



Methodology

*Rating U.S. Retail Auto Loan  
Securitizations*

JANUARY 2010

*Operational Risk Review section updated in methodology entitled  
“Operational Risk Assessment for U.S. ABS Servicers” in June 2011*



*Insight beyond the rating.*

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### Related Research:

Legal Criteria for U.S. Structured Finance Transactions  
Operational Risk Assessment for U.S. ABS Servicers

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DBRS is a full-service credit rating agency established in 1976. Privately owned and operated without affiliation to any financial institution, DBRS is respected for its independent, third-party evaluations of corporate and government issues, spanning North America, Europe and Asia. DBRS's extensive coverage of securitizations and structured finance transactions solidifies our standing as a leading provider of comprehensive, in-depth credit analysis.

All DBRS ratings and research are available in hard-copy format and electronically on Bloomberg and at DBRS.com, our lead delivery tool for organized, Web-based, up-to-the-minute information. We remain committed to continuously refining our expertise in the analysis of credit quality and are dedicated to maintaining objective and credible opinions within the global financial marketplace.

This methodology replaces and supersedes all related prior methodologies. This methodology may be replaced or amended from time to time and, therefore, DBRS recommends that readers consult [www.dbrs.com](http://www.dbrs.com) for the latest version of its methodologies.



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# Rating U.S. Retail Auto Loan Securitizations

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## TABLE OF CONTENTS

Executive Summary	4
Industry Overview	4
Asset Description	8
Originator Analysis	10
Transaction Structures	11
Establishing Cumulative Net Loss Projections	17
Cash Flow Analysis	22
Legal Framework	26
Appendix 1: DBRS Outline of Originator Review Items	27



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## Executive Summary

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DBRS evaluates the following qualitative and quantitative factors when assigning and monitoring ratings for U.S. retail auto loan ABS transactions:

- Quality of management and financial condition of sponsoring entity;
- Originations and underwriting practices;
- Servicing capabilities (as outlined in Operational Risk Assessment for ABS servicers dated June 2011);
- Collateral quality of the proposed auto loan pool and performance of sponsor's auto loan portfolio;
- Transaction capital structure, proposed ratings and credit enhancement;
- Cash flow analysis;
- Legal structure and opinions.

DBRS performs an operational risk review and assessment of the sponsoring entity's origination and servicing capabilities to provide insight into the manner in which these processes have impacted past auto loan pool performance and to assist in establishing expectations for future performance. For each requested rating, DBRS develops cash flow stress assumptions based upon the proposed transaction structure to test the financial viability of the transaction under various cash flow scenarios. DBRS reviews the transaction's legal structure and opinions to assess that all necessary steps have been taken and no subsequent actions are required to protect the ownership interests of the trust in the assets.

Once a rating has been assigned, DBRS monitors the performance of each rated security. Through the surveillance process, DBRS identifies unanticipated performance results or a fundamental change in credit parameters from those assumed when the rating was assigned by reviewing the outstanding transactions on a periodic basis and consequently may upgrade, downgrade, or place the ratings under review with positive, developing or negative implications.

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## Industry Overview

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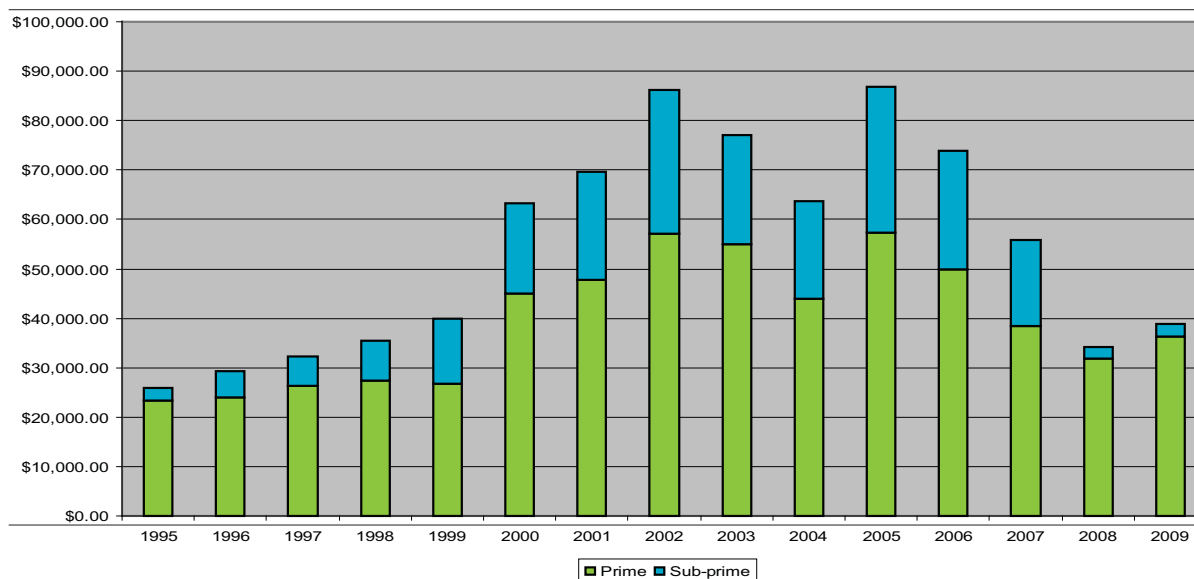
Since the first auto ABS deal in 1985, auto ABS has grown dramatically and increased in complexity. Over the last 10 years, the auto loan ABS sector has, on average, accounted for 30% of the \$220 billion non-mortgage ABS market. Historically, annual auto issuance averaged approximately \$75 billion a year from 2000 to 2006. The volume of auto loan ABS has dropped from \$75 billion in 2006 to \$53 billion in 2007 and \$35 billion in 2008 as a result of the credit crisis<sup>1</sup>. In 2009, the volume of auto issuance has increase somewhat to \$39 billion. The graph on the following page summarizes U.S. auto ABS issuance from 2000 through 2009 broken out by prime and sub-prime collateral.

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1.Source: Asset-Backed Alert ABS Database.



**U.S. Auto Issuance Volume**



Source: Asset-Backed Alert ABS Database.

Prior to the credit crisis in 2007, prime issuance comprised approximately 68% of issuance volume with 32% provided by sub-prime. In 2008 and 2009, prime issuance comprised of 93% of the issuance volume in each year as lending to subprime borrowers has contracted coupled with the difficulty by sponsors to issue sub-prime transactions.

The introduction of the Federal Reserve’s Term Asset-Backed Securities Loan Facility (“TALF”) in 2008 has helped the auto ABS markets to begin to recover and stabilize. In 2009, TALF-eligible auto loan ABS issuance has totaled approximately \$34 billion or 35% of the total TALF-eligible ABS issuance. However, the amount of loans requested by the Federal Reserve has been relatively low which may be a positive indicator of support for auto loan ABS after TALF is completed. In addition, there have been a few non-TALF transactions in 2009.

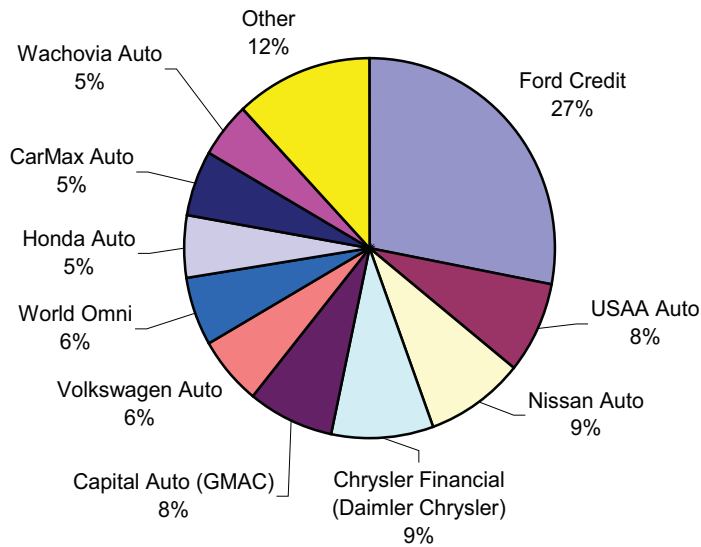
The government assisted restructuring of the key players (GM and Chrysler) has helped stabilize the auto ABS market as well. Additionally, the “cash for clunkers” program had a short-term effect of boosting the supply of auto loans available for securitization. All of the government backed initiatives are likely to have a positive influence on the market going forward by increasing stability and growth prospects.

***Prime Auto Loan Sector***

The graph on the following page depicts the breakdown of prime issuance in 2008, which is dominated by finance subsidiaries of automotive manufacturers. The key players in the sector have been the “Detroit Three”, Honda and Nissan. There are only a few independent prime issuers in the top 10 including USAA, Carmax and World Omni. In 2009, \$36 million in prime auto paper has been issued with the bulk of the issuance from Bank of America, Ford and Honda, together comprising almost 60 percent of the issuance volume.



