Securitization

Global Markets Research

Deutsche Bank

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Alternative Student Loan ABS

A Product Overview

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- The market for "alternative" student loans has grown significantly in recent years as tuition costs have risen, and the maximum borrower limits available under the FFELP student loan program (the largest federal lending program) have remained fixed at the same level for the last decade.
- Alternative student loans have historically been securitized in either the auction rate market, or pooled together with FFELP student loans in ABS floaters. However, since 2001, there has been a marked growth of ABS backed exclusively by alternative loans. Sallie Mae is the most recent issuer to offer such a program, and has brought more than $4 billion of "private credit" student loan ABS since October 2002.
- Alternative student loans are not guaranteed by the U.S. Department of Education. As a result, the origination process is in many respects more similar to other forms of consumer credit than to typical FFELP loans. FICO scores and judgmental credit methodologies are widely applied. While student borrowers typically tend to have "thin" credit files, they also often have characteristics that are consistent with a positive credit profile in their post-graduate years.
- In contrast to the homogeneity of FFELP loans, the alternative student loan market is highly fragmented, with many lenders offering products with a wide variety of terms. ABS pools must be analyzed individually, as performance varies substantially depending on school type, degree program and whether or not there is a co-borrower or co-signer on the loan.
- From a relative value perspective, alternative student loan ABS at the short end of the curve are priced in a range similar to top-tier credit card ABS, after adjusting for such factors as bullet versus amortizing principal payment, liquidity and relative headline risk. However, we believe this asset class offers opportunity for investors looking to diversify away from traditional consumer credit and focus on this specific borrower population, as well as subordinate buyers who, until very recently, were only offered student loan ABS down to the single-A level. Additionally, there is still significant pick-up for longer term (7+ years) alternative student loan ABS versus comparable credit card ABS.

Introduction

The market for taxable student loan ABS has grown steadily since the first broadly distributed SEC registered deal was issued in 1993.[1] Investors have been drawn to the stable cash flows associated with the collateral, and attractive liquidity owing to the steady stream of regular issuers.

Figure 1: Milestones in the student loan ABS market

1993	Society Bank (now KeyCorp) issues first taxable SEC registered student loan deal marketed to ABS investors
1995	First Sallie Mae student loan ABS
1997	Annual student loan issuance exceeds $10 billion
2001	Introduction of "two group" structure to incorporate both FFELP and alternative student loans in a single issuance (Access and KeyCorp)
2002	First broadly-marketed student loan ABS backed exclusively by consolidation loans (Sallie Mae)
2003	Introduction of student loan reset-rate notes (Sallie Mae) Annual student loan issuance exceeds $25 billion

Source: Deutsche Bank

FFELP[2] loans, which benefit from an indirect government guarantee, have historically made up the lion's share of the collateral backing student loan ABS. However, the growth in originations of "alternative"[3] student loans has led to increased issuance of deals backed by this collateral type. This product overview will focus on the development of the alternative student loan market and the credit aspects that distinguish this asset class from the more common FFELP loans.

Alternative Student Loans

Alternative loans help bridge the gap between total education costs and other available forms of education assistance

We define alternative student loans as loans that are originated separately from the federal government's two major loan programs: the Direct Lending program and the FFELP program. Unlike the Direct Lending program and the FFELP program, alternative loans do not carry the 98% federal government guarantee. Therefore, the individual borrower's credit must be underwritten and "credit-tested" similar to other forms of consumer credit. The rates charged to borrowers and other payment terms can be tailored to the specific borrower's credit profile. From the borrower's perspective, alternative loans provide an additional source of assistance to meet education costs after other sources of funds (e.g. FFELP loans, grants, etc.) have been exhausted.

Most providers of alternative student loan credit offer this product as part of an integrated business model that also includes FFELP loan products, and servicers of this product also typically have servicing experience with FFELP loans. (Lenders

[1] For the purposes of this report, we confine ourselves to the taxable student loan market.

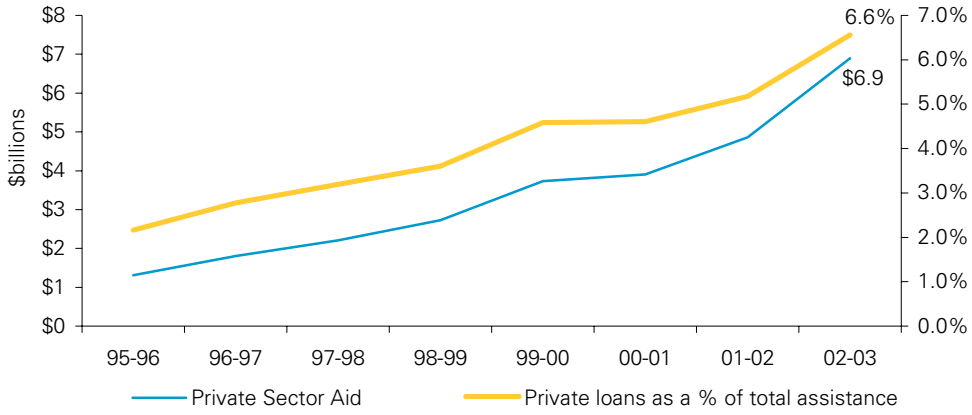
[2] "FFELP," or the Federal Family Education Loan Program, is a loan program established under the Higher Education Act and administered by the U.S. Department of Education. Loans originated through this program benefit from government support in the form of a 98% reinsurance by the U.S. government. Subsidized Stafford loans, unsubsidized Stafford loans, PLUS (Parent Loans for Undergraduate Students) loans and consolidation loans are the specific products available through the FFELP program.

[3] Different issuers refer to this product by different names, including "private loans," "private-credit" student loans and "alternative loans." For simplicity we will use the term "alternative loans" throughout to refer to this product.

generally recommend, and many even require, that students first exhaust any available FFELP loan assistance before turning to alternative loans.) However, there also is at least one major "pure play" in the alternative student loan financing industry, First Marblehead Corp. First Marblehead focuses exclusively on this segment of the market, and recently attracted significant interest from the equity markets when it priced its IPO (10/31/03) at $16 per share (on 12.5 million shares), but saw its price rise 38% on the first day of trading.

Across the sub-segments of the student loan market, alternative loans have experienced the fastest rate of growth over the past several years. While alternative loans have been offered since at least as far back as the mid-1980s, the College Board, a central source of data for this product, first started tracking the alternative loan segment during the 1995–1996 school year. According to their statistics, alternative loan originations grew from $1.3 billion that year to a preliminary estimate of $6.9 billion for the 2002–2003 school year, more than 400% (see Figures 2 and 3).

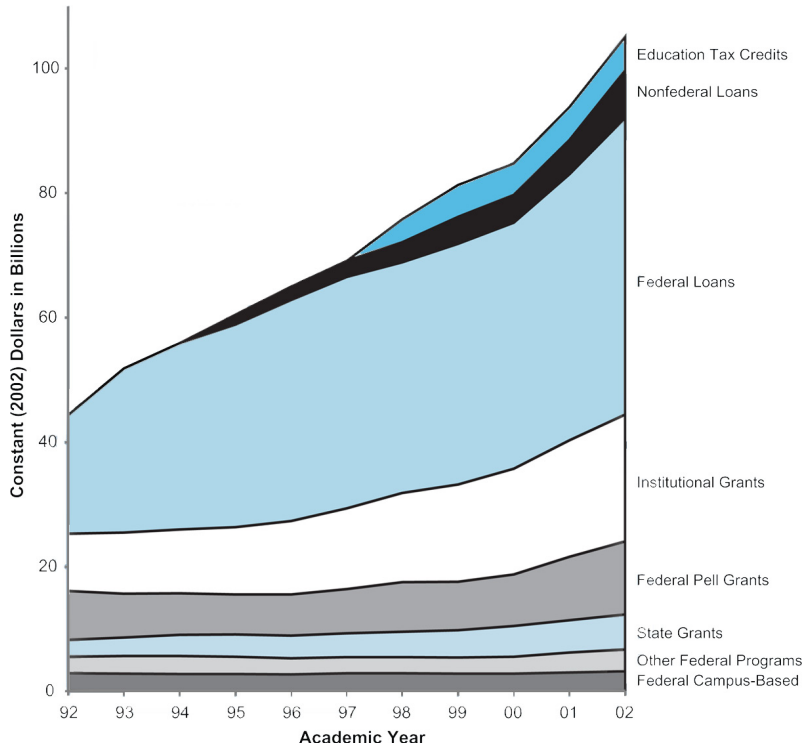
Figure 2: Alternative loan originations have seen rapid growth, both in dollar terms and as a percentage of total aid



Source: The College Board

Over the same period FFELP loan volume grew 52%, from $22.7 billion to $34.6 billion, while Direct Loan originations grew 32%, from $9.9 billion to $13.1 billion. Even so, the alternative student loan product still makes up a relatively small percentage of the overall pool of sources of assistance (about 6.6%).

