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**Second Mortgage Survey
1980**

SECOND MORTGAGE SURVEY, 1980

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Abstract

In 1980, National Second Mortgage Association members provided extensive data on their second mortgage operations. This study presents data on the size and terms of second mortgages, growth in second mortgage holdings, the profitability of second mortgage lending, and the delinquency, foreclosure, and loss experience of various lenders. Data are shown for each of the major lender groups (bank-affiliated finance companies, other finance companies, depository institutions, and mortgage bankers) that responded to the survey. It also compares the behavior of lenders affiliated with bank-holding-companies to that of other finance companies. Finally, this study estimates the speed with which second mortgage portfolios are liquidated. It examines total liquidations, refinancings of outstanding debt, and cash liquidations under various assumptions.

Major findings include the fact that growth in the value of second mortgage outstandings in 1979, which was extremely rapid, was fueled as much by increases in average loan sizes as by increases in the number of loans outstanding. Also, due in part to low foreclosures and loss rates, second mortgage lending remained very profitable in 1979, even though costs of funds were substantially larger than in 1978. Finance companies behaved much the same regardless of their affiliation with bank holding companies. However, the bank-affiliated finance companies seemed more willing to make larger, longer-maturity loans than nonaffiliated finance companies. Finally, liquidation rates on second mortgages generally ranged between 25 to 50 percent of balances outstanding at the end of the previous year. Because a majority of companies experienced refinancings equal to ten percent or more of their new loan extensions, cash repayment rates were lower than second mortgage liquidation rates in general.

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I. Introduction

The second mortgage market has grown rapidly in recent years. Inflation has increased both potential borrowers' needs for funds and the value of their housing equity. Meanwhile, various regulations have increased lenders' desires to reduce risk and increase their profitability by making large, well-secured loans at moderate rates. However, very little is known about the nature of second mortgage lending and the second mortgage market.

In order to obtain better information on second mortgage lending, the Credit Research Center (CRC) and the National Second Mortgage Association (NSMA) have cooperated in collecting and processing data compiled by members of the National Second Mortgage Association on their second mortgage lending.

Information obtained in the 1979 survey of NSMA members for year-end 1978 was published by Peterson and Drecnik in CRC Working Paper No. 33. Data for the 1980 NS11A survey are summarized in this paper.

This paper is divided into several sections. Following the introductory section, section II discusses the overall results of the survey. Next, section III compares second mortgage loan and operating statistics for several major types of second mortgage lenders. Following that, section IV addresses the question of whether finance company affiliates of commercial banks differ from other finance companies in their loan policies and operating characteristics. Section V focuses on the issue of how rapidly second mortgage portfolios are liquidated. Finally, section VI summarizes the major findings of the 1980 CRC-NSMA survey.

II. The 1980 Survey

The 1980 CRC-NSMA survey was very similar to that conducted in 1979. All members of the National Second Mortgage Association were mailed a questionnaire (Appendix A) asking them to provide information on their second mortgage loan holding so policies, and operating experience. Overall, 60 members of the NSMA responded to the 1980 questionnaire. However, some did not hold second mortgages at the time of the survey. Thus, 57 respondents reported data in varying degrees of detail. The majority of the NSMA respondents were consumer finance companies; but a . number of mortgage bankers, depository institutions and their affiliates also responded to the survey (Table 1). Overall, the 1980 reports allow the following conclusions to be drawn.

(1) Second mortgage outstandings grew very rapidly in 1979, with most respondents experiencing portfolio growth of approximately 50 percent. Newer and smaller companies grew much faster--sometimes several hundred percent in a year. However, a few companies decreased their participation in the market. Overall, at year-end, NSMA respondents reported holdings of \$4.8 billion in second mortgage outstandings (Table 2).

(2) Growth in second mortgage portfolios was strongly affected by increases in the average size of outstanding mortgages. While growth in the number of loans made was substantial, averaging better than 25 percent at most firms, it was not as high as the growth rate in t e dollar value of outstandings. Average loan sizes increased substantially. From 1978 to 1979 the average size of second mortgages outstanding grew from under \$8,000 to \$10,000 (Table 2).

**TABLE 1
NATURE OF NSMA RESPONDENTS***

	Number
Independent finance company	21
Finance company affiliate of non-bank	4
Finance company affiliate of commercial bank	13
Commercial bank	4
Savings and loan, mutual savings bank, and their affiliates	4
Mortgage banking affiliate of commercial bank	3
Other affiliate of commercial bank	2
Independent mortgage banker	4
Other mortgage banks	1
Other	1
Total	57

*"Record Data" and one or two other firms did not report specific information, thus, they are not included in these tabulations.

**TABLE 2
SECOND MORTGAGE LOAN HOLDINGS AND GROWTH, 1979 (NSMA Members)**

	1979	Number of Respondents	Average Holdings/Respondents
Loans Outstanding, Year-end			
Number	563,000	52	10,827
Gross dollar value	\$4.77 billion	43	111 million
Net dollar value	\$3.50 billion	43	81 million
Loans Extended			
Number	325,661	53	6,145
Total dollar value	\$1.66 billion	28	59 million
Value of refinancings	\$0.61 billion	28	22 million

Distribution of Responses For:	Low	High	Mean*	Median	(# of Respondents**)
Growth in Loans Outstandings (in %) from Year-end 1978					
Number of loans	-30.8	728.3	64.1	27.1	40
Net dollar value of loans	-17.1	423.4	68.2	48.8	42
Gross dollar value of loans	-14.3	1,712.0	71.8	50.0	40/38
Average Size of Loans (\$)					
Net loans outstanding, 1979	1,234	31,444	9,998	7,821	50/49
Net loans outstanding, 1978	1,080	24,922	7,844	7,200	40
Household loan extensions (4th quarter 1979)	1,374	27,417	11,393	10,580	42/39
Business loan extensions (4th quarter 1979)	1,700	259,286	48,874	18,500	13
Purchased loans, 1979	.786	25,917	9,492	7,000	17/15
Purchased loans, 1978	1,604	1.3,794	6,476	4,801	6/5
Loans sold, 1979	4,100	17,929	13,183	13,732	9/6
Loans serviced, 1978	770	12,162	6,013	3,471	5
Percentage of New Money in Loan Extensions, 1979 (%)	8.1	100(15)	87.2	91.1	39

*Adjusted averages were obtained after eliminating values that appeared to be unrealistically high or low.