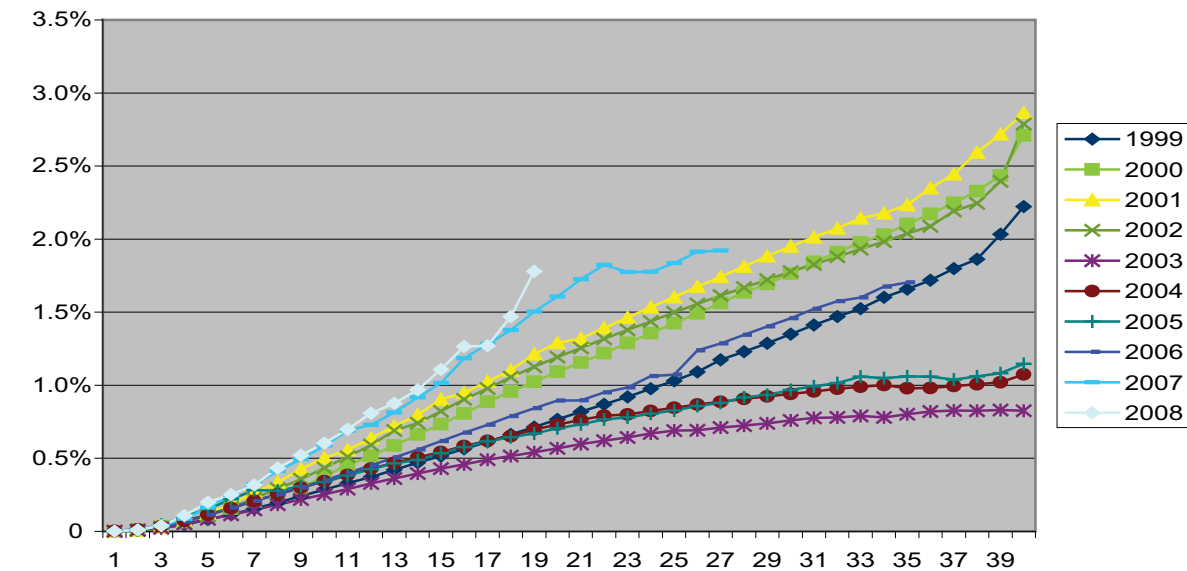
**2008 Prime Auto Loan Issuance**



Source: Asset-Backed Alert ABS Database.

The graph below depicts cumulative net losses for prime auto loans since 2000 based upon data from ABSnet. The graph demonstrates that prime collateral has demonstrated fairly consistent performance over time, with losses ranging between 1% to 2%. However, as a result of the recession, an increase in losses for the 2007 and 2008 vintages has been recorded over the past year and a half.

**Prime Auto Cumulative Net Losses**



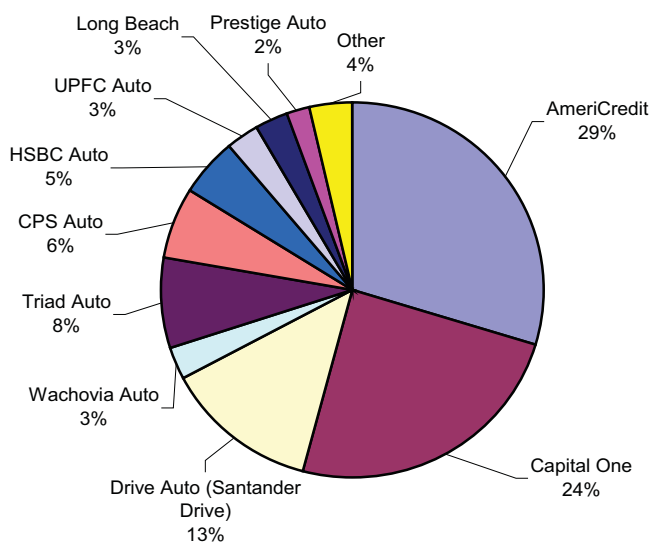
Source: ABSnet



**Sub-Prime Auto Loan Sector**

In contrast to the prime sector, the sub-prime sector is dominated by independent finance companies with AmeriCredit and Capital One accounting for the bulk of issuance. The graph below depicts the breakdown of prime issuance in 2007. The 2007 issuance figures are used in the graph as issuance has been curtailed significantly due to the inability to issue debt as a result of the credit crisis. In 2008, only \$2.5 billion of sub-prime auto issuance was completed by 3 issuers: AmeriCredit, Wachovia Auto and CPS Auto. In 2009, there has been \$2.5 billion of sub-prime transactions issued, primarily in the fourth quarter of 2009.

**2007 Sub-Prime Auto Loan Issuance**



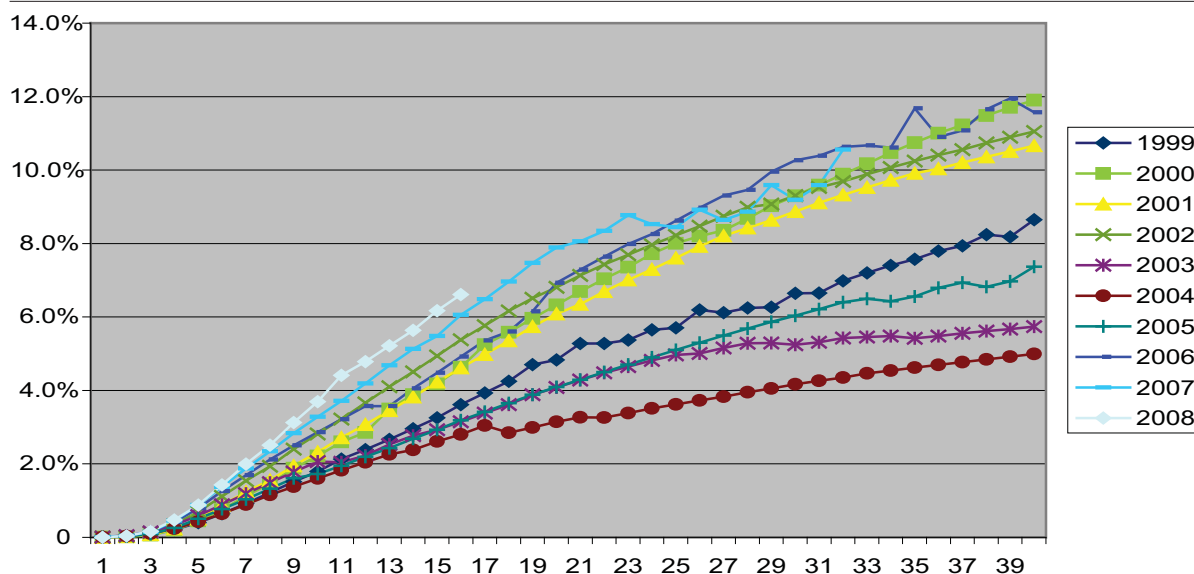
Source: Asset-Backed Alert ABS Database.

There have been many changes in the sub-prime auto market over the past few years as several issuers have exited the space or merged with others. Triad and HSBC have exited the space. AmeriCredit purchased Long Beach, Capital One purchased Onyx Acceptance and Wachovia bought WFS Financial.

As expected, performance for sub-prime collateral has varied to a greater extent than prime collateral. The graph on the following page shows cumulative net losses for sub-prime auto loans with losses ranging between approximately 5% and 12% since 2000. Loss levels have risen over the past three years and are trending even higher than the 2001 and 2002 vintages. These vintages were also impacted by the recession during that time. The 2003 and 2004 vintages had the best performance as the economy has improved. Losses in sub-prime collateral are highly correlated to the unemployment rate as defaults are typically related to a specific event such as a job loss, a change in family status, an illness or medical expense.



**Sub-Prime Auto Cumulative Net Losses**



Source: ABSnet

## Asset Description

Auto ABS transactions have evolved over the years to include a variety of collateral types. The collateral types backing the transactions are analyzed based upon loan, borrower and vehicle characteristics.

### AUTO LOAN CHARACTERISTICS

An auto loan is a contractual agreement between a borrower and a lender. It is a secured loan whereby the borrower pledges the financed vehicle as collateral. Auto loans typically amortize, where the entire amount of the loan is repaid at a predetermined rate over its life. The ownership of the vehicle remains on the balance sheet of the lending institution until the car loan (lien) is paid off. If the borrower is unable to make loan payments, the lending institution can repossess the vehicle from the borrower.

#### Loan Structure

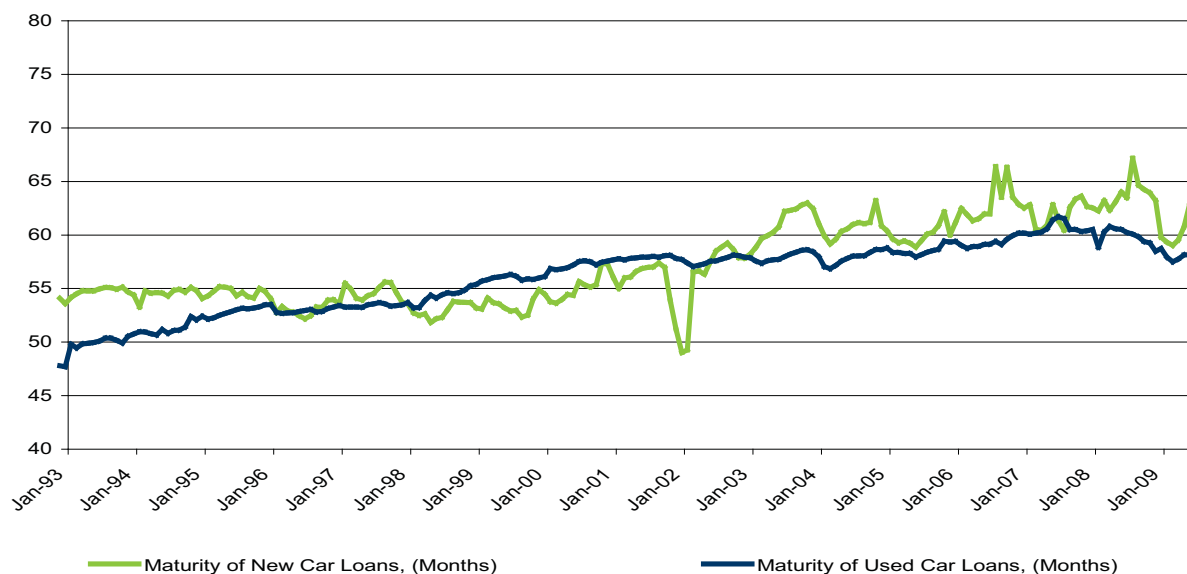
For the most part, auto loans are level-pay installment loans payable over a predetermined loan term. A small percent of auto loans are structured as balloons. A balloon loan, like a lease, has the advantage of low monthly payments during the term of the loan, requiring substantially lower capital outlay during the term when compared to level-pay. However, balloon loans have a large payment at maturity and similar to leases confront substantial residual value risk. Due to the substantial risk associated with changes in residual values, retail auto loan ABS transactions rarely include balloon loans as collateral. Such loans are typically securitized separately.

