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**EXPERIENCE OF REFINANCED FHA SECTION 203(b) SINGLEFAMILY
MORTGAGES**

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ABSTRACT OF REFINANCED SINGLEFAMILY MORTGAGES

by

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In the last few years the mortgage banking industry has learned how little it actually knows about the termination experience of singlefamily mortgages. Data on terminations (e.g., prepayments and terminations due to insurance claims) are crucial to understanding the primary asset underpinning the business of mortgage banking -- servicing rights. The Federal Housing Administration (FHA) possesses a wealth of historical termination data on individual singlefamily mortgages that can help bridge this knowledge gap. These FHA data can be used to help understand recent past experience as well as to forecast future experience.

In this work, the claim and nonclaim termination propensities of FHA loans that result from refinancings are compared to those of FHA loans originated to purchase homes. Specifically, this work compares the cumulative termination experience through December 31, 1993, of refinanced Section 203(b) 15-year mortgages and 30-year term mortgages, both fixed-rate and adjustable-rate, with those that are not refinancings. It also identifies the FHA field offices which have originated the largest numbers of refinancings and compares their experience with that of the entire United States. The key results are:

1. The number of 30-year term fixed-rate mortgage originations remained in a narrow range from 1988-1993 despite the sharp decline in mortgage interest rates. The increase in refinancings was offset by a decline in nonrefinancings.
2. From 1988 to 1993, the number of ARMs and 15-year term mortgage originations rose sharply. The bulk of the 15-year term mortgages originated in the high activity years were refinancings while few ARMs were refinancings.
3. Cumulative claim termination rates for 30-year term fixed-rate mortgages are higher on refinancings than on other loans. (This is particularly true in those offices experiencing "softness" in real estate prices.) The opposite is true for 15-year term loans.
4. All types of refinancings have higher nonclaim termination rates than do nonrefinancings, except for the small numbers of ARMs originated during 1988 and 1989.
5. There are substantially higher nonclaim termination rates in some FHA field offices where lenders have been aggressive in getting borrowers to refinance their above-market interest rate loans.
6. The cumulative claim termination rates of refinancings within individual field offices are highly correlated with the cumulative claim termination rates of prior origination years.

1. Introduction

1.1 Scope of Work

In the last few years the mortgage banking industry has learned how little it actually knows about the termination experience of singlefamily mortgages. Data on terminations (e.g., prepayments and terminations due to insurance claims) are crucial to understanding the primary asset underpinning the business of mortgage banking -- servicing rights. FHA possesses a wealth of historical termination data on individual MMIF mortgages that can help bridge this knowledge gap. These FHA data can be used to help understand recent past experience as well as to forecast future experience.

In this article, the claim and nonclaim termination propensities of FHA loans that result from refinancings are compared to those of FHA loans originated to purchase homes. Specifically, this work compares the cumulative termination experience through December 31, 1993, of refinanced Section 203(b) 15-year mortgages and 30-year term mortgages, both fixed-rate and adjustable-rate, with those that are not refinancings. It also identifies the FHA field offices which have originated the largest numbers of refinancings and compares their experience with that of the entire United States. The article presents data that show that the cumulative claim termination rates of refinancings within individual field offices are highly correlated with the cumulative claim termination rates of prior origination years.

1.2 Identifying Records of Refinancings

At the request of FHA's Statistical and Actuarial Analysis

Staff, HUD's Office of Information Policies and Systems created a new data element, a "Refinance Code", to add to actuarial's quarterly extract tape from FHA's singlefamily insurance system (the A43 database). This element, coded as "0", "1", "2", or "3" attempts to identify those cases that represent refinancings as follows:

<u>Code</u>	<u>Explanation</u>
0	No explicit refinancing
1	Streamlined refinancing
2	Streamlined refinancing with a non-risk-based MIP
3	Streamlined refinancing with a risk-based MIP.

The refinance code was first used widely for the 1988 origination year data. The refinance code is intended to allow FHA to do more refined analyses of its singlefamily insurance programs.

In the past, FHA field offices have used zero, 30% or 999.99% as fillers for the loan-to-value ratio element of records on streamlined refinancings because streamlined refinancings do not require appraisals and thus lack easily calculable loan-to-value ratios. So, for this analysis, we will construe as streamlined refinancings those cases on A43 originated since 1988 that have loan-to-value ratios coded as zero, 30.0%, or 999.99%. Hence, we have four categories of refinanced loans: those whose refinance code is equal to 1, 2, or 3 or those whose loan-to-value ratio is coded as zero, 30.0%, or 999.99%.

The A43 database reflects the fact that numerous refinancings have been originated since January 1, 1988. Origination years 1986 and 1987, which generated a flood of

refinancings due to decreases in mortgage interest rates, have only a small number of cases coded as refinancings. Therefore, one can use the A43 database only to identify a large portion of the actual refinancings originated since 1988. We suspect that there are more refinancings than the data indicate.

Nevertheless, we can analyze the data in their present form, calculate termination rates, compare these rates among FHA field offices, and compare the termination experience of refinancings to that of other types of originations. Here, we focus our attention on mortgages originated since 1988.

2. Originations

Figures 1-3 show the number of originations, by calendar year of origination, for 30- and 15-year term Section 203(b) fixed-rate mortgages and Section 203(b) adjustable-rate mortgages (ARMs), respectively.