**Where two numbers are reported, the first number indicates how many firms reported the information and the second number indicates the number of reports that were actually used in calculating the adjusted mean.

(3) Only a limited number of respondents purchased, sold, or serviced second mortgages (Table 2).

(4) Most companies reported that, of their new loan extensions, approximately 90 percent represented "new money" lent to borrowers rather than refinancings of existing debt. Further, 15 respondents reported no refinancings at all. However, at some companies, refinancings accounted for a large proportion of total credit extensions (Table 2).

(5) Second mortgage lending appeared to be a profitable activity. Interest returns on second mortgage portfolios--"gross interest/average receivables"--of around 14 percent generally exceeded respondents' costs of borrowed funds--"interest paid/average borrowings"--(by several percentage points). In addition, many respondents generated noninterest revenues equal to several percent of their outstanding portfolios. As a result, pretax return on equity for most companies averaged over 20 percent (Table 3).

(6) Considerable variation existed in loan maturities at different companies--with maturities ranging from 24 to 180 months. However, many companies made five-year loans, and, on average, respondents made seven-year second mortgage loans. Less variation existed in equity requirements. The majority of companies made second mortgages for 80 percent of equity (Table 4).

(7) The vast majority of second mortgage loans made by NSMA respondents were made to households. However, a few institutions specialized in loans to business, and one made very large loans to business (Table 4).

(8) Delinquency rates on second mortgage loans were generally relatively low. Possibly lower numbers applied but, because a number of companies did not separate second mortgage delinquencies from other delinquencies, it was not possible to ascertain true delinquency rates with any degree of precision. This problem was further compounded by the fact that, while some companies reported net delinquencies, most reported gross delinquencies (including unearned finance charges), and some did not indicate how they calculated delinquencies (Table 5).

**TABLE 3
OPERATING INCOME AND RATIOS
(SECOND MORTGAGE PORTFOLIOS ONLY)**

Income:	Low	High	Mean*	Median	Number of Respondents**
Pretax income/avg. receivables M	0%	63.2%	8.7%	2.8%	28/27
Pretax income/avg. equity (%)	2.1	62.6	25.4	20.1	20/18
Return on receivables:					
Gross interest/avg. receivables M	3.3	26.4	14.4	13.8	29/25
Non-interest revenues/avg. receivables (%)	0	12.83	-	2.1	25/19
Total revenues/avg. receivables M	7.2	54.2	18.8	17.0	27/23
Interest expense:					
Interest paid/avg. borrowings M	6.7	14.0	10.75	10.75	23/18
Average borrowings/average receivables (%)	0	91.2***	***	81.1	26/22

*Adjusted means apply to all cases that are not unrealistically high

**The number of reporters is given twice. The first number indicates the number that reported relevant data, the second number indicates the number of reports that were included in the grand mean. Often reports of mortgage bankers had to be excluded because they had high non-interest income and low average receivables.

***Many reporters calculated average receivables and average borrowings differently. As a result, four reporters indicated that average borrowings exceeded average receivables, and mean value calculations were suspect.

TABLE 4

LOAN TERMS AND COMPOSITION, LAST QUARTER 1979

	Low	High	Mode (#)	Mean*	Median	Number of Respondents
Maturity of household loans	24 mo.	180 mo.	60 mo. (7)	81.3 mo.	84 mo.	47
Maximum loan as percent of equity	40%	95%	80% (13)	75.2%	80%	39
Avg. size of loans to households	\$1,374	\$27,417	-	\$11,393*	\$10,500	42/39*
Avg. size of loans to business	\$1,700	\$259,286	-	\$48,874	\$13,500	13
Number of loans for personal or household expenditures	0 (2)	35,531	-	3,524	250	27
Number of loans for nonconsumer purposes	0 (15)	263	-	96	102	27
Percentage of loans made for household purposes	0 (2)	100 (15)	-	86.8%	99.98%	27

*This mean was calculated after eliminating unrealistic values, the second number records the number of reports included in the adjusted mean.

(9) Considerable variation existed in delinquency and curing policies. However, most respondents required that accounts be 100 percent current in order to be off the delinquency list (Table 5).

(10) Foreclosures on second mortgage loans were extremely low, averaging under one-tenth of one percent of balances outstanding at the end of the previous year. Chargeoffs were also low, with most respondents reporting chargeoffs below two-tenths of one percent of average balances outstanding. Further, small recoveries reduced the net chargeoff rate to approximately one-tenth of one percent of average outstanding balances. While considerable variation existed in chargeoff rates (particularly since some respondents apparently reported chargeoffs on nonmortgage as well as second mortgage loans), overall it appears that second mortgage lending generated few losses. If loan growth should slow and rates of house price inflation fall, chargeoff rates will probably rise in the future. However, they will be rising from a very low base (Table 6).