#### Original Term

The original term to maturity of an auto loan can range from 12 to 84 months; however, the bulk of securitized loans have an original term to maturity of 60 months or lower. Loans of 72 and 84 month maturities are also eligible for inclusion in securitization pools. Typically such loans are underwritten to more budget constrained borrowers and carry greater credit default risk than their shorter term counterparts. The prepayment speeds associated with longer term loans are also considerably slower when compared to the prepayment speed of loans with an original term to maturity of 60 months or less. Longer term loans have gained popularity in years prior to the credit crisis and accounted for an increasingly larger percentage of securitizations. DBRS expects this trend to likely reverse as underwriting guidelines tighten.



## Maturity of Auto Loans



Source: U.S. Board of Governors of the Federal Reserve System: Consumer Installment Credit - G.19 and 20.

### Financing Rate

The annual percentage rate (APR) charged on a loan is a function of the market environment and prevailing interest rates. However, all else being equal, loans that are characterized by the underwriter as higher risk tend to have higher APRs when compared to less riskier loans. Further the APR rate can be influenced by available incentive programs. In efforts to increase sales, car manufacturers commonly offer incentives to customers through interest rate reductions (subvented loans) from their captive finance subsidiaries. Subvented loans are typically available to higher credit quality obligors. Such subsidies can result in a dramatic reduction of interest rates on the loans relative to market conditions. It is not uncommon to see subvented loans carry interest rates as low as 0%.

### Down Payment and Advance Rates

For auto loan ABS transactions, the concept of “advance rate” is analogous to the concept of “loan-to-value” (LTV) in other asset classes. The advance rate is defined as the loan balance expressed as a percentage of the sale amount. The sale amount can either be the manufacturer’s suggested retail price (MSRP), the wholesale value of the car or a value other than these two prices. The financed amount typically includes the sale amount (less the value of any trade) plus taxes, insurance, extended warranty or other fees, less any cash down payments. The lower the advance rate, the more equity an obligor has in the vehicle. High advance rates or rapid vehicle depreciation can cause the equity amount to be negative - when the borrowers’ obligation under the loan exceeds the value of the vehicle. All else being equal, a higher advance rate increases an obligor’s likelihood of default, particularly for sub-prime obligors.

If a vehicle is repossessed during this period of negative equity value, a lender will usually incur a loss, especially if the used car market softens. The amount of the loss would be the difference between the current outstanding loan amount and the proceeds after paying related disposition costs. Therefore, the higher the advanced amount relative to the value of the vehicle, the higher the potential loss at repossession - both in dollar terms and as a percentage of the remaining amount owed on the contract.

## BORROWER CHARACTERISTICS

An auto loan can be broadly classified as prime or subprime based on the overall credit quality of the borrower. Although in other asset classes, this classification is made by comparison of objective metrics such as average credit score measured by one or more of the recognized credit scoring models. In the auto loan sector, the segmentation process is not as clear cut. Credit scores are widely used by auto lenders;



however, the data regarding credit scores is not always available. Instead, auto lenders may substitute internal credit score grade such as A, B, C, and D to describe the credit quality of their auto loans.

Typically, an obligor with FICO score above 680 or a tier “A” credit would be considered a prime obligor, while borrowers that do not meet these requirements or do not qualify for a prime loan are considered sub-prime. Overall, prime loans are extended to high quality borrowers in good credit standing. Sub-prime borrowers typically have less than perfect credit history that precludes them from obtaining prime loans. The reasons for a borrower not qualifying for a prime loan or falling into B, C, or D credit tiers are diverse and can include lack of credit history, prior bankruptcy, high debt to income ratios, high auto loan payment versus income ratio, lack of stability with regard to employment, and poor installment credit history.

## AUTO LOAN CHARACTERISTICS

The risk associated with an auto loan depends on the collateral to which the lien under the loan is attached. If collateral value is impaired, the recovery value, should the borrower default, is reduced. It is important to assess quality of the underlying collateral and its diversification level.

### *New and Used*

Auto loans can be secured by either new or used vehicles. The percent of auto loans secured by used vehicles has increased substantially over the last few years due to growth in the used vehicle market. Used vehicles can be further segmented into pre-owned and certified. Certified vehicles are off-lease vehicles that are less than 3 years old and have been through inspection and still covered by manufacturer’s warranty. Used vehicles have flatter depreciation curves than new vehicles. However, used vehicles often experience higher default frequency and severity of losses. The primary causes for used vehicle underperformance is difficulty in valuing used vehicles potentially leading to over-advancing. A new vehicle will always have a list price to at least establish an opening valuation, whereas the condition and market for a used vehicle is so varied that collateral underwriting often cannot determine the amount of exposure (the amount of negative equity in a vehicle) that is inherent in a used car loan.

### *Make and Model*

The value of a car is determined by an assortment of factors. Depreciation is the single largest reason for the decline in a vehicle’s value. Depreciation levels vary by manufacturer, vehicle make and model. They can also be influenced by prevailing market conditions and prices. High gas consumption vehicles can experience bounds of price depreciation associated with the price of gasoline. Additionally, depreciation patterns can change if a certain make or model becomes discontinued or a manufacturer’s ability to maintain warranty coverage becomes impaired or is perceived to be impaired. As a result, it is beneficial to ensure that vehicles collateralizing securitized pool are diversified across make, model, and manufacturer.

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## Originator Analysis

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DBRS reviews the financial condition of the originator of the collateral, as well as their origination capabilities. DBRS reviews the entity’s financial condition in order to ascertain their viability during the full term of the transaction. DBRS also reviews the operational capabilities of the entity in order to determine the manner in which the receivables were originated.

## OPERATIONAL RISK REVIEW

DBRS evaluates the quality of the parties that originate the auto loans being securitized through an operational risk review. While DBRS does not assign formal ratings to these processes, it does conduct operational risk reviews and incorporates the results into the rating analysis. In instances where it is determined that the originator’s capabilities are deemed below industry standards, certain structural



enhancements may be incorporated into a transaction as determined by the issuer. Enhancements to the transaction may come in the form of additional credit enhancement, dynamic triggers or the presence of a strong backup servicer.

A detailed list of items included in the originator review for auto ABS is included in Appendix 1 and includes, generally, the following areas:

- 1) Strategy and management - A review of the company's strategy and management is performed including a review of company history, management's experience in operating the company, financial condition of the company and management's strategic initiatives going forward.
- 2) Originations - The originations function is assessed in order to determine the channels and marketing practices used in originating auto loan receivables. Origination channels may be direct or indirect. The majority of auto loans are originated via an indirect channel such as a network of auto dealers. DBRS also evaluates the policies and procedures in place for originating loan and the types of products originated.
- 3) Underwriting/risk management - The underwriting process is examined to assess whether the auto loans to be securitized have been originated in accordance with the originator's underwriting guidelines and that there were no violations of any consumer protection laws. An originator's risk tolerance and the underlying quality of its underwriting guidelines are assessed. Scoring systems are reviewed including the frequency of system updates based upon the changing economy and consumer behavior. Lending authority of personnel and documentation and verification processes for borrower data are reviewed. A discussion of the loan loss performance of the originator's managed portfolio is conducted, particularly as it relates to the originator's underwriting and risk management processes.

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## Transaction Structures

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### TYPES OF TRANSACTIONS

Auto loan ABS transactions may be either completed as a term or warehouse transaction. In a term transaction, the pool of auto loans backing the transaction is determined at closing, except for certain circumstances where there may be a prefunding account set up to purchase additional collateral. A prefunding structure occurs when there are more securities issued upon closing the transaction and a portion of the proceeds are placed into an account for the purpose of funding additional loans after closing.

A warehouse transaction is a revolving pool of auto loans and may be funded through the issuance of commercial paper or medium term notes. A warehouse facility is, as implied in the name, used to "warehouse" or fund loans initially after origination until there is sufficient volume to justify issuing a term transaction.

In the past, auto securitizations have been completed using a grantor trust or owner trust structure. A grantor trust structure requires pro-rata principal payment on all classes, effectively preventing any maturity or credit tranching. Today, the auto loan market typically relies on owner trust structures which provide for the ability to re-allocate cash flows among securities within the structure. In an owner trust structure, there are normally several classes of notes with differing legal final maturity dates. In most transaction, there is a short-term money market tranche plus one, two and three-year classes issued.