Figure 3: Total student financial aid used to finance postsecondary education expenses (1992–1993 to 2002–2003); Nonfederal loans make up a growing percentage of total aid



Source: The College Board

According to *The Greentree Gazette* (a higher education finance industry magazine),[4] approximately 65 lenders offer an alternative loan product, and there are more than 272 distinct alternative loan products available. Data on the market composition of alternative loan originators is difficult to come by, as most lenders are not public companies; furthermore, even public companies frequently don't break out their alternative loan volume from their federal loan volume. Sallie Mae, however, is one lender that does separately disclose its alternative loan volume from its FFELP loan volume. As of September 30, 2003, SLM Corporation had nearly $8 billion of what they term "private credit" student loans under management, up 41% from their level a year earlier.

A Department of Education study cited by FitchRatings[5] provides more color on this market. The study (which is updated by the DOE every four years) includes data for the 1999–2000 academic year about the users of alternative loans. It comes as no surprise that a greater percentage of students attending professional programs (e.g. law school, business school and medical school) take advantage of this loan product than students pursuing other types of education programs. Professional programs are frequently relatively expensive, and are generally attended after college, for which FFELP loan resources may have been exhausted. While only 3% of proprietary/2-year school students, 5% of 4-year school students, 3% of master's degree students and 1% of doctorate students borrowed alternative loans, 23% of students pursuing professional degrees took out alternative loans. Of this last group,

[4] "No End Yet In Sight for Private Student Loan Growth," pages 88–89, *The Greentree Gazette*, March 2003.
[5] *2002 Student Loan Industry Wrap-Up*, March 17, 2003, FitchRatings.

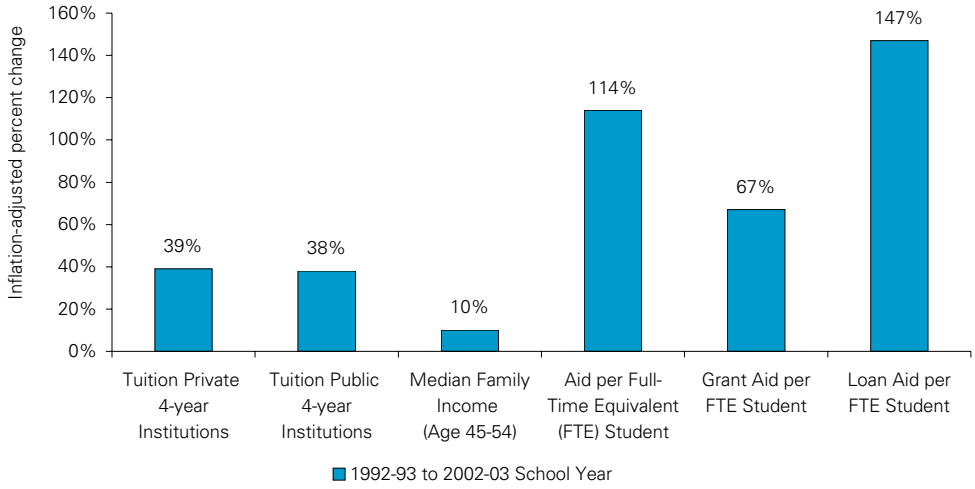
13% of those attending public institutions took out an alternative loan, while 31% of those attending private schools took out such loans.

Looking Behind the Growth of Alternative Student Loans

While education costs increased 38% to 39% cumulatively over the last decade, inflation-adjusted median family incomes only increased 10%

The recent surge in popularity for this product can be tied directly to two trends: rising tuition costs and the more limited availability of other forms of assistance, namely, FFELP loans. The chart in Figure 4 illustrates the extent to which growth in tuition costs has outpaced median income growth over the past decade, for the age group most likely to have college-aged children. This increase in college costs as has been widely reported is dramatic, however, it should also be noted that the cost figures ignore the effects of an increasingly common practice, that of selective discounting[6]. That point notwithstanding, the chart below also makes clear that loans, more so than government grants, are making up the gap between incomes and reported college costs. While growth in median[7] family income levels have not been able to match tuition increases, the usefulness of FFELP loans has been constrained by borrowing limits, which have been frozen at relatively low levels for the last decade (see Figure 5). Loans originated under the FFELP program are subject to set borrowing limits that may only be increased during periodic congressional reauthorization of the Higher Education Act (next set to occur in 2004). The fact that FFELP loan limits are relatively modest and have not changed since 1993, as shown in Figure 5, is a key reason behind the growth in the alternative student loan market.

Figure 4: Cost comparisons: Inflation-adjusted median family income growth has not kept pace with rapidly rising tuition costs



Source: The College Board

[6] This practice refers to colleges marking down costs for students they specifically want to attract to their programs, resulting in students, in effect, facing very different costs for the same program. Students therefore have not been equally impacted by tuition, room, and board increases.

[7] The College Board uses median income data in this analysis, however, it is important to note that mean incomes have not necessarily moved at the same rate. For example, according to the U.S. Census, between 1991 and 2001, inflation-adjusted median household income for the 45–54 year old cohort grew 8.3%, while the mean for that cohort grew 18.6%.

Stafford loan[8] limits

Independent students[9] are allowed to borrow more than are dependent undergraduate students. The annual ceilings on these amounts for both borrower types are shown below:

Figure 5: Current FFELP Stafford (unsubsidized) loan limits are modest

Annual limits (dependent/independent):	
Year 1	$2,625 / $6,625
Year 2	$3,500 / $7,500
Years 3 and 4	$5,500 / $10,500 per year (independent)
Graduate student	$18,500 per year (less amount of subsidized Stafford loan awarded)
Cumulative limits:	
Undergraduate – dependent	$23,000 between subsidized and unsubsidized Stafford loans
Undergraduate – independent	$46,000 (up to $23,000 in subsidized Stafford loans)
Graduate/professional student	$138,500 (up to $65,500 in subsidized Stafford loans)

Source: U.S. Department of Education

Figure 6: Available unsubsidized Stafford loan aid has shrunk as a percentage of total education costs

First year (dependent) available Stafford aid as % of average 1992–1993 tuition, fee, room and board charges at private 4-year school:	$2,625/$19,389 = **13.5%**
First year (dependent) available Stafford aid as % of average 2002–2003 tuition, fee, room and board charges at private 4-year school:	$2,625/$25,653 = **10.2%**

Source: Deutsche Bank, College Board

Work is underway on the next reauthorization, which is the next opportunity to raise loan limits, and legislation is likely to be completed sometime in 2004. It is unclear if the current tight budgetary environment will allow lawmakers to substantially increase loan limits from their 1993 levels during this particular reauthorization, and most market players are as yet unwilling to venture a guess as to how this will fall out. Since 1993 there was another reauthorization/amendment process, in 1998, at which time loan limits were left unchanged. Failing significant upward revisions to FFELP loan limits this time around we would expect an increasing number of students to rely on alternative loan products to meet the balance of their education costs.

[8] Stafford loans are the most common product for student borrowers under the FFELP program, and may be either subsidized or unsubsidized. Borrowers must demonstrate financial need to qualify for a subsidized Stafford loan, whereas unsubsidized Stafford loans are not based on financial need.

[9] The Department of Education defines an "Independent Student" to be one who meets one of the following criteria: the student is 24 years or older, a graduate or professional student, married, orphaned or a ward of the court, veteran of the armed services, or has documents describing circumstances of independence.

Alternative Student Loan Product Terms

Alternative student loans typically have higher balances, longer payment terms and higher interest costs to borrowers than FFELP loans

Unlike FFELP loans (which are, for the most part, "one-size-fits-all"), product terms on alternative student loans can vary significantly by servicer, by borrower credit and by the school program toward which the loan will be applied.

- **Borrowing Limits** – Most alternative loan programs are designed so that students can borrow up to the cost of their educational needs not otherwise satisfied by other forms of aid (FFELP loans, grants, etc.). Consequently, borrowing limits can be very high. Generally there will be both annual and aggregate limits, with each driven by the cost of the education program, and periodic re-underwriting of loans to make sure the borrower or co-borrower credit profile does not deteriorate significantly from year to year.

