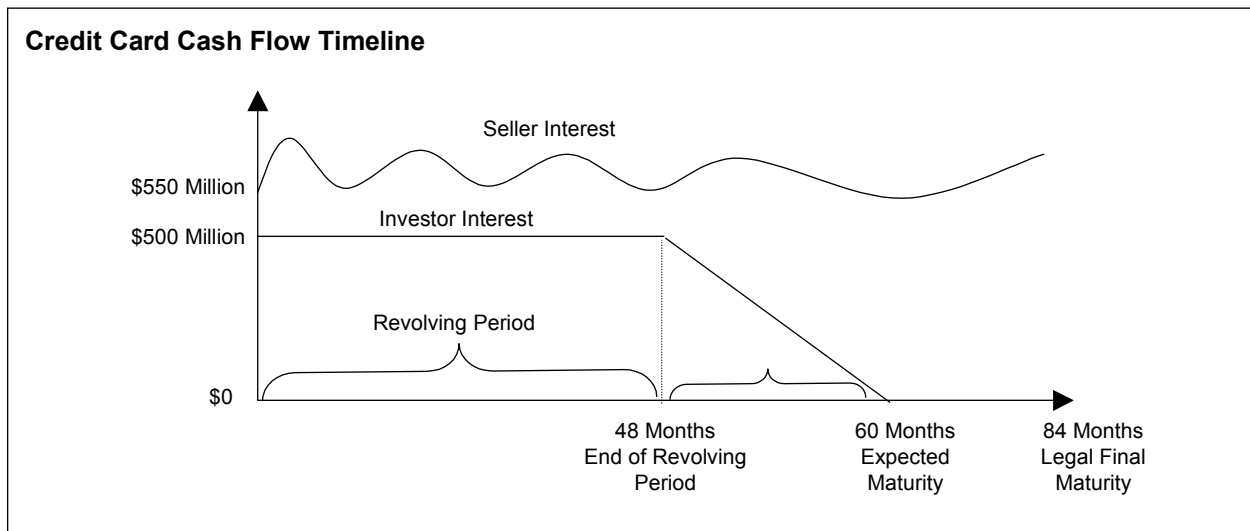
Early or Rapid Amortization

Early amortization is a common structural feature in credit card ABS. Typically, if predefined early amortization or payout events are breached, the transaction automatically enters an early or rapid

amortization period and begins to repay investors immediately before the expected payment date. Common early amortization triggers include breaches of representations and warranties by the seller/servicer, failure of the seller/servicer to transfer receivables to the trust when necessary, and certain events of default, bankruptcy, or insolvency of the seller or servicer.

Early amortization also may be caused by collateral performance events tied to excess spread, credit losses, or MPR. The most common of these is an excess spread or base rate trigger, whereby a transaction enters rapid amortization if the three-month average excess spread falls below zero. While excess spread generally is defined as series portfolio yield minus interest expenses, allocated chargeoffs, servicing and administration fees, and net derivative payments), it may differ slightly across trusts due to the ability to incorporate shared excess spread in this calculation.

Severe asset deterioration, problems with the seller/transferor or servicer, or certain legal troubles can trigger early amortization at any point during the



transaction's life, whether it is revolving, amortizing, or accumulating (see *Amortization Triggers* box, page 16). In such cases, the transaction automatically enters the early amortization period and begins to repay investors immediately, although earlier than expected or, in limited circumstances, later than expected. All principal collections and any amounts in the PFA are to be distributed to investors, with senior certificates or notes being paid off first. Principal distributions are to be made to subordinate note investors only after senior note investors are fully repaid. Principal collections during an early or rapid amortization period are allocated on a fixed basis as a percentage of the invested amount to the receivables balance at the onset of early amortization. This original fixed percentage is held throughout early amortization until all classes have been repaid.

Early Amortization Risk

Fitch's ratings typically address the likelihood of repayment of all principal and interest in a full and timely manner as promised. However, credit card transactions do not promise repayment of principal on any specific date. Instead, they define an expected payment date and a legal final maturity date. The circumstance that would lead to earlier payment would be the commencement of an early amortization period. Late repayment could be caused by an early amortization event close to the expected payment date coupled with very low payment rates during the controlled amortization or controlled accumulation period, during which principal collections would be insufficient to cover targeted payments. Every series defines a termination date, also referred to as the legal final maturity date, which is usually set 24–36 months after the expected payment date. All principal must be paid on or before this date. Fitch's

ratings address the likelihood of principal payment in full by the series termination date.