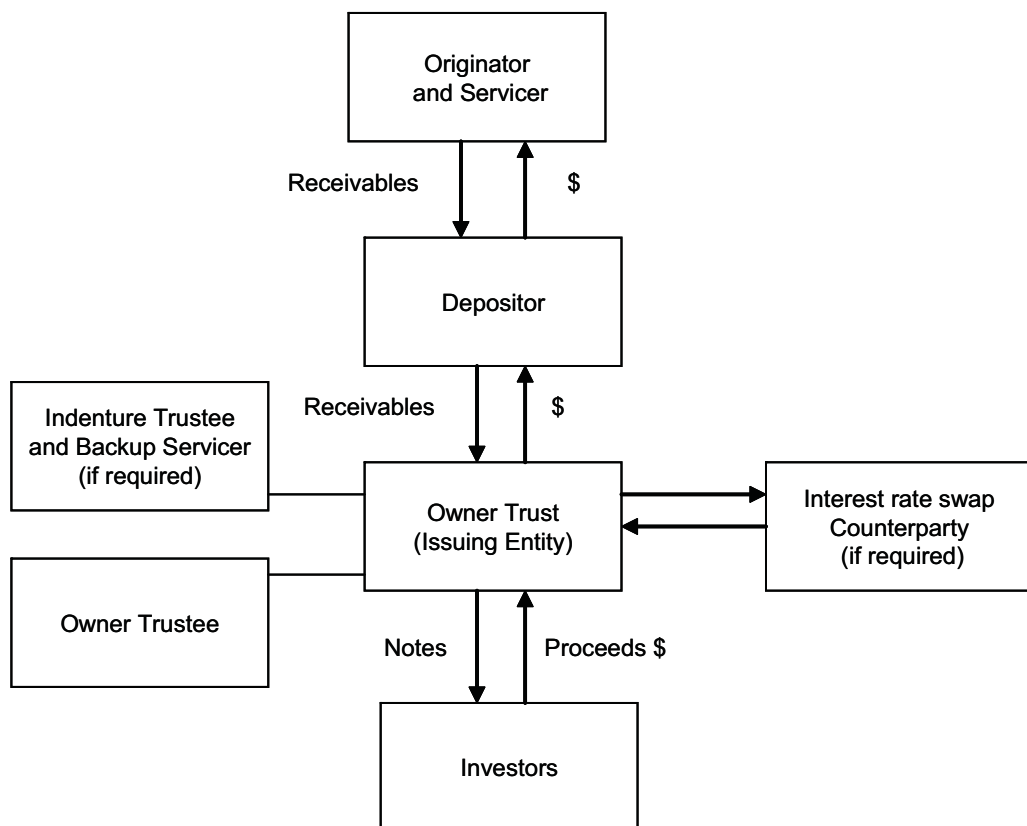
## BANKRUPTCY REMOTE SPECIAL PURPOSE ENTITY

Similar to other structured finance transactions, retail auto loan securitizations are rated based on the credit quality of a segregated pool of auto loan receivables in addition to the other analytical considerations summarized in this report. For a security to achieve a higher rating than that of a sponsoring entity, the loans must be isolated from the financial risk of the seller and originator and beyond the reach of their creditors in the event of a bankruptcy. To accomplish this, the assets must be transferred to a bankruptcy remote special purpose entity (SPE) whereby the assets would not become part of the bankruptcy estate of the sponsoring entity or subject to an automatic stay under the Bankruptcy Code.<sup>2</sup>

## STRUCTURAL DIAGRAM

The structure of an auto transaction differs depending upon a number of factors. The first is whether a transaction is a one or two-tier transfer of assets. This refers to the number of times the assets are transferred between entities from the entity who has originated or purchased the assets to the issuer of the debt. In a two-tier transaction which is depicted below, there is an intermediate SPE, which is usually the depositor, who deposits or sells the assets to the issuing SPE and borrows from the issuing SPE.

Transactions may also differ in terms of the parties involved in the transaction and their roles. The diagram below depicts a typical transaction structure for an auto loan ABS transaction. As delineated, the originator of the assets is also the servicer and receives a servicing fee to service the trust assets. The issuing entity, in this case, is an owner trust so there is an owner trustee in addition to an indenture trustee. In certain cases, there may be a back-up servicer which may also be the trustee. To mitigate interest rate risk, there may also be an interest rate swap counterparty included in the structure.



2. The current Bankruptcy Code was enacted in 1978 and became effective on October 1, 1979. The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 enacted several significant changes to the U.S. Bankruptcy Code. The most recent changes to the Bankruptcy Code were signed into law on April 20, 2005 and became effective on October 17, 2005.



## CREDIT ENHANCEMENT

Credit enhancement in auto loan ABS transactions may be provided through several different forms including: overcollateralization, subordination, a reserve fund and excess spread. In certain cases where loans in the pool may be provided at below market rates (subvented), then a yield supplement account may be needed to supplement the trust's yield income that is artificially depressed through subvention.

In addition, historically, many subprime auto issuers used bond insurance as their primary form of credit enhancement as the insurer would provide an irrevocable guaranty of interest and principal. Going forward, this may not be an option for these issuers due to the current disruption in the bond insurance industry.

It is important to note, that DBRS does not determine credit enhancement levels or transaction structures but rather evaluates the level of protection provided by the proposed credit enhancement given the existing transaction structure, the payment waterfall and triggers. This evaluation is performed through simulations. DBRS uses a cash flow model to assess the adequacy of credit enhancement levels under a series of scenarios where cash flows are generated under different loss, delinquency and prepayment assumptions.

### *Overcollateralization*

Overcollateralization (OC) is the most common form of credit enhancement in retail auto loan securitizations. OC is the amount by which the collateral amount exceeds the total amount of securities issued. There may be an initial OC level which then builds to a pre-specified target level (percent of outstanding collateral) based upon amortization of the ABS notes. Once the target OC is reached, its dollar balance may start to decline as the pool amortizes. Declining OC mechanics direct the owner trustee to release excess collections as long as the target OC is met. The majority of declining OC structures have a floor expressed as a percentage of the initial collateral balance providing back-ended protection to the issued notes.

### *Subordination*

Subordination is created by tranching the debt associated with the auto loan ABS. There are several classes of notes and the subordinated classes of notes have a lower priority of payments in the flow of funds or waterfall providing protection from losses to the senior classes of notes.

### *Reserve Fund*

Reserve funds are funds set aside to supplement collections should the need arise. Such accounts may be funded at issuance or designated to trap excess spread to a pre-specified target amount. Reserve funds are typically held in cash or highly liquid securities with little default risk. Such securities must hold a high rating, typically at least an R-1 (middle) short-term rating or an AA (low) long-term rating. U.S. Treasury bills are often used for this purpose. Reserve accounts are to be held at an eligible institution. Eligible institutions are typically banks and trust companies that hold a rating of at least an R-1 (middle) short-term rating and a BBB (high) long-term rating. If the rating of an institution at which reserve funds are held should fall below the threshold rating during the life of the transaction, the reserve account must be relocated to an appropriately rated institution.

DBRS looks for legal assurances on two points arising from reserve funds: (1) the cash or securities deposited in the reserve fund account must not be vulnerable to fraudulent conveyance or preferential treatment of claims and (2) if the reserve fund account is not held in the name of the SPE or indenture trustee, the SPE or indenture trustee must take a perfected first-priority security interest in the account. If the SPE is not the owner of the account, legal opinions may be requested to establish the SPE's ability to access the funds despite the owner's bankruptcy.



### *Excess Spread*

All retail auto loan securitizations are structured in a manner such that, at issuance, interest generated by the assets exceeds the cost of funding on the securities. The difference, net of transaction expenses such as servicing, trustee and professional fees, is commonly referred to as excess spread and is available on a monthly basis to absorb losses. Any changes in cash flows due to losses are first covered from excess collections. After all of the obligations prescribed by the transaction structure are satisfied, excess collections can be released. Consequently, monthly excess spread is only available to cover losses incurred during that period.

### *Yield Supplement Account*

Many captive finance companies offer loans to obligors with rates that are below market interest rates ("subvented"). Inclusion of subvented loans in a securitization pool may result in insufficient interest earned by the assets to cover transaction costs. In such instances, it is common for transaction structures to include a yield supplement account (YSA). The size of the YSA is determined by discounting the notional value of assets at a discount rate that ensures the asset yield is sufficient to cover all funding costs through the life of the transaction. Therefore, the size of the YSA is the difference between the discounted value of assets and their notional amount.

The YSA may be in the form of additional assets whose principal collections are used to cover the interest shortfall. Alternatively, the YSA can also be a cash account funded at issuance. In such an instance, the funds in the YSA and the account itself are subject to the same investment and procedural guidelines as the reserve fund account.

## **PRIORITY OF PAYMENTS**

The priority of payments for an auto loan transaction depends upon the type of payment structure employed in that transaction. The two most common transaction structures for principal payments allocation are sequential and concurrent.

A sequential structure provides for all principal amortizations and prepayment to be allocated to the shortest maturity class until it is fully repaid and then directed to the next shortest class. Losses in excess of credit enhancement provided by reserve and overcollateralization are absorbed by the lowest rated tranche. Once the lowest rated tranche is written down, the losses are absorbed by the second lowest rated tranche in the structure. Securities that carry the same rating are *pari passu*, and write-downs are applied *pro-rata*.

An example of the typical payment priority under a sequential structure is provided below:

1. Servicing fees and any transition fees to any successor servicer up to the specified limit (if applicable);
2. Trustee and other fees normally subject to a limit;
3. Net swap payment (if applicable);
4. Interest in order of seniority and swap termination payment (if applicable)<sup>3</sup>;
5. Principal in order of seniority;
6. Amount, if any, to be deposited into the reserve fund;
7. Additional amounts owed to the trustee or servicer above the specified limits in 1 and 2 above;
8. Any remaining amounts to the seller.

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<sup>3</sup>In cases where the swap counterparty is the defaulting party, the swap termination payment should be below interest and principal on the rated securities.