- **Loan Benchmarks and Rates** – Unlike FFELP loans such as Stafford's, which are now originated indexed to commercial paper ("CP"), alternative loans may be indexed to other benchmarks. For example, Sallie Mae originates Prime-based loans with margins ranging from 1% up to 9.9%, depending on the product/borrower credit profile combination. Other issuers (e.g. KeyCorp and Access Group) offer products based on LIBOR. In addition to the interest rate charged, borrowers also are typically subject to guarantee fees, which are generally added to the loan balance at disbursement and/or when a loan enters repayment (see "Availability of Insurance" on page 15). Securitizations featuring loans that are not LIBOR-based typically include a structural feature, such as basis swaps, to address the incremental basis risk posed by, for example, prime-based assets and LIBOR-based liabilities. The following table[10] compares FFELP loans to private label loans offered by a typical range of student loan issuers (lender names are not disclosed).

[10] *Private Loans and Choice in Financing Higher Education*, The Institute for Higher Education Policy ("IHEP"), with support from The Education Resources Institute, page 17.

Figure 7: Comparison of terms and conditions of federal student loans and selected private loans

	Origination Fee	Interest Rate Index and Margin	Annual Percentage Rate (APR)
Stafford Subsidized and Unsubsidized loans	Up to 4.0% of the disbursed loan amount[1]	4.06%[2]	Variable (not to exceed 8.25%)
PLUS	Up to 4.0% of the disbursed loan amount	4.86%	Variable (not to exceed 9.0%)
Lender 1	No fee	LIBOR +2.7%	5.33%
Lender 2	No fee at origination; fee of 0 to 6% added when repayment begins	Prime + 0% (during school); Prime + 0.25% (all other times)	(Dependent upon fee charged at repayment)
Lender 3: Private loan A	6.5% of the disbursed loan amount	Prime -0.50%	4.36%
Lender 3: Private loan B	No fee	Prime +1.0%	5.21%
Lender 4: Private loan A	6.5% of the disbursed loan amount	Prime + 0%	4.87%
Lender 4: Private loan B	No fee	Prime +0.50%	4.71%
Lender 5: Private loan A	6.5% of the disbursed loan amount	LIBOR +2.80%	4.77%
Lender 5: Private loan B	No fee	LIBOR +3.95%	5.25%

NOTES: The names of the lenders and products have been withheld. The descriptions are intended as illustrations and in no way are meant to endorse a particular product or lender. The private loan products and rates given are for students who are creditworthy (demonstration of a satisfactory credit history and sufficient current income). Each APR is current as of 04/01/03 and may increase during the life of the loan. APR calculations assume the student borrows $15,000. Prime equals 4.25% and LIBOR Index equals 1.35% as of 04/01/03. Prime may change monthly. The LIBOR Index may change quarterly.

1 Lenders may collect an origination fee up to 3.0% of the loan disbursement amount, along with a 1.0% guarantee fee (although the guarantee fee often is waived). The loan origination fee is deducted proportionately from each loan disbursement.

2 The rate listed was for the period 07/01/02 through 06/30/03. Stafford loans disbursed on or after 10/01/98 have an interest rate that resets annually (June), based on the 91-Day T-Bill plus 1.7% while the student is in school, during the grace period or in deferment. The rate is based on the 91-Day T-Bill plus 2.3% during repayment.

Sources: Various lenders' websites; ED2003a (table appeared in IHEP study; see footnote 10), Deutsche Bank

- **Repayment Terms** – The repayment terms for alternative student loans are typically longer than for most FFELP loan products (excluding FFELP consolidation loans), which is understandable given the higher average balances. Terms on alternative loan products generally range from 10 to 25 years depending on the original principal balance and loan type, and are typically structured with level monthly payments.[11] While it is possible to consolidate alternative loans into alternative (private) consolidation loan products, it is not possible to consolidate this product into what has become the very financially attractive *federal* consolidation loan product. The federal consolidation loan product has attracted a lot of interest because it consolidates outstanding floating-rate student loans into a single fixed-rate loan, based on the weighted average of the interest rates that were in effect at the time of consolidation on the loans to be consolidated. In recent years this has allowed borrowers to lock in an attractive interest rate without concern that it would increase with the general level of interest rates. From an ABS investor's perspective, consolidation-driven prepayments (which have accounted for a significant portion of voluntary prepayments on FFELP loan-backed ABS) are less of a factor for ABS backed by alternative loans.

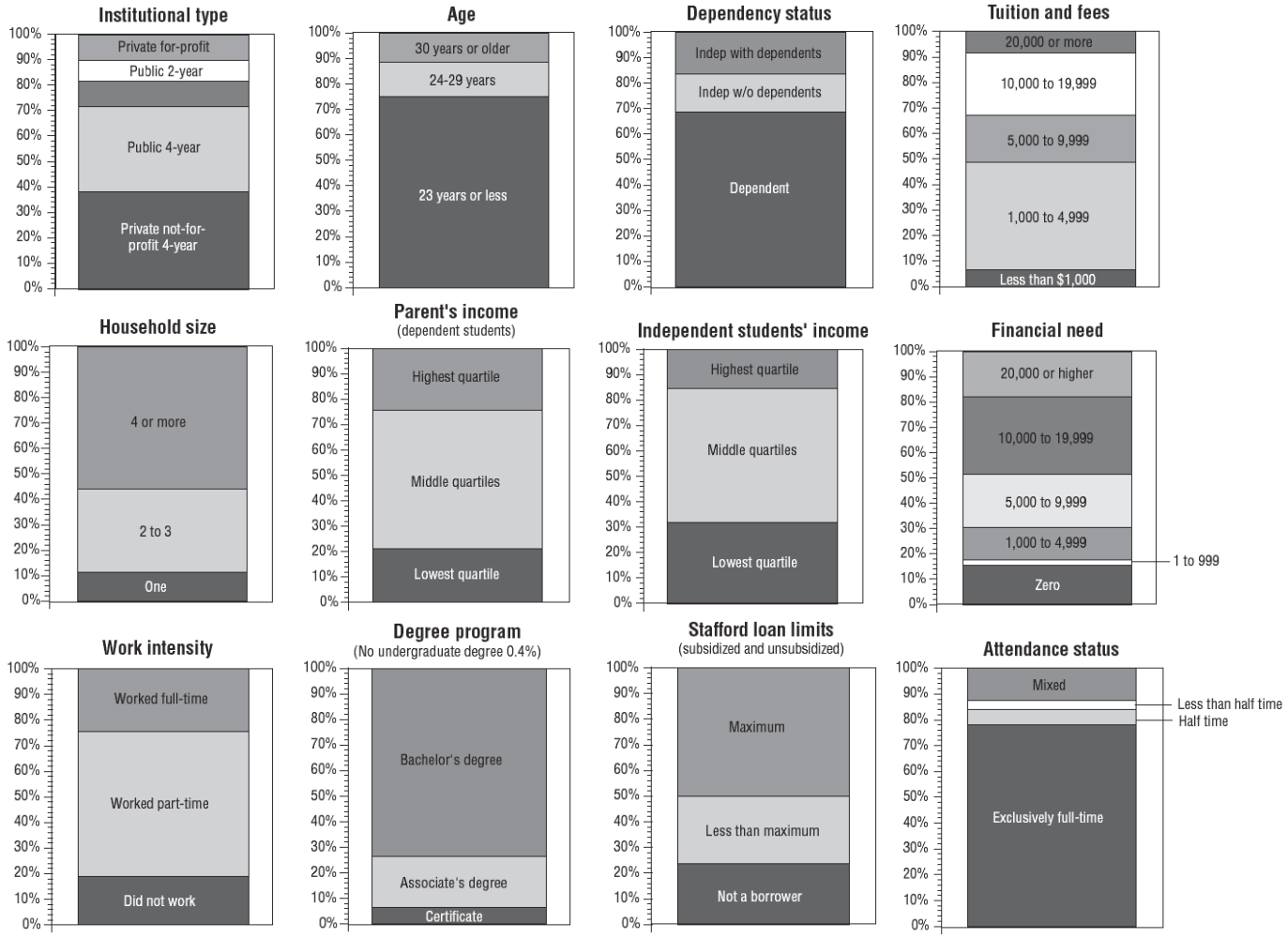
[11] For example, in the SLM Private Credit Student Loan Trust 2003-C transaction, 94.7% of the pool loans (by outstanding balance) were structured with level repayment schedules.