The amount of credit enhancement for any transaction does not affect the probability of early amortization, nor do assigned ratings reflect the likelihood of this occurrence. As such, early amortization risk is an important consideration for investors when purchasing credit card securitizations, particularly in the secondary market where deals may trade in excess of par value. It should be noted that some transactions possess structural features that mitigate the possibility of early amortization risk by trapping principal collections in a segregated trust account until the expected payment date.

For most deals, early amortization is triggered when three-month average excess spread falls below zero. Fitch investigates instances when one-month excess spread falls below 2% to assess whether it is due to a data anomaly or to an increase in early amortization risk. Several risk factors should be considered when evaluating data exceptions to assess early amortization risk, including:

- Chargeoff volatility which directly influences excess spread.
- APR pricing position which determines an issuing entity's ability to reprice the cards.
- Fixed- or floating-rate investor coupon which could pressure excess spread.
- Seller/servicer quality and strength.
- Ability to discount new receivables into the trust which will increase excess spread.
- Sharing of excess spread, which may provide early amortization protection.
- Availability of additional receivables to be added to the trust.

- Existence of variable funding notes or certificates, an extendible note program, or a commercial paper series.

Although early amortization triggers benefit investors by forcing prompt repayment of principal when the health of the trust is compromised, investors may then be exposed to elevated prepayment and reinvestment risk. Fitch's ratings address a bond's credit issues, namely, the timely payment of interest and principal as well as the likelihood of the repayment of all principal due prior to the legal final maturity date. As such, Fitch does not consider prepayment and reinvestment risk to be credit issues and these risks are not addressed by the ratings.

■ Legal Structure and Opinions

In credit card ABS, receivables generated from the credit card accounts are transferred by the seller into a bankruptcy-remote trust special purpose vehicle that functions as the issuing entity of the credit card ABS. The seller remains the owner of the credit card account and transfers the outstanding receivables, if any, to the trust and pledges to transfer any future receivables generated by the account, which the trust typically purchases at par.

During the rating process, Fitch reviews the legal structure of the transaction to determine that bankruptcy

of the seller/servicer would not impair the timeliness of payments on the securities. Fitch generally receives and reviews legal opinions to the effect that the transfer of the receivables to the trust constitutes a true sale and not a secured financing, and the assets of the trust would not be consolidated with those of the seller/servicer in the event of bankruptcy. Fitch also receives a "debt for tax opinion" stating that the issuance may be characterized as debt for federal income tax purposes, and that the sale would not result in the immediate recognition of income by the issuing entity. Furthermore, Fitch typically receives and reviews opinion of counsel that the trustee will have a first-perfected security interest in the assets transferred to the trust.

One of the central tenets of securitization is that the trust from which securities are issued is bankruptcy remote, hence outstanding debt will be affirmed and investors will continue to receive interest and principal payments despite receivership of the seller/servicer or its parent company. Although the FDIC is not required to pay post-receivership interest on securitized debt, Fitch believes the FDIC, as receiver of a failed bank, would seek to maximize the value of the bank's business. As such, outstanding securitizations would be maintained in order to enhance value, reduce pressures on liquidity, preserve capital requirement levels, and to avoid market disruption and concomitant adverse pricing effects.

■ **Appendix 1 — Credit Card Stress Validation Study: Detailed Findings and the Fitch Northeast Study**

The dataset compiled for the validation study contained more than 38,000 observations per variable (i.e. yield, chargeoffs, and MPR) from 123 trusts, including discrete trusts from the early 1990s, as well as more than 800 series issued from various master trusts.

