

# Home Equity ABS Basics

1 November 2004

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## I. Introduction

Home equity loan (HEL) ABS are one of the major components of the ABS market, along with credit card ABS, auto loan ABS, and student loan ABS. As of the end of 2003, HEL ABS accounted for roughly 25% of all outstanding ABS. HEL ABS issuance through the first half of 2004 was about \$192 billion, representing more than half of all ABS issuance in the first half of the year.

The HEL ABS sector is really an amalgamation of diverse sub-sectors. Each sub-sector relates to a distinct type of underlying mortgage product. Examples are first lien sub-prime mortgage loans, traditional home equity loans (*i.e.*, closed-end second mortgage loans), so-called "high LTV" mortgage loans, and home equity lines of credit. First lien sub-prime mortgage loans account for the lion's share (>75%) of collateral backing HEL ABS deals; the other loan types account for much smaller shares.

HEL ABS occupy the no-man's land between traditional MBS and non-real estate ABS. That is, HEL ABS present investors with a combination of credit and prepayment considerations. The presence of prepayment risk causes spreads on HEL ABS to be much wider than spreads on credit card ABS or auto loan ABS with comparable weighted-average lives (WALs). In addition, HEL ABS have experienced somewhat greater credit volatility than other mainstream ABS asset classes.

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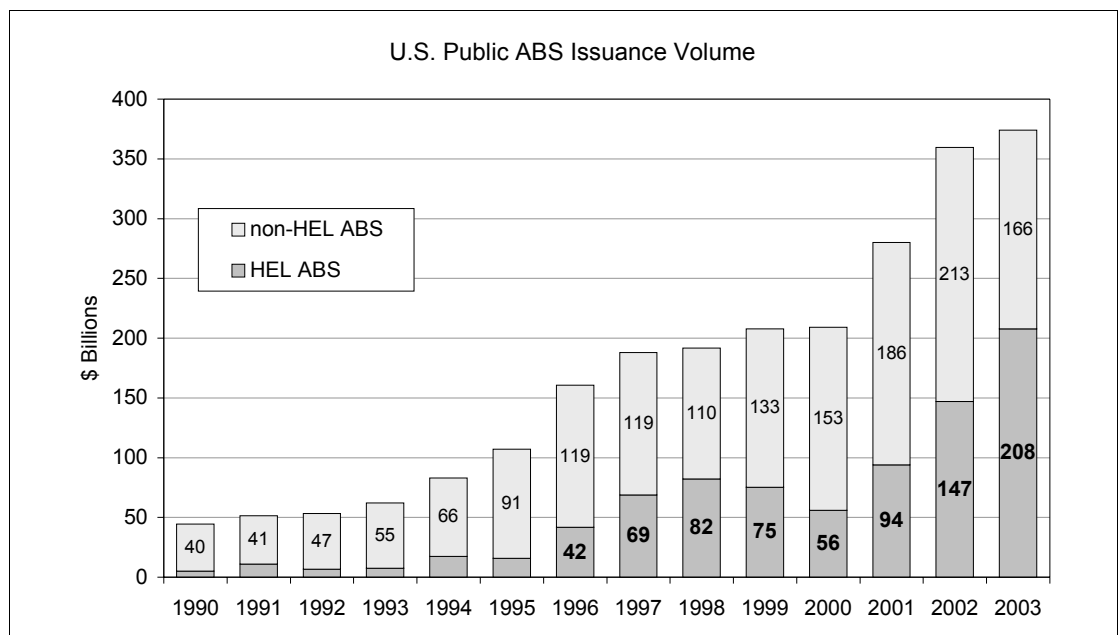
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Sources: Moody's, Bloomberg, Asset Securitization Report

## II. What Is a Home Equity Loan?

In the context of ABS, the term "home equity loan" refers broadly to virtually all loans secured by residential real estate other than (1) prime-quality first lien mortgage loans and (2) manufactured housing loans. ABS professionals generally include all the following types of residential real estate loans within the HEL category:

- sub-prime mortgage loans (*i.e.*, first lien mortgage loans to sub-prime borrowers)
- second lien mortgage loans
- home improvement loans
- home equity lines of credit (*i.e.*, revolving lines of credit secured by the borrowers' homes)
- so-called "high LTV" mortgage loans

Sometimes reperforming mortgage loans<sup>1</sup> and non-performing mortgage loans<sup>2</sup> also are treated as part of the HEL ABS sector. This is usually done in calculating the aggregate size of the sector.

<sup>1</sup> A reperforming mortgage loan is one that is contractually delinquent but that consistently makes monthly payments. The loan may be characterized by "rolling delinquencies." In such a case, the loan becomes delinquent and the borrower subsequently resumes making monthly payments but is unable to pay overdue amounts. The overdue amounts continue to "roll" forward as an ongoing delinquency. Although such a loan may have regained payment stability, it remains contractually delinquent.

Reperforming loans pose greater credit risk than "clean" prime-quality mortgage loans, but they pose less prepayment risk. Borrowers on reperforming loans have few, if any, refinancing opportunities because of their delinquencies. When they can refinance, it usually is into a sub-prime mortgage loan.

<sup>2</sup> A non-performing mortgage loan is one that is in default and on which the borrower has ceased making payments. In essence, a non-performing loan represents the right to the eventual proceeds of the foreclosure on or other disposition of the underlying mortgaged property. Sometimes a servicer can resolve a non-performing loan with techniques other than foreclosure. Examples include forbearance, taking a deed in lieu of foreclosure or helping the borrower to sell the property. Sometimes a servicer may offer a cash payment to motivate a defaulting borrower to surrender the property (*i.e.*, a so-called "cash for keys" strategy). In any such case, the objective is the same: to maximize the net recovery on the loan as quickly as possible. In choosing the best strategy, a servicer must be able to accurately assess both the value of the underlying property and the time required for the whole foreclosure/liquidation process.

## A. Sub-prime Mortgage Loans

Sub-prime mortgage loans generally are first lien mortgage loans to sub-prime borrowers. The whole underwriting process for originating sub-prime mortgage loans is less strict than for prime-quality mortgage loans. Most HEL securitizations are backed primarily by sub-prime mortgage loans.

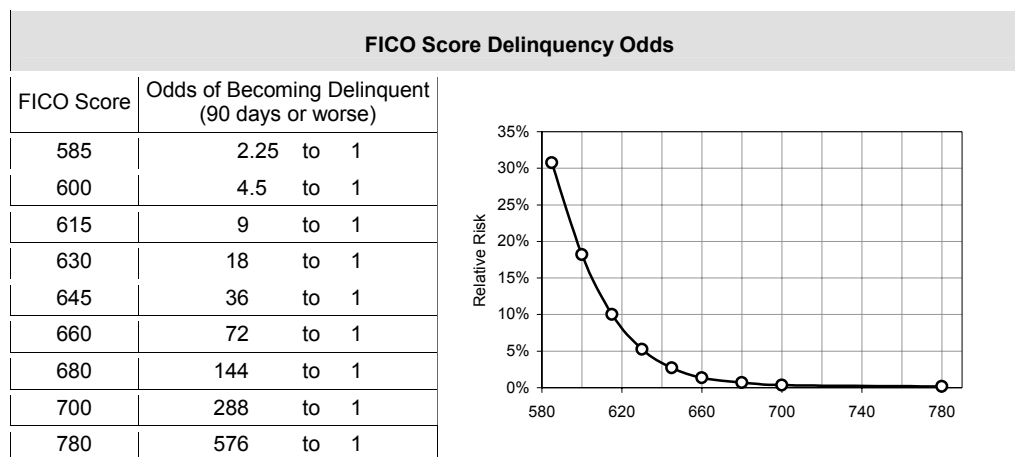
There is no universally accepted specification of the criteria that makes a borrower sub-prime. However, a borrower who has made all of his rent or mortgage payments on time during the preceding year and who has a FICO score<sup>3</sup> above 620 generally can qualify for a "prime" mortgage loan. Thus, a typical sub-prime borrower has been delinquent on his housing payments at least once during the preceding year or has a FICO score below 620.

Sub-prime mortgage loans appear as fixed-rate loans (FRMs), adjustable-rate loans (ARMs), and as hybrids. Typical hybrid arrangements are 2/28 and 3/27 loans, which provide for two-year and three-year fixed-rate periods, respectively, after which the loans convert to ARMs (usually with either six-month or one-year adjustment periods). In addition, many sub-prime mortgage loans include prepayment penalties.

Recently, lenders have started offering so-called "interest-only" or "IO" sub-prime mortgage loans. A typical interest-only loan provides that the borrower pays only interest for the first five years of the

Acronyms Used in This Report	
ABS	asset-backed security(ies)
ARM	adjustable-rate mortgage
AS	amortizing senior class (of a HEL ABS deal)
BMA	The Bond Market Association
CMO	collateralized mortgage obligation
CPR	constant prepayment rate
DTI	debt-to-income ratio
FICO	consumer credit scores (Fair Isaac & Co.)
FRM	fixed-rate mortgage
FTC	Federal Trade Commission
HEL	home equity loan
HELOC	home equity line of credit
HOEPA	Home Ownership and Equity Protection Act
LIBOR	London inter-bank offered rate
LTV	loan-to-value ratio
NAS	non-amortizing senior class (of a HEL ABS deal)
NIM	net interest margin (residual of a HEL ABS deal)
OAS	option-adjusted spread
OC	overcollateralization
OCC	Office of the Comptroller of the Currency
OTS	Office of Thrift Supervision
TILA	Truth in Lending Act
WAL	weighted-average life

<sup>3</sup> Generic credit scores based on data compiled by the national credit bureaus are often called FICO scores. Scores range from a low of 350 to a high of 850. The acronym FICO is derived from the name "Fair Isaac & Co.," which produces the statistical models that generate the credit scores. Many lenders use FICO scores as part of their lending processes and some incorporate FICO scores as part of their own proprietary scoring models. FICO scores are optimized to rank the relative risk of consumers defaulting or becoming seriously delinquent on their obligations over a two-year horizon.