Analyzing Alternative Student Loan Credit

Because this loan product does not benefit from the FFELP guarantee, credit analysis plays a much more important role than for traditional FFELP-backed ABS. As would be expected, the credit differences between FFELP and alternative collateral are reflected in higher credit enhancement levels. One can best understand the credit fundamentals by analyzing: 1) student borrower creditworthiness, 2) the underwriting process and FICO scores, 3) the role of co-borrowers, 4) the availability of insurance, 5) the particular treatment of this product in a Chapter 7 bankruptcy and 6) any historical data available for the specific pool in question. We will take a closer look at each. But first it is helpful to understand a little bit more about who borrows with private loans, and for what types of programs.

Many of the ABS pools include significant portions of graduate student borrowers. While the following chart does not include detail for these graduate borrowers, it was included in the above-footnoted IHEP study, and gives a snapshot of borrower characteristics for *undergraduate* borrowers.

Figure 8: Percentage distribution of undergraduate private loan borrowers, by selected characteristics, in 1999–2000



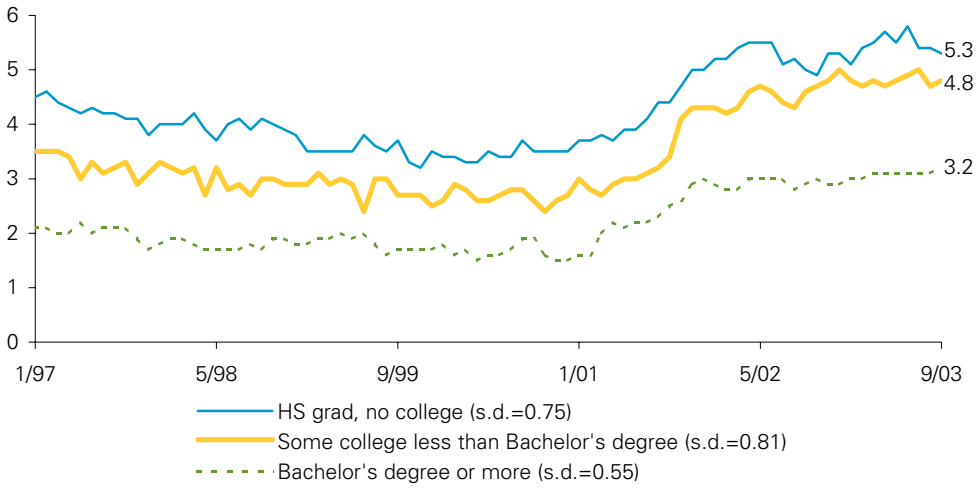
Source: Private Loans and Choice in Financing Higher Education, The Institute for Higher Education Policy ("IHEP"), with support from The Education Resources Institute

Student Borrower Creditworthiness

College graduates are expected to experience lower rates of unemployment and higher income potential

Although student borrowers are likely to have less experience with credit than more seasoned borrowers already in the workforce, the decision to advance one's educational status can be a leading indicator of a positive credit profile. Data from the Department of Labor show that unemployment rates for college graduates are nearly half the level of students with only a high school education or lower. Not only is unemployment for those who attain higher education levels absolutely lower, but the unemployment rate is also more stable. The chart below shows this relationship, along with the standard deviations of each data set for the time period shown.

Figure 9: Unemployment for college graduates is both consistently lower, and more stable, than for those with less education



Data as of September 2003

Source: U.S. Department of Labor

Additionally, it should come as no surprise that college graduates have access to jobs requiring a higher skill level, with higher income potential, than do their less educated peers. The following charts are based on the Federal Reserve's triennial Survey of Consumer Finances, and show survey results since 1992 on income, savings and how each correlates with educational attainment.

Figure 10: Mean pre-tax family incomes by education – a college degree is increasingly more important

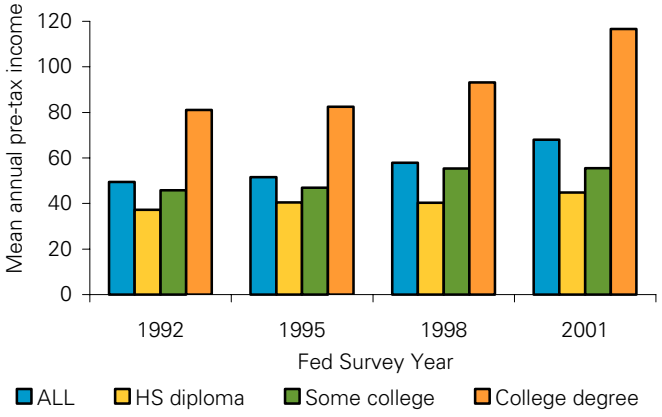
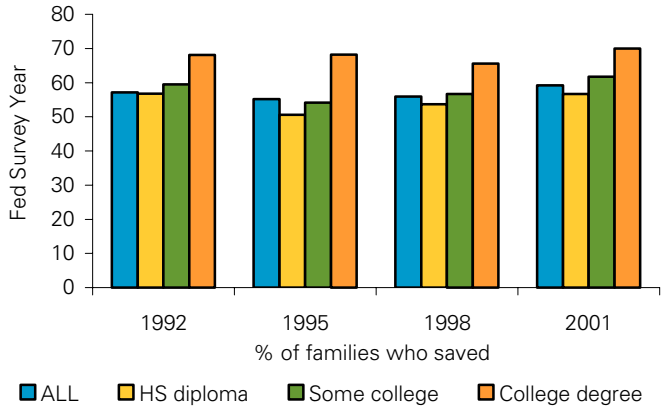


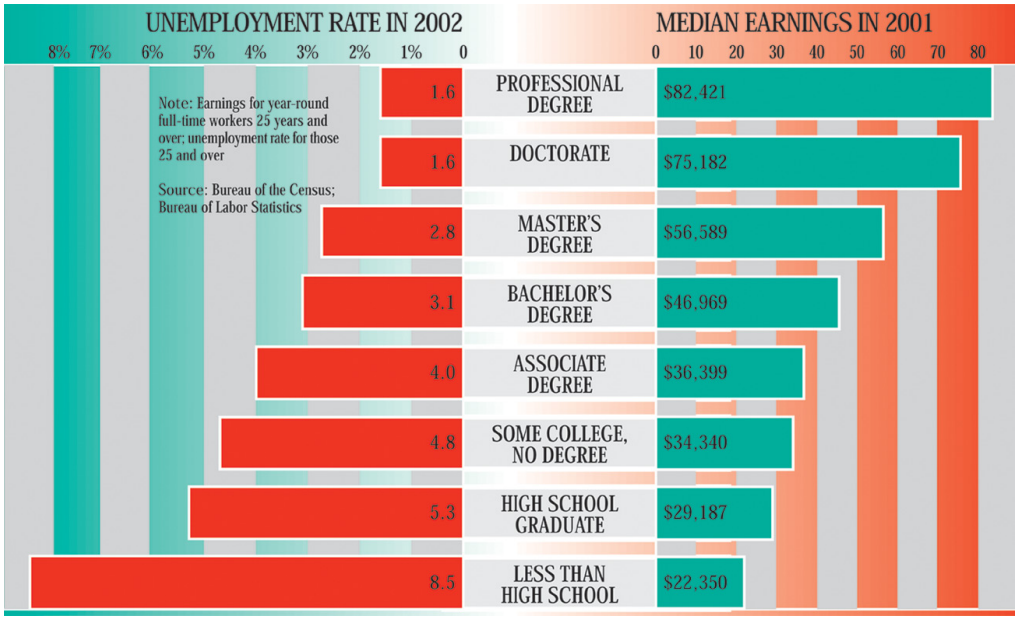
Figure 11: College grads show higher propensity to save



Source: Recent Changes in U.S. Family Finances: Evidence from the 1998 and 2001 Survey of Consumer Finances, Federal Reserve Board

These findings on unemployment and income are corroborated by results of a similar study by Postsecondary Education Opportunity, a public policy research group (www.postsecondary.org). The following chart also demonstrates the relationships between both unemployment and median earnings, and educational attainment. (Note that this data is on an individual basis, versus a per-family basis, which is used in the federal data shown above.)

Figure 12: Education and training pay



*Source: **Postsecondary Education Opportunity***

The Underwriting Process and FICO Scores

Unlike FFELP loans, alternative student loans are "credit-tested," generally based on FICO scores

The favorable income potential associated with more education is only one factor in the lending equation. The underwriting process generally requires the borrower to satisfy criteria set by the lender as well as the criteria of any guarantor that may be involved, or some combination of both.