FIGURE 1

Number of 30-Year Term Section 203(b) Fixed-Rate Mortgages Originated Between 1988 and 1993			
	Calendar Year of Origination		
	1988	1989	1990
All Section 203(b)	555,177	615,160	639,079
All Nonrefinancings	538,291	603,162	627,165
Nonstreamlined	15,887	10,400	9,858
Streamlined Non-RB	9	25	84
Streamlined RB MIP	0	0	0
Special LTV Ratios	990	1,573	1,972
All Refinancings	16,886	11,998	11,914
	Calendar Year of Origination		
	1991	1992	1993
All Section 203(b)	536,696	528,811	574,616
All Nonrefinancings	476,889	400,718	338,001
Nonstreamlined	19,931	21,111	19,006
Streamlined Non-RB	14,895	26,342	27,725
Streamlined RB MIP	9	77,025	189,806
Special LTV Ratios	24,972	3,615	78
All Refinancings	59,807	128,093	236,615

While the number of MMIF 30-year term fixed-rate mortgages originated annually remained in a narrow range -- from 528,000 to 640,000 -- throughout these six origination years, the number of reported nonrefinancings declined sharply from a peak of 627,165 mortgages in 1990 to only 338,001 mortgages in 1993, while the number of reported refinancings rose from around 12,000 in 1989 and 1990 to over 235,000 in 1993. This could be a result of more

accurate coding of refinancings in the A43 system in later years, or it could be the result of falling interest rates that prompted borrowers to refinance their Section 203(b) mortgages.

FIGURE 2

Number of 15-Year Term Section 203(b) Mortgages Originated Between 1988 and 1993			
	Calendar Year of Origination		
	1988	1989	1990
All Section 203(b)	28,409	22,676	24,063
All Nonrefinancings	26,790	21,420	22,513
Nonstreamlined	1,426	1,064	1,255
Streamlined Non-RB	1	7	24
Streamlined RB MIP	0	0	0
Special LTV Ratios	192	185	271
All Refinancings	1,619	1,256	1,550
	Calendar Year of Origination		
	1991	1992	1993
All Section 203(b)	28,543	55,163	99,302
All Nonrefinancings	18,787	12,813	11,302
Nonstreamlined	5,810	10,118	10,898
Streamlined Non-RB	3,159	7,659	5,082
Streamlined RB MIP	2	24,442	72,016
Special LTV Ratios	785	131	4
All Refinancings	9,756	42,350	88,000

Figure 2 shows that the number of MMIF 15-year term mortgage originations rose dramatically from less than 30,000 mortgages in each of origination years 1988-1991 to 55,163 in 1992 and about 100,000 in 1993, as mortgage interest rates fell to levels not

seen since the 1960's.

FIGURE 3

Number of Section 203(b) Adjustable-rate Mortgages Originated Between 1988 and 1993			
	Calendar Year of Origination		
	1988	1989	1990
All Section 203(b)	21,776	5,617	8,107
All Nonrefinancings	21,711	5,601	8,081
Nonstreamlined	55	11	24
Streamlined Non-RB	0	0	0
Streamlined RB MIP	0	0	0
Special LTV Ratios	10	5	2
All Refinancings	65	16	26
	Calendar Year of Origination		
	1991	1992	1993
All Section 203(b)	36,491	105,961	90,700
All Nonrefinancings	32,898	91,044	74,614
Nonstreamlined	829	5,551	3,419
Streamlined Non-RB	388	1,813	1,548
Streamlined RB MIP	1	6,894	11,107
Special LTV Ratios	2,375	659	12
All Refinancings	3,593	14,917	16,086

Figure 3 shows that the number of MMIF ARMs originated jumped from 21,776 mortgages in calendar year 1988 to almost 106,000 in 1992. In contrast to the MMIF fixed-rate mortgages, especially those with a term of 15 years, a relatively small proportion of ARMs were recorded as refinancings.

Figure 4 shows the proportions of 15- and 30-year term

Section 203(b) fixed-rate mortgages as well as ARMs that are refinancings for origination years 1988 to 1993.

FIGURE 4

Proportion of Section 203(b) Mortgages that Are Refinancings						
Type of Mortgage	Calendar Year of Origination					
	1988	1989	1990	1991	1992	1993
30-Year Term	3.04%	1.95%	1.86%	11.14%	24.22%	41.18%
15-Year Term	5.70%	5.54%	6.44%	34.18%	76.77%	88.62%
ARM	0.30%	0.28%	0.32%	9.85%	14.08%	17.74%

For all three amortization plans, the proportion of loans that are refinancings increased dramatically from 1988 to 1993. The vast majority of 15-year term loans originated in 1992 and 1993 are refinancings, with a staggering 88.62 percent of the 15-year term mortgages originated last year being refinancings.

For each calendar year of origination during this period, the proportion of 15-year term loans that are refinancings is greater than the proportion of 30-year term fixed-rate loans that are refinancings. The proportion of 30-year fixed rate loans is, in turn, greater than the proportion of ARMs for each calendar year. Many borrowers select a 15-year term when they refinance in order to take advantage of yet lower interest rates on the shorter term mortgage obligation and to pay off their entire mortgage obligation before they retire or before their children enter college. We conjecture that most Section 203(b) ARMs originated in 1992 and 1993 are by first-time homebuyers who can qualify for a larger loan with an ARM and its initial lower

interest rate than with a fixed-rate mortgage. The precipitous decline in short-term interest rates during 1992 and 1993, finally made FHA ARMs, with their one percent cap on annual interest rate changes, an attractive vehicle for investors.

2.1 Mortgage Interest Rates

As interest rates decrease, a borrower's economic incentive to refinance a high interest rate loan increases. Figure 5 illustrates the dramatic decline in mortgage interest rates from 1981 to 1993.

FIGURE 5

Average Section 203(b) Contract Interest Rate			
Calendar Year of Origination	Type of Mortgage		
	30-Year Term Fixed-Rate	Adjustable Rate Mortgage	15-Year Term Fixed-Rate
1981	14.17%		14.83%
1982	14.21%		12.01%
1983	12.17%		11.08%
1984	12.87%	12.39%	12.13%
1985	11.88%	9.64%	11.41%
1986	9.79%	8.84%	9.59%
1987	9.35%	8.19%	9.03%
1988	10.11%	8.86%	9.80%
1989	9.94%	9.04%	9.85%
1990	9.76%	8.46%	9.63%
1991	9.27%	7.13%	9.05%
1992	8.40%	6.30%	8.09%
1993	7.79%	5.84%	7.45%

Many mortgages originated in 1981 were likely refinanced in

1986 and 1987. Other mortgages from those origination years were probably refinanced between 1988 and 1993 because during 1993 mortgage interest rates dropped below 7% for the first time since the 1960's.