Paul Scheper, *FICO Scoring 101*, at <http://www.duanegomer.com/Articles%5Cfico.asp>; Terri Light, *Credit Scoring in the Mortgage Industry*, at [http://realtimes.lycos.com/renews/19990611\\_creditscore.htm](http://realtimes.lycos.com/renews/19990611_creditscore.htm); *Mortgages and Credit Scores*, at [http://www.bcsalliance.com/z\\_creditscore\\_mortgage.html](http://www.bcsalliance.com/z_creditscore_mortgage.html); *Credit FICO Scoring*, at [http://www.mortgageyellowpages.com/consumers/html/credit\\_fico\\_scoring.html](http://www.mortgageyellowpages.com/consumers/html/credit_fico_scoring.html).

loan term. Some provide for shorter or longer interest-only periods. During the interest-only period, the borrower's monthly payment is relatively low, because it includes no principal. However, at the end of the interest-only period, the monthly payment amount may rise sharply. The interest-only feature can be added to FRMs, ARMs or hybrid loans.

Sub-prime mortgage loans account for the majority of the assets backing HEL ABS deals. In fact, several of the major HEL ABS issuers specialize in sub-prime mortgage lending as their primary business.

Sub-prime mortgage loans are riskier than prime-quality mortgage loans. Compared to prime-quality mortgage loans, sub-prime loans usually have both weaker borrowers and less collateral coverage. Low FICO scores reflect the weak quality of the borrowers. Higher "loan-to-value ratios" or "LTVs" reflect the lower level of collateral coverage. In theory, lenders should underwrite sub-prime mortgage loans with higher collateral coverage than prime-quality mortgage loans to counterbalance the weakness of the borrowers. However, this usually does not happen.

Sub-prime mortgage loans display weaker credit performance than prime-quality mortgage loans. Many pools of sub-prime mortgage loans originated in the late 1990s are likely to experience lifetime cumulative losses in the range of 3% to 7%.

## **B. Second Lien Mortgage Loans**

Second lien mortgage loans are traditional home equity loans. They are usually closed-end loans, meaning that the full amount is disbursed at the closing. Prime-quality borrowers often use second mortgage loans to pay for large expenses, such as their children's college tuition or a wedding. Second lien mortgage loans are riskier than prime-quality first lien loans because of their higher loss severities when defaults occur.<sup>4</sup>

## **C. Home Equity Lines of Credit (HELOCs)**

A home equity line of credit or "HELOC" is a revolving credit line secured by the borrower's home. In general, a HELOC lender has a second lien on the collateral property. Like a closed-end second lien mortgage loan, a HELOC is riskier than a prime-quality first lien mortgage loan because of higher loss severity if there is a default. HELOCs are revolving credit lines, like credit cards. Accordingly, from a structural standpoint, a HELOC securitization somewhat resembles a credit card ABS deal. One of the key factors in analyzing a pool of HELOCs is the "utilization rate" of the lines. The higher the utilization rate the higher the risk of the pool.

## **D. High LTV (125%) Mortgage Loans**

A high LTV mortgage loan is a second mortgage loan where the loan amount, combined with the amount of the related first lien mortgage loan, substantially exceeds the value of the mortgaged property. High LTV mortgage loans are sometimes called "125% mortgage loans" because many lenders would allow the combined LTV to be as high as 125%. For example, suppose a consumer borrows \$80,000 to buy a house for \$100,000. The consumer might subsequently take a high LTV mortgage loan for an additional \$45,000. The combined loan amount would be \$125,000 and the combined LTV would be 125%. Because of this "upside down" loan-to-value ratio, high LTV loans generally are available only to borrowers with high FICO scores.

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<sup>4</sup> In foreclosing on a second lien mortgage loan, the second lien lender must pay off the first lien loan to take control of the underlying property.

### III. History of the Sub-Prime Mortgage Market

#### A. Roots of Sub-Prime Mortgage Lending

The roots of today's sub-prime mortgage market emanate from three main sources. The first is the creation of the Federal Housing Administration (FHA) in 1934.<sup>5</sup> Congress created the FHA in the midst of the Great Depression to provide government-guaranteed mortgage insurance. Shortly afterwards, in 1938, Congress created the Federal National Mortgage Association (FNMA). In addition to providing a secondary market for mortgage loans, FNMA was charged with performing a "special assistance function" to promote home-ownership among families that might not otherwise have been able to purchase homes. The special assistance function amounted to a form of subsidy to provide mortgage loans with low interest rates through certain of the FHA programs. FNMA would pay par for low-interest rate, FHA-insured mortgage loans. FNMA frequently resold the mortgage loans at discount prices. The loss incurred by FNMA through the special assistance function was borne by the U.S. Treasury. Today, FHA-insured mortgage loans continue to provide financing for a portion of the sub-prime borrower community.

The second main root of today's sub-prime mortgage market is the so-called "hard money" lending of the 1960s to the 1980s. During that period, banks were the main providers of mortgage loans and they generally would not lend to the financially weakest applicants – particularly those who had previously declared bankruptcy. Borrowers with poor credit records sometimes could get mortgage loans from non-bank finance companies such as Household Finance Corp., Beneficial Finance, The Money Store, or Champion Mortgage. Most of those companies are gone today – they either went out of business or were absorbed by banks. Those companies offered loans on generally less favorable terms than sub-prime borrowers could attain today.

The mortgage lending activities of Guardian Savings and Loan Association and Long Beach Savings in the late 1980s and early 1990s are the third main root of today's sub-prime mortgage market. Each of those companies pursued a strategy of underwriting loans based primarily on the strength of collateral securing the loans. Each placed only secondary emphasis on a borrower's credit history or a borrower's capacity to make monthly loan payments. Market participants generally underestimated the riskiness of loans from those companies and deals backed by those loans performed worse than the market originally had expected. Neither Guardian nor Long Beach exists today in its original form. Regulators closed Guardian in the early 1990s and Long Beach went through a series of reorganizations starting in 1997. Two of today's leading sub-prime mortgage lenders, AmeriQuest Mortgage and Long Beach Mortgage, are direct descendants of Long Beach Savings. Two others, Option One Mortgage and New Century Mortgage, have former Guardian professionals in key management positions.

#### B. Growth and Challenge in the 1990s

The 1990s were a period of intense change for the sub-prime mortgage market. Around the mid-1990s, securitization had proven itself as a powerful financing tool for traditional second lien home equity loans and for home equity lines of credit. In addition, around the same time, mortgage lenders started using FICO scores as a tool for gauging the credit quality of borrowers. Before the widespread use of FICO scores, investors and other market participants faced greater difficulties in comparing the riskiness of loans from different lenders. Although each lender had a classification system for borrowers or loans (e.g., quality grades A, B, C, and D), the classification systems differed from one company to the next. Generic FICO scores provided an independent and broadly applicable measure of borrower credit quality.

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<sup>5</sup> Pub. L. No. 73-479, 48 Stat. 1246, 1252 (1934)

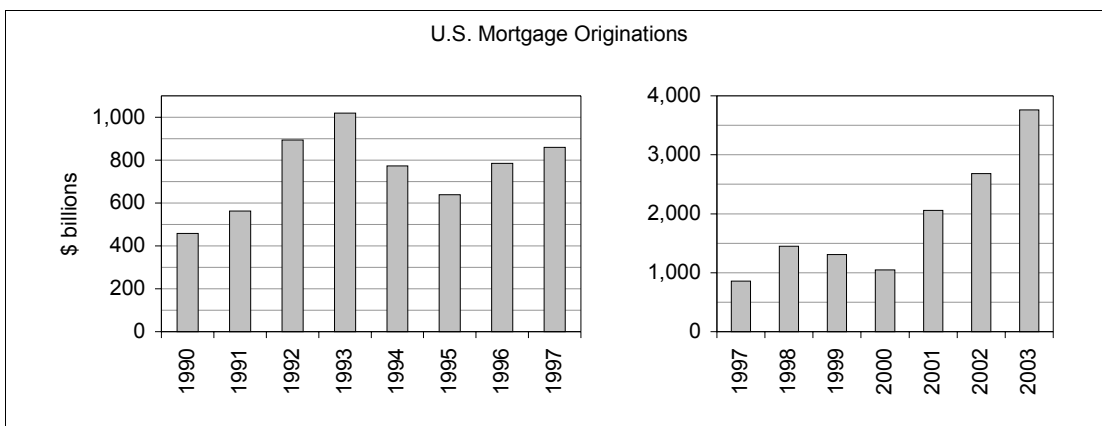
The mortgage market experienced a strong wave of refinancing activity in 1992 and 1993. The aftermath of that wave was a sharp decline in loan origination volumes in 1994 and 1995.<sup>6</sup> Some mainstream lenders entered the sub-prime mortgage arena in an effort to sustain their origination volumes.

Securitization of sub-prime mortgage loans quickly established itself as a highly efficient financing tool. Easy access to capital through securitization lowered barriers to entry and many new players entered the sub-prime lending business. Competition became fierce and some companies started using questionable accounting practices to artificially inflate their reported profits. The shakeout came in 1999 and 2000: roughly two thirds of the major sub-prime mortgage lenders either went out of business or were acquired while experiencing financial distress.