Unlike a FFELP loan, most alternative loans are "credit tested," meaning the borrower's credit is analyzed (under the government's FFELP loan program, borrowers cannot be turned down due to poor credit). Most alternative loan originators and guarantors rely heavily on FICO (Fair Isaac Corporation) scores in conjunction with their own, or a guarantor's own, underwriting criteria. Some lenders use a straight "judgmental approach" in lieu of a FICO score. In addition to FICOs, debt-to-income ratios may also be analyzed if available. Borrowers may also be required to have already applied for a FFELP loan, meet minimum age requirements, and/or have a minimum U.S. citizenship status. And, like the FFELP program, most alternative lenders will require that the school meet qualifying guidelines, in part based on an institution's FFELP default rate experience.

Many lenders will also enlist the participation of a third-party guarantee agency (see page 15). When such a loan guarantee is used, the guarantor is also involved in the underwriting function (generally in communication with the lender). The guarantor may also require that the lender abide by certain servicing/due diligence procedures in order to maintain coverage of the guarantee (analogous to the Department of Education's requirements for its guarantee on FFELP loans).

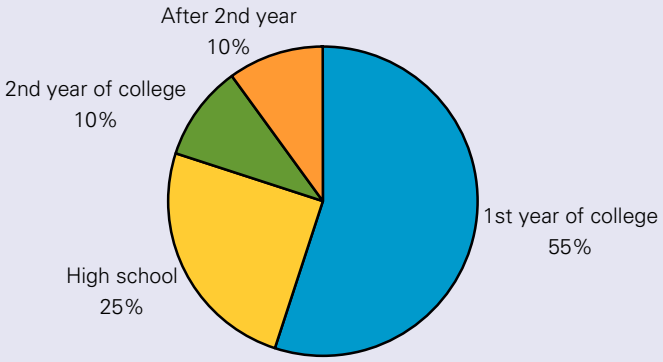
Typical FICOs in alternative student loan pools differ from those for the typical U.S. borrower because younger borrowers tend to have less debt (no mortgage) and generally less time and opportunity to incur bad debts. Also, to the extent the borrower is underwritten with a co-signer or co-borrower,[12] generally it is because that party has a higher FICO score, and that party's FICO score is the one relied on and included in information for alternative loan ABS pools. Alternative student loan ABS typically provide FICO data associated with the loans in the underlying pools. In Sallie Mae's most recent offering (Series 2003-C), for example, the weighted average FICO score was 720 at origination, and just 0.4% of the pool had a FICO (at time of loan application) below 630. Average FICOs in the low 700s and FICO cut-offs in the low 600s are common for alternative loan pools.

[12] The presence of a co-borrower allows the servicer to pursue collections from both the student borrower and the co-borrower simultaneously. If instead a "co-signer" arrangement is used, the servicer can only go after the co-signer once all attempts to collect from the borrower have been exhausted.

Card Carrying College Students — How Student Borrowers Get a FICO Score

In 1998, The Education Resources Institute ("TERI") conducted a survey of college students about their usage of credit cards. One question the survey helped to answer was how so many students have built up their credit histories. While somewhat dated, it sheds light on credit characteristics of this segment of the population. Of the population sampled, 78% were younger than 24 years old, 67% were financially dependent on their parents and 86% were full-time students, with 59% attending 4-year schools. When the survey was conducted, nearly two-thirds of college students had at least one credit card, and one in five had at least four credit cards. The chart below, taken from the survey, highlights the fact that cardholders obtain their first credit cards relatively early (25% while still in high school, in association with their parents).

When students obtained their first credit card – of survey respondents with credit cards



Source: The Institute for Higher Education Policy, Credit Card Survey, March/April 1998

In terms of payment behavior, 86% of the students claimed to pay their own bills, with just 14% receiving help from parents and/or spouses to pay their credit card bills. The survey also reported that 59% of the respondents said that they paid off their full balance each month, while, of those that revolve, about 81% pay more than the minimum amount due. All of these behaviors are instrumental in building a positive credit history.

Role of Co-borrowers

Spouses, parents or other "co-borrowers" may help a student borrower qualify for an alternative loan

Because many students have a limited credit history, and because alternative loans are relatively large, most alternative loan originators will require a co-signer or co-borrower arrangement in scenarios where the borrower does not qualify independently for a loan. The presence of a co-borrower (generally a spouse or parent) can lower the interest rate, permit a longer repayment term and/or allow for higher borrowing amounts than would be the case for students borrowing on their own. While specific portfolios can demonstrate dramatically different credit characteristics, all else equal, loans with co-borrowers generally exhibit lower cumulative default rates than those without a co-borrower. This is in part because a given FICO for a student borrower generally does not incorporate the same depth of credit history as does the same score for an older (parent) co-borrower. Generally, student borrowers exhibit a greater incidence of first payment default when compared to co-borrowers with a longer credit history, and their FICOs tend to see more negative drift over time, at least in the short term. In its third quarter 2003 earnings conference call, Sallie Mae noted that approximately 50% of the loans in its $7.97 billion managed private loan portfolio benefited from a co-borrower. In the SLM Private Credit Student Loan Trust 2003-C pool, 50% of the loans had a co-borrower.

Availability of Insurance

Most lending programs also incorporate either "self-insurance," in the form of borrower-paid guarantee fees, or a loan guarantee arrangement from a third party. Examples of each of these arrangements are detailed below.

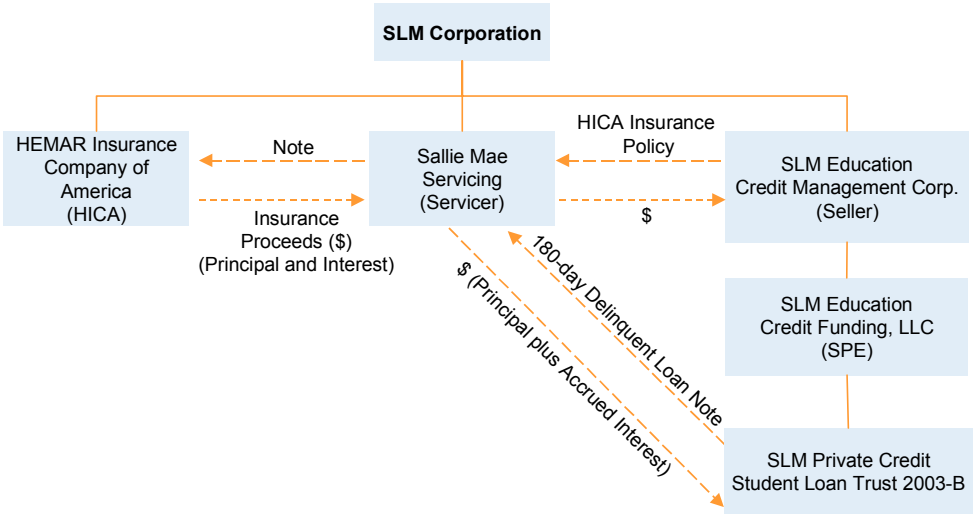
Self-Insurance

Access Group is an example of an issuer who charges its borrowers a guarantee fee to insure the borrower's loan. The amount of the fee varies depending on the credit quality of the borrower, and sometimes the school; fees, which are added to principal balance when a loan enters repayment, currently range from 5% to 12.9% of the loan balance. At loan repayment, the fee percentage is applied to the loan amount (principal plus accrued interest). Access Group has used several different structures in its securitizations to harness the benefit of this fee. For example, in its 2002-A transaction, when the loan enters repayment, the full amount of the guarantee fee is remitted to a "Loan Reserve Trust" established for benefit of the securitization. Funds in the Loan Reserve Trust are then available as a source of credit enhancement.

Third-Party Guarantee

Sallie Mae's "private credit" loan product is an example of one that makes use of a third-party guarantee. In this case, the third party is HEMAR Insurance Corporation of America ("HICA"), a wholly-owned subsidiary of SLM. While the individual loans are insured, the rating agencies do not assume that the insurance is available for the purposes of Sallie Mae's private credit ABS program because the trusts are not legal beneficiaries of the arrangement. The HICA guarantee is therefore ignored for the purposes of assigning ABS ratings. However, as HICA is a regulated entity, in order to make a claim under the insurance policy, Sallie Mae must buy the delinquent loan out of the trust at principal plus accrued interest, and present the loan to HICA. There is thus currently a strong incentive for Sallie Mae to buy these delinquent loans out of the trust. The flow of payments under the HICA arrangement is shown in the chart below.