Figure 6 compares the activity levels of the MMIF 15-year term mortgages to those of the fixed-rate 30-year term mortgages.

FIGURE 6

Number of 15-Year Loans Divided by the Number of 30-Year Fixed-Rate Loans						
Type of Mortgage	Calendar Year of Origination					
	1988	1989	1990	1991	1992	1993
Nonrefinanced	4.98%	3.55%	3.59%	3.94%	3.20%	3.34%
Refinanced	9.59%	10.47%	13.01%	16.31%	33.06%	37.19%

While the ratio of 15-year term mortgages to 30-year term fixed-rate mortgages declined over the years among the nonrefinanced MMIF mortgages, for refinancings the proportion of 15-year term MMIF mortgages increased dramatically from 9.6 percent in 1988 to 37.2 percent in 1993. This occurred as the annual number of 15-year term Section 203(b) originations neared 100,000 during 1993.

4. Cumulative Claim Termination Rates

Figures 7-9 show the cumulative claim termination rates through December 31, 1993, for initial MMIF 30-year and 15-year term fixed-rate mortgages and ARMs as well as the corresponding rates for each of the four types of refinancings.

Cumulative claim termination rates appear to be higher for refinancings than for other loans. This is particularly true on 30-year MMIF loans. Cumulative claim termination rates on 15-year loans are low.

FIGURE 7

Cumulative Claim Termination Rates for 30-Year Term Mortgages (in percent) Experience Through December 31, 1993					
	Calendar Year of Origination				
	1988	1989	1990	1991	1992
All Section 203(b)	6.22%	4.33%	3.07%	1.33%	0.18%
All Nonrefinancings	6.10%	4.30%	3.06%	1.29%	0.18%
Nonstreamlined	10.20%	5.46%	3.53%	1.17%	0.16%
Streamlined Non-RB	33.33%	0.00%	1.19%	1.20%	0.35%
Streamlined RB MIP	0.00%	0.00%	0.00%	0.00%	0.08%
Special LTV	8.69%	7.57%	2.99%	2.17%	1.02%
All Refinancings	10.12%	5.73%	3.42%	1.60%	0.17%

FIGURE 8

Cumulative Claim Termination Rates for 15-Year Term Mortgages (in percent) Experience Through December 31, 1993					
	Calendar Year of Origination				
	1988	1989	1990	1991	1992
All Section 203(b)	2.53%	1.73%	1.18%	0.44%	0.05%
All Nonrefinancings	2.55%	1.74%	1.19%	0.57%	0.12%
Nonstreamlined	2.31%	1.60%	0.96%	0.17%	0.04%
Streamlined Non-RB	0.00%	0.00%	0.00%	0.16%	0.07%
Streamlined RB MIP	0.00%	0.00%	0.00%	0.00%	0.02%
Special LTV	1.56%	1.62%	1.11%	0.38%	0.00%
All Refinancings	2.22%	1.59%	0.97%	0.18%	0.03%

FIGURE 9

Cumulative Claim Termination Rates for ARMs (in percent) Experience Through December 31, 1993					
	Calendar Year of Origination				
	1988	1989	1990	1991	1992
All Section 203(b)	6.54%	5.11%	1.92%	0.70%	0.15%
All Nonrefinancings	6.54%	5.07%	1.91%	0.66%	0.15%
Nonstreamlined	9.09%	0.00%	8.33%	0.48%	0.14%
Streamlined Non-RB	0.00%	0.00%	0.00%	0.26%	0.55%
Streamlined RB MIP	0.00%	0.00%	0.00%	0.00%	0.07%
Special LTV	0.00%	60.00%	0.00%	1.47%	0.91%
All Refinancings	7.69%	18.75%	7.69%	1.11%	0.19%

The higher claim rates for 30-year term refinancings¹ indicate that such refinancings were used by borrowers already in danger of defaulting, in hopes that a lower monthly payment might help ease their difficulty. Perhaps, by refinancing, fewer mortgages resulted in claims than otherwise would have.

On the other hand, the cumulative claim termination rates are lower on 15-year term refinancings than on 15-year term nonrefinancings. This indicates that 15-year term refinancings were generally employed by financially stable borrowers whose goal was to take advantage of the lower interest rates of the shorter term loans and/or to pay off their loans more rapidly. In general, the cumulative claim rates of 15-year term loans are substantially less than those of the corresponding 30-year term

¹This statement applies both to fixed-rate and adjustable rate 30-year term mortgages. However, there were relatively few ARMs originated, particularly in 1988-1990.

loans.

4. Cumulative Nonclaim Termination Rates

Figures 10-12 show the cumulative nonclaim termination rates through December 31, 1993, for MMIF 30-year and 15-year term fixed-rate mortgages and ARMs, respectively.

FIGURE 10

Cumulative Nonclaim Rates for 30-Year Fixed-rate Mortgages (in percent) Experience Through December 31, 1993						
	Calendar Year of Origination					
	1988	1989	1990	1991	1992	1993
All Section 203(b)	45.03	43.83	42.67	30.95	10.55	1.78
All Nonrefinancings	44.51	43.39	42.22	29.69	7.22	0.83
Nonstreamlined	62.44	68.19	68.67	50.92	10.62	1.70
Streamlined Non-RB	44.44	68.00	50.00	55.63	36.08	4.91
Streamlined RB MIP	0.00	00.00	00.00	33.33	19.20	3.02
Special LTV	49.19	52.13	55.48	24.52	9.35	50.00
All Refinancings	61.65	66.09	66.35	41.07	20.98	3.15

FIGURE 11

Cumulative Nonclaim Termination Rates for 15-Year Mortgages (in percent) Experience Through December 31, 1993						
	Calendar Year of Origination					
	1988	1989	1990	1991	1992	1993
All Section 203(b)	38.60	38.57	36.62	25.65	8.15	1.22
All Nonrefinancings	37.94	38.12	35.85	23.71	5.78	0.65
Nonstreamlined	50.14	46.52	48.76	30.21	7.66	0.75
Streamlined Non-RB	0.00	14.29	37.50	32.19	15.22	1.83
Streamlined RB MIP	0.00	0.00	0.00	50.00	7.38	1.34
Special LTV	44.79	45.95	44.65	11.97	9.16	25.00
All Refinancings	49.47	46.26	47.87	29.39	8.87	1.30