### C. Sub-Prime Mortgage Loans in the New Millennium

Since 2000, the sub-prime mortgage sector has experienced strong and steady growth and has not suffered any major upheavals. Today, the sector faces two challenges of moderate magnitude. The first is from laws designed to prevent so-called "predatory lending" practices (see part [VII] below). Predatory lending refers to lending practices that take advantage of ill informed or unsophisticated mortgage borrowers.<sup>7</sup> Almost everyone agrees that predatory lending is a bad thing. However, disagreements continue to arise in trying to define predatory lending, in determining who must bear responsibility when it occurs, and in determining how severe the penalties should be. The second challenge facing the sub-prime mortgage sector is lenders' ongoing push to ease credit standards as a way to sustain growth in origination volumes. Lenders recently have introduced "interest-only"

<sup>6</sup> The following charts show U.S. mortgage originations from 1990 through 2003. Note the sharp drop after 1993.



Source: Inside Mortgage Finance, *2004 Mortgage Market Statistical Annual*, vol. 1, p. 1.

<sup>7</sup> In the sub-prime mortgage arena, flipping, packing, and equity stripping are the main abuses that anti-predatory lending legislation seeks to address. The Federal Trade Commission explains the abusive practices as follows:

"Equity stripping occurs when a loan is made based on the equity in a property rather than on a borrower's ability to repay the loan. As a general rule, loans made to individuals who do not have the income to repay such loans usually are designed to fail. They frequently result in the lender acquiring the borrower's home and any equity the borrower had in the home.

"Packing is the practice of adding credit insurance or other 'extras' to increase the lender's profit on a loan. Lenders often stand to make significant profits from credit insurance and, therefore, have strong incentives to induce consumers to buy it as part of a loan.

"Flipping occurs when a lender induces a borrower to repeatedly refinance a loan, often within a short time frame, charging high points and fees each time."

See FTC Testifies on Enforcement and Education Initiatives to Combat Abusive Lending Practices, FTC press release (16 Mar 1998) (available at <http://www.ftc.gov/opa/1998/03/subprime.htm>); see generally, United States General Accounting Office, *CONSUMER PROTECTION – Federal and State Agencies Face Challenges in Combating Predatory Lending*, GAO Rept. No. GAO-04-280 (Jan 2004); Saunders, M. and Cohen, A., *Federal Regulation of Consumer Credit: The Cause or the Cure for Predatory Lending?*, Harvard University Joint Center for Housing Studies, Rept. No. BABC 04-21 (Mar 2004).

loans for sub-prime borrowers, but some market participants are skeptical of the credit quality of those loans.<sup>8</sup>

## IV. HEL ABS Structures

A HEL ABS can have either a fixed or floating interest rate. For floating rate HEL ABS, one-month LIBOR is the usual index. However, as discussed below, the interest payable on HEL ABS is limited to the amount of interest collected on the underlying loans less applicable servicing fee.

Home equity ABS use a variety of structures. The most simple is an insured, single class pass-through. That structure was the most common through mid-1997. The sector quickly embraced structural enhancements along two dimensions: (1) senior-subordinated structures<sup>9</sup> to provide credit support and (2) time tranching<sup>10</sup> to shift prepayment risk among multiple classes. Today, both enhancements often appear together – a time-tranched structure layered over a senior-subordinated framework. We will consider the two in turn. The following discussion focuses primarily on the structure of a typical HEL deal backed by first lien sub-prime mortgage loans. Details sometimes vary for deals backed by other HEL sub-species, but the general principles remain the same.

### A. HEL Credit Enhancement Structure

The 100% insured structure is trivially simple. Enough said about it.

The HEL senior-subordinate structure is not so simple. In fact, it is much more complex than the senior-sub structure found in private-label MBS deals (*i.e.*, those backed by prime-quality mortgage loans). The complexity derives from several sources:

- the use of excess spread as a form of credit enhancement
- the relationship among excess spread, overcollateralization, and subordination
- trigger mechanisms to control the cash flow waterfall

In fact, it is awkward to talk about the "credit enhancement level" for a HEL deal because the credit enhancing value of excess spread and trigger mechanisms is rarely quantified outside of the rating agencies.

#### 1. Excess Spread

The defining characteristic of the HEL ABS senior-subordinate structure is that it uses *excess spread* as credit enhancement. In a typical HEL ABS senior-subordinate structure there are three distinct layers of credit enhancement: (1) current period excess spread, (2) overcollateralization, and (3) subordination.

Excess spread is the difference between the net interest rate on a pool of securitized loans and the weighted-average coupon on the related securities. Excess spread is the first line of defense against credit losses. Excess spread can amount to several percentage points per year, which is available (on a flow basis) over the life of a deal – essentially similar to a subordinated interest-only security.

<sup>8</sup> *ABS Gold Coast Report 2004*, Nomura Fixed Income Research (21 Oct 2004).

<sup>9</sup> In a basic senior-subordinated structure, a deal issues several classes (sometimes called "tranches," from the French word for "slice") with differing levels of seniority with respect to credit risk. That is, each class protects the ones senior to it from losses on the underlying securitized assets.

<sup>10</sup> "Time tranching" refers to dividing cash flows from securitized assets among different classes of securities so that some receive repayment of principal before others. In the simplest cases, a deal might offer several classes of serially maturing securities. Some investors might prefer the securities with shorter maturities while others might favor the ones with longer maturities. Collateralized mortgage obligations (CMOs) are the most ubiquitous examples of time tranching.

For example, suppose that a mortgage pool has a weighted-average gross mortgage interest rate of 8%. Suppose further that, after deducting the servicing fee, the weighted-average net mortgage rate would be 7½%. Suppose that the senior certificates pay a coupon of one-month LIBOR plus 38 bps. If one-month LIBOR is 1.62%, that translates into a security coupon of 2%. Thus, the pool would produce excess spread of 550 bps!

The first use for excess spread is to cover current period losses. Beyond that, however, a typical HEL ABS structure provides a mechanism to capture "unused" excess spread for potential future use. The most common mechanism is to apply excess spread to pay down the principal balance of senior certificates. The senior class experiences *accelerated amortization*. Sometimes this is called *turbo-ing* the senior class. This creates a mismatch between the pool balance and the balance of the securities. The difference is called *overcollateralization* (OC). The OC provides a cushion against future losses.

For example, a HEL securitization might provide that excess spread is used first to cover current period losses. Next, remaining excess spread is applied to repay the most senior class until OC of 3% has been created. After three years, if excess spread has built up the OC to the *target level*, further excess spread is available for distribution to residual certificates, provided that the pool meets certain performance tests.<sup>11</sup> If subsequent losses on the underlying loans diminish the deal's accumulated OC, excess spread collected in later months can be applied to amortize the senior class in order to restore the OC to its target level.

In a typical HEL securitization, the overcollateralization is the equivalent of a non-interest bearing subordinate class contained within the deal's residual interest.<sup>12</sup> The OC provides protection to all the other classes of the deal against losses that exceed the excess spread in a given month. If losses on the underlying loans are charged against the deal's accumulated OC, excess spread collected in subsequent months will be applied to amortize outstanding bonds in order to restore the OC to its target level.

Excess spread and overcollateralization are critical components of the credit enhancement for most HEL securitizations.<sup>13</sup> They often represent the sole credit enhancement for a deal's most subordinate rated tranche, and a significant proportion of the credit enhancement for more senior tranches. In fact, because of excess spread and overcollateralization, the most subordinate rated tranche of a HEL deal usually can attain an initial rating of triple-B or double-B.<sup>14</sup>

Estimating the credit enhancement value of excess spread and overcollateralization is tricky. Doing so requires making assumptions about the speed of prepayments and the timing of losses. If prepayments are slow, excess spread is more abundant than if prepayments are fast. More abundant excess spread can absorb higher levels of losses. If losses occur early in the life of a deal, more of them can be absorbed by excess spread because the excess spread will not have already been released to the deal's residual interest.

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<sup>11</sup> Wrapped HEL ABS deals use a similar mechanism to capture excess spread to protect the bond insurer. However, in wrapped deals, the release of excess spread usually is permitted to start after 2½ years if a deal satisfies its trigger tests.

<sup>12</sup> A HEL deal may use a separate certificate class to embody the right to the overcollateralization because doing so facilitates the execution of a "NIM" transaction backed by the main deal's residual interest (see part IV.D below). In such cases, that class might receive interest.

<sup>13</sup> A small minority of HEL securitizations allowed for the release of excess spread to the residual holder without using any of it for credit enhancement. The subordinate tranches of such deals proved much more vulnerable to credit deterioration of their underlying loans. GE's home equity deals are an example. In particular, GECMS series 1996-HE3, 1997-HE2, 1997-HE3, 1997-HE4, and 1998-HE1 had tranches that suffered downgrades because of this structural weakness.

<sup>14</sup> Sometimes, a deal must have a small amount (<1%) of initial OC to facilitate simultaneous issuance of a NIM transaction or so that the subordinate class to achieve an investment grade rating.



In addition, all other things being equal, the capacity of excess spread to absorb losses is *inversely* related to the quality of the underlying loans. Lower-quality loans usually have higher interest rates, which produce higher levels of excess spread.

One of the strongly positive features of excess spread as a component of a deal's credit enhancement is that it "adjusts" to the deal's changing loss potential. As noted above, there is less excess spread when prepayments are fast. However, high prepayments also go hand-in-hand with *lower* losses, because once a loan has prepaid it can no longer default. Conversely, there is more excess spread when prepayments are slow, which is when a deal has greater ongoing exposure to the risk of loss on its underlying loans.

Rating agencies ascribe significant value to excess spread as a component of the credit enhancement in a HEL securitization. However, none of the rating agencies routinely divulges the exact value that it has ascribed to excess spread for each tranche of a given deal.<sup>15</sup> In a typical HEL transaction deal, excess spread might be "worth" four to six percentage points of credit enhancement for the AAA/Aaa tranche and six to eight percentage points for the BBB/Baa tranche.<sup>16</sup>

## 2. Trigger Mechanisms

A typical HEL securitization uses a trigger mechanism to restrict distributions of principal to the subordinate and residual classes of the deal. This has the effect of strengthening the credit quality of the most senior class, but at the expense of the other classes.

