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Issuer-Specific HEL Prepayment Models on *Yield Book*

On Monday, June 1, Salomon Smith Barney will release a set of new issuer-specific home equity loan (HEL) prepayment models. The existing model, which is now used for all HEL prepayment calculations on *Yield Book*, is based mostly on pre-1996 loan-level data from EquiCredit. The new models were developed from continuously updated, publicly available information, as well as loan-level data from EquiCredit and other HEL issuers. The new models capture prepayment differences between issuers that are not captured by explicitly included variables such as WAC or WAM. Models will be available for five issuers: **EquiCredit, The Money Store, Conti, IMC, and UCFC**. For other issuers, *Yield Book* will default to the EquiCredit model.

The key differences between the models for the different issuers are in the refinancing functions, both credit-driven and rate-driven.

Demographics of
borrowers may vary by
issuer.

Credit-Driven Refinancings

One of the main changes is the dependence of credit-driven refinancings on the issuer and on collateral characteristics We explicitly take into account borrowers' credit, which is a key determinant of credit-driven refinancings. This variable is proxied by the difference between the WAC of a deal and the appropriately lagged FHLMC Survey of 30-year conforming mortgage rates at the origination time of the deal (WAC-original current coupon, or WAC-OCC spread).¹⁰ Its effect is allowed to depend on the issuer to take into account differences that influence credit-driven refinancings, such as the number of points charged.

impact of the additional demand on the ABS market would likely be even more pronounced since three- to five-year fixed-rate non-mortgage supply is a relatively small part of total volume.

¹⁰ The identification of WAC-OCC spread with borrowers' credit is a matter of convenience. By direct fitting we have found this variable to be a reliable numerical measure of prepayment behavior. While it is most directly related to credit, it also reflects other collateral characteristics that affect the spread, such as lien position, or the changing competitive environment in the industry.

Rate-Driven Refinancings

A stronger media effect allows for sharp increases in prepayment speeds during rapid declines of interest rates,¹¹ as was observed for some deals in March and April 1998. In addition, **the initial population distribution now depends on the issuer and, for some issuers, on calendar time**. The first is a result of different borrower demographics for different issuers. The second is a reflection of *changing* deal compositions for a given issuer. It is closely paralleled by trends in the WAC-OCC spread. For example, we assume that an increase in the WAC-OCC spread for a particular issue that is not matched by an industry wide increase in this spread indicates a likely a shift toward lower-credit borrowers. Hence the initial population mix becomes more heavily weighted toward slower refinancers. Because of their weaker financial resources as well as a continuous presence of a strong incentive to improve their credit standing, lower-credit borrowers are less likely to respond to interest-rate movements.

The baseline seasoning curves are also now issuer-specific, although the differences are small, arising mainly from the steepness of the seasoning ramp in the first 12 to 14 months of the life of the loan.

General Changes

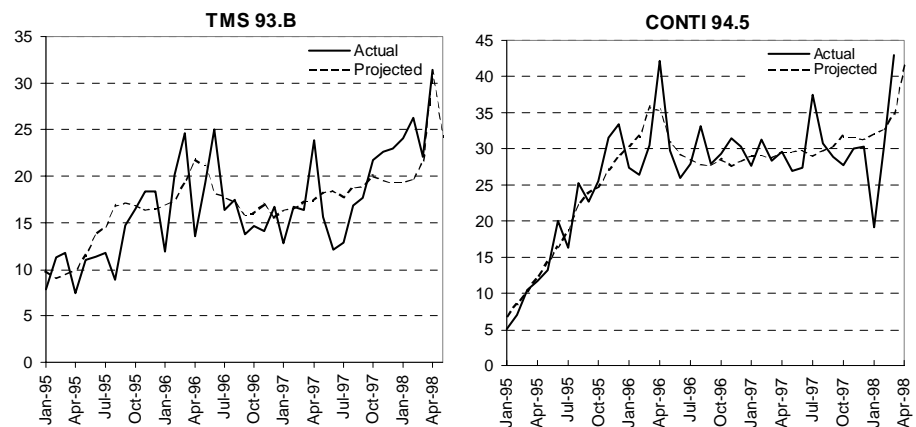
The updated model assumes a stronger media effect.