The second most common structure is concurrent principal allocation, where principal amortization and prepayments are allocated to maintain constant credit enhancement levels. Under such payment mechanism, subordinate tranches can receive principal payments while senior notes are still outstanding. Principal and prepayments are allocated to subordinate tranches, starting from the lowest rated tranche, until target credit enhancement is reached. Once reached, principal is allocated pro-rata amongst outstanding tranches. However, should transaction performance deteriorate, subordinated tranches are locked out and payments are redirected to senior tranches. In addition, most structures include the suspension of interest payments on the subordinated classes should the structure become undercollateralized.

## TRANSACTION TRIGGERS

Historically, subprime transactions have incorporated performance-based triggers where additional credit enhancement may be captured if the transaction fails to meet certain defined performance levels. This has been the case in many transactions wrapped by monoline bond insurers. In prime auto loan ABS transactions, it is uncommon to see any performance-based triggers.

Depending upon the structure of a transaction, triggers may be beneficial to increase credit enhancement levels beyond what is initially included in the transaction, thereby enabling the transaction to absorb more losses. DBRS does not dictate the transaction triggers to be included in a particular structure; however, DBRS assesses the extent to which any additional credit enhancement may be built up in a transaction as part of our overall assessment of the transaction structure and cash flow scenarios. The extent to which triggers are beneficial in building additional credit enhancement depends upon the level at which the triggers are set and the ability of the transaction to generate excess spread at those levels. Meeting this standard also depends upon the potential deterioration in performance of the transaction, as there will be less excess spread generated if losses increase quickly.

## EVENTS OF DEFAULT

Under the transaction documents, events of default typically describe circumstances under which the notes can be accelerated.

The events of default typically include the following:

1. default in the payment of interest outstanding when it become due and payable on each class of notes (subject to a specified number of days cure period);
2. default in the payment of the principal of any note on its final scheduled distribution date;
3. certain breaches of representations, warranties and covenants by the issuing entity (subject to any applicable cure period);
4. certain events of bankruptcy relating to the issuing entity or the issuing entity's property; and
5. certain events relating to the characterization of the issuing entity for federal or state income tax purposes.

## SALE AND SERVICING AGREEMENT

The sale and servicing agreement details the responsibilities of the servicer in the transaction and the amount of servicing fees that will be paid out of the transaction to the servicer. Under this document, it also specifies the terms under which the servicer may be terminated.

The servicer termination events typically include the following:

1. failure by the servicer to remit any collections, proceeds or payments that continue for a specified number of days after the owner trustee or indenture trustee provides notice or an officer of the servicer discovers the failure;
2. the servicer's failure to deliver the servicer's certificate within the specified number of days;
3. the servicer's failure to observe or perform in any respect any other covenant or agreement under the sale and servicing agreement, which failure (i) materially and adversely affects the rights of the noteholders and (ii) continues unremedied for a specified number of days after knowledge by the servicer or after the indenture trustee or owner trustee gives the servicer written notice of such failure;



4. events of bankruptcy, insolvency, receivership or liquidation, or similar proceedings regarding the servicer, or actions by the servicer, indicating its insolvency, reorganization under bankruptcy proceedings, or inability to pay its obligations; or
5. any servicer representation, warranty or statement proves to be incorrect in any material respect, the issuing entity or the noteholders', and the circumstances or conditions in respect of which the representation, warranty or statement was incorrect shall not have been eliminated or cured within 30 days after the servicer has knowledge thereof or after the date on which written notice of such failure, requiring the same to be remedied, shall have been given to the servicer by the trust collateral agent.

If a servicer termination event has occurred and remains unremedied, the trust collateral agent or the majority noteholders may terminate all of the servicer's rights and obligations under the sale and servicing agreement.

### **PREFUNDING**

As stated above, a prefunding structure occurs when there are more securities issued upon the closing of the transaction with a portion of the proceeds placed into an account for the purpose of funding additional loans after closing. There is normally a specified period after closing where this prefunding may take place or those funds will go to repay the securities issued in connection with this prefunding. In addition, there are specific requirements provided in the transaction documents which must be met in order for these loans to be considered eligible for the transaction. This eligibility criterion is designed to ensure that the pool of subsequent receivables is similar to the original pool of receivables at closing. The eligibility criteria may include the weighted average original and remaining term, the minimum and maximum annual percentage rates or APRs, the amount of new and used vehicles, minimum credit score, and maximum state concentrations among others.

### **MONEY MARKET TRANCHES**

It is a common practice for the trusts to incorporate a money market tranche eligible under Rule 2a-7 of the Investment Company Act of 1940. Under the rule, the money market tranche should be consistent with the maximum amount that can be repaid by the legal final maturity of 13 months after the closing date. To achieve an "R-1 (high)" rating, the cash flow model exercise determines a maximum amount by using a 0.5% absolute prepayment speed and no losses.

### **LEGAL FINAL MATURITY DATE**

The legal final maturity date for an "AAA" rated security is the date that represents the latest scheduled maturity date of the collateral in the securitized pool plus 12 months as dictated by the cash flow scenarios. This is an important consideration since the servicer may extend or renegotiate contract terms for an obligor as long as such extensions cannot cause the final maturity of the underlying loans to extend beyond the final maturity of the related securitization.



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## Establishing Cumulative Net Loss Projections

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As part of the rating process, DBRS analyzes historical loan performance data provided by a sponsoring entity. DBRS uses issuer-specific static pool data and also performs a loan-level analysis, when possible, to establish a base case cumulative net loss (“CNL”) projection for the proposed pool of assets. In instances when comprehensive static pool data is not available, DBRS may establish a base case CNL using the issuer’s managed portfolio loss data.

### STATIC POOL APPROACH

DBRS uses a static pool approach to developing the base case cumulative net loss assumption. Static pool analysis relies on historical loss data from discrete groups of loans originated over a relatively short period of time such as a month, a quarter or a year. In this analysis, a ratio of cumulative losses to original loan balance is tracked on a monthly basis for a static pool of assets as they amortize. If the collateral composition is similar, static pool analysis is an effective tool for establishing losses because, all else being equal, two pools of assets that have similar collateral composition can be expected to have similar losses over their lives.

#### *Analysis and Stratification of Historical Data*

DBRS requests historical static pool data from each issuer and determines issuer specific base case CNLs. Most issuers provide between three to five years of data presented in a static pool monthly performance format.

DBRS reviews the characteristics of the proposed collateral pool and requests the pool be stratified into categories in order to address any changes to the collateral mix and to identify the factors surrounding any changes to the performance of the issuer’s static pool data over time. DBRS then requests that the static pool data be broken down by program as designated by the issuer or in certain buckets or categories to ensure that the collateral characteristics of the securitized pool are similar to the collateral characteristics of the static pools in the data set. DBRS may consider parameters such as credit bureau score or the issuer’s internal credit score, new versus used vehicles, and term to maturity. To ensure the best results, parameters for the selected static pools should not deviate materially from the parameters of the securitized pool.

DBRS also reviews the static pool data to determine whether the data is being presented from either: 1) the time that collateral was originated or 2) the time that the collateral was securitized into a pool. The significance between these two items relates to the seasoning of the collateral that may have taken place between the time the collateral was originated and the time that it was securitized. Seasoned pools would have already incurred some losses by the time they were securitized. Such losses are not reported. Seasoning can mask the true relationship between assets and cumulative losses. As a result, DBRS assesses whether the collateral included in the static pools represents a good proxy for the collateral in the pool for the proposed securitization and may exclude certain collateral if it is not representative.



**Developing a Loss Curve**

DBRS calculates the change (in percent) in monthly losses for every static pool included in the historical data. Next, DBRS calculates the median monthly loss change for each month for that proxy group and takes the sum of the monthly losses to arrive at a cumulative net loss. DBRS then converts this to a loss curve by dividing the cumulative losses to date in each month by the total cumulative losses expected.