For example, a deal might provide that all distributions of principal must be applied to amortize only the most senior class until the later of (1) three years after the issuance of the securities or (2) the subordinate classes (including the OC) compose twice as large a proportion of the deal's capital structure than they did at the deal's inception. The point at which subordinate tranches first become *potentially* eligible to receive distributions of principal is sometimes called the *stepdown date*. After the stepdown date, subordinate tranches can *actually* receive distributions of principal *if* the underlying loans meet certain performance tests. Such tests are often called the *triggers*.

Here, it is helpful to view a deal's OC as simply the most subordinated class. If, at a given point in a deal's life, distributions to subordinate tranches are allowed, the residual interest will receive principal distributions from the OC in order to maintain the OC at its target percentage level.

OC structures often include two kinds of monthly trigger tests: one based on *delinquencies* and one based on *cumulative losses*. For example, a deal might include a delinquency trigger level equal to half the subordination (including OC) supporting the senior class. If the three-month rolling-average of delinquencies exceeds the trigger level, the test would fail and, no excess spread would be released to the residual. Instead, it would be paid sequentially to the other classes. Likewise, if cumulative losses on the pool exceed specified levels (scheduled over time) all excess spread would be diverted from the residual and instead paid sequentially to the other classes.

## 3. Lender-Paid Mortgage Insurance

Some HEL ABS deals use lender-paid mortgage insurance (MI) as a form of credit enhancement. Lender-paid MI can partially replace subordination. According to Moody's, lender-paid MI was used in 24% of all sub-prime mortgage ABS in 2003.<sup>17</sup> Although lender-paid MI is an effective form of

<sup>15</sup> See, e.g., Kornfeld, W., *U.S. Subprime Mortgage Securitization Cashflow Analytics*, Moody's Investors Service (17 Mar 2004); Osterweil, T., et al., *Criteria for U.S. RMBS Interest Rate Vectors Revised*, Standard & Poor's (29 Jul 2004).

<sup>16</sup> For securitizations of high LTV (125%) mortgage loans, excess spread could be worth as much as 20 percentage points of credit enhancement.

<sup>17</sup> Engelken, H., *2003 Review and 2004 Outlook: Home Equity ABS – A HEL of a Year!*, Moody's special report (20 Jan 2004); see generally, Siegel, J., et al., *Moody's Approach to Lender-Paid Mortgage Insurance*, Moody's special report (11 Sep 2003).

credit enhancement, it generally cannot provide a complete substitute for other forms. Moody's explains the limitations as follows:

An inherent risk associated with LPMI is the possibility of claim denials or reductions in the amount paid due to: misrepresentation of the characteristics of the loan at the original insurance date, improper servicing and reporting procedures, fraud or bankruptcy, or property damage.

Moody's assumes a certain fall out percentage for claim denials and rescissions and stresses the percentage at higher ratings in order to account for these issues. Moody's also looks closely at loans that are eligible for coverage, but the LPMI providers choose not to cover. We expect most losses in a deal to come from this section of the pool, and so credit for LPMI is limited. In addition, if a mortgage insurer gets downgraded by Moody's, the bonds of a deal covered by that insurer could be downgraded, as well.<sup>18</sup>

## B. HEL Time Tranching

Like traditional collateralized mortgage obligations (CMOs), HEL securitizations use time tranching to reallocate the prepayment risk of the underlying loans among different classes of securities.

In addition, fixed-rate HEL securitizations often included classes designed with extra protection against uncertainty in the timing of its cash flow. Such a class often is called a "non-accelerating senior" class or a NAS class. A NAS class is structured so that it receives principal distributions according to a schedule. A common arrangement is for the monthly distribution amount for a NAS class to be specified as a percentage of the class' pro rata share of principal cash flow. For example, a typical NAS schedule might specify the following percentages:

NAS Class Example	
Months After Start of Deal	Percentage of Pro Rata Principal Allocated to NAS Class
1-36	0%
37-60	45%
61-72	80%
73-84	100%
85+	300%

The NAS class of a HEL securitization often is structured to have a weighted-average life of roughly seven years. In a typical deal, there are five or six senior tranches, one of which is a NAS. Most or all the other senior tranches are "accelerating senior" classes or AS classes. One of the AS classes is designed to have a weighted-average life longer than the NAS class at the prepayment assumption used for pricing the deal. That tranche may have a cash flow with a hole in the middle. That is, at the pricing speed, the tranche will receive some distributions of principal before cash flow to the NAS starts, but then experiences a temporary interruption of principal cash flow while the NAS receives principal distributions. Such a tranche may have the interesting property of a weighted-average life that extends as it receives payments.

Like most other residential mortgage loans, home equity loans embody prepayment risk. HEL prepayments display less sensitivity to changing interest rates than do prime-quality mortgage loans. However, HEL prepayments tend to be higher during periods of stable interest rates. This is because many sub-prime borrowers have a strong incentive to refinance their loans even when rates are not falling. Interest rates on sub-prime mortgage loans tend to be substantially higher than the interest rates on prime quality first lien mortgage loans – often 2½ percentage points higher. If a sub-prime borrower manages to avoid being delinquent on his payments for a year, he likely will be able to refinance into a prime-quality loan at a lower interest rate.<sup>19</sup>

<sup>18</sup> Engelken, H., *2003 Review and 2004 Outlook: Home Equity ABS – A HEL of a Year!*, Moody's special report 8 (20 Jan 2004).

<sup>19</sup> By making timely payments for a full year, a sub-prime borrower is able to "graduate" from sub-prime status. The process is sometimes called "credit curing."

HEL lenders have tried to dampen the speed of prepayments on HELs by instituting prepayment penalties on the loans that they originate. In a typical sub-prime mortgage ABS, about 50% to 70% of the underlying loans carry prepayment penalties. Legal and regulatory initiatives to combat predatory lending have curtailed the widespread deployment of such loan features. Of particular note, anti-predatory lending rules often require that a borrower be allowed to prepay his loan whenever the interest rate adjusts. This causes a spike in prepayment activity when hybrid ARMs reach their adjustment dates. Accordingly, deals backed by 2/28s or 3/27s often realize a burst of prepayments when the loans reach their second or third anniversary, respectively.

For the past few years, prepayment speeds on fixed-rate HELs have generally been in the range of 25% CPR to 40% CPR. Prepayments on adjustable rate HELs have been more variable; generally falling in the range of 30% CPR to 50% CPR. Some adjustable-rate HEL pools from 2002 recently have displayed markedly higher prepayment speeds in the 60% CPR to 80% CPR range.

The prepayment risk inherent in HEL ABS is the main reason why spreads on HEL ABS tend to be substantially wider than spreads on credit card and auto ABS of comparable weighted-average lives.

### C. Available Funds Caps

The available funds cap (AFC) feature of HEL ABS is detrimental, from an investor's perspective. The AFC feature limits the maximum rate that investors can receive on the securities. HEL ABS deals include the AFC feature for a number of reasons. First, LIBOR-based, floating-rate HEL ABS often are backed by fixed-rate loans or hybrid loans (see part II.A). If LIBOR rises dramatically, the fixed interest rate on the loans might not be sufficient to support the floating rate on the securities. Second, floating-rate loans have interest rate caps themselves. In general, the maximum rate on an ARM is capped at six percentage points above the loan's minimum rate, and it can adjust by only a limited amount on each adjustment date. Third, even the weighted-average interest rate on a pool of loans can decline over time if loans with higher interest rates experience disproportionately high prepayments. If that happens, interest on the pool (minus the servicing fee) might not be sufficient to fully cover the rate on the securities even if LIBOR has remained stable or if the securities bear interest at a fixed rate.

The presence of the AFC feature can be viewed as a "cost" embedded in HEL ABS. The magnitude of the cost depends largely on the nature of loans backing a deal. In general, the AFC cost is higher for loans with longer fixed-rate periods. For example, the AFC cost would be greater for 5/25 hybrid loans (which are a common product in the alt-A and prime-quality sectors) than for 2/28 or 3/27 hybrids.

Many HEL ABS deals include derivative contracts, such as caps, to mitigate the impact of the AFC feature. In deals backed by 2/28 or 3/27 hybrids, the derivative contracts generally provide limited protection for a period of two to three years.

Market participants disagree somewhat about the exact magnitude of the implicit AFC cost in HEL ABS deals. However, in rough terms, the AFC cost ranges from trifling to small (single-digit basis points) for triple-A-rated tranches. The cost is somewhat greater for tranches with long weighted-average lives (WALs) than for ones with short WALs. For lower-rated tranches, the cost of the AFC increases and can become material. According to various estimates, the AFC cost for triple-B-rated tranches ranges from dozens to hundreds of basis points.

Estimates of the AFC cost for different tranches in a HEL ABS deal rely on many assumptions. Some estimation methods use an MBS-style option-adjusted spread (OAS) approach, which relies on dynamic assumptions about how interest rates move and how rapidly loans prepay. Simpler estimation methods use static assumptions. In all methods, however, estimates of AFC cost may be highly sensitive to the assumptions.

## D. NIMs (Net Interest Margin Securitizations)<sup>20</sup>

Some HEL ABS issuers routinely securitize the residual interests in their HEL deals. Such residual securitizations are called "NIM" deals or "net interest margin" securitizations because the excess spread component of a HEL ABS residual is similar to the "net interest margin" reported on the financial statements of a traditional finance company (*i.e.*, one that does not securitize its loans). Today, certain HEL ABS issuers execute a NIM transaction alongside each of their regular HEL transactions.