Analysis of the data was hindered by a number of factors. First, some respondents apparently reported data applicable to their full portfolio rather than to their second mortgage holdings, per se. This practice particularly affected data on operating statistics. Second, some respondents reported some data in thousands of dollars and other data in dollars. If the data did not conform to data requests, such reporting often made comparisons difficult. Appendix B discusses data problems in more detail.

In spite of the problems associated with interpreting specific responses, and average ("mean") values affected by those responses, the general observations made above appear to hold for second mortgage lending in general. Thus, overall, the data allow us to conclude that second mortgage lending is a rapidly growing, profitable activity. Loan maturities are long and average loan sizes appear to be increasing rapidly. So far, at least, delinquency rates, chargeoffs, and foreclosures all seem to be quite low. Because of high profitability and relatively low losses, most lenders seem to be rapidly increasing their second mortgage lending activities.

TABLE 5
DELINQUENCY STATISTICS, 1979

Percent of Loans	Low	High	Average	Median	Number of Respondents**
Current or past due less than 60 days	85.74	100 (4)	97.55	99.0%	51
Past due 60-89 days	0 (7)	4.05	0.93	0.57%	50
Past due 90-179 days	0 (7)	7.54	1.23	0.43%	47
Past due 180-269 days	0 (25)	4.50	0.26	0.38%	44
Past due 270+ days	0 (30)	4.70	0.18	0.27%	44

(NOTE: 65 percent reported delinquencies that include unearned finance charges.)

Delinquency and Curing Policies (% of respondents)	Declared Delinquent If Not	Declared Cured If
100% current	50.9%	63.2%
90-99% current	7	1.8
90-99% of most recent	5.3	
80-89% of most recent	1.8	
60-69% of most recent	1.8	
50-59% of most recent	1.8	
50-59% current	3.5	
Under one-half payment behind	1.8	1.8
Within 85%	3.5	1.8
100% in 5 of 6 months	1.8	
60-day deferral in 12 months	1.8	1.8
Not answered or not applicable	17.67	21.1
2 consecutive payments		5.3
3 consecutive payments		1.8
5 consequent payments		1.8

TABLE 6
CHARGEOFFS AND FORECLOSURES, 1979

	Low (#)	High	Simple Average	Adjusted Average*	Median	Number of Respondents**
Foreclosures in last year	0 (19)	49	6.6	--	1	40
Foreclosures as % of loans at end of previous year	0 (13)	0.5%	0.06%	--	0.09%	30
Gross chargeoffs (% of average receivables)	0 (16)	3.78	1.38%	0.38%	0.11%	46/49
Recoveries <i>N</i> of average receivables)	0 (18)	2.39	0.24	0.24	0.02	42/42
Reserve for losses (% of year-end receivables)	0 (5)	70.15	5.78	1.42	1.52	37/43

*Adjusted averages were obtained after eliminating values that appeared to be unrealistically high or low. Data problems appeared to exist in some cases when chargeoffs and loss reserves were reported for all loans, not just for second mortgages.

**Where two numbers are reported, the first number indicates how many firms reported the information and the second number indicates the number of reports that were actually used in calculating the adjusted mean.

III. Comparative Statistics

There was a sufficient number of respondents to the survey that the data could be subdivided according to the type of respondent. This allowed comparative analyses to be made regarding the loan terms, operating characteristics, delinquency and loss experience, and growth characteristics of each group of firms. The four groups that were segregated for comparative analysis were: finance companies affiliated with bank holding companies, other finance companies, commercial banks and thrift institutions, and mortgage bankers.

Table 7 presents data on the second mortgage loan characteristics for each lender group. Those data indicate that outstanding second mortgage loans were largest at banks and thrift institutions and smallest at finance companies. The range in average loan sizes was great--particularly at finance companies not affiliated with banks. Clearly, some companies specialized in widely different lines of business. On balance, however, consumer finance companies not affiliated with banks made smaller loans with shorter maturities and higher rates of return than other lenders. Their homeowner equity requirements varied widely--from the most lenient to the most restrictive of all lenders.

Bank-affiliated finance companies behaved very much like independent finance companies except that they made somewhat larger loans (some were clearly business-oriented) for longer maturities and with fairly lenient (80%) loan-to-equity standards. Bank-affiliated finance companies also earned much higher rates of interest relative to their outstanding receivables than nonfinance companies in the sample.

Mortgage bankers made relatively large loans at relatively low rates of return for the longest maturities of any lender group. Banks and thrift institutions consistently made larger loans than other lenders, at relatively low rates with relatively restrictive equity requirements.

From the comparative operating cost data presented in Table 8, it can be seen that most lenders earned net profits equal to at least two percent of their average receivables outstanding. With few exceptions, mortgage bankers (which generally hold small stocks of receivables relative to the amount they service) earned even higher rates of return.

Mortgage bankers generated much higher rates of noninterest earnings relative to their total receivables than other lenders--primarily because they service more loans than they hold. However, because of low interest returns, their total revenues were the lowest, relative to average receivables, of all lenders.

In contrast with mortgage bankers, finance companies generated the highest revenues relative to their average holdings of second mortgage receivables. Banks and thrift institutions, which like mortgage bankers, generated relatively low interest revenues, recorded only slightly higher gross revenues (relative to their outstanding receivables) than mortgage bankers.

Because of differences in leverage and borrowing costs, differences in gross rates of return on average receivables (total revenues over average receivables) did not generate equivalent changes in rates of return on stockholders' equity. In fact, the median pretax return on equity averaged 20 percent to 21 percent for all lender groups for which reliable computations could be made.