PROXY STATIC POOL GROUP: LOSS CURVES					PROXY STATIC POOL GROUP: CHANGE IN MONTHLY LOSSES					PROXY GROUP	PROXY GROUP	PROXY GROUP
XYZ Auto Receivables Trust 2003-1	XYZ Auto Receivables Trust 2004-1	XYZ Auto Receivables Trust 2004-2	XYZ Auto Receivables Trust 2005-1	XYZ Auto Receivables Trust 2006-2	XYZ Auto Receivables Trust 2003-1	XYZ Auto Receivables Trust 2004-1	XYZ Auto Receivables Trust 2004-2	XYZ Auto Receivables Trust 2005-1	XYZ Auto Receivables Trust 2006-2	Median Monthly Change	Aggregate Median Monthly Change	Loss Amortization Vector
FICO: 702 72 MONTH: 25.4% NEW: 65%	FICO: 708 72 MONTH: 24.7% NEW: 68%	FICO: 704 72 MONTH: 31.1% NEW: 61%	FICO: 718 72 MONTH: 22.6% NEW: 63%	FICO: 700 72 MONTH: 28.3% NEW: 60%	FICO: 702 72 MONTH: 25.4% NEW: 65%	FICO: 708 72 MONTH: 24.7% NEW: 68%	FICO: 704 72 MONTH: 31.1% NEW: 61%	FICO: 718 72 MONTH: 22.6% NEW: 63%	FICO: 700 72 MONTH: 28.3% NEW: 60% LTV: 102%			
0.000%	0.000%	0.000%	0.000%	0.000%								
0.030%	0.031%	0.000%	0.008%	0.000%	0.030%	0.031%	0.000%	0.008%	0.000%	0.004%	0.004%	0%
0.075%	0.077%	0.078%	0.073%	0.053%	0.045%	0.046%	0.078%	0.065%	0.053%	0.059%	0.063%	4%
0.119%	0.122%	0.125%	0.117%	0.085%	0.045%	0.046%	0.047%	0.044%	0.032%	0.045%	0.108%	7%
0.164%	0.168%	0.172%	0.161%	0.117%	0.045%	0.046%	0.047%	0.044%	0.032%	0.045%	0.153%	11%
0.209%	0.214%	0.218%	0.204%	0.148%	0.045%	0.046%	0.047%	0.044%	0.032%	0.045%	0.198%	14%
0.253%	0.260%	0.265%	0.248%	0.180%	0.045%	0.046%	0.047%	0.044%	0.032%	0.045%	0.242%	17%
0.305%	0.314%	0.320%	0.299%	0.217%	0.052%	0.054%	0.055%	0.051%	0.037%	0.052%	0.295%	20%
0.358%	0.367%	0.374%	0.350%	0.254%	0.052%	0.054%	0.055%	0.051%	0.037%	0.052%	0.347%	24%
0.402%	0.413%	0.421%	0.394%	0.286%	0.045%	0.046%	0.047%	0.044%	0.032%	0.045%	0.392%	27%
...	...	...	...	...	...	...	...	...	...	...	...	...
1.376%	1.413%	1.441%	1.348%	0.979%	0.024%	0.024%	0.024%	0.024%	0.024%	0.024%	1.326%	91%
1.388%	1.425%	1.453%	1.360%	0.987%	0.012%	0.012%	0.012%	0.011%	0.008%	0.012%	1.337%	93%
1.399%	1.437%	1.465%	1.371%	0.995%	0.012%	0.012%	0.012%	0.011%	0.008%	0.012%	1.349%	94%
1.411%	1.449%	1.477%	1.383%	1.004%	0.012%	0.012%	0.012%	0.012%	0.008%	0.012%	1.361%	94%
1.424%	1.463%	1.491%	1.396%	1.013%	0.013%	0.014%	0.014%	0.013%	0.010%	0.013%	1.374%	95%
1.438%	1.476%	1.505%	1.409%	1.023%	0.013%	0.014%	0.014%	0.013%	0.010%	0.013%	1.388%	96%
	1.490%	1.519%	1.422%	1.032%	-1.438%	0.014%	0.014%	0.013%	0.010%	0.013%	1.401%	97%
	1.502%	1.532%	1.434%	1.041%	0.000%	0.012%	0.012%	0.012%	0.080%	0.012%	1.413%	98%
	1.516%	1.546%	1.447%	1.050%	0.000%	0.014%	0.014%	0.013%	0.010%	0.013%	1.427%	99%
	1.530%	1.560%	1.460%	1.060%	0.000%	0.014%	0.014%	0.013%	0.010%	0.013%	1.440%	100%

**Historical CNL/Projected CNL For Partially Seasoned Vintages**

DBRS uses the loss curve developed above to project the total cumulative net losses expected for pools that have not realized all of their expected losses. DBRS can then compare the realized losses for pools that have completed their loss cycle with those that have been more recently originated in order to determine a projected cumulative net loss projection for the proposed transaction.

As an example, one of the static pools may contain only 45 months of observations but the loss curve is expected to cover 48 months. Based on the curve, this pool should experience 97% of its losses by the 45th month. DBRS can project the total losses by dividing the losses experience through month 45 by .97 and then multiplying by the amount of losses expected in that month.



Period	XYZ Auto Receivables Trust 2003-1	Loss Amortization Vector	XYZ Auto Receivables Trust 2003-1 Projected CNL	XYZ Auto Receivables Trust 2003-1 Projected CNL
1	0.00%	0%		0.00%
2	0.01%	0%		0.01%
3	0.01%	1%		0.02%
4	0.03%	2%		0.05%
5	0.06%	3%		0.08%
6	0.11%	5%		0.12%
7	0.14%	7%		0.18%
8	0.21%	10%		0.24%
9	0.27%	13%		0.30%
...	...	...		...
45	1.44%	97%		1.44%
46		98%	= 1.44%/97%*98%	1.45%
47		99%	= 1.44%/97%*99%	1.47%
48		100%	= 1.44%/97%*100%	1.48%

DBRS projects the CNL for each of the vintages that have not yet realized their complete loss cycle and compares the actual and projected CNLs to determine a base case CNL for the proposed transaction. DBRS reviews the trend in CNL for the issuer and any changes in the CNL over time and the reasons for those potential changes in the performance of the collateral. Since losses can be more volatile over the initial months following origination, DBRS only considers static pools that have at least one year of performance history.

***Shifting Parameters and Lack of Comparable Static Pools***

As mentioned above, static pool analysis requires the proxy group to have similar collateral attributes as a proposed collateral pool. Even though most issuers and originators provide sufficient data to select a good proxy group, there are instances when a securitized pool differs from the available proxy groups by one or more parameters, complicating the process of deriving a CNL.

For example, if an issuer wishes to securitize a pool of assets that has similar credit scores and new versus used composition, but differs materially in the original term to maturity metric from all available proxy groups, then the original term to maturity figure is a shifting parameter. To address this difference or change in collateral composition, two different proxy groups are selected by DBRS. The groups should have similar credit scores and new versus used composition, but differ materially in the shifting parameter. Since original term to maturity is the only shifting parameter, then any difference in losses between the two groups is assumed to be directly related to the changes in the shifting parameter. The relationship between the shifting parameter and losses is determined and the base case CNL for the securitized pool is extrapolated based on the data from the proxy groups.

***Managed Portfolio Pools***

In certain cases where there is not sufficient static pool data, DBRS may use managed portfolio losses to determine the base case CNL for a proposed pool.

Managed portfolio loss data tracks losses over a given time interval as a percentage of the overall portfolio managed by the issuer, which are outstanding during that interval. If the portfolio is stable, has no recovery lag and is representative in all material respects of the proposed collateral pool, expected losses can be approximated by a product of the average portfolio loss and expected weighted average life of the proposed collateral pool.



In practice, portfolios go through periods of growth and contraction, have recovery lags and often experience significant changes in collateral composition. Although it is possible to adjust the portfolio loss number for the effects of growth by dividing net annual losses by the outstanding principal balance of the prior reporting period, it is more difficult to adjust for changing portfolio composition and recovery related factors. In order to account for these factors, portfolio data needs to be supplemented with additional information that allows DBRS to quantify the effects of these variables.

## ADJUSTMENTS TO THE BASE CASE CNL

The static pool approach assumes that some of the key parameters such as recovery rates and seasoning are similar among securitized assets and the selected proxy groups. The implied assumptions are addressed by adjustments to the base case CNL projections.

### Recoveries

PROXY STATIC POOL GROUP: RECOVERY RATES						
	XYZ Auto Receivables Trust 2003-1	XYZ Auto Receivables Trust 2004-1	XYZ Auto Receivables Trust 2004-2	XYZ Auto Receivables Trust 2005-1	XYZ Auto Receivables Trust 2006-2	Median
Recovery Rate	0.45	0.48	0.42	0.4	0.38	0.42
Pool Base Case						1.48
Pool Gross Default		$(1.48/0.42)=$				3.52

Recovery rates can vary even among pools with very similar characteristics, because they tend to be very susceptible to changes in market conditions and servicing practices. Further, supply and demand imbalances in the used vehicles wholesale market, gasoline prices, and manufacturers' financial strength all impact recovery values.

DBRS reconciles the most current recovery experience with the historical recovery rate reflected in the static pool data. As a first step in the reconciliation process, DBRS adjusts the base case CNL for implied recoveries. Implied recoveries equal to the median historical recoveries of the proxy pools are used as a benchmark for deriving the base case CNL. Then, the base case CNL is grossed up by the historical recovery rate to arrive at the base case gross default (GD) rate.

Following the gross up adjustment, DBRS determines the new recovery rate for the securitized assets. DBRS differentiates recoveries into (1) recoveries due to the repossession and auction sale of an underlying vehicle, and (2) post repossession recoveries. In many cases, issuers historical data doesn't differentiate. Additionally, DBRS closely examines current and historical recovery rates to identify any potential recovery deterioration.

### Repossession Recoveries

To establish appropriate assumptions for recoveries due to the repossession and auction sale of an underlying vehicle, DBRS reviews historical data. It is important for this analysis for the loan to value parameters to be similar between the historical data and the proposed securitized pool. Due to the volatile nature of recoveries, DBRS takes a conservative approach to its estimates. Even if historical trends are strong, but recent observations indicate deterioration, DBRS may assign a much higher weight to recent data. For example, it is possible that an issuer's historical recovery rates reflected in the static pool data ranged from 40% to 45% but the issuer is experiencing 35% recovery rates for comparable collateral at the time of securitizing a new pool of assets. Should DBRS determine that the recovery rate change is likely to impact a newly securitized pool; DBRS may elect to use the most recent, lower recovery rate, which, in this example, is equal to 35%.



Pool Gross Default		3.52%
Recovery Rate		35.0%
Adjusted Base Case Net Default	$3.52\% * (1 - 35\%) =$	2.29%

### Post-Repossession Recoveries

Some issuers may exclude post-repossession recoveries from their static pool data. In such cases, the issuer may provide post-repossession recovery data separately. DBRS examines the presented data in order to determine the sources, stability and continuity of such recoveries. Should the post-repossession recoveries be quantifiable, DBRS may give appropriate credit to these recoveries. Since post-repossession recoveries are highly dependent on servicer capabilities, the maximum credit for these recoveries is limited to 50%.

Post-repossession and repossession recovery rates are aggregated to arrive at the total recovery rate. The loss rate is calculated, which is then applied to the pool base case gross default number to arrive at the recovery adjusted base case CNL.