A NIM securitization embodies the right to receive certain residual cash flows from one or more underlying securitizations. In a typical case, a NIM security might receive (1) all excess spread, (2) unused OC remaining at the termination of the underlying deal, (3) prepayment penalties, and, in some cases, (4) cash flow on classes specifically created to enhance the NIM (*e.g.*, a small NAS IO class). Cash flows attributable to the NIM do not have inherent principal and interest components. Rather, the creation of the NIM itself artificially imputes principal and interest components to the undifferentiated underlying cash flow.

Many older NIM deals got into trouble when their related HEL deals experienced faster-than-expected prepayments. Those deals did not allocate prepayment penalties to the NIM. Fast prepayments reduced residual excess spread cash flow to those NIM deals without any compensating increase from prepayment penalties.

There are important differences between today's NIMs and those of several years ago. Today's NIMs generally are much safer because they include prepayment penalties on the underlying loans. If prepayments are faster than expected, cash flow from the prepayment penalties serves partly to offset reductions in cash flow on the excess spread. In addition, today's NIM deals often include derivative contracts, such as interest rate caps or corridors, to provide a further measure of protection.

Other features of today's NIM deals further distinguish them from the weaker NIMs of years past. Today's NIM transactions employ lower advance rates against the projected future cash flows. This amounts to greater cushions against errors in projections. In addition, some of today's HEL securitizations are structured to permit cash to flow to their related NIMs right from the start. This is accomplished by creating the OC for the HEL securitization at the inception of the deal, so that excess spread can be released immediately to flow to the NIM.

Structuring a NIM requires separately projecting the timing and amount of losses and prepayments and choosing a suitable discount rate given the uncertainties of estimation. In the 1990s, many of the leading HEL ABS issuers went bust because they had been too optimistic in estimating slow prepayments on their originated loans. When actual prepayments were faster than the projections, the issuers were forced to take crushing write-downs on the value of their residuals. We addressed this issue in 2002:

Securitization can affect a company's income statement as well as its balance sheet. As noted above, one of the ways in which a company may retain risk in securitized assets is through excess spread. Sometimes, excess spread from securitized assets is reported as income in the period received. It is income from assets that are not counted on the company's balance sheet. As long as the assets perform as originally expected, the flow of excess spread will follow expectations. However, if the assets experience high levels of either prepayments or credit losses, the flow of excess will be less than expected. Fluctuations in the flow of excess spread can cause a company's reported earnings to be volatile.

On the other hand, sometimes a company's right to receive excess spread is reflected as an asset on its balance sheet. If a company's securitization qualifies as a "sale" under accounting standards, the

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<sup>20</sup> See generally Wolf, J., *Net Interest Margin Securitizations: Understanding the Risks*, Moody's special report (7 Jun 2000); Kornfeld, W., *U.S. Subprime Mortgage Securitization Cashflow Analytics*, Moody's special report (17 Mar 2004); Mahabir, L., *Net Interest Margin Securities Outperform Projections*, Standard & Poor's special report (1 Apr 2002); McDermott, G., *NIMs Analysis: Valuing Prepayment Penalty Fee Income*, Standard & Poor's special report (3 Jan 2001).

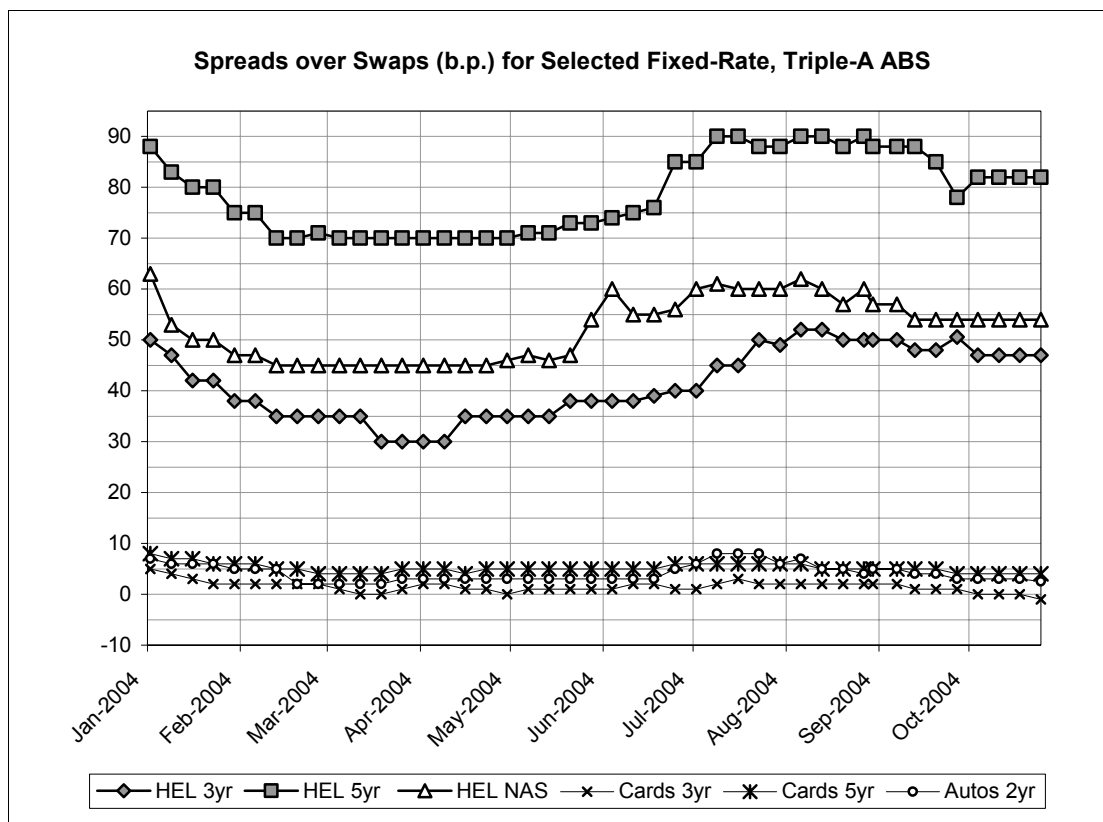
company may be required to recognize income immediately at the time of the securitization. This can happen if the estimated value of the retained "residual interest" (i.e., the right to receive future excess spread) combined with the proceeds of the securitization exceeds the cost of the assets. In such a case, the company recognizes non-cash income equal to the "gain on sale" of the assets. The amount of gain is largely dependent upon the assumptions used for valuing the retained residual interest.

During the latter half of the 1990s, many non-bank finance companies used gain-on-sale accounting to book income when they securitized their assets. Some of those companies used very optimistic assumptions. The large gains produced by gain-on-sale accounting initially produced very impressive levels of earnings, albeit on a non-cash basis. The high earnings translated into high earnings per share and, accordingly, high executive bonuses. Certain home equity lenders and manufactured housing lenders were among the most aggressive users of gain-on-sale accounting. Their strategy proved flawed and many of them later went bust, had to be acquired, or had to exit the sector. Their names are familiar to many: Cityscape, ContiMortgage, First Plus, Green Tree, IMC, Mego Mortgage, Southern Pacific, The Money Store, United Companies, Wilshire Financial, and others. Ultimately, their shareholders and general creditors had to bear the cost of the flawed securitization/gain-on-sale strategy.<sup>21</sup>

Today's NIMs routinely achieve investment-grade ratings. In fact, some are wrapped with bond insurance and carry ratings of AAA/Aaa. The rating agencies have promulgated standards for structuring NIMs to achieve investment grade ratings. Those standards include conservative assumptions concerning the level and timing of losses and prepayments.

## V. Understanding HEL ABS Spreads

The following chart shows the spreads for selected fixed-rate ABS during 2004:



Sources: Nomura Securities, Asset Securitization Report  
 Note: Spreads are for secondary trades in top-tier issues within each category.

<sup>21</sup> Adelson, M. and Jacob, D., *Thirty Years Later Securitization is Still Good for America*, Nomura Fixed Income Research (15 Mar 2002).

As shown on the chart, spreads for fixed-rate HEL ABS are notably wider than spreads for fixed-rate ABS from the major non-real estate asset classes. The situation is substantially the same for floating-rate ABS. In addition, HEL ABS spreads display greater absolute volatility than card and auto ABS spreads, though the proportional volatility is not very different

HEL ABS spreads generally are wider for tranches with longer weighted-average lives. This is evident in the chart from the relationship among the lines for HEL ABS of different weighted-average lives (HEL 3 yr, and HEL 5 yr). The exception to the general rule is for NAS tranches, which often command spreads somewhat tighter than five-year HEL ABS and somewhat wider than three-year HEL ABS.

In many HEL deals, the ten-year tranche is the AS class with a "hole" in its cash flow, as discussed above. Accordingly, ten-year HEL tranches trade at notably wider spreads than shorter ones.

Because of prepayment risk, premium-priced HEL ABS incur a spread penalty relative to par-priced issues.

Although prepayment risk is the main reason why HEL ABS spreads are wide compared to card and auto ABS spreads, it is not the only reason. Other factors are also significant. First, HEL ABS have wide principal windows. This is a disadvantage relative to card ABS and some auto ABS, which can be structured with bullet maturities. Second, HEL ABS have experienced greater credit volatility than card and auto ABS.<sup>22</sup> Third, HEL deals, like auto deals, are backed by individual liquidating pools, in contrast to credit card deals which represent interests in gigantic master trusts. Individual liquidating pools are more vulnerable to idiosyncratic prepayments and losses. Even pools from the same issuer may experience different performance. Each pool of HELs can have its own performance story, requiring individualized monitoring. In contrast, all deals backed by credit card receivables from the same master trust share the same performance story because one pool of assets backs them all. Fourth, HEL ABS have displayed greater vulnerability to "headline risk" or "servicing risk" than the credit card or auto ABS.