TABLE 7
COMPARATIVE DATA ON LOAN CHARACTERISTICS

		Type of Lender			
		"Independent" (Non-Bank) Finance Company*	Bank-Affiliated Finance Company	Bank or Thrift Institution	Mortgage Banker
Average Loan Size for Outstanding Loans (median)		\$ 7,767	\$ 7,945	\$14,395	\$11,536
1979 Extensions	Low	1,780	7,280	7,861	9,266
	High	42,396	203,652	36,167	30,962
	Median	10,276	11,223	15,830	11,072
Maturity,	Low	24mo.	36mo.	48mo.	65mo.
	High	180	150	115	180
	Median (Mode)	60	84	85	104
Maximum Loan/Appraised Equity %	Low	40%	70%	60%	70%
	High	95	85	80	82
	Median (Mode)	75	80	71.5	76
	Average				
Loan Interest/Average Receivables %	Low	7.2	12.2	6.6	7.2
	High	26.4	26.2	13.8	18.8
	Median	17.6	1.0	11.7	11.9
	(Average)				

* This category included a small number of subsidiaries of non-banking firms--but they are not associated with banks in any way.

Differences in leverage varied considerably among institutions--with net borrowed funds ranging from zero to more than the face value of second mortgage receivables held. Most institutions financed their second mortgage holdings with large borrowings. However, most depository institutions and their subsidiaries did not report high leverage because they did not report deposits as "borrowed" funds.

In spite of their low reported "borrowings," banks and thrift institutions paid the highest rates for their borrowed funds--possibly because they had to refinance their short-term debts at high rates in 1979. Finance companies of all types paid somewhat lower average amounts for borrowed funds, while mortgage bankers had the lowest interest costs per dollar of debt outstanding. The fact that none of the institutions paid as much for borrowed funds as they earned on their second mortgage portfolios allowed the majority to earn at least a 20 percent pretax rate of return on the equity they had invested in second mortgage lending.

An important factor contributing to the profitability of nearly all second mortgage lenders was the fact that their foreclosures, chargeoffs, and delinquency rates were generally very low (Table 9). Foreclosures averaged well under one-tenth of one percent and chargeoffs also were generally low. Most mortgage bankers charged-off practically nothing while a majority of each of the other creditors charged-off less than one-fourth of one percent of their average receivables. Some suspiciously high chargeoff and recovery data were reported by individual commercial banks, thrift institutions, and independent consumer finance companies, however. It is likely that some of those institutions failed to segregate their second-mortgage related chargeoffs or recoveries from chargeoffs or recoveries applicable to their full portfolio. A similar problem could apply to some of the reported delinquency statistics. Nonetheless, median chargeoff and delinquency data at all lender groups indicated that the loss and delinquency experience of the vast majority of second mortgage lenders was very favorable.

TABLE 8
COMPARATIVE OPERATING STATISTICS, 1979

	Independent Finance Company*	Bank-Affiliated Finance Companies	Commercial Banks and Thrift Institutions	Mortgage Banker
Ratio of pretax income/average receivables (%)				
Low	0	0	0	1.5
High	62.6	6.6	4.4	63.2
Median	2.8	1.5	2.4	6.9
Ratio of non-interest revenues/average receivables (%)				
Low	0	0	0.4	1.3
High	12.3	6.1	1.4	17.6
Median	0.01	1.3	1.0	4.4
Ratio of total revenues/average receivables (%)				
Low	7.2	14.3	7.6	11.7
High	50.4	19.0	14.4	17.6
Median	20.9	18.3	14.2	13.3
Ratio of pretax income/average equity (%)				
Median	20.0	21.0	**	20.2
Ratio of average borrowing/average receivables (%)				
Low	0	72.6	0	0
High	115.8	111.7	93.4	192.0
Median	20.8	89.6	1.27	89.3
Ratio of Interest costs/average borrowing (%)				
Low	7.4	10.0	12.3	6.7
High	14.0	12.6	12.3	13.8
Median	11.0	10.9	12.3	9.5

*This category included a small number of subsidiaries of non-banking firms--but they are not associated with banks in any way.

**Reported data were not useful for making such comparisons.

Additional data (Table 10) obtained from the respondents to the 1980 survey indicated that the vast majority of second mortgage credit extensions represented new funds, rather than refinancings of existing debt. This was particularly the case at depository institutions (which reported very few refinancings) and was least likely to be the case at independent finance companies, since more than half reported that over one-fourth of their second mortgage loan extensions represented refinancing of existing debt. Most mortgage bankers and finance company subsidiaries of bank holding companies refinanced a modest amount of second mortgage debt (over half of each group reported refinancings equal to more than ten percent of their new loan extensions).

Growth in second mortgage loan holdings varied widely. Some small, relatively new companies grew at extraordinarily high rates. Some other companies reduced their second mortgage loan holdings during the year. One mortgage bank evidently sold most of its portfolio. Median rates of growth in loan outstandings were highest at finance company affiliates of bank holding companies and lowest at mortgage bankers. Finance companies experienced the lowest growth in the number of loans held, but substantial increases in average loan size allowed most of them to expand their second mortgage loan holdings significantly over the year. In general, all companies reported larger average loan sizes, but finance companies (of all types) recorded the largest gains. This obviously reflected the fact that new second mortgage loans made by finance companies were substantially larger than the loans they already held in their portfolios.