### Seasoning

The last adjustment to the expected base case CNL number is an adjustment for seasoning of the securitized pool. The base case CNL derived using the static pool method projects the expected CNL over the entire life of the collateral. When the base case CNL is derived, it is assumed that the original life of the pool is equal to the pool's remaining life. This can be the case if a pool is comprised of newly originated receivables, in other words, is completely unseasoned. However, most of the transactions have some degree of seasoning because of the time involved to bring transactions to market, and as a result, could have already incurred some losses. In such instances, the base case CNL can be adjusted to account for the seasoning factor.

The seasoning adjustment typically reduces the base case CNL. The more seasoned a transaction, the more losses it has already most likely incurred. Consequently, fewer losses should be remaining. This holds true for the absolute level of losses. However, the DBRS base case CNL is expressed as a percentage of the pool balance and is a relative measure. Therefore, when adjusting for seasoning, DBRS takes into account loss timing and pool amortization.

Original Pool Balance	1,356,789,083
Recovery Adjusted Based Case	2.29%
<b>Expected \$ Loss = 2.18% * 1,356,789,083</b>	<b>31,070,470</b>

As a first step, the expected loss number is converted into an expected dollar amount. This is accomplished by multiplying the original pool balance by the base case CNL. Then, losses that have already been realized are netted from the expected dollar loss amount. If realized loss information is not available, DBRS determines the amount using loss amortization vectors.

Continuing with the previous example, envision that all loans in the securitized pool were originated nine months prior to the closing date. In this case, the loss amortization curve constructed earlier implies that an average pool experiences 13% of its expected losses by nine months from the date of origination. The expected realized loss percentage is applied to the expected dollar loss to arrive at the seasoning adjustment. The seasoning adjustment is netted out from the expected dollar loss and the result is divided by current pool balance to arrive at seasoning adjusted base case CNL.



Expected \$ Loss		31,070,470
Seasoning (Months)	9.0	
Expected Realized Loss (11 Month) %	13%	
Expected Realized Loss (11 Month) \$		4,039,161
<b>Seasoning Adjusted Base Case \$</b>		<b>27,031,309</b>

Expected Remaining Loss		27,031,309
Current Pool Balance		1,252,999,157
<b>Seasoning Adjusted Base Case \$</b>		<b>2.16%</b>

Recovery Adjusted Base Case Cnl%		2.29%
Seasoning Adjusted Base Case Cnl%		2.16%
<b>Seasoning Adjustment = (2.29%/2.16%)-1</b>		<b>6.15%</b>

In practice, securitized pools contain loans of various seasoning characteristics. To determine an adjustment based on seasoning, DBRS segregates loans by their respective cohorts. Seasoning credit is then calculated for individual cohorts. Typically, a seasoning adjustment, if applied, will be made on collateral eight months seasoned or more. For pools with at least eight months of seasoning, the adjustment typically reduces the base case CNL.

## Cash Flow Analysis

DBRS uses a cash flow model which includes the transaction specific elements of the deal such as triggers and credit enhancement characteristics. The cash flow model reflects the priority of payments to investors as set forth in the transaction's governing legal documents. As discussed above, DBRS analyzes the originator/servicer's performance data in order to develop cash flow assumptions to be included in the model.

### STRESS CASE CNL

Depending on the rating category, each rated security is expected to withstand multiples of the expected base case CNL as follows:

Rating	Prime	Sub-Prime
AAA	4.0-6.0	2.5-4.0
AA	3.0-4.0	2.25-3.5
A	2.0-3.0	2.0-3.0
BBB	1.5-2.0	1.5-2.25
BB	1.25-1.5	1.25-1.5

Securities within a given rating category can have different multiples as long as they fall within the specified range. The multiple used depends in part on the expected base case losses which may differ considerably from issuer to issuer, particularly for sub-prime issuers. DBRS evaluates the results of stress scenarios under a variety of parameters, and the loss multiples can vary under these stresses. For a security to carry a rating within a requested rating category, the multiples must fall within a range specified for this rating under all stresses that DBRS deems applicable.



## LOSS TIMING

DBRS uses the loss timing curve for the proposed collateral pool developed above in our base and stress case cash flow scenarios. When necessary, additional cash flow modeling scenarios may also be reviewed in which the timing of losses are stressed as changes to loss timing can materially impact the amount of excess spread in the transaction. Auto loan retail securitizations rely on excess spread as one of the forms of credit enhancement; however, if not trapped, excess spread may be released from the transaction and will no longer be available to cover losses.

If possible, DBRS varies the timing of losses by amortizing losses at different speeds using diverse loss amortization vectors. During the stresses, the amount of losses the transaction is subjected to remains constant and only the timing of these losses changes in accordance with the scenario. Front-loaded loss scenarios typically add stress to the credit enhancement levels of senior securities in the structure, while back-ended losses cause hardship to the subordinated bonds. For concurrent structures, DBRS may apply stresses to the mid section of the transaction. (see belly scenario below)

Months	Loss Amortization Vector*		
	Back Ended	Front Ended	Belly
1	35%	40%	30%
13	35%	40%	50%
25	20%	15%	15%
37	10%	5%	5%
<b>Total</b>	100%	100%	100%

\*Note: The respective amount of losses is spread evenly throughout the number of periods.

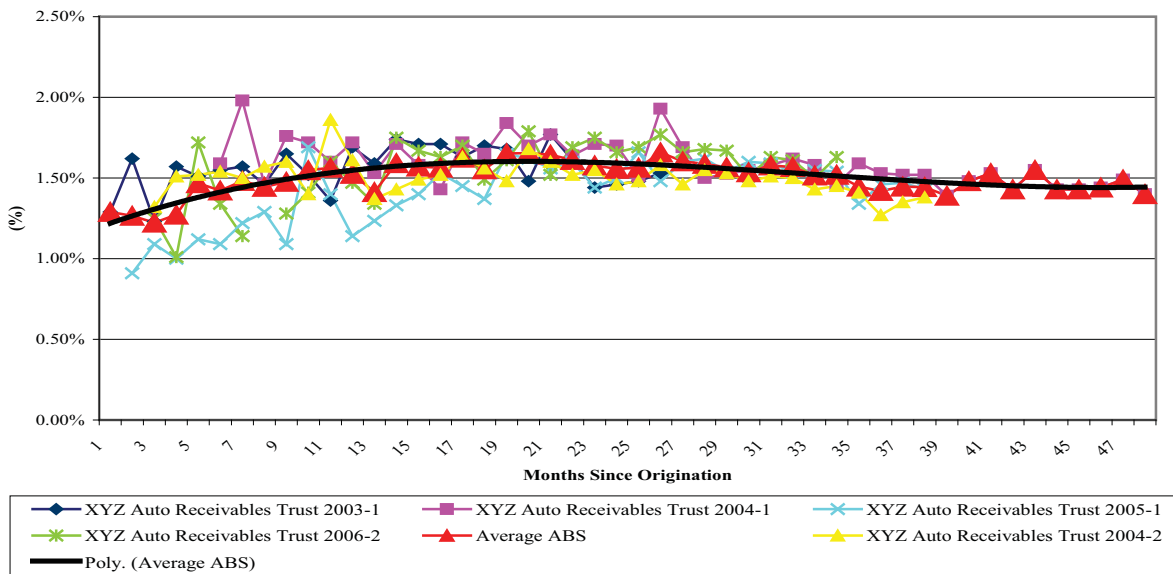
## MODELING PREPAYMENTS

While in other securitized products conditional prepayment rate (CPR) is used to measure prepayment speeds, in retail auto loan transactions prepayments are measured by absolute prepayment speeds (ABS)<sup>4</sup>. ABS is a unique calculation, which was developed in the early 1980s and later adopted by the industry. Unlike CPR, which measures prepayments as a percentage of current outstanding collateral balance, the ABS measure calculates them as a monthly percentage of original collateral balance. A constant ABS implies an increasing CPR over time.

4. ABS includes unscheduled payment of all or part of the outstanding principal of the auto loan, including voluntary payments by the borrower as well as liquidation payments. An ABS defines a vector of monthly prepayment speeds that result in the same constant dollar amount of prepayments. For example, given a pool of brand-new loans, 1.8% ABS means that each month 1.8% of the loans originally in the pool will prepay in the current month. The following formula converts the ABS to a single monthly mortality (SMM) prepayment percentage  $SMM = ABS/[1-ABS*(seasoning-1)]$ .



**XYZ Trust: Absolute Prepayment Speeds**



Evidenced by historical performance, prepayments in retail auto loans, as measured by ABS, are very stable and generally independent of interest rates. Refinancing activity in the auto loan sector is muted for two reasons. First, the depreciating nature of the collateral results in a reduced incentive for lenders to offer refinancing. Second, auto loans have a very short term to maturity reducing borrowers’ incentive to seek refinancing.

In retail auto loan transactions, prepayments are driven mostly by debt consolidation, sales and trade in, voluntary pay-off, and accidents or other casualties. To arrive at a base case ABS for modeling purposes, DBRS focuses on historical performance. DBRS assumptions for ABS are reflective of the actual speeds experienced by collateral similar, in all material respects, to the one being securitized. DBRS graphs individual static pools in the proxy groups by months since origination, to see how ABS “mature” as each pool ages. Once a sequence of pools is aligned ABS trends become evident. DBRS calculates an average of all the ABS data points to determine ABS for the proxy groups under consideration. DBRS then calculates a fitted curve and applies stresses on that fitted curve.