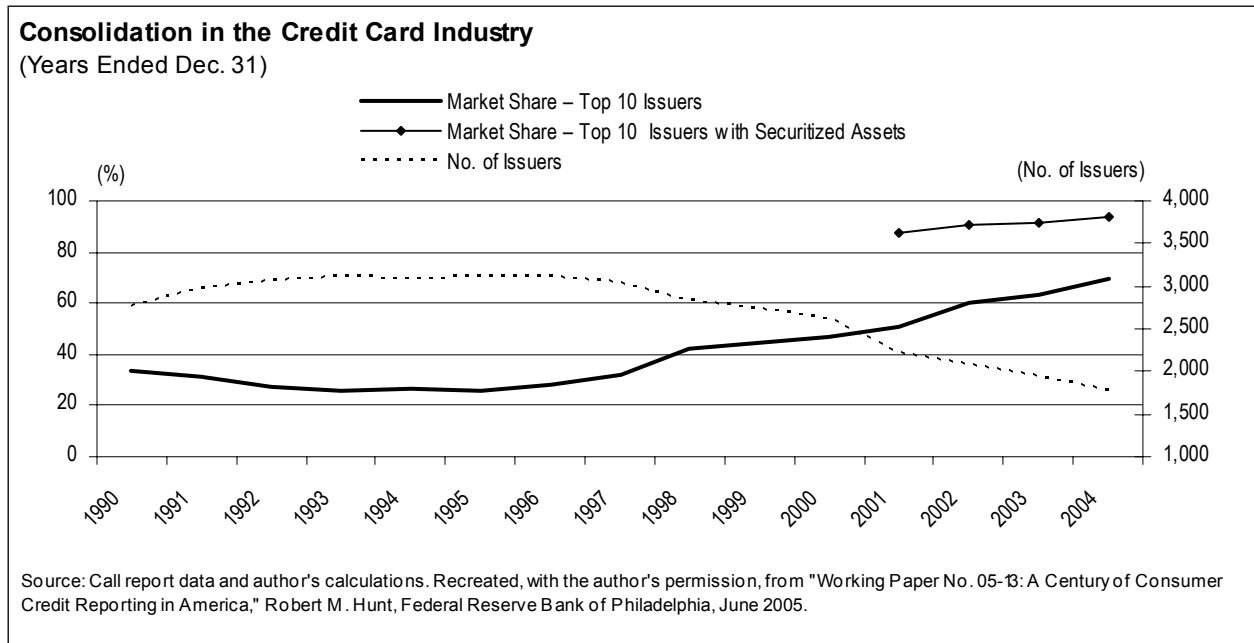
This observation window included two national recessions: the 1990–1991 recession and the 2001 recession. Although the 2001 recession was equal in duration to the recession of 1990 (eight months, according to analysis by the National Bureau of Economic Research), it was not as severe, and the economy did not take as long to recover. Data from the Bureau of Economic Analysis indicates the U.S. economy took four quarters to exceed its prior peak in the 1990–1991 business cycle, while it took just one quarter to recover from the 2001 recession. There was also extensive consolidation among issuers during this period (*see chart below*).

The historical analysis demonstrated that Fitch’s stresses are conservative though not draconian. The study includes recession and vintage studies that enable Fitch to formulate stresses to apply to higher investment-grade ratings despite the lack of actual observations.

To validate the stresses, periods of volatility were analyzed by reviewing time series data for yield, MPR, chargeoff, and delinquencies. The observations were standardized and rank ordered, then percentiles were developed and matched up with the relevant stress benchmarks for different rating categories. The highest ranking observations were examined to determine how far they deviated from the descriptive statistics compiled within the trust, as well as from the overall industry. The percentage change of the observations by percentile was compared with the current stresses, which led to a determination that the stresses were both adequate and reasonable.

Given the low incidence of performance and rating volatility on credit card ABS, potential default scenarios cannot be constructed using historical performance alone. In order to create stress benchmarks, the chargeoff volatility between the 1990–1991 recession and the 2001 recession was compared.

Due to intense competition, underwriting standards were loosened just as the economy began to slow in 2001. Vintage data show that the 2001 vintage is a universally poor performer throughout the industry. Vintage data from the two recessionary periods were compared with each other, as well as with nonrecessionary periods, to simulate the impact that underwriting changes have as a portfolio withstands difficult economic climates.



Fitch Northeast Study

To develop criteria for credit card performance under realistic economic stress scenarios, Fitch analyzed credit card-issuing entities' portfolios during the economic downturn of the early 1990s. Using data supplied by various industry sources, including several national credit card-issuing entities, Fitch isolated the performance statistics for specific regions. Fitch then compared chargeoffs, MPRs, and yields on these regions during the 1990–1992 recession. These realistic scenarios are used as a basis for applying lower investment-grade ratings and are scaled up significantly for higher investment-grade ratings.