TABLE 9
COMPARATIVE DATA ON FORECLOSURES, CHARGEOFFS, AND DELINQUENCIES, BY TYPE OF LENDER, 1979

	Independent Finance Company*	Bank-Affiliated Finance Companies	Commercial Banks and Thrift Institutions	Mortgage Banker
Foreclosures/Previous, years outstandings				
Low	0%	0%	0%	0%
High	0.4	0.15	0.11	0.41
Median	0.05	0.03	0.004	0.08
Gross charge-offs/Average balances outstanding				
Low	0	0	0	0
High	3.78	0.925	0.38	0.36
Median	0.17	0.21	0.06	0.01
Recoveries /Average balances (%)				
Low	0	0	0	0
High	1.24	1.04	2.39	0.35
Median	0.03	0.02	0.73	0.02
Net charge-offs/Average balances Median	0.15	0.23	0.34	0.02
Reserve for losses/Outstandings % Median	2.16	1.85	0.69	0.02
Delinquencies/Outstandings (%)				
60-90 days, Low	0	0	0	0
High	4.50	1.25	2.18	3.0
Median	0.98	0.58	0.08	0.32
Over 60 days, % of outstandings Median	2.2%	0.9%	0.6%	0.6%

*This category included a small number of subsidiaries of non-banking firms--but they are associated with banks in any way.

TABLE 10
ASSORTED COMPARATIVE STATISTICS BY TYPE OF LENDER, 1979

	Independent Finance Company*	Bank-Affiliated Finance Companies	Commercial Banks and Thrift Institutions	Mortgage Banker
New money component of loan extensions (%)				
Low	30.6%	8.1%	87.4%	33.2%
High	100.0	100.0	100.0	100.0
Median	74.4	89.4	98.7	88.9
Year-to-year growth In dollar value of net receivables (%)				
Low	-12.1	12.3	-14.8	-99.8
High	219.0	1712.0	160.0	61.5
Median	28.5	69.8	49.9	15.9
In number of loans (%)				
Low	-30.8	-29.2	-6.4	9.9
High	99.6	728.3	144.6	128.3
Median	10.8	40.0	54.0	27.0
In average net loan size				
Low	2.2	-18.3	-1.9	-33.1
High	+51.1	+115.5	12.8	+28.1
Median	+17.1	+13.6	+8.1	+1.2
Number of respondents	25	13	8	8

*This category included a small number of subsidiaries of non-banking firms--but they are not associated with banks in any way.

IV. Comparison of Bank Affiliated and Other Finance Companies

Often proposed acquisitions of finance companies by commercial bank holding companies are justified with arguments that such acquisitions will reduce the finance companies' costs of funds which they can, in turn, pass on in the form of lower interest rates or better service. However, the theory of competitive markets suggests that lenders that offer identical products will set identical prices.

Since numerous data on loan terms, profitability and costs of funds were available in the CRC-NSMA survey, it provides a useful body of data to investigate whether or not bank affiliated finance companies behave differently from other finance companies. Table 11 presents average values for a number of pertinent financial characteristics, as well as results of statistical tests for differences in those characteristics. In order to reduce the effect of incorrect data on those calculations, all data that fell outside the "acceptable range" given for each characteristic were ignored.

The 1979 data presented in Table 11 indicate that average costs of funds for both bank-affiliated and independent finance companies were essentially identical. There are, however, some differences in the types of loans made by each type of company. In particular, the average -maturity of new second mortgages made by bank-affiliated finance companies was significantly longer than the average maturity of new loans made by independent finance companies. Relatedly, bank-affiliated finance companies made somewhat larger loans with more lenient loan/ equity requirements; however, those differences were not statistically significant. Further, as is often the case with larger, longer-maturity loans, the bank-affiliated respondents appeared to earn lower average interest returns on their second mortgage receivables outstanding but, once again, the difference was not statistically significant. In the final comparison of Table 11, returns on equity are compared for the two types of finance company. Again, no significant difference in returns existed--a result that is consistent with our previous finding that median rates of return on equity were practically identical for each group.

Overall, then, the only significant difference that could be found in the behavior of bank-affiliated versus independent finance companies, was a tendency for the bank-affiliated companies to make longer-maturity loans. A different product mix could have contributed to this result, but insufficient evidence exists to make any further generalizations.

V. Estimated Liquidation Rates

The contractual maturities of second mortgages are relatively long, averaging well over six years. However, available evidence indicates that a substantial percentage (at least ten percent at most lenders) are refinanced in any given year. Still more may be liquidated prior to maturity. Thus, the actual maturity of second mortgages may vary from their stated maturity, and any such variation will affect the actual cash flows generated by second mortgage portfolios.

Many individuals wish to know what the cash flow experience of second mortgage holders is likely to be. While such data were not collected in this survey, rough estimates can be made of the cash flow experience of different second mortgage holders.

The estimation is imprecise because different lenders keep their accounts in different ways. Thus, two alternatives are presented for each lender.

TABLE 11

**COMPARISON OF BANK-AFFILIATED AND OTHER FINANCE COMPANIES'
LOAN TERMS, 1979**

Mean Values (Number of Respondents)			
Characteristic (acceptable range*)	Bank Affiliated Finance Companies (Number)	Other Finance Companies (Number)	T-test for Significant Differences in Mean Values
Cost of funds (1 - 30%)	10.45% (14)	10.52% (15)	- .07
Maturity	89.1 Mo.	65.7 mo.	+2.05**
Maximum loan to equity (%)	78.6% (11)	73.9% (16)	+1.31
Household loan size (New loans)	\$12,333 (12)	\$10,068 (17)	+1.09
Interest return (2 - 40%)	15.48% (7)	17.34% (10)	- .58
Return on equity (0 - 100%)	33.67% (5)	25.84% (8)	+ .82

*Any responses outside this range were ignored.

**Significantly different at the ten percent confidence level.

The first step in the estimation of cash flows is to estimate second mortgage liquidation rates. This can be done by noting that the change in second mortgages outstanding (ΔO) over a period equals the difference between second mortgage extensions (E) and second mortgage liquidations (L). Thus,

$$(1) \quad \Delta O = E - L, \text{ or}$$

$$(2) \quad L = E - \Delta O, \text{ where}$$

L = liquidations during the period

ΔO = the change in outstandings during the period, and

E = new credit extensions during the period.