As indicated earlier, the media effect is sharper and quicker in the new model, in line with changes to the agency models. However, as before, we assume a weaker media effect for HELs relative to agency MBSs.

Another change is a sharper decline in credit-driven refinancings with rising interest rates. This component of prepayments becomes strongly suppressed when rates rise by about 100bp–150bp, as a lower credit discount coupon becomes comparable to the current coupon for a higher credit category. Minor changes were also made in the **default** component of prepayments and in **curtailments**

The new models track observed prepayments well for a wide range of deals under a variety of interest rate scenarios. Figure 1 provides two examples.

Figure 1. Actual and Projected Prepayments for TMS 93.B and Conti 94.5



Source: Smith Barney Inc./Salomon Brothers Inc.

In the next week's issue of *Bond Market Roundup: Strategy*, we will present a detailed comparison of prepayment projections of new and old models and highlight the implications for valuation of HEL securities.²

¹¹ For a more detailed description of changes in the media effect, see the article by Lakhbir Hayre et al. in the mortgage section.

¹² We also anticipate releasing in the next few weeks a report that describes the recent HEL prepayment experience and discusses in detail the new HEL prepayment models.

Figure 2. Comparison of Quoted Spreads and Static Spreads

	Avg. Life (Yrs.)	Quoted Spread (bp/Curve)	Static Spread (bp)	Difference (bp)
3-Year Bullet	3.00	36	31	5
5-Year Bullet	5.00	42	38	4
Wide Window Auto ^d	1.81	40	39	1
Short Auto ^d	1.06	36	36	0
Wide Window HEL ^c	3.63	85	83	2
Short HEL ^a	1.16	55	60	-5

^a Assumes collateral original WAM of 60 months and remaining WAM of 54 months, 9% coupon, 1.3% ABS prepayment speed. ^b Assumes collateral original WAM of 60 months and remaining WAM of 30 months, 9% coupon, 1.3% ABS prepayment speed. ^c Assumes collateral remaining WAM of 174 months, 11% coupon, 20% CPR prepayment speed. ^d Assumes collateral remaining WAM of 120 months, 11% coupon, 20% CPR prepayment speed, security maturity in 30 months. bp Basis points. HEL Home equity loan-backed securities.

Source: Salomon Brothers Inc./Smith Barney Inc.

Figure 3. Fixed-Rate ABS Secondary Market Spreads to Benchmark Treasuries

		AAA			A		
		5/29/98 Spread	1 Week Change	1 Year SD of 1 Week Spread Changes	5/29/98 Spread	1 Week Change	1 Year SD of 1 Week Spread Changes
2-Yr.	Auto	35bp	0bp	1.5bp	60bp	0bp	1.1bp
	Credit Card	35	2	1.3	53	0	0.9
	Home Equity	52	-1	1.7	N/A		
	Man. Housing	48	0	1.9	N/A		
3-Yr.	Wholesale Auto	36	2	1.3	54	2	1.1
	Credit Card	36	2	1.4	54	2	1.1
	Home Equity	63	-2	1.6	N/A		
5-Yr	Man. Housing	52	0	2.3	N/A		
	Wholesale Auto	42	1	N/A	N/A		
	Credit Card	42	1	1.8	62	-5	1.9
	Home Equity	85	-5	1.7	N/A		
7-Yr	Man. Housing	63	0	2.0	N/A		
	Wholesale Auto	45	1	N/A	N/A		
	Credit Card	45	1	N/A	65	3	N/A
	Home Equity	102	-5	N/A	N/A		
10-Yr.	Man. Housing	77	-6	N/A	N/A		
	Wholesale Auto	60	6*	N/A	80	6*	1.8
	Credit Card	60	6*	1.9	80	6*	1.8
	Home Equity	125	0	2.3	N/A		
	Man. Housing	100	0	1.7	N/A		

bp Basis points. SD Standard deviation.; *reflects role to new benchmark

Source: Salomon Brothers Inc./Smith Barney Inc.