Using 1989 as a base year (pre-recession), Fitch determined that the Northeast, including Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut, was the worst performing region in the U.S. The information for the comparison was compiled using a composite credit card portfolio during the 1990–1992 recession.

The dramatic increase in chargeoff rates drastically reflected higher personal bankruptcy and unemployment levels in certain portions of the Northeast. Bankruptcy rates are considered a significant driver of credit card chargeoffs, representing up to 50% of credit card losses.

The national increase in chargeoffs was less severe than that of the Northeast, due to the fact that the U.S. as a whole rarely experiences the same level of

Bank of New England Collapse

Date	Fitch's Rating Downgrade	
	From	To
August 1989	'A'	'BBB+'
December 1989	'BBB+'	'BB+'
January 1990	'BB+'	'CCC'
January 1991	'CCC'	'D'

economic changes as individual regions concurrently. It is much more typical for the U.S. to experience rolling recessions, in which different areas experience downturns sequentially.

While the study uncovered clear findings in chargeoffs and bankruptcies, portfolio yield, and MPR results were not as conclusive. Fitch determined that these variables were affected by several other factors, specifically competition in the credit card market, increased use of balance transfers, and introduction of co-branded cards. As a result, the true effects of recessionary conditions as they related to MPR and portfolio yield were difficult to isolate.

During this period, several Northeast regional banks with low investment-grade ratings, such as Bank of New England, deteriorated into insolvency. Due to the severity of the recession and the corresponding behavior of credit card chargeoffs, Fitch used the observations of the conditions in the Northeast and the ensuing credit issues to develop 'BBB' stress scenarios based on historical data.

Portfolio Comparison

(% Change From 1990–1992)

	National	Northeast
Chargeoffs	Increased to 5.21% from 3.60% (45.00%)	Increased to 6.80% from 3.75% (75.00%)
Monthly Payment Rates	Increased to 14.07% from 13.56% (3.75%)	Decreased to 12.00% from 13.59% (negative 11.60%)
Yields	Remained Stable at 20.25%–20.75%	Remained Stable at 20.00%
Unemployment	Increased to 6.76% from 5.16% (31.00%)	Increased to 8.25% from 3.25% (250.00%)
Personal Bankruptcy Filings	Increased 51.00%	Increased 334.00%

Note: For purposes of this comparison, the Northeast includes the following states: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, New York, New Jersey, and Connecticut.

■ Appendix 2 — Card Types

The collateral supporting credit card ABS consists of receivables generated through customer purchases and, in some cases, cash advances. Credit card ABS typically falls into one of two categories — general purpose credit card ABS or retail credit card ABS.

General Purpose

General purpose credit cards are accepted for payment at any type of merchant. Visa and MasterCard affiliated credit card receivables represent the majority of outstanding general purpose credit card ABS. Visa and MasterCard do not issue credit cards directly to consumers, but function as associations supporting its member banks that issue the credit cards. In 2005, Visa and MasterCard affiliated credit card outstandings represented 83.71% of all general purpose credit card purchases.

Discover and American Express are the only other significant issuers of general purpose credit cards to successfully penetrate the U.S. market without relying on Visa or MasterCard associations. The barriers to entry are high, due to significant start-up costs for building and maintaining a payment network and intense competition across the credit card spectrum.

The 2004 outcome of the U.S. Justice Department's antitrust suit against Visa and MasterCard, which alleged the two associations have blocked competition and prevented banks from issuing competitors' cards, such as those of American Express and Discover, has paved the way for bank card issuers to issue American Express and Discover cards. As a result, MBNA began issuing American Express branded cards in October 2004, and in January 2005, GE Consumer Finance announced an agreement to issue a co-branded credit card with Wal-Mart stores on the Discover merchant network. GE also announced that it will issue a co-branded American Express card with Dillard's department store.

The impact of the decision will benefit American Express and Discover in terms of gaining additional charge volume market share. From a receivables outstanding perspective, the decision likely will benefit issuers that offer cards under multiple brands, as it will enable access to a larger universe of cardholders.