The liquidation rate equals the percentage of second mortgage outstandings at the start of the period ($O_{.1}$) that were liquidated during the period in question, or

$$(3) \quad LR = L/O_{.1}, \text{ where}$$

LR = the liquidation rate and

$O_{.1}$ = outstandings at the start of the period.

Imprecision is introduced into estimates of the liquidation rate for several reasons. First, liquidations are estimated from credit extensions and outstandings. If extensions should be overestimated by, perhaps, the inclusion of unearned finance charges, liquidations will be also. While it is possible to adjust outstandings by the amount of unearned finance charges contained in them, no similar adjustment could be made for extensions. As a result, it was necessary to make two estimates of the liquidation rate. One estimate assumed that all data included unearned finance charges; the other did not.

Second, credit extensions are increased by refinancings of existing debt. In that case, the new cash outflow is less than the full amount of debt originated. Similarly, the net cash inflow is less than the face value of debt contracts liquidated. Provided that a company reports accurate data on its loan refinancings, it is possible to estimate the proportion of loan liquidations that represent cash liquidations rather than accounting liquidations.

Table 12 summarizes available data on second mortgage liquidation rates. The first row presents data on the ratio of liquidations to gross loans outstanding at the end of the previous year. The data in row 1 underestimate second mortgage liquidation rates for those firms that reported loan extensions net of unearned finance charges. Row 2 presents data based on ratios of liquidations to net loan balances outstanding at the end of the previous year. The data in row 2 overestimate liquidation rates for those firms that reported loan extensions with unearned financed charges included. Because of these biases in the data, it is possible only to note that the median liquidation rate is likely to lie between the values given in rows one and two.

Overall, the data presented in rows one and two of Table 12 suggest that between one-third and one-half of all second mortgage balances outstanding are liquidated each year. If ten percent of outstandings are liquidated through refinancings, then one-fourth to two-fifths of all second mortgage balances are liquidated with cash inflows. These are only rough approximations, of course. Some of the data on which the estimates were based are questionable, particularly since it was not possible to ascertain if credit extensions included unearned finance charges.

TABLE 12
ESTIMATED LIQUIDATION RATES FOR SECOND MORTGAGE PORTFOLIOS, 1979

Row 1: Liquidation ratios based on ratios of repayments to gross loans outstanding at end of previous year.				
Low	High	Median	Mid-Range 50 Percent	Number of (Good) Observations
9.89%*	91.71*	36.10	28-51%	39 (27)*
Row 2: Liquidation ratios based on ratios of repayments to net loans outstanding at end of previous year				
17.39**	85.77**	50.07	33-63%	41 (30)**
Cash repayment rates (repayment rates net of refinancings)				
Row 3: Based on net outstandings				
17.30%***	98.60%***	32.0%	24.5-41.7%	23 (18)***
Row 4: Based on gross outstandings				
2.10%****	44.07%****	19.8%	10.2-31.7%	21 (15)****

*Four values over 100 percent and eight values below 0 percent were deleted.

**Ten values above 100 percent and one value below zero were deleted.

***Three observations over 100 percent and two below 0 percent were ignored.

****One observation above 100 percent and five below 0 percent were ignored.

Because a substantial proportion of second mortgage loans appear to be refinanced prior to maturity, it is useful to adjust repayment ratios for the amount of refinancings. In that way, more precise estimates can be made of the cash repayment experience for various lenders' second mortgage loan portfolios than shown in the first two rows. Row three of Table 12 presents data based on the assumption that all data on credit extensions and outstandings are net of unearned finance charges. Row four of Table 12 presents data based on the assumption that all data contain unearned finance charges. Row three overstates repayment rates for companies that include unearned finance charges in their loan extensions figures. Row four understates repayment rates for companies that exclude unearned finance charges from their loan extensions figures. Based on the data presented in row three, it appears that most companies receive cash repayments each year that equal one-fourth

to two-fifths of their second mortgage loans outstanding at the end of the previous year. The data in row four suggest that cash repayments at most companies range between one-tenth and one-third of their second mortgage loans outstanding at the end of the previous year.

VI. Conclusions

The data obtained in the 1980 CRC-NSMA survey of second mortgage lenders indicates that the second mortgage market grew rapidly throughout 1979. New companies entered the second mortgage markets and existing companies expanded rapidly. Internal expansion was fueled approximately equally by growth in the number of loans outstanding and growth in the average size of second mortgage loans outstanding.

Growth in the second mortgage loan market was facilitated by low rates of foreclosure, delinquency, and chargeoff on consumer loan portfolios. Low losses, coupled with average yields that substantially exceeded lenders' costs of funds allowed most second mortgage lenders to earn attractive returns on their receivables outstanding and highly profitable (20%+) pretax returns on equity.

Considerable variation existed in the financial characteristics and loan characteristics of different types of second mortgage lenders. However, with only limited exceptions, bank affiliated and independent finance companies had similar characteristics.

Liquidation rates and refinancings of second mortgage loans were relatively high. This means that cash flows from portfolios of second mortgages typically are much faster than might be expected if one only looked at second mortgages' contractual maturities.

Calculation of numerous useful statistics were hindered by the fact that only limited amounts of reliable data were available in many cases. Major data problems are discussed in Appendix B.