FIGURE 12

Cumulative Nonclaim Rates for ARMs (in percent) Experience Through December 31, 1993						
	Calendar Year of Origination					
	1988	1989	1990	1991	1992	1993
All Section 203(b)	33.73	31.14	17.21	8.08	3.96	0.72
All Nonrefinancings	33.76	31.16	17.16	7.81	3.19	0.52
Nonstreamlined	18.18	36.36	33.33	14.60	6.49	1.29
Streamlined Non-RB	0.00	0.00	0.00	26.29	24.05	2.00
Streamlined RB MIP	0.00	0.00	0.00	0.00	6.76	1.73
Special LTV	50.00	0.00	0.00	6.57	5.61	16.67
All Refinancings	23.08	25.00	30.77	10.55	8.71	1.67

Cumulative nonclaim termination rates on fixed-rate loans and ARMs originated during 1992 and 1993, are dramatically higher for refinancings than for nonrefinancings. Again, the difference

is more pronounced for 30-year term fixed-rate loans than for 15-year term fixed-rate loans. Dixon and Herzog in a 1992 unpublished HUD study on "Mortgage Insurance Risk -- Investors and Low-Downpayment Loans" showed that mortgages with larger face amounts tend to have higher nonclaim termination rates than do those with smaller face amounts.

5. 15-year Term Mortgages by FHA Field Office

Figures 13-18 summarize the termination experience of 15-year term MMIF mortgages originated during calendar years 1988-1993, respectively, in the ten FHA field offices doing the most 15-year term refinancings. We observe from Figures 13-16 that during calendar years 1988-1991, the Puerto Rico FHA field office originated a relatively large number of nonrefinancings and refinancings. These refinancings from Puerto Rico have produced only one claim termination and have had cumulative nonclaim termination rates well below the national average. The cumulative claim and nonclaim termination rates on nonrefinancings from Puerto Rico have likewise all been well below the national average. During calendar years 1992 and 1993, as shown in Figures 17 and 18, the Salt Lake City, Denver, and Minneapolis FHA field offices originated the most 15-year term refinancings. As shown in Figures 13-14 and 16-18, the Salt Lake City FHA field office has consistently high cumulative nonclaim termination rates and low survival rates through December 31, 1993.

6. 30-year Term Loans Originated During 1988 by FHA Field Office

Figures 19-24 summarize the termination experience of 30-year term fixed rate mortgages originated during each of calendar years 1988-1993, respectively, for the ten FHA field offices with the largest number of refinancings.

6.1 Originations

The Denver, Phoenix, Minneapolis, Salt Lake City, and Santa Ana field offices dominate the 30-year term refinancing activity for all six origination years considered.

6.2 Cumulative Claim Termination Rates

The cumulative claim termination rates on refinancings tend to be higher than those on nonrefinancings in weak real estate markets but lower in strong markets. For example, for 1988 originations, the cumulative claim termination rate on refinancings in the weak San Antonio market was 26.47 percent, which was more than twice the rate of 11.94 percent on nonrefinancings. By contrast, the cumulative claim termination rate on refinancings in the strong District of Columbia market was only 1.06 percent compared to 3.22 percent on nonrefinancings. Thus, it appears that in weak markets, many borrowers may be employing the FHA streamline refinancing program in a desperate attempt to avoid foreclosure by reducing their monthly mortgage payments. For some, this strategy is successful; for many others it is not.

A more rigorous demonstration of the above conjectures regarding what motivates borrower refinancing strategies was

undertaken using some statistical measures of association. In particular, we examined the relationships between the cumulative claim rates by FHA field office on 30-year term refinancings originated during 1988 as a function of the cumulative claim rates on all 30-year mortgages within the field office originated in prior years. These calculations were carried out for the 25 FHA field offices that had originated at least 200 refinancings each during calendar year 1988. In sum, we found the cumulative claim rates on 1985-1987 originations to be excellent predictors of the cumulative claim rates on 1988 originations.² Similarly, we found the cumulative claim rates on 1985 originations to be excellent predictors of the cumulative claim rates on 1989 originations.³

6.3 Cumulative Nonclaim Termination Rates

The cumulative nonclaim termination rates vary widely among offices. For example, on the 1988 originations, offices such as Dallas, Fort Worth, and San Antonio, in the hard-hit Texas market

²Specifically, we used a multiple linear least-squares model with the cumulative claim termination rate on 1988 refinancings as the dependent variable and the cumulative claim termination rates on all loans originated during each of the years 1985-1987 as the three predictor variables. This produced a coefficient of determination of 95.0% -- a very high positive correlation.

³We also constructed a multiple linear least-squares model with the 1989 cumulative claim termination rate on refinancings as the dependent variable and the six cumulative claim termination rates on all loans originated during 1983-1988 as the predictor variables. This model had a coefficient of determination of 92.8%. Deleting all of the predictor variables except the one for 1985 originations, we still obtained a coefficient of determination of 89.3% -- not much less than 92.8%.

of that time, had relatively low nonclaim termination rates compared to the offices in more prosperous areas such as Minneapolis, Santa Ana, or the District of Columbia.⁴ This is because borrowers whose property values have increased sufficiently are able to refinance their mortgages without paying any mortgage insurance premiums (whether it be FHA, VA, or private mortgage insurance). This extra savings provides additional incentive for borrowers in strong real estate markets to refinance but the same incentive is absent from weak markets.

The field office data of Figure 24 on 30-year fixed-rate mortgages originated during 1993 suggest what has been confirmed by the Salt Lake City FHA Office, that some lenders are much more aggressive than others in convincing borrowers to refinance their loans. For the area under the jurisdiction of the Salt Lake City FHA Office, 11.48% of the 30-year term, fixed rate refinancings originated during calendar year 1993 had resulted in nonclaim terminations prior to the end of 1993 itself. This was almost four times the corresponding rate of 3.15 percent for the entire United States.