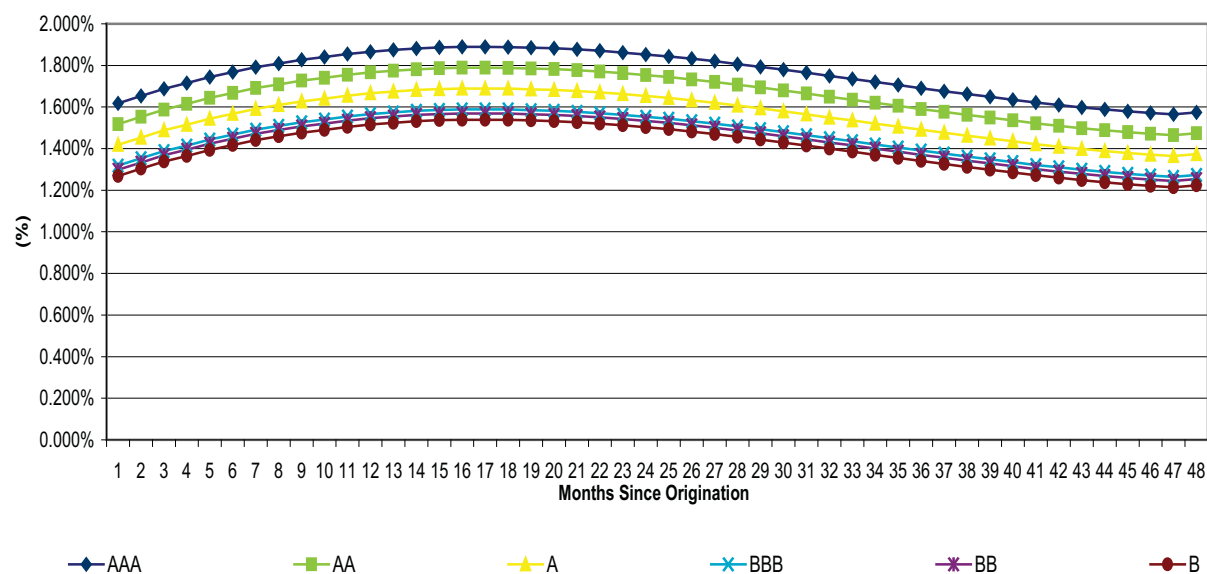
Although reported ABS are inclusive of losses resulting from defaults, for modeling purposes ABS has to be adjusted for the effects of these factors. Technically, DBRS converts ABS to CPR and then subtracts losses for each rating category to arrive at voluntary absolute prepayment speeds. Without this deduction, losses can be double counted in the cash flow exercises.

The voluntary ABS are then modeled separately from projected losses and are subjected to stresses independent of the ones applied to the base case projected CNL. To stress excess spread, ABS is increased for every progressively higher rating category. The voluntary ABS vectors are automatically adjusted for effects of seasoning in the model.

	Stresses
	Prime
AAA	Voluntary ABS +0.40%
AA	Voluntary ABS+0.30%
A	Voluntary ABS +0.20%
BBB	Voluntary ABS +0.10%
BB	Voluntary ABS +0.08%
B	Voluntary ABS +0.05%



**XYZ Trust: Voluntary ABS Stress**



DBRS endeavors to model ABS curves in accordance with an issuer’s securitization history. When issuer specific data is not available the following “voluntary ABS” speeds are used:

Prepayment Stresses	AAA	AA	A	BBB	BB	B
Voluntary Prepayment Speeds	2.0-1.75%	1.65-1.75%	1.60%	1.50%	1.40%	1.30%

**MODELING DEFAULTS AND RECOVERIES**

Most often cash flow models are set up to run losses net of recoveries. Consequently, recovery inputs do not materially change the net amount of losses that flow through the transactions. The changing of recovery variables in the model is used to determine gross default levels and impacts excess spread and timing of cash flows.

In the model, monthly net losses are divided by recoveries to arrive at gross defaults for the period. Gross defaults reflect the outstanding balance of the contract at the time of default. Net losses incorporate proceeds from disposition and include all expenses incurred in repossessing, refurbishing and liquidating the vehicle. In the model, the gross default balance is deducted from the pool balance to reduce interest generating collateral at the time of the default. The proceeds from any recovery on the sale of the vehicle would be collected at a later date based upon how long it takes to repossess and sell the collateral.

For example, \$150,000 in monthly net losses at a 35% recovery rate (or 65% severity rate) result in \$230,769 of gross defaults deducted from the active collateral balance. Typically, during a modeling exercise, the higher the recovery rate, the higher the amount of gross defaults and the greater the reduction to excess spread. Consequently, increasing recoveries during the modeling exercise stresses available credit enhancement. For a gross default of \$230,769, the loss amount of \$150,000 is deducted from the waterfall while the remaining balance of \$80,769 is returned to the waterfall after a period of time. Until such time, there will be no interest advanced on this remaining balance amount. Once the remaining balance re-enters the waterfall, it will be applied in accordance with the transaction documents which usually allow recovery balances to be added to principal collections.

The time by which the remaining balance is prevented from re-entering the waterfall is referred to as the recovery lag. It reflects the default-repossession-sale-recovery time line and can differ significantly among issuers and servicers. DBRS models a three month lag that can be longer for non-investment grade or unrated servicers.



	Recovery Variables by Rating Category					
	AAA	AA	A	BBB	BB	B
Recovery	50%	66%	75%	80%	85%	90%

## WEIGHTED AVERAGE COUPON COMPRESSION

The availability of monthly excess spread depends heavily on defaults and delinquency rates of the securitized collateral. Weighted Average Coupon (WAC) compression occurs due to the defaults and delinquencies experienced by the pool of securitized assets. Higher coupon loans default at a higher rate than lower coupon loans. This happens because the interest earned by auto loans is generally determined by a risk-based underwriting strategy where higher risk loans are charged higher interest. As these loans default, the weighted average coupon of the collateral is compressed resulting in a reduction of available excess spread. The other reason for a decline in WAC is delinquencies. As loans become delinquent they no longer generate cash flow<sup>5</sup>. Under risk-adjusted pricing, higher coupon loans account for a larger portion of overall delinquencies further compressing the pool's WAC.

Loss and default factors create uncertainty with respect to the timing of excess spread and its availability. Once released, excess spread cannot be recaptured and the uncertainty associated with its timing reduces its value as a credit enhancement tool. For these reasons, DBRS gives only partial credit to excess spread when modeling the transaction. Stresses are applied in such a manner as to either default or prepay higher coupon collateral.

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## Legal Framework

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DBRS criteria seeks to ensure that the proper legal steps have been taken to transfer the receivables and all of an originator's rights and interest in the auto loans to the SPE and that the SPE has been granted a security interest in the loans. A Uniform Commercial Code (UCC) financing statement must be filed to perfect the granting of a security interest from originator/seller to the SPE, and further financing statements will be filed perfecting the subsequent grant of a security interest from the SPE to the indenture trustee. DBRS seeks assurance in a legal opinion provided by counsel for an originator/seller that all necessary filings against an originator/ seller have been made, that all necessary steps have been taken and that no subsequent actions are required to protect the ownership interests of the SPE in the assets.

As the originator generally acts as a servicer of the contracts, the originator/seller in its capacity as servicer and as agent for the SPE issuer may retain the assigned contracts in its possession provided that each transfer of the contract from the originator and the lien of the indenture trustee is perfected under the applicable UCC by filing a UCC financing statement in the appropriate jurisdiction. Typically, the contracts are chattel paper under the UCC and, accordingly, there is a risk that were the originator/seller to sell the contracts, inadvertently or otherwise, to a bona fide third-party purchaser for value without notice of the previous assignment to the SPE, such purchaser's interest would take precedence over the interest of the SPE (and the indenture trustee) in the contracts. DBRS therefore requests that the originator/seller mark its computer records to show that the contracts have been sold to the SPE and may also request that the originator/seller take other reasonable steps to clearly identify or physically segregate those contracts that are assigned to the SPE from all others in its possession. In some cases, or if an event of default has occurred and is continuing under the transaction documents, the originator/seller may relinquish possession of the contracts or to appoint a custodian to hold the contracts.

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<sup>5</sup>Delinquent interest can be advanced by the servicer. However, most of the servicers carry a rating lower than the highest rated security in the structure. As a result, DBRS does not give credit to servicer advances.



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## Appendix 1: DBRS Outline of Originator Review Items

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The originator risk review includes an assessment of the items noted below as well as any other relevant factors related to the issuer.

### *Strategy and Management*

- Company history, ownership and operating experience.
- Financial condition and ability to provide and honor representations and warranties.
- Management experience.
- Staffing, training and retention rates.
- Portfolio size and composition.
- Strategic initiatives.
- Litigation (past, present and expected).
- Recent or planned mergers or acquisitions.
- Internal and external audit results.
- Securitization history and future plans.

### *Originations*

- Overview of Operations/Department Organization
- Origination channels.
- Sales and marketing practices.
- Program Summary/ Background of Products Originated
- Dealer Approval and ongoing review process
- Contract Origination Procedures – (initial inquiry, credit review, approvals, documentation, verifications, funding)
- Description of technology in place for originations
- Alliances with 3rd Parties
- Other Programs/Future Plans
- Any program parameter shifts over time and past and future volume projections by product.

### *Underwriting/Risk Management*

- Department Organization
- Description of scoring model and ongoing validation procedures and updates
- Underwriting policies and procedures.
- Underwriting Guidelines, lending authority and exceptions approval (past changes/future plans)
- Use of credit scoring and proprietary technology.
- Income and employment verification processes.
- Exception/override process.
- Fraud prevention techniques.
- Closing and funding process.
- Dealer oversight and management.
- Quality control and audit processes.
- Documentation (storage, titling process)
- Compliance with state and federal laws.
- Discussion of vintage loss performance and trends to date.

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