APPENDIX A

NATIONAL SECOND MORTGAGE ASSOCIATION
In cooperation with
CREDIT RESEARCH CENTER, PURDUE UNIVERSITY

FINANCIAL QUESTIONNAIRE

Identifying number of firm:
(Assigned by NSMA)

03 04 05 06

Type of Firm (check one)

- | | |
|--|---|
| <input type="checkbox"/> 1. Independent Finance Company | <input type="checkbox"/> 5. Mortgage Banking Affiliate of Commercial Bank Holding Company |
| <input type="checkbox"/> 2. Independent Mortgage Banker | <input type="checkbox"/> 6. Other Affiliate of Commercial Bank Holding Company |
| <input type="checkbox"/> 3. Commercial Bank | <input type="checkbox"/> 7. Other _____
(Describe) |
| <input type="checkbox"/> 4. Finance Company Affiliate of Commercial Bank Holding Company | |

(07)

This questionnaire applies to entities engaged in making loans secured principally by junior liens on real property.

Complete questionnaire and send in the enclosed, self addressed envelope by _____ to:

Dr. Richard L. Peterson
Senior Research Scholar
Credit Research Center
Krannert Graduate School of Management
Purdue University
West Lafayette, Indiana 47907

The responses to the questionnaires will be summarized by the staff of the Credit Research Center under the direction of Dr. Peterson and will remain confidential. Results will be reported to participants in a composit format.

Any questions regarding the completion of this questionnaire should be directed to Dr. Peterson at the above address or by telephone (317) 494-6173.

NSMA QUESTIONNAIRE

Instructions:

1. In answering the questionnaire, show dollar figures to the nearest \$1,000.
2. See definitions at the end of the questionnaire. (Definitions follow Question 23).

The following information is for the fiscal year ended _____
 (specify date)
 (08-13)

I. Volume indicators (for Second Mortgage Lending)

	<u>Number</u>	<u>Amount</u> <u>(in \$1,000's)</u>	
1.(a) <u>Net</u> loans receivable outstanding and owned at end of fiscal year	_____ (14-20)	_____ (21-27)	
plus (b) (if available), related unearned income	XXXXXXXXXX	_____ (28-34)	
equal (c) (if available) gross loans receivable out- standing and owned at end of fiscal year	XXXXXXXXXX	_____ (35-41)	
2. Net loans receivable outstanding that were serviced, but not owned, at end of fiscal year.	_____ (42-49)	_____ (50-56)	
3. Volume of loans originated during the fiscal year			
Number of Accounts	Net Balances Renewed (in \$1,000's)	New Money (in \$1,000's)	Total Originations (in \$1,000's)
_____ (57-63)	_____ (64-70)	_____ (71-77)	Card 2: (08-14)
4. Volume of loans purchased during the fiscal year.		_____ (15-21)	_____ (22-28)
5. Volume of loans sold to other than affiliated company during the fiscal year		_____ (29-35)	_____ (36-42)
6. Average net loans receivable (based on average amount of receivables outstanding at beginning of each month <input type="checkbox"/> , each quarter <input type="checkbox"/> , or <input type="checkbox"/> beginning and end of year--check one)	<input type="checkbox"/> (43)	<input type="checkbox"/> (43)	XXXXXXXXXX _____ (44-50)

NSMA QUESTIONNAIRE

II. Sources of funds and profitability

	<u>Applicable to Second Mort- gages only</u>	<u>Applicable to full Portfolio</u>
7. Average borrowings during fiscal year (Based on average debt outstanding at beginning of each month <input type="checkbox"/> or each quarter <input type="checkbox"/> -- check one) (51) (51)	(52-58)	(59-65)
8. Average stockholders' equity during fiscal year (Based on average equity outstanding at beginning of each month <input type="checkbox"/> or each quarter <input type="checkbox"/> -- check one) (66) (66)	(67-78)	Card 3: (08-14)
9. Interest expense for the fiscal year	(15-21)	(22-28)
10. <u>Gross revenue for the fiscal year</u>	(29-35)	(36-42)
a. <u>Gross interest income</u>	(43-48)	(49-54)
b. <u>Mortgage servicing fee income</u>	(55-60)	(61-66)
c. <u>Origination fee</u> on loans acquired for own account	(67-72)	(73-78)
d. <u>Brokerage fee</u> on loans held by others	(Card 4: 08-13)	(14-19)
e. <u>Other fee income</u>	(20-25)	(26-31)
f. <u>Insurance and other non-fee revenue</u>	(32-37)	(38-43)
11. Income before income taxes for the fiscal year	(44-50)	(51-56)

MEMO:

12. If any answers for 1. - 11. above applied to your full portfolio but not specifically to just your second mortgage loans, please estimate the percentage of your reported outstandings that consist of second mortgage loans.

(57-58)

III. Operating policies

These data should be reported for the quarter ending with the end of the fiscal year shown on the previous page. The data reported should relate to originated loans only, not purchased loans.

NSMA QUESTIONNAIRE

13. Number and dollar volume of loans originated for personal, family, or household purposes during quarter. Number Volume (in \$1,000's)
(60-64) (65-71)
14. Number and dollar volume of loans originated for other than consumer purposes (72-77) Card 5: (08-14)
15. Number and total dollar volume of loans originated during the quarter (should be equal to sum of #13 and #14) (15-21) (22-28)
16. With respect to consumer loans:
- a. Average ratio of loan to appraised equity: %
(29-35)
- b. Average maturity: months
(36-42)

IV. Contractual Delinquencies and Charge-offs

17. Contractual Analysis (Based on terms in effect at statement date and applicable to precompute, add-on, discount, and interest bearing accounts)