Affinity Cards

Affinity programs target members of groups sharing common interests. For example, associations of medical professionals, fans of auto racing, or alumni

of universities are able to have the logo of their association, a picture of their favorite driver, or their school seal on their credit card. This group bond builds card loyalty. MBNA is the largest issuing entity of affinity cards.

Co-Branded Cards

Many companies, especially automobile manufacturers, airlines, and retail companies, have allied with card-issuing banks to jointly market cards. The intent is to promote the company's product and increase receivables for the bank. These co-branded cards reward the cardholder for usage. The rewards may be rebates on new car purchases, free airline tickets, or future discounts to a long list of retailers. This program also provides an incentive for cardholders to pay their bills on time, since the reward benefits may be revoked if the cardholder becomes delinquent. Several joint ventures in the co-branded arena include HSBC and General Motors Corp., Citibank and American Airlines, and Chase and Continental Airlines. Each program has different arrangements for expense and revenue sharing.

Secured Cards

These cards are offered to those on the lower tier of the credit spectrum. As collateral for payment under a secured card, the cardholder typically is required to provide cash or a money order equal to all or a portion of the available credit limit. If the secured credit card account becomes delinquent and conventional collection efforts fail, the issuing entity may draw upon the deposit to satisfy the account holder's payment obligations. These cards generally feature lower credit lines, lower balances, higher APRs, and higher gross chargeoffs than cards offered to those higher on the credit spectrum. Capital One and Provident National Bank retain the largest secured card portfolios.

Retail Cards

Retail card ABS include both store credit card issuers and private label credit card issuers. Store credit card issuers are retailers that administer their own credit card programs, while private label issuers are companies that administer credit card programs on behalf of retailers.

Although most retail stores offer their customers the choice of using a general purpose credit card or the retailer's own card, an advantage to cardholders of using retail cards is that available credit on the customers' other cards is not used up, allowing cardholders to "compartmentalize" their debt burden.

For example, a consumer might use a Sears, Roebuck and Co. card to purchase a new refrigerator and pay it off evenly over time without using up available credit on a general purpose credit card. The retailer benefits by building customer loyalty and increasing the profitability of its lending operation.

Dual Cards

A number of private label card issuers have launched a program offering dual cards that combine the features of private label card and a general purpose bank card. Like a co-brand card, the cards are branded and marketed in conjunction with a retailer yet also linked to a credit card association (i.e. Visa, Mastercard, American

Express, or Discover). However, the dual card is structured such that a portion of the credit line is designated for exclusive use at a retail partner, while use of the remainder of the credit line is unrestricted. Some issuers recognize that an integrated approach to customers through issuance of a dual card could potentially generate higher purchase volume and lead to integrated promotions, underwriting, and customer services, as well as sustained customer loyalty. Additionally, dual cards offer retailers greater access to customer spending and payment behavior (for instance, shopping at its competitors), which could improve their ability to customize marketing strategies.

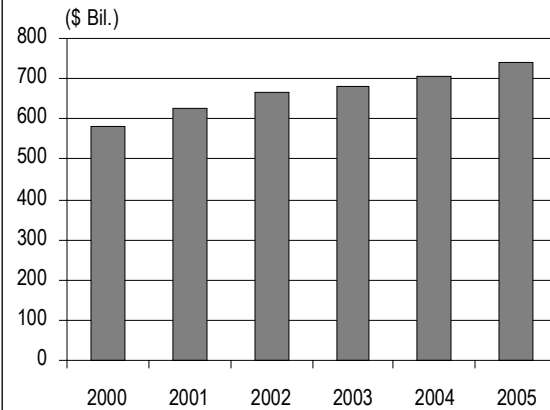
■ **Appendix 3 — Industry Overview**

The first credit card ABS were issued in 1987 to diversify sources of bank funding. As banks were increasingly pressured to free up on balance sheet capital in 1990–1991, securitization fulfilled the need and continues to serve this purpose while providing funding diversification, since bank regulators treat securitization as a sale of assets. Today, securitization is the primary funding source for many credit card issuing entities, as it enables them to fund at low rates and to decrease capital charges by utilizing off balance sheet treatment to meet regulatory requirements. Securitized funding propelled the growth of many specialized credit card banks throughout the 1990s. Heightened market competition and thinning profit margins during the late 1990s precipitated a wave of lender consolidation that continues to affect the industry. As a result of consolidation, the top 10 credit card debt issuing entities continue to hold the majority of outstanding credit card receivables and issue the majority of ABS.