## VI. Features of the HEL ABS Market

The identity of the major HEL issuers is a constantly moving target. Over the past ten years, huge HEL lenders have come and gone. Amresco, ContiMortgage, IMC, The Money Store, and United Companies were each a "top five" HEL issuer during the late 1990s; none remains today. Today's HEL landscape includes three main categories of issuers: (1) mainstream lenders such as Countrywide, Chase, and GMAC-RFC, (2) securities dealers, and (3) specialty lenders. The following table enumerates the top HEL issuers during the first six months of 2004:

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<sup>22</sup> The greater credit volatility of HEL ABS was one of the principal findings of our 2002 report titled *ABS Credit Migrations* (updated 5 Mar 2002).

Top HEL Security Originator/Issuers in 2004H1				
Rank	Issuer	2004H1 Volume (\$ millions)	Deals	Market Share
1	Countrywide Financial	\$28,686.1	22	14.8%
2	Ameriquest Mortgage	\$18,578.0	33	9.6%
3	GMAC-RFC	\$16,795.3	21	8.7%
4	Lehman Brothers	\$13,741.8	21	7.1%
5	New Century	\$10,598.9	18	5.5%
6	Washington Mutual	\$8,851.1	6	4.6%
7	Option One	\$8,795.8	17	4.5%
8	CS First Boston/ABSC	\$8,464.1	21	4.4%
9	Fannie Mae	\$7,812.7	9	4.0%
10	First Franklin	\$7,468.1	15	3.9%
11	Morgan Stanley	\$6,840.0	10	3.5%
12	Fremont Investment	\$5,333.3	11	2.8%
13	WMC Mortgage	\$5,311.2	8	2.7%
14	Bear Stearns	\$3,908.4	18	2.0%
15	NovaStar	\$3,306.6	3	1.7%
16	GMAC Mortgage	\$2,956.2	3	1.5%
17	Goldman Sachs	\$2,927.3	7	1.5%
18	Centex	\$2,850.0	3	1.5%
19	Fieldstone Mortgage	\$2,506.8	3	1.3%
20	Aegis Mortgage	\$2,180.3	5	1.1%
21	Chase Mortgage Finance	\$1,896.0	3	1.0%
22	Terwin Capital	\$1,648.1	11	0.9%
23	CDC Mortgage Capital	\$1,645.1	4	0.8%
24	Equity One	\$1,600.0	2	0.8%
25	C-BASS	\$1,519.3	7	0.8%
	All others	\$17,570.4	55	9.1%
	TOTAL	\$193,790.9	336	100.0%

Source: Inside MBS & ABS (7/23/04)

At certain times, the HEL ABS sector has displayed orderly spread tiering based on the perceived strength of the issuers. At other times, the sector has displayed tiering based on issuer type.<sup>23</sup> Today, tiering within the sector is somewhat less orderly.

The following table enumerates certain details of recent sub-prime mortgage deals and shows how deals from different issuers required differing levels of subordination to attain their target ratings:

<sup>23</sup> For example, around the middle of 2002 deals wrapped by a GSE tended to command the tightest spreads, followed by deals from mainstream lenders, specialty lenders and then securities dealers' conduits. From one perspective, the differences in spreads are justified by perceived differences in the collateral quality and potential headline risk. On the other hand, differences in credit enhancement levels arguably neutralized differences in collateral quality, while differences in prepayment behavior may be ephemeral and even illusory.

Sub-prime Mortgage Deals 2004Q2													
WAC, LTV, FICO, and Nominal S&P Credit Support Levels for AAA and BBB Tranches													
Originator	Total deals	Fixed (%)						ARM (%)					
		WAC	LTV	FICO	AAA	BBB	B	WAC	LTV	FICO	AAA	BBB	B
Accredited Home Lenders	3	7.03	75.69	632.79	13.00	4.12	1.22	6.60	79.01	637.68	15.63	5.03	1.40
Aegis Group	2	7.52	77.49	635.86	17.25	6.50	2.73	7.45	80.32	599.75	28.25	10.25	3.40
Ameriquest Mortgage	10	6.72	78.76	641.26	15.97	4.92	1.75	7.47	82.30	599.55	28.38	9.88	3.43
ARC (Lehman)	2	8.93	87.92	657.94	27.53	12.33	6.81	7.13	82.84	624.79	19.75	6.25	1.95
Barclays Bank	1	7.45	75.12	638.85	16.00	5.75	2.10	7.62	79.01	589.44	27.75	10.00	3.35
Centex	2	8.20	76.41	611.57	18.50	6.88	2.20	7.59	81.71	585.14	31.38	11.50	3.78
Chase Funding	2	6.95	72.14	638.40	13.38	4.88	1.95	6.64	77.18	610.31	19.50	6.90	2.23
Citicorp Mortgage	1	7.20	87.01	671.57	20.00	7.00	2.25	6.88	87.63	656.69	25.50	9.50	3.35
Credit Suisse First Boston	5	7.32	77.25	640.34	15.94	5.65	1.89	7.23	80.32	611.68	24.38	8.50	2.63
Countrywide	2	6.92	74.31	641.08	11.55	3.70	1.10	7.23	80.65	620.97	22.75	8.00	2.45
Delta Funding	2	7.69	76.52	625.33	20.88	7.50	2.60	7.96	79.98	589.06	30.00	11.00	3.80
Deutsche Bank	1	7.94	82.85	621.34	22.00	8.75	4.00	7.46	83.47	615.78	28.00	10.25	3.35
EquiFirst	1	6.95	89.04	653.74	23.00	8.00	2.80	6.70	91.21	628.50	34.00	13.50	5.40
Equity One	2	7.37	85.46	635.03	26.13	9.88	3.40	7.13	87.96	632.40	28.63	10.88	4.13
First Franklin Financial	3	—	—	—	—	—	—	6.70	82.70	635.57	20.31	7.09	3.05
Fremont	3	7.33	77.83	613.89	18.00	6.33	2.32	7.40	83.10	610.55	27.63	10.25	3.25
Goldman Sachs	3	8.43	86.14	618.65	20.17	7.58	3.13	7.18	84.11	623.53	28.25	10.38	3.40
Long Beach Mortgage	1	6.86	76.33	658.16	10.75	3.25	0.90	7.03	79.77	625.86	21.00	7.00	2.00*
Merrill Lynch Mortgage	3	8.10	85.65	645.24	19.75	6.99	2.33	6.87	82.17	630.63	24.40	8.53	2.65
Morgan Stanley Capital I	3	7.26	78.17	621.82	18.67	6.83	2.23	7.18	81.58	602.70	27.13	9.63	3.53
New Century Mortgage	1	6.63	78.81	644.25	16.00	5.75	2.20	6.56	82.12	622.82	26.25	9.25	3.00*
Option One Mortgage	5	7.40	76.10	622.88	14.05	4.57	1.53	7.43	78.75	592.95	24.81	8.56	2.75
People's Choice	1	8.75	88.76	636.65	28.75	11.74	5.38	7.15	81.21	618.82	22.00	7.50	2.35
RASC (GMAC-RFC)	6	7.45	80.43	628.21	12.75	4.71	2.07	7.03	82.02	611.34	24.50	8.88	2.93
Wells Fargo Bank	1	7.02	72.56	631.13	10.50	3.25	1.10	7.51	79.21	604.06	21.50	7.25	2.30
WMC Mortgage	4	8.35	86.04	654.65	25.09	11.02	4.85	6.93	81.20	630.45	21.42	7.33	2.28
Averages/Total	70	7.44	79.66	634.46	17.48	6.32	2.37	7.19	81.77	612.79	25.26	8.97	2.98

\*Hybrid ARM collateral

Source: Kostiw, K., et al., *Trends in U.S. Residential Mortgage Products: Second-Quarter 2004 LTV Ratios, FICO Scores, and Credit Support Levels*, Standard & Poor's special report, (2 Aug 2004).

## VII. How HEL ABS Issuers Affect Loan Quality

Some securitization professionals hold the view that an issuer does not exert a significant influence on the quality of its loans. Rather, those professionals adhere to the view that the quality of the loans is discernable from (and determined almost entirely by) their overt and quantifiable characteristics. We somewhat disagree with that view. In our opinion, an issuer's business practices can influence the quality of its loan originations.

Issuer business practices affect loan quality along a number of dimensions. Origination channels, quality control processes, and selection of target market all have an impact.

### A. Origination Channels

We believe that, all other things being equal, loans originated through retail channels should display stronger credit performance than loans originated through wholesale channels (*i.e.*, brokers and correspondents). An issuer is directly involved in its retail originations and can exercise direct control over the process. In contrast, the process for loans originated through brokers or by correspondents may be less well controlled. An issuer's own retail originations can avoid the influence of brokers coaching applicants on how to complete their applications so as to "game" the issuer's underwriting criteria.



An issuer that relies solely or primarily on wholesale origination channels and that deals with a large number of brokers and correspondents faces the challenge of assuring that all the brokers and correspondents adhere to its origination criteria. It may be impractical for the issuer to continually police all the brokers and correspondents through which it sources loans.

## **B. Quality Control**

Quality control shows its effect in two key areas: appraisal quality and verification of borrower income and assets. Differences in appraisal quality translate into differences in the reliability of reported LTVs as indicators of collateral coverage. More pointedly, differences in appraisal quality translate into differences in loss severities on foreclosed loans. Differences in appraisal quality may be discernible directly from differences in how companies select, compensate, and discipline appraisers.

Loan "documentation" is directed toward verifying that an applicant has the resources – usually income but sometimes also assets – to repay his requested loan. Lenders exercise differing degrees of care and diligence in evaluating whether a borrower's reported income includes a substantial proportion of income that may be non-recurring. For example, although two lenders may have the same policy on how to treat income from bonuses or investment gains, one may be more careful than the other in identifying income from such sources.