Figure 13: Loans must be purchased from the trust for Sallie Mae to claim HICA insurance



Source: SLM Corporation

The first four quarterly servicing reports are now available for Sallie Mae's first private credit ABS, Series 2002-A (issued October 2002), which allows us to see how the insurance has benefited the transaction so far. As the reports show, Sallie Mae has so far bought out all loans that have become 180 days delinquent (although it is not legally obligated to do so). As a result, cumulative realized losses in the trust are zero so far (see Figure 14).

Figure 14: SLMA Private Credit Student Loan Trust 2002-A; servicing reports show 100% buy-out of delinquent loans

		Reporting Date				Cumulative
Quarterly Servicing Reports		11/30/02	2/28/02	5/31/03	8/31/03	(as of 8/31/03)
Principal Activity						
II.A.ii	Purchases by servicer (delinquencies > 180)	$45,333.74	$439,757.44	$384,621.89	$347,273.28	$1,216,986.35
II.B.i	Realized losses/Loans charged off	**0**	**0**	**0**	**0**	**0**
Interest Activity						
II.D.ii	Purchases by servicer (delinquencies > 180)	$801.87	$13,763.73	$4,319.12	$8,851.48	$27,736.20
II.E.i	Realized losses/Loans charged off	**0**	**0**	**0**	**0**	**0**

Source: SLM Corporation

Non-dischargeability in bankruptcy

As long as there is a legitimate non-profit link, alternative loans are not dischargeable in bankruptcy

Student loans originated under the FFELP program are not dischargeable in personal bankruptcy proceedings (e.g. bankruptcy does not allow the borrower to avoid repayment of FFELP loans). This is also true, in certain cases, for alternative student loans. This treatment of alternative student loans generally relies on a link to a "non-profit program" as described in Section 523(a)(8) of the U.S. Bankruptcy Code. The following text from that Section 523(a)(8) details the *exception* to discharging student loans (or the cases where loans are not dischargeable), and reads in part as follows:

"Exceptions (to discharge) … Loan made, insured or guaranteed by a governmental unit, ***or made under any program funded in whole or in part by a governmental unit or non-profit institution***, or for an obligation to repay funds received as an educational benefit, scholarship or stipend, unless –

> (A) such loan, benefit, scholarship, or stipend overpayment first became due more than 7 years (exclusive of any applicable suspension of the repayment period) before the date of the filing of the petition; or
>
> (B) excepting such debt from discharge under this paragraph will impose an undue hardship on the debtor and the debtor's dependents;[13]"

The language application of the bankruptcy code to alternative student loan programs has been refined through case law and precedent—the courts have generally interpreted this part of the code broadly (see "Pilcher" in grey box below). In some cases the non-profit designation is clear-cut. For example, Access Group is a 501(c)3 tax-exempt organization. However, other issuers that are not non-profits on their own have nonetheless been able to establish non-profit linkages for some or all of their loan programs by other means.

[13] It has historically been very difficult for a student to prove undue hardship, and thus discharge a loan under the hardship carve-out in (B) above.

The Pilcher appeals case (149 B.R. 595 [9th Cir. BAP 1993]) and Section 523(a)(8)

One of the defining cases for the bankruptcy treatment of alternative student loans involved a woman named Linda Pilcher, who filed for Chapter 7 bankruptcy and sought to discharge an alternative loan used for law school tuition. Originally (1993) the bankruptcy court ruled in favor of Pilcher, but an appellate court reversed the decision and the loan was not discharged.

The case involved the treatment of Linda Pilcher's "Law Access Loan," which was originally made by Norwest Bank (later sold to SLMA, and which, at the time of the borrower's bankruptcy, was held by HEMAR Insurance Company). While the Law Access Loan was not a federally guaranteed loan and did not otherwise benefit from any direct non-profit funding, the Law Access Loan was marketed as part of a greater "Law Access Program." The same brochure described the private loan product as well as a number of federally guaranteed loan products, with the different loan products taken together considered the Law Access Program. A prospective borrower wishing to apply for one of these loans used an application form that could be used for any of the different loan products (they would simply fill out the section of the form that was applicable to their loan).

The Pilcher case only involved an alternative loan (no federal loans). In the original bankruptcy case, the court agreed with Ms. Pilcher's argument that because the *loan itself* did not benefit from government or non-profit support, it did not fall under the Section 523(a)(8) exception, and could therefore be discharged. However, the appeals court overturned this decision, focusing instead on the definition of non-profit "program" as it is defined in the bankruptcy code (see above).

The appeals court considered the intent of the code (to prevent abuses of the education system), as well as other precedents. Because the alternative loan was extended as part of a greater coordinated program which included the participation of a non-profit and governmental entities, the alternative loan was found not to be dischargeable in bankruptcy.

Source: BKLaw.com

The non-dischargeability of many alternative student loans in bankruptcy distinguishes them from other unsecured consumer loans. For example, in credit card portfolios, bankruptcies account for a significant, and highly variable, percentage of losses. The Nilson Report[14] recently estimated that losses due to consumer bankruptcies have historically accounted for between 30% and 60% of credit card charge-offs, depending on the portfolio and the state of the macro economy. In part because of the bankruptcy treatment, recovery rates on alternative student loans are high relative to other forms of unsecured consumer credit (e.g. credit cards) but can also take a fairly long time to be realized. According to Sallie Mae, their alternative loan portfolio has a long-term recovery rate of approximately 25%; by comparison, gross recoveries for major credit card programs fall in a range closer to 5% to 15%, depending on the portfolio.

[14] *Nilson Report*, January 2003.

Alternative Student Loan Credit Performance

Credit performance varies by academic program, school type and whether loans have a co-borrower, among other factors

The credit performance of alternative student loans varies substantially by servicer and the purpose of the loan. Different types of academic programs, as well as whether a loan will be applied to a vocational program, a 2-year program, a 4-year undergraduate program, or graduate program, and even the specific school, can impact performance. An additional variable that must be considered is the presence of a co-signer or co-borrower. Loans that include such a third party obligor generally demonstrate superior performance, all else equal, than those that do not. Both the absolute loss levels as well as the shape of the default curve will vary by these different factors. Pools backed by loans used for multiple programs have credit profiles that are more difficult to predict. For an ABS investor, the importance of understanding the specific programs of a given servicer and their relative representation in an ABS pool cannot be overemphasized.

For example, Sallie Mae's private credit ABS platform has thus far featured four different programs, the Signature Education Loan program (loans for undergrads and certain graduate studies), and LAWLOANS, MBALoans and MEDLOANS, for law, business and medical studies, respectively. Some of the loans have co-borrower arrangements, and some do not. Product-specific static loss curve data are not publicly available for Sallie Mae's securitized pools (although the company says investors have been and will continue to be provided this level of detail in conjunction with new issues). However, according to Sallie Mae, they expect weighted average gross cumulative default rates associated with the loans securitized in its four private credit transactions to date to plateau in the 5% to 6% range, with periodic defaults peaking about six years into repayment. It is important to consider that this is a weighted average of results based on four different underlying loan types, some with co-borrowers, and some without. As mentioned earlier, cumulative recovery rates run in the 25% range for Sallie Mae's private credit portfolio.

The Moody's new issue reports for SLM Private Credit Student Loan Trust 2003-A and 2003-B shed some light on how different loan types are expected to perform. Moody's indicated that it assumed higher default rates for Signature and LAWLOANS, and lower assumptions for the MEDLOANS and MBALoans, due to differences in the product-specific static pool data, underwriting criteria, and FICO distribution. And, while not providing detailed numbers, the articles also reinforced that different securitization pools can have very different credit characteristics. Beyond program type, Moody's also noted that 95% and 96% of the loans in the 2003-A and 2003-B pools, respectively, were related to 4-year schools, which the agency observed to show lower default rates and severity compared to 2-year and proprietary schools. The absence of any "career loans" (used for vocational programs) was also considered a positive pool credit characteristic.

KeyCorp provides a good approximation of static pool loss information with its claims data related to its securitized alternative loan pools. The following chart appears in the KeyCorp Student Loan Trust 2003-A prospectus and shows the timing of defaults as well as improvement in more recent vintages.