The slowing pace of industry growth from the double-digit levels of the late 1990s coupled with a slowdown in the national economy contributed to heightened competition and thinning profit margins. As a result, a wave of consolidation swept through the industry in 2005; the top 10 card issuers continue to represent the majority of both issuance and outstanding receivables. Due to several consolidation events in 2005, the top five issuers of general purpose credit cards represented 71.4% of outstandings as of year-end 2005, compared with about 57% of outstandings in 2000 (*see chart, above right*).

Total Outstanding General Purpose Card Receivables

(Years Ended Dec. 31)



Note: Data reflect total outstandings for Visa, MasterCard, American Express, Discover, and Diners Club.
Source: The Nilson Report.

Fitch expects issuance trends to continue to be largely dominated by refinancing needs, as transactions mature over the next few years. The four major issuing entities (Capital One Financial Corp., JPMorganChase & Co. [Chase], Citibank, N.A., and Bank of America [MBNA America Bank, N.A.], through their related issuance vehicles, should maintain their positions as top securitizers. Additionally, Fitch expects American Express Travel Related Services, Inc., Discover Bank, and Washington Mutual Card Services to be active contributors as well. The types of credit cards issued by these large financial institutions and finance companies are described in Appendix 2 – Card Types.

Top 10 Card Portfolios*

(\$ Bil.)

1. Bank of America N.A.	149.19
2. JPMorganChase & Co.	140.10
3. Citibank N.A.	111.87
4. American Express Co.	72.63
5. Capital One Financial Corp.	53.86
6. Discover Bank	44.26
7. HSBC Finance Corp.	27.15
8. Washington Mutual Bank	19.97
9. Wells Fargo & Co.	17.39
10. U.S. Bancorp	11.21

Top Securitizers**

(\$ Bil.)

1. Bank of America N.A.	129.29
2. JPMorganChase & Co.	95.33
3. Citibank N.A.	93.71
4. Discover Bank	23.53
5. Capital One Financial Corp.	21.86
6. Washington Mutual Bank	13.49
7. HSBC Finance Corp.	8.61
8. American Express Co.	1.20

*General purpose credit card portfolios in the U.S. as of Dec. 31, 2005. **Total amount of term credit card-backed securities rated by Fitch Ratings as of Dec. 31, 2005. Source: Fitch Ratings and The Nilson Report.

■ Appendix 4 — History of Early Amortization

In the history of credit card securitization, the seven public deals that have triggered early amortization events were issued by Chevy Chase FSB, Conseco Private Label Master Note Trust, First Consumers Credit Card Master Note Trust, NextCard Master Note Trust, Spiegel Master Trust, Southeast Bank, and Republic Bank (Delaware). In the Chevy Chase deal, investors voted to waive the base rate trigger event (set at a three-month excess spread of 2%) and the transaction continued to operate as normal, albeit with a thin margin of excess. The securities were repaid as originally scheduled, and no investor suffered a loss. On Dec. 19, 2002, Conseco Finance Corp. filed for bankruptcy court protection, causing the trust to enter into early amortization; in June 2003, Mill Creek Bank Inc., the seller, defeased the transaction, and investors were paid in full. First Consumers Credit Card Master Note Trust entered early amortization in March 2003 due to breach of the base rate trigger, and in June 2003, servicing of the portfolio

was transferred to First National Bank of Omaha; Fitch currently rates the series 2001-A class A, class B, and class C notes 'BB', 'CCC', and 'B-', respectively. NextCard Master Note Trust transactions were not rated by Fitch. In both the Southeast Bank and Republic Bank deals, early amortization commenced, and investors were repaid without a loss but earlier than they had expected.

While backed by finance contracts but not considered a typical credit card transaction, Heilig-Meyers Master Trust was structured similarly to a credit card securitization and entered into early amortization in August 2000. After a transfer of servicing and the closing of its entire store base, the portfolio experienced severe deterioration. Fitch lowered the ratings on the transaction to non-investment-grade levels six months into the payout period. In December 2002, Fitch lowered all ratings to 'D', to reflect the expectation that investors would not be repaid and recoveries are expected to be less than 50%.

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