Figure 4. Floating-Rate ABS Secondary Market Discount Margins (Over One-Month LIBOR)

		AAA			A		
		29 May 98	1 Week	1 Year	29 May 98	1 Week	1 Year
		DM	Change	SD of 1 Week	DM	Change	SD of 1 Week
				Spread Changes			Spread Changes
2-Yr.	Auto	1bp	0bp	0.6bp	15bp	0bp	1.0bp
	Credit Card	1	0	0.6	15	0	1.0
	Home Equity	10	0	0.6	28	0	1.0
3-Yr.	Wholesale Auto	3	0	0.6	20	0	0.8
	Credit Card	3	0	0.6	20	0	0.8
	Home Equity	13	0	0.4	31	0	0.9
5-Yr.	Wholesale Auto	8	0	N/A	26	0	N/A
	Credit Card	8	0	0.6	26	0	0.8
	Home Equity	15	0	0.3	33	0	0.5
7-Yr.	Wholesale Auto	11	1	N/A	28	0	N/A
	Credit Card	11	1	0.7	28	0	0.9
10-Yr.	Wholesale Auto	16	1	N/A	33	0	N/A
	Credit Card	16	1	N/A	33	0	N/A

bp Basis points. LIBOR London Interbank Offered Rate. SD Standard deviation.

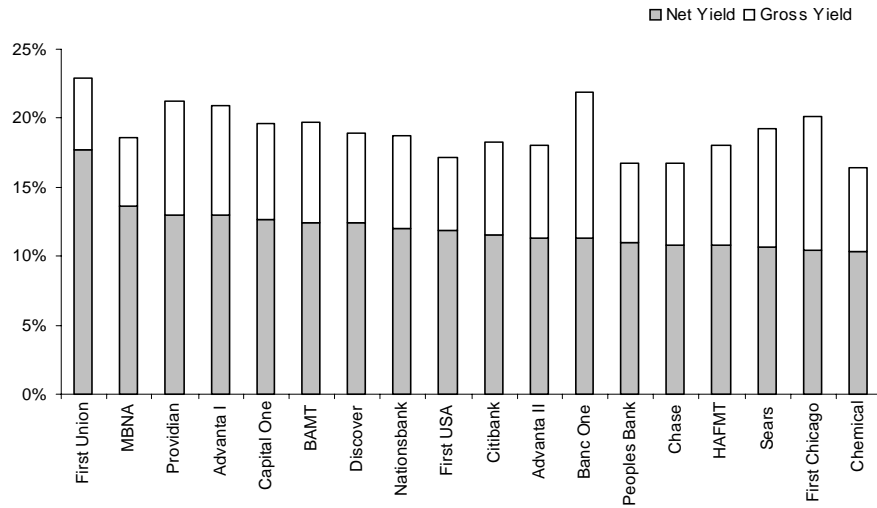
Source: Salomon Brothers Inc./Smith Barney Inc.

Figure 5. ABSs — Representative Secondary Trading Levels

Floating-Rate						
Issue	Avg. Life	DM	Price	Cap.		
FUSAM 95-1 A	0.8Yrs	1	100-03	None		
ADVCC 95-A A	1.9	4	100-08	None		
FUSAM 95-2 A	3.8	7	100-18+	None		
CCIMT 96-5 A	5.3	6	100-06	None		
MBNA 96-B A	7.8	11	100-30	None		
Fixed-Rate						
Issue	Coupon	Avg.-Life	Spread	Price	Yield	Static Spread
FORD 95-B A	5.900	0.6@ 1.5 ABSYrs	40bp	100-01	5.889@YTC	41bp
UAC 96-B A	6.450	1.2@ 1.6 ABS	52	100-11	6.100	55
PRAT 96-4 A4	6.400	1.4@1.6 ABS	35	100-21+	5.944	37
CCIMT 94-3 A	6.800	0.8	34	100-23+	5.871	35
MBNA 95-D A	6.050	2.0	34	100-13+	5.894	31
CHEMT 95-3 A	6.230	4.2	47	100-25	6.091	46
CCIMT 94-2 A	7.250	7.9	55	106-05	6.241	56