A lender's policy for allowing exceptions to its underwriting guidelines also can influence the riskiness of its loans. While exceptions do not inherently increase the likelihood of losses, they can increase uncertainty about future performance if they are not recorded and monitored. Sub-prime mortgage lending is an exception-laden process. Lenders need to offer borrowers flexibility in order to generate sufficient loan volume to be profitable. For example, suppose a borrower's FICO score or delinquency record makes him barely miss the requirements for being classified as a category "B" borrower by a given lender. If the borrower or his loan possesses certain compensating factors (e.g., low LTV, low debt-to-income ratio, stability in the community, or delinquency caused by a one-time event), the lender might nonetheless grade the borrower in the "B" category. The alternative would be to grade the borrower in the "C" category, in which case the borrower would be more likely to get his loan from a different lender.

## **C. Target Market**

Some issuers make a strategic decision to target riskier segments of the sub-prime mortgage market. That is, such issuers direct their loan offerings primarily to weaker borrowers. The effect of such a strategy may be detectable in lower-than-average FICO scores on pools from such an issuer. Remember, a 20 point difference in FICO scores between two borrowers translates into a much larger difference in absolute risk in the sub-prime arena than in the prime-quality sector. The absolute difference in risk between a 630 FICO borrower and a 610 one is much greater than the difference in risk between a 780 FICO borrower and a 760 one.<sup>24</sup>

However, FICO scores may not tell the whole story. For example, in the high LTV sector, FICO scores systematically under-predicted borrower delinquencies (and losses) because the scores did not reflect the borrowers' appetite for leverage. A more complete picture of an issuer's target market ultimately should be revealed in the actual delinquency levels of its pools.

## **D. Servicing**

Loan servicing exerts a strong influence on the performance of sub-prime mortgage loans. The servicing effect is greater for sub-prime loans than for prime-quality loans. Compared to prime-quality loans, a greater proportion of sub-prime loans become delinquent. A servicer's effectiveness in contacting delinquent borrowers and convincing them to make their mortgage payments can greatly

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<sup>24</sup> See discussion of FICO scores in note 3 *supra*.

affect the proportion of loans that ultimately default. Once a sub-prime mortgage loan has become delinquent by 90 days or more, there is only a trifling likelihood that the borrower will be able to catch-up and become current. Acting quickly and firmly is essential for preventing the deterioration of mild delinquencies into defaults.

In addition, a servicer's skill in handling seriously delinquent loans can greatly affect the ultimate loss on such loans. The most proficient servicers concurrently pursue alternative resolutions for seriously delinquent loans. For example, a servicer might simultaneously process a foreclosure for a given loan while trying to reach a negotiated resolution with the borrower. Such efforts can reduce ultimate losses by as much as 10% to 20%.<sup>25</sup>

A few more points about servicing bear mention:

- Poor servicing can cause a pool of good loans to perform very poorly, but strong servicing is unlikely to make a pool of very weak loans perform well. Good servicing can make the most of a pool of loans, but it cannot make the loans something that they are not.
- Better-than-average servicing produces a boost in performance for as long as it lasts, but it may create amplified uncertainty about future performance if servicing is transferred to a successor servicer. From the standpoint of minimizing uncertainty about future performance, average-quality servicing is the best starting point.

## **E. Measuring Performance**

It is entirely natural to measure the performance of HEL securitizations along both the credit and prepayment dimensions. However, users of performance data must remain mindful of certain performance measurement pitfalls.

### **1. Credit Performance**

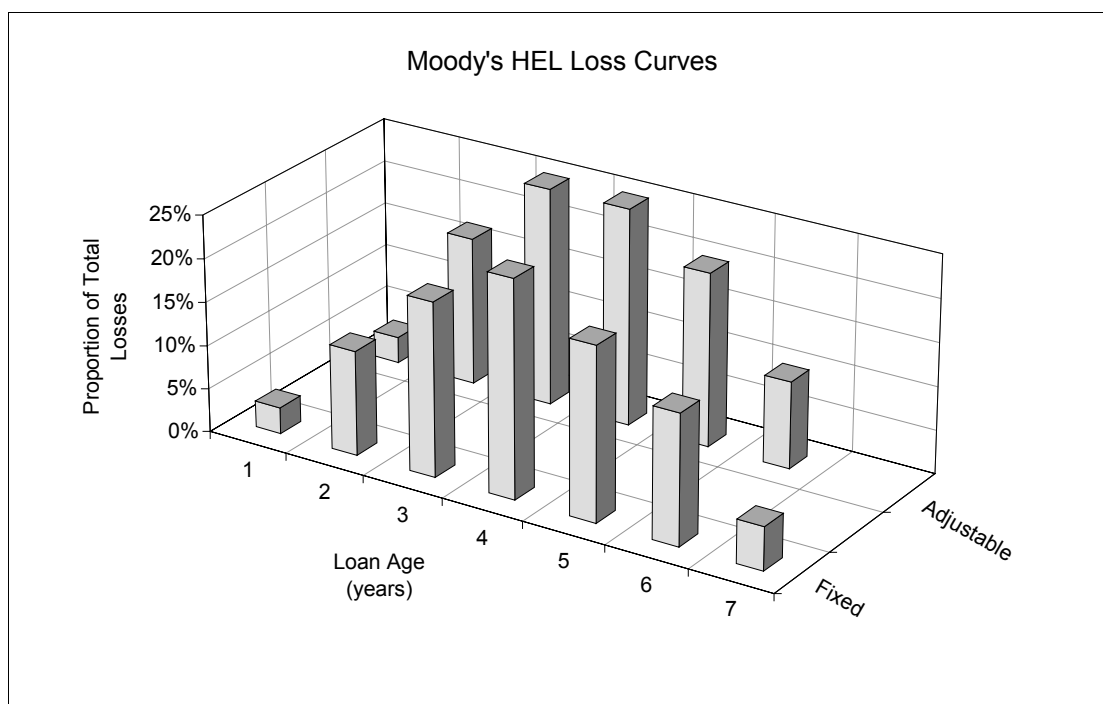
First, the concept of "average" credit performance is difficult to apply in practice. Although there are clear differences in the level of cumulative losses realized on HEL pools from different issuers, it is hard to identify the appropriate population for determining an average. Most of today's HEL ABS issuers formed pools that have achieved lower levels of losses than the pools from lenders that have left the industry (through bankruptcy or otherwise). Thus, in one sense, virtually all of today's active HEL ABS issuers have achieved "better-than-average" performance. On the other hand, it is sometimes more helpful to know how today's active HEL ABS issuers stack up relative to each other, without regard to defunct players. From that perspective, only 50% can be in the top half of the class. Thus, in considering credit performance rankings of HEL ABS issuers it is necessary to focus on whether the sample includes older (sometimes defunct) issuers or just current ones.

Second, economic conditions strongly affect HEL ABS credit performance. Deals that weather stressful economic conditions naturally may experience higher levels of delinquencies and losses than they otherwise would. Accordingly, performance comparisons that span changing economic conditions include a critical dimension that may confound analysis. A pool of stronger loans may display higher losses and delinquencies than a weaker pool if the stronger pool has had to endure harsh conditions.

Third, even when economic conditions are stable, there is an important time dimension to HEL ABS credit performance. In a steady-state economic environment, losses on a pool of HELs reasonably should be expected to rise for the first two years, to peak in third and fourth years of the pool's life, and to decline thereafter. The distribution of projected losses over time (given a steady state economy) is often referred to as a "loss curve." The following chart shows the loss curves that Moody's uses for newly-originated fixed- and adjustable-rate HELs:

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<sup>25</sup> Westerback, *Special Servicing and Default Management in the Subprime Mortgage Market: The Loan Doctors*, Moody's Special Report (26 Mar 1999).



Source: Kornfeld, note 15 *supra*, at 8.

## 2. Prepayment Performance

Prepayment speeds fluctuate so much that a rank ordering of HEL ABS issuers by prepayment performance changes substantially from month to month. However, some broad generalizations are possible. As noted above, prepayment speeds on fixed-rate HELs have generally been in the range of 25% CPR to 40% CPR for the past few years. ARMs display greater variability of speed and are probably somewhat faster overall; the general range for ARM HELs is 30% CPR to 50% CPR. The faster prepayments on HEL ARMs come partly from prepayments triggered by the "conversion" of 2/28 and 3/27 hybrid ARMs from fixed to adjustable-rate. A second factor that drives rapid ARM prepayments is that homebuyers who expect to move after a few years are more likely to select ARMs. Third, there is a general tendency for borrowers to migrate from adjustable-rate to fixed-rate loans.

## VIII. Predatory Lending

The HEL ABS sector faces continuing challenges from laws designed to prevent so-called "predatory lending" practices. Predatory lending refers to lending practices that take advantage of ill informed or unsophisticated mortgage borrowers.<sup>26</sup> Almost everyone agrees that predatory lending is a bad thing. However, disagreements continue to arise in trying to define predatory lending, in determining who must bear responsibility when it occurs, and in determining how severe the penalties should be.

At the federal level, lenders must comply with the requirements of the Truth in Lending Act (TILA),<sup>27</sup> HOEPA<sup>28</sup> and Section 32.<sup>29</sup> Those federal standards provide a limited measure of consumer protection against predatory lending practices.

<sup>26</sup> See listing of predatory lending activities in note 6 *supra*

<sup>27</sup> 15 U.S.C. § 1601 *et seq.*

<sup>28</sup> 15 U.S.C. § 1639, Home Ownership and Equity Protection Act of 1994 § 152(d) (contained in Riegle Community Development and Regulatory Improvement Act of 1994, Pub. L. 103-325, 108 Stat. 2160).

<sup>29</sup> 12 C.F.R. § 226.32 (2001).

In addition, over the past few years, many of the states have adopted predatory lending laws. The state laws create challenges along several different dimensions. Mortgage lenders assert that the morass of conflicting laws and regulations at the state and local level imposes an unreasonable administrative burden.