6.4 Survival Rates

As with the nonclaim termination rates, the survival rates (i.e., the proportion of originations still outstanding on December 31, 1993) vary widely by FHA field office. For example,

⁴In fact, we found that there was a strong negative correlation between the cumulative claim rates and the cumulative nonclaim rates through December 31, 1993 for the ten offices listed in Table 14. To wit, the Pearson product-moment correlation coefficient was -80.3%.

the Salt Lake City FHA office had less than 30% of its calendar year 1988 originations outstanding on December 31, 1993, compared to 63.5% for San Antonio. The low survivor rates in Salt Lake City were due to the success of aggressive local Salt Lake City lenders in convincing borrowers to refinance their MMIF mortgages with FHA.

7. Summary

As mortgage interest rates decrease, the number of refinancings increases. These data show a dramatic increase in refinancings that began in 1991 and continued through 1993.

Borrowers experiencing difficulty making monthly payments will likely refinance as interest rates decrease in order to lower their monthly payments. This effort may prevent a claim in some cases, but where it does not, it helps to explain the higher claim rates on refinancings compared to nonrefinancings. Some borrowers refinance a 30-year term mortgage into a 15-year term mortgage to take advantage of even lower interest rates. These borrowers are less likely to be experiencing financial difficulty and so we observe the lower claim rates on 15-year term refinancings.

BIOS

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FIGURE 13

THE 10 OFFICES WITH THE MOST SECTION 203(B) 15-YEAR TERM REFINANCINGS
CALENDAR YEAR OF ORIGATION 1988

OFFICE	NUMBER OF ORIGINATIONS			CLAIM TERMINATIONS				NONCLAIM TERMINATIONS				SURVIVAL RATE
	TOTAL	NON- REFI	REFI	NON- REFI	RATE	REFI	RATE	NON- REFI	RATE	REFI	RATE	
PUERTO RICO	1,953	1,717	236	10	.58%	0	.00%	419	24.40%	50	21.19%	75.47%
DENVER	786	693	93	19	2.74%	4	4.30%	329	47.47%	56	60.22%	48.09%
GREENSBORO	839	782	57	12	1.53%	0	.00%	332	42.46%	33	57.89%	55.07%
D. C.	362	312	50	7	2.24%	2	4.00%	152	48.72%	32	64.00%	46.69%
CHICAGO	806	759	47	27	3.56%	1	2.13%	329	43.35%	26	55.32%	52.48%
BALTIMORE	356	310	46	7	2.26%	0	.00%	129	41.61%	22	47.83%	55.62%
MINNEAPOLIS	696	651	45	7	1.08%	0	.00%	308	47.31%	27	60.00%	50.86%
PHOENIX	368	323	45	15	4.64%	1	2.22%	127	39.32%	22	48.89%	55.16%
SANTA ANA	634	593	41	8	1.35%	1	2.44%	299	50.42%	26	63.41%	47.32%
SALT LAKE CITY	502	465	37	5	1.08%	2	5.41%	274	58.92%	28	75.68%	38.45%
U. S. TOTAL	28,409	26,790	1,619	682	2.55%	36	2.22%	10,164	37.94%	801	49.47%	58.88%

FIGURE 14

THE 10 OFFICES WITH THE MOST SECTION 203(B) 15-YEAR TERM REFINANCINGS
CALENDAR YEAR OF ORIGINATION 1989

OFFICE	NUMBER OF ORIGINATIONS			CLAIM TERMINATIONS				NONCLAIM TERMINATIONS				SURVIVAL RATE
	TOTAL	NON-REFI	REFI	NON-REFI	RATE	REFI	RATE	NON-REFI	RATE	REFI	RATE	
PUERTO RICO	1,259	996	263	4	.40%	0	.00%	205	20.58%	63	23.95%	78.40%
DENVER	689	626	63	4	.64%	1	1.59%	317	50.64%	38	60.32%	47.75%
INDIANAPOLIS	783	723	60	18	2.49%	0	.00%	329	45.50%	28	46.67%	52.11%
CHICAGO	607	553	54	8	1.45%	2	3.70%	239	43.22%	29	53.70%	54.20%
SANTA ANA	420	384	36	14	3.65%	0	.00%	198	51.56%	23	63.89%	44.05%
PHOENIX	284	240	36	6	2.42%	1	2.78%	107	43.15%	16	44.44%	54.23%
MINNEAPOLIS	699	664	35	12	1.81%	0	.00%	285	42.92%	19	54.29%	54.79%
SALT LAKE CITY	444	411	33	1	.24%	0	.00%	249	60.58%	26	78.79%	37.84%
D. C.	155	128	27	1	.78%	0	.00%	56	43.75%	11	40.74%	56.13%
MEMPHIS	412	385	27	8	2.08%	1	3.70%	152	39.48%	11	40.74%	58.25%
U. S. TOTAL	22,676	21,420	1,256	372	1.74%	20	1.59%	8,166	38.12%	581	46.26%	59.70%

FIGURE 15

THE 10 OFFICES WITH THE MOST SECTION 203(B) 15-YEAR TERM REFINANCINGS
CALENDAR YEAR OF ORIGINATION 1990

OFFICE	NUMBER OF ORIGINATIONS			CLAIM TERMINATIONS				NONCLAIM TERMINATIONS				SURVIVAL RATE
	TOTAL	NON-REFI	REFI	NON-REFI	RATE	REFI	RATE	NON-REFI	RATE	REFI	RATE	
PUERTO RICO	1,107	984	123	3	.30%	1	.81%	199	20.22%	32	26.02%	78.77%
SANTA ANA	334	237	97	7	2.95%	0	.00%	117	49.37%	66	68.04%	43.11%
CHICAGO	465	382	83	3	.79%	1	1.20%	134	35.08%	36	43.37%	62.58%
DENVER	789	720	69	9	1.25%	0	.00%	350	48.61%	45	65.22%	48.80%
MINNEAPOLIS	856	800	56	8	1.00%	0	.00%	345	43.13%	29	51.79%	55.37%
MILWAUKEE	174	121	53	0	.00%	0	.00%	62	51.24%	30	56.60%	47.13%
D. C.	138	89	49	1	1.12%	0	.00%	40	44.94%	26	53.06%	51.45%
HOUSTON	942	894	48	13	1.45%	0	.00%	191	21.36%	17	35.42%	76.54%
CLEVELAND	468	428	40	10	2.34%	0	.00%	131	30.61%	18	45.00%	66.03%
PHOENIX	261	221	40	4	1.81%	0	.00%	104	47.06%	24	60.00%	49.43%
U. S. TOTAL	24,063	22,513	1,550	268	1.19%	15	.97%	8,071	35.85%	742	47.87%	62.20%