	Number	Unpaid balances (in \$1,000's)	% of related receivables outstanding
Accounts current and with instalments past due less than 60 days from due date	(43-49)	(50-56)	(57-60)
Accounts past due: 60 - 89 days	(61-67)	(68-74)	Card 6: (08-11)
Accounts past due: 90-179 days	(12-18)	(19-25)	(26-32)
Accounts past due: 180-269 days	(33-39)	(40-46)	(47-53)
Accounts past due: 270 days or more	(54-60)	(61-67)	(68-74)
Total	Card 7: (08-14)	(15-21)	(22-28)

18. Do reported delinquent balances include unearned finance charges?

Yes
(58)

No
(72)

NSMA QUESTIONNAIRE

19.a. What portion of a full payment must be received in order that the payment be recognized as received in making the computation above? If less than 100% of full payment required, would this be true on consecutive payments or limited to just the most recent?

b. How many consecutive full payments must be received for the purpose of taking an account off the contractual list? _____

		Amount (in \$1,000's)
20.	Foreclosures consummated during the fiscal year	
	a. Number _____	
	(36-42)	
	b. Unpaid dollar balances on loans foreclosed	_____
		(43-49)
21.	Gross charge-offs during fiscal year	_____
		(50-56)
22.	Recoveries during fiscal year	_____
		(57-63)
23.	Allowance for possible loan losses at end of fiscal year	_____
		(64-70)

THANK YOU FOR YOUR COOPERATION. Comments and suggestions for improvement are welcome.

Definitions

Period - most recent fiscal year.

Net loans receivable - gross loans receivable less related unearned income.

(If available) - report related unearned income and gross loans receivable also.

Volume of new loans - gross loans receivable originated and purchased during period less related unearned income.

New money - amount of new money disbursed.

Net balances renewed - preexisting balances refinanced.

Average net loans receivable - sum of net loans receivable outstanding at beginning of each month (or quarter) during period divided by number of months (or quarters) in the fiscal year.

Average borrowings - sum of total borrowings outstanding at beginning of each month (or quarter) during period divided by number of months (or quarters) in the fiscal year.

Average stockholders equity - sum of stockholders' equity at beginning of each month (or quarter) during period divided by number of months (or quarters) in the fiscal year.

NSMA QUESTIONNAIRE
Previous Year's Data

So we can better measure growth in loan volume and outstandings, please complete this page with data from your 1978 fiscal year.

The following information is for the fiscal year ended _____
 (specify date)
 (This should be the year preceding the fiscal year to which all previous data pertain.)

1. Volume indicators (for Second Mortgage Lending)

	Number	Amount (in \$1,000's)	
1.(a) <u>Net loans receivable outstanding and owned at end of fiscal year</u>	Card 8: (14-20)	(21-27)	
plus (b) (if available), related unearned income	XXXXXXXXXX	(28-34)	
equal (c) (if available) gross loans receivable outstanding and owned at end of fiscal year	XXXXXXXXXX	(35-41)	
2. Net loans receivable outstanding that were serviced, but not owned, at end of fiscal year.	(42-49)	(50-56)	
3. Volume of loans originated during the fiscal year			
Number of Accounts	Net Balances Renewed (in \$1,000's)	New Money (in \$1,000's)	Total Originations (in \$1,000's)
(57-63)	(64-70)	(71-77)	Card 9: (08-14)
4. Volume of loans purchased during the fiscal year.	(15-21)	(22-28)	
5. Volume of loans sold to other than affiliated company during the fiscal year	(29-35)	(36-42)	
6. Average net loans receivable (based on average amount of receivables outstanding at beginning of each month <input type="checkbox"/> , each quarter <input type="checkbox"/> , or <input type="checkbox"/> beginning and end of year--check one)	(43)	(43)	XXXXXXXXXX (44-50)

APPENDIX B

TECHNICAL PROBLEMS WITH NATIONAL SECOND MORTGAGE ASSOCIATION DATA, 1980

Severe difficulties were encountered in analyzing the 1980 data reported by respondents:

(1) Firms reported data in dollar amounts, rather than in \$1,000 units, as requested. Even worse, sometimes firms reported in \$1,000s and sometimes they reported in dollars. This often created unbelievable ratios of, for instance, delinquencies or losses to average receivables.

These problems could be eliminated if all data were reported in dollar amounts. That way, we could be sure that all data were reported consistently.

(2) Often firms reported data that applied to their full portfolio rather than to their second mortgage holdings, per se. This generated some incredible findings--such as delinquency ratios equaling more than 100 percent of second mortgage outstandings, or loss reserves equal to 70 percent of outstandings. Where obvious, such numbers were eliminated from calculations of all group means. However, some smaller discrepancies of this sort may have gone undetected. This problem could be solved if only data applicable to second mortgages were reported.

(3) Sometimes firms reported data applicable to their whole portfolio, prorated to apply to second mortgages. Where their portfolios consisted largely of second mortgages, this did not cause problems. However, where they did not, this procedure generated erroneous data such as delinquency rates that were too high.

(4) Firms sometimes reported data that were averaged on a different basis. As a result, comparisons between two types of data (such as average borrowings and average receivables) often gave unlikely results. More seriously, it appeared that many firms merged operating data from different parts of their operations. Thus, in some cases, even if operating statistics referred to second mortgages, delinquency or loss data might not. The solution to this is to take great care to ensure that all reported data apply strictly to second mortgages. Any data that do not apply to second mortgages should be clearly marked. While such data can be useful for calculating various operating ratios, making clear distinctions will allow us to determine better how the characteristics of second mortgage holdings (including delinquency rates, etc.) differ from other credit operations.

(5) Because it was not possible to discern if credit extensions data included unearned finance charges, it was not possible to obtain accurate estimates of credit liquidations and cash repayments.