### A. Assignee Liability

Mortgage lenders also assert that the *assignee liability* features of certain state laws are too onerous and impede securitizations. Assignee liability has become a significant issue for sub-prime mortgage securitizations. "Assignee liability" is a feature of a predatory lending law that imposes liability on a *loan purchaser* for violations by the original lender. Under traditional legal principles, a loan purchaser can be liable only if it has expressly assumed responsibility for the original lender's performance. The borrower still can raise affirmative defenses (e.g., in a foreclosure action by the loan purchaser), but he cannot bring a claim against the purchaser.

Interestingly, auto loans have been subject to assignee liability for lending violations for more than 25 years and this has never been an impediment to securitizing auto loans.

Outside the mortgage setting, the "holder in due course rule" under the Uniform Commercial Code<sup>30</sup> extends the common law principle by further insulating an assignee that is a "holder in due course" of a "negotiable instrument." A holder in due course takes a negotiable instrument free from most of the obligor's defenses to payment. To become a holder in due course, the assignee of a negotiable instrument must meet a few straightforward requirements.<sup>31</sup> Only defenses relating to the inherent validity of an obligation can overcome an assignee's status as a holder in due course.

For the past 30+ years, consumer groups have opposed the "holder in due course" rule and, in 1977, they succeeded in getting the FTC to pass the "holder rule",<sup>32</sup> which defeats the holder in due course rule. However, the FTC holder rule applies only to sales of goods and services. The FTC holder rule does not apply in the mortgage context except for certain home improvement loans. The FTC holder rule requires the use of a legend specifying that a purchaser of a consumer loan will take the loan subject to all defenses (but not subject to affirmative claims). The FTC holder rule also applies if the lender is a different entity from the seller of the goods or services. That special case addresses the possibility of collusion between a seller and a lender.

HOEPA is based on the FTC holder rule. HOEPA requires that a legend appear on HOEPA loans providing that an assignee will be subject to all claims and defenses that could be asserted against the original lender. However, an assignee is relieved of liability if it could not have determined through reasonable due diligence that the loan was subject to HOEPA. HOEPA provides a limitation on damages to (i) the amount of the remaining indebtedness and (ii) all amounts previously paid by the debtor. The legislative history of HOEPA shows that Congress intended to follow the lead of the FTC holder rule by eliminating the holder in due course rule as it might have applied to HOEPA loans.

TILA provides for assignee liability if the disclosure statement for a loan is defective on its face. Thus, TILA's assignee liability is quite limited.

Some state predatory lending laws also provide for assignee liability. According to a recent tally by Standard & Poor's<sup>33</sup> the following states have predatory lending laws that do so: (1) Arkansas, (2) Colorado, (3) Connecticut, (4) Florida, (5) Georgia, (6) Illinois, (7) Kansas, (8) Kentucky, (9) Maine, (10) Massachusetts, (11) Nevada, (12) New Jersey, (13) New Mexico, (14) New York,

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<sup>30</sup> Uniform Commercial Code § 3-302

<sup>31</sup> The purchaser of a defaulted loan can never be a holder in due course.

<sup>32</sup> 16 C.F.R. Part 433.

<sup>33</sup> Abrams, N., et al., *Anti-Predatory Lending Law Update*, Standard & Poor's (20 Sep 2004). The Mortgage Bankers Association of America maintains an exhaustive "Predatory Lending Resource Center" on its website: <http://www.mortgagebankers.org/resources/predlend/>.

(15) North Carolina, (16) Ohio, (17) Oklahoma, (18) South Carolina, and (19) West Virginia. In addition, S&P lists local laws that provide for assignee liability in the following jurisdictions: (a) Cleveland Heights, Ohio; (b) the District of Columbia; (c) Los Angeles, California; (d) Oakland, California; and (e) Toledo, Ohio.

Assignee liability under state and local predatory lending laws is often a tough – *but not insurmountable* – obstacle to securitizing the affected loans. As long as the rating agencies can quantify the magnitude of the potential liability, they can rate deals that include the loans. However, when potential assignee liability is unquantifiable, the affected loans are essentially disqualified from securitizations. For example, according to S&P, certain loans secured by Georgia properties are ineligible for securitization if they were originated between 1 October 2002 and 7 March 2003.

## B. Clear and Objective Standards

Various market participants contend that some state predatory lending laws are too vague. In that vein, the Bond Market Association (BMA) released a report<sup>34</sup> calling for "clear and objective" standards in state predatory lending laws. However, the real thrust of the BMA's argument was that standards in predatory lending laws should be *mechanistic*. What the BMA and many sub-prime mortgage lenders really seem to want are standards that can be programmed into a computer, so that no human judgment is necessary to determine whether a given loan violates any laws. That approach arguably oversimplifies the issues. A rigid system of bright-line tests could leave too many loopholes for unscrupulous lenders. It seems naïve to simply dismiss the possibility that a crooked lender could commit abuses while still complying with the technicalities of "clear and objective" standards.

Instead, tests that consider all facts and circumstances arguably are more likely to provide appropriate consumer protections. For most consumers, getting a mortgage loan is the most significant financial transaction of their lives. Requiring a lender to *think* during the process seems reasonable. From the standpoint of consumer protection advocates, laws with conceptual provisions – provisions that call for exercising judgment – are more likely to prevent lenders from gaming the system or exploiting unintended loopholes.

The BMA has argued that some kinds of anti-predatory lending provisions are either unclear or not objective. For example, the BMA criticized the provision of Florida's anti-predatory lending law that prohibits extending credit without regard to the borrower's ability to repay.<sup>35</sup> Instead, the BMA proposes a rigid 55% debt-to-income ratio (DTI) limit as an alternative to provide clarity.<sup>36</sup> Depending on a borrower's income level, a 55% DTI could be appropriate. However, it is not very hard to think of cases where it might not be.

Similarly, the BMA criticized (as unclear) the "tangible net benefit" provision of New York's anti-predatory lending law.<sup>37</sup> If a loan fails to provide a "tangible net benefit" to the borrower, the lender may be guilty of loan flipping.<sup>38</sup> Instead, the BMA proposed four non-exclusive criteria for finding that a refinancing loan benefits a borrower: (1) lowering the monthly payment, (2) changing the maturity, (3) receiving cash in excess of fees and costs, and (4) switching from an adjustable-rate loan to a fixed-rate one.<sup>39</sup> Suppose a lender solicits a borrower and persuades the borrower to refinance his loan. Suppose further that the new loan has a monthly payment that is \$5.00 less than the original loan, but the term of the loan extends by seven years. The borrower would get no cash from the new

<sup>34</sup> The Bond Market Association, *The Secondary Market for Subprime Mortgages, A Common Sense Approach to Addressing Assignee Liability through Federal Legislation* (Mar 2004) [hereinafter "BMA White Paper"] (available at [http://www.bondmarkets.com/Legislative/Subprime\\_Lending\\_Whitepaper\\_032904.pdf](http://www.bondmarkets.com/Legislative/Subprime_Lending_Whitepaper_032904.pdf))

<sup>35</sup> BMA White Paper, *supra* note 30, at 9; Fla. Stat. §. 494.00791(6).

<sup>36</sup> BMA White Paper, *supra* note 30, at 10.

<sup>37</sup> *Id.* at 10; N.Y. Banking Law § 6-1(2)(i).

<sup>38</sup> See note 22 *supra*.

<sup>39</sup> BMA White Paper, *supra* note 30, at 10.

loan and all other terms would remain the same. Is the refinancing predatory? Under the BMA's sample provision, the answer appears to be "no" because the new loan lowered the monthly payment. Just the same, this is a point over which reasonable people could reach differing conclusions.

### C. Preemption

Many market participants feel that federal preemption of state predatory lending laws would be the easiest solution to the challenges that such laws pose. The BMA report embraces that view. A single standard at the federal level would ease the purely administrative aspects of compliance. In addition, some market participants feel that a federal standard likely would be less strict than some existing state laws.

Although there is not yet a comprehensive federal predatory lending law, federal preemption already has become a factor in some respects. For example, in September 2002, the Office of Thrift Supervision (OTS) adopted final rules to stop unregulated lenders from claiming federal preemption of state consumer protection laws that prohibit prepayment penalties and late fees.<sup>40</sup> Before that rule, non-bank lenders could use the Alternative Mortgage Transaction Parity Act<sup>41</sup> to export prepayment penalties across state lines and into states that have abolished or limited such penalties. The action by the OTS gives federally regulated lenders a competitive advantage. Similarly, the Office of the Comptroller of the Currency (OCC) issued a regulation preempting state predatory lending laws for national banks.<sup>42</sup> The OCC provided a safe harbor for a bank originator that performs customary due diligence. For now, this gives national banks an advantage over other types of lenders.

## IX. Conclusion

HEL ABS have become the second largest product on the securitization landscape, after agency MBS. Accordingly, no securitization professional can afford to ignore the HEL ABS sector. Credit, prepayment, and structural considerations become intricately intertwined in HEL ABS. Because of those factors, HEL ABS consistently offer wider spreads than deals backed by other mainstream ABS asset classes.

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<sup>40</sup> 12 C.F.R. § 560.220 (amended in 2002 to remove designations of 12 C.F.R. §§ 560.33 and 560.34 as appropriate and applicable to state housing creditors, Office of Thrift Supervision, *Alternative Mortgage Transaction Parity Act; Preemption*, 67 Fed. Reg. 60542 (26 Sep. 2002).

<sup>41</sup> 12 U.S.C. § 3801 *et. seq.*

<sup>42</sup> Office of the Comptroller of the Currency, Bank Activities and Operations; Real Estate Lending and Appraisals, 69 Fed. Reg. 1904 (13 Jan 2004) (amending 12 C.F.R. § 34.4).

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