Figure 15: Cumulative claims paid percentages[1] by securitization trust and assumed graduation date, for KeyCorp's Private Guaranteed Student Loans show long-term improvement in vintages through time

	TRUST												
	1993-A	1994-A	1994-B	1995-A	1995-B	1996-A	1997-1	1999-A	1999-B	2000-A	2000-B	2001-A	2002-A
Cumulative	CUT-OFF DATE												
Claims Paid	5/12/93	1/1/94	9/1/94	1/1/95	10/1/95	9/1/96	9/1/97	1/1/99	9/1/99	6/1/00	9/1/00	9/1/01	9/1/02
Through	GRADUATION DATE (assumed)												
Feb. 28,	1993	1993	1994	1994	1995	1996	1997	1998	1999	2000	2000	2001	2002
1994	0.12%	0.12%											
1995	3.96%	3.31%	0.33%	0.20%									
1996	7.68%	6.45%	3.40%	3.19%	0.15%								
1997	12.53%	9.54%	6.94%	7.62%	1.89%	0.10%							
1998	14.67%	11.65%	10.07%	10.47%	5.56%	2.31%	0.08%						
1999	16.20%	13.14%	12.15%	12.56%	8.49%	5.80%	2.25%	0.02%					
2000	16.91%	14.55%	13.48%	13.80%	10.23%	8.72%	6.12%	1.36%	0.06%				
2001	17.49%	15.34%	14.29%	14.61%	11.34%	10.02%	8.42%	4.47%	1.28%	0.40%	0.01%		
2002	17.81%	15.78%	14.80%	15.28%	11.95%	11.03%	9.81%	6.20%	3.62%	2.15%	1.30%	0.86%	
2003	17.93%	15.94%	15.11%	15.62%	12.27%	11.29%	10.67%	7.00%	4.64%	3.09%	2.86%	2.07%	0.16%

1. The cumulative claims paid percentage is calculated by dividing (x) the total dollar amount of claims paid including accrued interest by the related private student loan guarantors on guaranteed private student loans in the related trust through the referenced February 28 of that year, by (y) the sum of (i) the aggregate original principal balance of all guaranteed private student loans in the related trust, and (ii) related cumulative capitalized interest, related consolidation and serial loan purchases, related guarantee fee capitalization and other principal adjustments in each case through the referenced February 28 of that year, less (iii) the outstanding principal balance of all guaranteed private student loans in the related trust repurchased by the seller or servicer through the referenced February 28 of that year.

Source: KeyCorp Student Loan Trust 2003-C Prospectus

Alternative Loans and the ABS Market

History and the Market Today

While alternative student loans have been around for decades, much of the financing of this product historically occurred in the auction rate market. Auction rate notes are floating-rate notes whose interest rate is not set off of a fixed index but is typically set in a "Dutch auction" managed by banks or broker-dealers. Thus, the community of buyers/bidders for a particular issuance determines the pricing over relatively short fixed periodic terms (e.g. 28 days). End purchasers of auction rate notes are typically wealthy retail investors, trusts and corporations seeking to place money over a short time horizon. While the auction rate market can be a good alternative for issuers with smaller loan volumes to finance, those with enough loan volume to fund in the term ABS market are increasingly choosing that route to take advantage of favorable pricing, the opportunity to access a broad base of institutional investors, and the ability to lock in term funding. The early years of the alternative loan ABS subclass were characterized by rapid structural evolution, relatively infrequent issuance and highly variable pool characteristics (such as school type, etc.). Beginning in 1993, issuers began to bring sizeable ABS transactions backed at least in part by alternative loans, and to date, Key, Access and Sallie Mae have all offered LIBOR-based floaters backed in whole or in part by alternative loans. According to Fitch, alternative loans financed through securitization[15] exceeded $3.0 billion in 2002, a 69% increase from

[15] Fitch statistics include securitizations done exclusively through the auction rate market, as well as those that include LIBOR floaters. See *2002 Student Loan Industry Wrap-Up*, FitchRatings, March 17, 2003.

2001 (Fitch also notes in this same report that the credit quality of its rated transactions backed by alternative loans has been well within expectations.) The first generation of these deals typically included a surety wrap (some issuers continue to use a surety wrap today), and the collateral pools often combined alternative loans and FFELP loans together, making it somewhat difficult to perform distinct credit and relative value analysis. The next structural development introduced the "grouping" concept, where both FFELP and alternative loans were offered concurrently in one securitization, but in separate classes backed by separate groups of loans. Access Group, Inc. and KeyCorp both first employed variants of this structure in 2001. Today, Sallie Mae (the most prolific issuer in 2003) uses an unwrapped, senior/subordinate structure for its alternative loan program. This program, among other features, also has offered one of the first opportunities for investors to buy triple-B rated ABS backed by student loan receivables.

So far in 2003, private label student loan ABS have been offered by three separate issuers: Access, Key and Sallie Mae. The programs differ greatly as to the loan types, borrower profiles and credit enhancement profiles. It has only been very recently that we've begun to see an emerging benchmark for this subsector, owing to the growing programmatic issuance of Sallie Mae. At the time of its first alternative loan transaction in October 2002, SLM Private Credit Student Loan Trust 2002-A, the company filed a $5 billion shelf with the SEC, signaling the intent to issue substantially more in the ABS market. Sallie Mae followed that first offering shortly after with similar transactions, in March, June and October 2003, and has announced expectations to continue this issuance pattern going forward. Such large and regular issuance should help lead to improved liquidity for alternative student loan ABS.

Alternative Loan ABS Structural Considerations

Higher balances, longer terms and other alternative loan characteristics require different ABS structural features

Alternative student loans have certain features that require slightly different ABS structures than would be found in a "plain vanilla" FFELP loan ABS deal. For example, the longer repayment terms associated with most alternative student loans necessitate a structural accommodation to allow for the issuance of ABS with maturities that are more in line with the rest of the market. Sallie Mae addresses this issue by including classes of auction rate notes in its private credit ABS structures.

As mentioned earlier, the terms of alternative student loans can vary significantly by issuer; we therefore have seen very different structures in the market for different issuers. For example, Access Group charges borrowers "self-insurance" fees; in several of its transactions (pre-2003) the issuer has trapped these fees in a separate loan fee reserve trust as a source of enhancement. This feature has been unique to Access Group; structural differences such as this are common across this sub-segment of the market.

For simplicity the table below compares some of the structural features of the latest alternative loan transactions from Sallie Mae (SLM Private Credit Student Loan Trust, Series 2003-C), KeyCorp (KeyCorp Student Loan Trust 2003-A) and Access Group (Access Group, Inc. Private Student Loan Asset-Backed Notes, Series 2003-A) necessitated specifically by the collateral and creates distinctions from most FFELP loan transactions.

Figure 16: Alternative student loan structural features

The following features have been included in recent alternative student loan ABS deals, specifically to accommodate unique features of the alternative loans not found in FFELP loans

		Alternative Student Loans		
Risk	**FFELP transaction (ex. SLM Student Loan Trust 2003-9)**	**SLM Private Credit Student Loan Trust 2003-C**	**KeyCorp Student Loan Trust 2003-A (Group II)**	**Access Group, Inc. Private Student Loan Asset-Backed Notes, Series 2003-A**
Credit Risk	Offset by presence of federal guarantee (98% reinsurance). Remaining risk is on 2% of pool, and for rest of pool, risk that servicing error will result in rejection of federal claim.	Absence of a federal guarantee requires incremental credit enhancement:	Absence of a federal guarantee requires incremental credit enhancement:	Absence of a federal guarantee requires incremental credit enhancement:
		Credit-tested (underwritten) loan collateral	Credit-tested (underwritten) loan collateral	Credit-tested (underwritten) loan collateral
Subordination	Risk is further reduced by 3% subordination for Class As	More subordination for triple-As (7.75%) versus traditional FFELP	More subordination for triple-As (5.00%) versus traditional FFELP	More subordination for triple-As (10.00%) versus traditional FFELP
Overcollateralization		50 bp of over-collateralization; excess spread turbo to build O/C; cumulative loss triggers that must be satisfied in order for O/C to step down		
Reserve Account	25 bp reserve account	25 bp reserve account	3.50% reserve account	
Loan level insurance		HICA loan level insurance (no credit given by rating agencies)	TERI loan level insurance for portion of loans	
Bond level insurance			MBIA surety wrap	
Other	Interest rate cap (for liquidity)	Cash capitalization account	Cross-collateralization with FFELP loan Group I	Loan fees paid by borrowers added to balances on repayment; capitalized interest account (for liquidity)
Tail Risk	Non consolidation FFELP loans have terms of approximately 10 years	Inclusion of auction-rate tranches allow for market standard tenors for LIBOR tranches	Optional put	Inclusion of auction-rate tranches allow for market standard tenors for LIBOR tranche
Basis Risk	Majority of loans indexed to CP; no basis swap required	15-year balance guaranteed Prime/ LIBOR basis swap	Mitigated by 86% of pool based on LIBOR	100% of pool based on LIBOR
Securities Offered	Securities offered are limited to single-A and triple-A	Capital structure also includes triple-B securities	Securities offered are limited to triple-A securities (due to wrap)	LIBOR floaters limited to triple-A

Source: Prospectuses for SLM Student Loan Trust 2003-9, SLM Private Credit Student Loan Trust 2003-C, Key Corp Student Loan Trust 2003-A and Access Group, Inc. Private Student Loan Asset-Backed Notes, Series 2003-A

Relative Value Comparison

As mentioned above, until several months ago, this segment of the ABS market was highly fragmented. However we think at least one program has now developed to the size where meaningful relative value comparisons versus other asset classes can be helpful. Below we compare the SLM private credit ABS program[16] to another ABS asset class backed by unsecured consumer credit, credit card ABS.