FIGURE 16
 THE 10 OFFICES WITH THE MOST SECTION 203(B) 15-YEAR TERM REFINANCINGS
 CALENDAR YEAR OF ORIGINATION 1991

OFFICE	NUMBER OF ORIGINATIONS			CLAIM TERMINATIONS				NONCLAIM TERMINATIONS				SURVIVAL RATE
	TOTAL	NON-REFI	REFI	NON-REFI	RATE	REFI	RATE	NON-REFI	RATE	REFI	RATE	
DENVER	1,169	581	588	0	.00%	1	.17%	206	35.46%	249	42.35%	60.99%
MINNEAPOLIS	1,220	777	443	1	.13%	0	.00%	237	30.50%	182	41.08%	65.57%
PUERTO RICO	845	464	381	0	.00%	0	.00%	81	17.46%	71	18.64%	82.01%
SALT LAKE CITY	786	405	381	0	.00%	0	.00%	191	47.16%	227	59.58%	46.82%
ATLANTA	953	606	347	7	1.16%	1	.29%	147	24.26%	76	21.90%	75.76%
PHOENIX	472	165	307	2	1.21%	2	.65%	59	35.76%	115	37.46%	62.29%
JACKSON	972	687	285	4	.58%	0	.00%	146	21.25%	76	26.67%	76.75%
CHICAGO	575	293	282	2	.68%	1	.35%	64	21.84%	83	29.43%	73.91%
INDIANAPOLIS	830	572	258	4	.70%	0	.00%	142	24.83%	75	29.07%	73.37%
BIRMINGHAM	712	482	230	1	.21%	1	.43%	120	24.90%	48	20.87%	76.12%
U. S. TOTAL	28,543	18,787	9,756	107	.57%	18	.18%	4,455	23.71%	2,867	29.39%	73.91%

FIGURE 17
 THE 10 OFFICES WITH THE MOST SECTION 203(B) 15-YEAR TERM REFINANCINGS
 CALENDAR YEAR OF ORIGINATION 1992

OFFICE	NUMBER OF ORIGINATIONS			CLAIM TERMINATIONS				NONCLAIM TERMINATIONS				SURVIVAL RATE
	TOTAL	NON- REFI	REFI	NON- REFI	RATE	REFI	RATE	NON- REFI	RATE	REFI	RATE	
SALT LAKE CITY	2,920	253	2,667	1	.40%	1	.04%	36	14.23%	700	26.25%	74.73%
DENVER	2,856	367	2,489	2	.54%	0	.00%	37	10.08%	335	13.46%	86.90%
MINNEAPOLIS	2,274	480	1,794	0	.00%	1	.06%	36	7.50%	176	9.81%	90.63%
PHOENIX	1,542	104	1,438	1	.96%	3	.21%	10	9.62%	134	9.32%	90.40%
HOUSTON	1,824	409	1,415	1	.24%	1	.07%	14	3.42%	76	5.37%	94.96%
ATLANTA	1,555	329	1,226	1	.30%	0	.00%	21	6.38%	66	5.38%	94.34%
FORT WORTH	1,675	484	1,191	1	.21%	3	.25%	13	2.69%	76	6.38%	94.45%
FARGO	1,425	323	1,102	0	.00%	0	.00%	26	8.05%	84	7.62%	92.28%
LITTLE ROCK	1,531	467	1,064	0	.00%	0	.00%	24	5.14%	37	3.48%	96.02%
JACKSON	1,478	431	1,047	0	.00%	1	.10%	19	4.41%	75	7.16%	93.57%
U. S. TOTAL	55,163	12,813	42,350	15	.12%	14	.03%	740	5.78%	3,758	8.87%	91.79%

FIGURE 18
 THE 10 OFFICES WITH THE MOST SECTION 203(B) 15-YEAR TERM REFINANCINGS
 CALENDAR YEAR OF ORIGINATION 1993

OFFICE	NUMBER OF ORIGINATIONS			CLAIM TERMINATIONS				NONCLAIM TERMINATIONS				SURVIVAL RATE
	TOTAL	NON- REFI	REFI	NON- REFI	RATE	REFI	RATE	NON- REFI	RATE	REFI	RATE	
DENVER	5,843	295	5,548	0	.00%	0	.00%	0	.00%	115	2.07%	98.03%
SALT LAKE CITY	5,159	183	4,976	0	.00%	0	.00%	4	2.19%	231	4.64%	95.44%
MINNEAPOLIS	4,424	307	4,117	0	.00%	0	.00%	1	.33%	67	1.63%	98.46%
PUERTO RICO	3,585	304	3,281	0	.00%	0	.00%	3	.99%	108	3.29%	96.90%
HOUSTON	3,064	317	2,747	0	.00%	0	.00%	1	.32%	24	.87%	99.18%
PHOENIX	2,814	87	2,727	0	.00%	0	.00%	0	.00%	22	.81%	99.22%
ATLANTA	2,702	301	2,401	0	.00%	0	.00%	1	.33%	22	.92%	99.15%
DALLAS	2,582	251	2,331	0	.00%	0	.00%	1	.40%	38	1.63%	98.49%
ST. LOUIS	2,413	89	2,324	0	.00%	1	.04%	1	1.12%	36	1.55%	98.43%
FORT WORTH	2,663	383	2,280	0	.00%	0	.00%	2	.52%	31	1.36%	98.76%
U. S. TOTAL	99,302	11,302	88,000	0	.00%	1	.00%	74	.65%	1,142	1.30%	98.77%