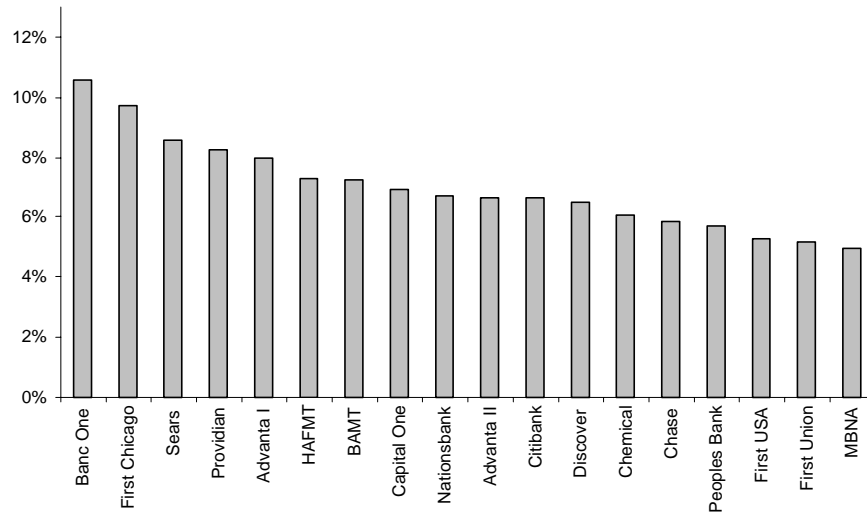
Source: Salomon Brothers Inc./Smith Barney Inc.

Figure 6. Credit Card Master Trust Gross and Net Portfolio Yields Reported for April 98



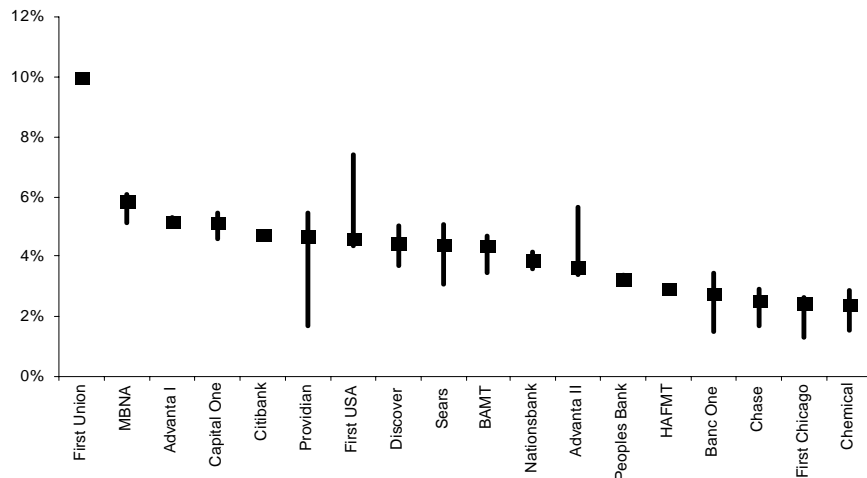
Source: Master Trust 8-Ks, Bloomberg, Bloomberg Credit Card Reports.

Figure 7. Credit Card Master Trust Defaults Reported for April 98



Source: Master Trust 8-Ks, Bloomberg, Bloomberg Credit Card Reports.

Figure 8. Credit Card Master Trust Excess Spreads Reported for April 98



Source: Master Trust 8-Ks, Bloomberg, Bloomberg Credit Card Reports.