Figure 17 below shows the new issue pricing levels of the triple-A classes of the four outstanding Sallie Mae private loan deals, as well as the most comparable top-tier credit card ABS spread levels:

Figure 17: SLMA private credit student loans – New issue pricing for senior securities versus top-tier credit card ABS shows gradual compression of spread pick-up

	Series 2002-A	Series 2003-A	Series 2003-B	Series 2003-C
Pricing Date (Bloomberg)	10/11/02	3/6/03	6/18/03	10/2/03
Class A1				
Rating	Aaa/AAA/AAA	Aaa/AAA/AAA	Aaa/AAA/AAA	Aaa/AAA/AAA
WAL	2.53	2.59	2.50	2.48
Pricing	3L+15	3L+11	3L+10	3L+10
2-year top-tier triple-A cards (to 1mL)	1L+4	1L+3	1L+3	1L+4
3-year top-tier triple-A cards (to 1mL)	1L+6	1L+5	1L+5	1L+6
Approx. pick-up for SLABs (adjusted for 1m vs. 3m LIBOR)	***8-10 bp***	***5-7 bp***	***4-6 bp***	***3-5 bp***
Class A2				
Rating	Aaa/AAA/AAA	Aaa/AAA/AAA	Aaa/AAA/AAA	Aaa/AAA/AAA
WAL	9.41	7.67	7.67	7.67
Pricing	3L+55	3L+44	3L+40	3L+39
7-year top-tier triple-A cards (to 1mL)		1L+17	1L+17	1L+18
10-year top-tier triple-A cards (to 1mL)	1L+27			
Approx. pick-up for SLABs (adjusted for 1m vs. 3m LIBOR)	***27***	***26***	***22***	***20***

Sources: Bloomberg, Deutsche Bank

Focusing on the triple-A bonds[17], the simplest observation to be made from the data above is that since the first SLM private credit deal in early October 2002, the pick-up for these transactions versus top-tier credit card ABS has steadily compressed. And while the spreads for both 2-year and 7-year paper have come in, there remains a substantial pick-up for 7-year alternative student loan ABS versus longer credit card paper. We attribute the compression to both an improvement in liquidity, as well as greater understanding across the ABS investor base of the characteristics of this product. The questions are how far will this spread compression continue and

[16] We select Sallie Mae's program because it has contributed $4.47 billion of ABS volume since October 2002, and because, for the foreseeable future, we expect it to be the most liquid and standardized program in this sector.

[17] While there are few comparable pricing points for the longer (7-9 year) subordinate alternative student loan ABS, the single-As and triple-Bs in this sector have generally stayed in a stable pricing range. Spreads for subordinate credit card ABS by contrast have enjoyed somewhat of a rally over the last year (for example, top-tier 5-year triple-B credit card ABS have tightened approximately 55 bps since November 2002). However we attribute the relative tightening of credit card subordinates more to an improvement in the perceived headline risk for that asset class, rather than a specific shift in preferences for credit cards versus student loans.

whether private credit student loans should in fact trade *through* credit cards, at least at the short end of the curve?

The following differences exist between these two ABS products and account for some difference in the valuations: liquidity, amortization type, relative headline risk and credit considerations. The most recent (October 2003) 2.5-year SLM private credit triple-A level showed a spread pick-up versus top-tier cards of approximately 4 bp. We believe the above-mentioned characteristics affect this pick-up as follows:

- Liquidity – while liquidity has improved for alternative student loan credit, we still believe this accounts for some portion of the total 4 bp pick-up, but is likely to continue to shrink over time. (Even with recent growth, there has still been less than $10 billion of alternative student loan LIBOR-based ABS issued since 2001, versus approximately $200 billion of credit card ABS issued over the same time period.)

- Bullet versus amortizer – senior amortizing securities (which do not have the potential to be upgraded as deleveraging occurs, unlike subordinates) generally offer more spread than comparable bullet securities, because of cash flow variability and reinvestment risk. Looking at auto ABS, we believe this could account for about 2 bp of the spread pick-up.

- Relative headline risk – the credit card sector has suffered a relatively high level of headline risk over the last 12 to 18 months, between servicer-specific events and regulatory surprises. By comparison, the student loan industry is enjoying somewhat of a "golden age." There have been no significant servicer or collateral problems, and profitability in student lending did not suffer over the recent downturn. Therefore headline risk in the credit card sector works in favor of alternative loans.

- Credit – On the one hand, there is much more available data, both across issuers and on a historical basis, about the stability and generally good credit of top-tier credit card ABS. Alternative student loan data must be evaluated on a pool-specific basis, and as closed-end pools which can feature very different product types, are not easily comparable across the industry. Furthermore, it is still a relatively young lending product, and there is not a lot of public historical information from which to draw.

  Conversely, it makes intuitive sense that students that have completed at least some if not all of a 4-year program or graduate school program will be a better credit risk than those that have not. Another credit factor that may favor alternative student loans versus credit cards is specific to the Sallie Mae private credit program, and relates to the HICA insurance arrangement. Since the first (October 2002) deal was issued, Sallie Mae has purchased all delinquent loans (180 days) from the trust, and pool losses have been zero. The available credit enhancement for this product does not assume that this occurs, and we do not recommend that investors assume that this will occur, as Sallie Mae is not legally obligated to continue this practice. However, *if investors are giving this some benefit*, we believe this could completely offset any credit benefit given to the credit quality of top-tier credit card programs. Because of the level of uncertainty of this factor (credit), we merely lay out the issues, but do not attempt to put a numerical value on the appropriate spread pick-up (or give) for credit differences between credit card ABS and alternative student loan ABS.

- Average life variability – While it's hard to beat credit cards for cash flow stability, alternative student loans (unlike home equities, for example) still offer a prepayment profile that exhibits relatively little correlation to changes in interest rates. Additionally, alternative student loan ABS have, like most FFELP-loan ABS, been priced with a 7% CPR prepayment assumption. However, unlike most FFELP loans, alternative loans may not be consolidated into a FFELP consolidation loan. For this reason we believe alternative loan prepayments should not display this component of voluntary prepayments, which have caused many FFELP loan deals to pay off faster than 7% in recent years.

The above factors illustrate a framework for investors to look at alternative student loans versus credit card ABS. When the above adjustments are made, the two products, at least at the short end of the curve, have quite comparable pricing. We do think that those investors more sensitive to headline risk should view the alternative student loan ABS as an excellent defensive opportunity versus credit cards. And subordinate student loan investors can benefit from rating upgrades that can occur in amortizing structures, which does not occur in credit card ABS. Additionally, to the extent that more data becomes available supporting the relative superiority of the performance of student borrowers versus the larger borrowing population represented in credit cards (as one example), we also would consider this an opportunity. Lastly, this segment of the market also can make sense for investors simply looking for diversification without compromising too much liquidity.

Certifications

The views expressed in this report accurately reflect the personal views of the undersigned lead analyst about the subject issuer and the securities of the issuer. In addition, the undersigned lead analyst has not and will not receive any compensation for providing a specific recommendation or view in this report.

Katie Reeves

Disclosures

Additional Information Available upon Request

For disclosures of our potential conflicts pertaining to analyses, recommendations or estimates made in respect of a security or issuer mentioned in this report, please see the most recently published issuer report or visit our global disclosure look-up page on our website at *http://equities.research.db.com/cgi-bin/compose?PAGE=HOMEPAGE*.

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