FIGURE 19
 THE 10 OFFICES WITH THE MOST FIXED RATE SECTION 203(B) 30-YEAR TERM REFINANCINGS
 CALENDAR YEAR OF ORIGINATION 1988

OFFICE	NUMBER OF ORIGINATIONS			CLAIM TERMINATIONS				NONCLAIM TERMINATIONS				SURVIVAL RATE
	TOTAL	NON- REFI	REFI	NON- REFI	RATE	REFI	RATE	NON- REFI	RATE	REFI	RATE	
DENVER	22,496	20,607	1,889	1,384	6.72%	340	18.00%	11,619	56.38%	1,208	63.95%	35.32%
PHOENIX	18,367	16,661	1,706	2,127	12.77%	293	17.17%	7,383	44.31%	1,070	62.72%	40.80%
D. C.	12,830	11,980	850	386	3.22%	9	1.06%	6,457	53.90%	590	69.41%	42.00%
MINNEAPOLIS	22,281	21,565	716	963	4.47%	43	6.01%	12,482	57.88%	545	76.12%	37.02%
SANTA ANA	18,920	18,301	619	1,054	5.76%	19	3.07%	10,164	55.54%	440	71.08%	38.28%
DALLAS	10,069	9,461	608	1,298	13.72%	138	22.70%	3,003	31.74%	296	48.68%	52.97%
SALT LAKE CITY	9,631	9,041	590	574	6.35%	65	11.02%	5,734	63.42%	457	77.46%	29.08%
FORT WORTH	11,549	10,986	563	1,533	13.95%	114	20.25%	3,320	30.22%	229	40.67%	55.01%
SAN ANTONIO	12,328	11,766	562	1,400	11.90%	149	26.51%	2,744	23.32%	212	37.72%	63.46%
KANSAS CITY	7,177	6,667	510	495	7.42%	29	5.69%	2,686	40.29%	344	67.45%	50.48%
U. S. TOTAL	555,177	538,290	16,887	32,841	6.10%	1,709	10.12%	239,570	44.51%	10,412	61.66%	48.75%

FIGURE 20
 THE 10 OFFICES WITH THE MOST FIXED RATE SECTION 203(B) 30-YEAR TERM REFINANCINGS
 CALENDAR YEAR OF ORIGINATION 1989

OFFICE	NUMBER OF ORIGINATIONS			CLAIM TERMINATIONS				NONCLAIM TERMINATIONS				SURVIVAL RATE
	TOTAL	NON-REFI	REFI	NON-REFI	RATE	REFI	RATE	NON-REFI	RATE	REFI	RATE	
PHOENIX	17,268	15,360	1,908	1,234	8.03%	182	9.54%	6,826	44.44%	1,330	69.71%	44.57%
DENVER	24,168	22,703	1,465	875	3.85%	129	8.81%	13,254	58.38%	1,031	70.38%	36.74%
MINNEAPOLIS	24,694	23,784	910	798	3.36%	21	2.31%	13,906	58.47%	676	74.29%	37.63%
SALT LAKE CITY	9,890	9,291	599	330	3.55%	21	3.51%	6,000	64.58%	506	84.47%	30.67%
SANTA ANA	18,051	17,592	459	1,181	6.71%	14	3.05%	9,395	53.40%	354	77.12%	39.37%
CHICAGO	19,842	19,455	387	813	4.18%	12	3.10%	9,823	50.49%	255	65.89%	45.05%
DALLAS	11,937	11,558	379	1,082	9.36%	34	8.97%	4,151	35.91%	253	66.75%	53.76%
D. C.	9,401	9,049	352	337	3.72%	4	1.14%	4,400	48.62%	234	66.48%	47.08%
FORT WORTH	12,970	12,638	332	1,256	9.94%	48	14.46%	3,982	31.51%	211	63.55%	57.62%
SEATTLE	14,714	14,452	262	51	.35%	2	.76%	10,556	73.04%	213	81.30%	26.45%
U. S. TOTAL	615,160	603,159	12,001	25,940	4.30%	687	5.72%	261,683	43.39%	7,932	66.09%	51.84%

FIGURE 21

THE 10 OFFICES WITH THE MOST FIXED RATE SECTION 203(B) 30-YEAR TERM REFINANCINGS
CALENDAR YEAR OF ORIGINATION 1990

OFFICE	NUMBER OF ORIGINATIONS			CLAIM TERMINATIONS				NONCLAIM TERMINATIONS				SURVIVAL RATE
	TOTAL	NON- REFI	REFI	NON- REFI	RATE	REFI	RATE	NON- REFI	RATE	REFI	RATE	
DENVER	23,645	22,411	1,234	517	2.31%	45	3.65%	12,913	57.62%	957	77.55%	38.96%
PHOENIX	15,431	14,213	1,218	691	4.86%	76	6.24%	7,307	51.41%	898	73.73%	41.86%
MINNEAPOLIS	24,233	23,152	1,081	414	1.79%	33	3.05%	14,381	62.12%	813	75.21%	35.46%
SANTA ANA	16,918	15,946	972	1,288	8.08%	27	2.78%	8,024	50.32%	701	72.12%	40.65%
CHICAGO	18,893	18,270	623	531	2.91%	13	2.09%	8,283	45.34%	369	59.23%	51.33%
DALLAS	13,016	12,562	454	846	6.73%	41	9.03%	4,687	37.31%	287	63.22%	54.97%
FORT WORTH	13,512	13,108	404	1,018	7.77%	35	8.66%	4,429	33.79%	257	63.61%	57.53%
SALT LAKE CITY	10,683	10,311	372	221	2.14%	5	1.34%	7,109	68.95%	326	87.63%	28.25%
ST. LOUIS	9,062	8,761	301	248	2.83%	12	3.99%	4,862	55.50%	213	70.76%	41.13%
D. C.	10,673	10,373	300	305	2.94%	2	.67%	5,010	48.30%	198	66.00%	48.33%
U. S. TOTAL	639,078	627,162	11,916	19,190	3.06%	408	3.42%	264,776	42.22%	7,906	66.35%	54.27%

FIGURE 22

THE 10 OFFICES WITH THE MOST FIXED RATE SECTION 203(B) 30-YEAR TERM REFINANCINGS
CALENDAR YEAR OF ORIGINATION 1991

OFFICE	NUMBER OF ORIGINATIONS			CLAIM TERMINATIONS				NONCLAIM TERMINATIONS				SURVIVAL RATE
	TOTAL	NON-REFI	REFI	NON-REFI	RATE	REFI	RATE	NON-REFI	RATE	REFI	RATE	
DENVER	22,866	17,272	5,594	145	.84%	70	1.25%	7,470	43.25%	3,072	54.92%	52.96%
PHOENIX	15,337	10,000	5,337	211	2.11%	139	2.60%	3,972	39.72%	2,605	48.81%	54.83%
MINNEAPOLIS	20,444	17,136	3,308	95	.55%	12	.36%	8,335	48.64%	2,216	66.99%	47.87%
SALT LAKE CITY	11,547	8,363	3,184	56	.67%	25	.79%	4,787	57.24%	2,242	70.41%	38.43%
SANTA ANA	12,581	9,997	2,584	479	4.79%	66	2.55%	3,622	36.23%	1,203	46.56%	57.32%
ATLANTA	19,864	17,374	2,490	309	1.78%	43	1.73%	5,471	31.49%	718	28.84%	67.07%
SAN ANTONIO	11,809	9,524	2,285	98	1.03%	43	1.88%	2,038	21.40%	421	18.42%	77.98%
DALLAS	11,764	9,794	1,970	260	2.65%	108	5.48%	2,447	24.98%	653	33.15%	70.52%
FORT WORTH	12,136	10,329	1,807	321	3.11%	50	2.77%	2,303	22.30%	623	34.48%	72.83%
ST. LOUIS	8,593	6,846	1,747	77	1.12%	47	2.69%	2,736	39.96%	1,360	77.85%	50.89%
U. S. TOTAL	536,680	476,873	59,807	6,163	1.29%	954	1.60%	141,567	29.69%	24,560	41.07%	67.72%

FIGURE 23

THE 10 OFFICES WITH THE MOST FIXED RATE SECTION 203(B) 30-YEAR TERM REFINANCINGS
CALENDAR YEAR OF ORIGINATION 1992

OFFICE	NUMBER OF ORIGINATIONS			CLAIM TERMINATIONS				NONCLAIM TERMINATIONS				SURVIVAL RATE
	TOTAL	NON-REFI	REFI	NON-REFI	RATE	REFI	RATE	NON-REFI	RATE	REFI	RATE	
DENVER	27,202	15,656	11,546	15	.10%	12	.10%	1,887	12.05%	3,566	30.89%	79.85%
PHOENIX	21,133	9,802	11,331	39	.40%	28	.25%	648	6.61%	2,504	22.10%	84.77%
MINNEAPOLIS	23,955	14,129	9,826	4	.03%	5	.05%	1,965	13.91%	2,715	27.63%	80.43%
SALT LAKE CITY	16,691	8,280	8,411	8	.10%	5	.06%	1,965	23.73%	3,877	46.09%	64.92%
ATLANTA	20,975	15,342	5,633	27	.18%	10	.18%	1,047	6.82%	730	12.96%	91.35%
SANTA ANA	12,403	7,279	5,124	44	.60%	14	.27%	636	8.74%	1,011	19.73%	86.25%
ST. LOUIS	10,463	5,733	4,730	9	.16%	16	.34%	713	12.44%	2,216	46.85%	71.77%
FORT WORTH	13,188	9,230	3,958	58	.63%	27	.68%	337	3.65%	673	17.00%	91.70%
DALLAS	11,970	8,349	3,621	21	.25%	20	.55%	336	4.02%	713	19.69%	90.89%
D. C.	7,445	4,987	2,458	7	.14%	1	.04%	315	6.32%	358	14.56%	90.85%
U. S. TOTAL	528,793	400,700	128,093	718	.18%	224	.17%	28,940	7.22%	26,874	20.98%	89.27%

FIGURE 24
 THE 10 OFFICES WITH THE MOST FIXED RATE SECTION 203(B) 30-YEAR TERM REFINANCINGS
 CALENDAR YEAR OF ORIGINATION 1993

OFFICE	NUMBER OF ORIGINATIONS			CLAIM TERMINATIONS				NONCLAIM TERMINATIONS				SURVIVAL RATE
	TOTAL	NON-REFI	REFI	NON-REFI	RATE	REFI	RATE	NON-REFI	RATE	REFI	RATE	
DENVER	32,218	13,216	19,002	0	.00%	0	.00%	177	1.34%	967	5.09%	96.45%
PHOENIX	24,722	8,049	16,673	1	.01%	1	.01%	68	.84%	516	3.09%	97.63%
MINNEAPOLIS	25,901	10,242	15,659	0	.00%	1	.01%	182	1.78%	818	5.22%	96.14%
SANTA ANA	21,125	7,658	13,467	0	.00%	0	.00%	85	1.11%	493	3.66%	97.26%
ATLANTA	25,397	13,924	11,473	1	.01%	0	.00%	96	.69%	320	2.79%	98.36%
SALT LAKE CITY	15,211	6,305	8,906	0	.00%	2	.02%	304	4.82%	1,022	11.48%	91.27%
DALLAS	13,642	6,194	7,448	0	.00%	0	.00%	39	.63%	217	2.91%	98.12%
D. C.	12,632	5,990	6,642	0	.00%	0	.00%	34	.57%	111	1.67%	98.85%
ST. LOUIS	11,042	4,508	6,534	0	.00%	0	.00%	56	1.24%	264	4.04%	97.10%
FORT WORTH	13,322	7,188	6,134	1	.01%	2	.03%	29	.40%	155	2.53%	98.60%
U. S. TOTAL	574,610	337,997	236,613	11	.00%	10	.00%	2,790	.83%	7,451	3.15%	98.21%

