9

Reliability and Limitations of the Data

The new time series compiled for this study are subject to a number of independent checks. First, we have two checks on the extent to which the series accurately represent the experience of the participating companies. One check is a complete census of all loans made by participating companies in June 1953 and February 1960. The second is a set of yield series compiled by one company covering all its authorized loans; these company series are closely comparable to our sample series.

The new FHLBB data, which cover a larger number of companies, provide a broader check of how well the companies in our series represent the experience of life insurance companies generally. This check is limited to conventional loans during a one-year overlap period. Finally, the new NBER FHA series can be compared to the secondary market series based on quotations reported by the Federal Housing Administration.

Comparison with Benchmarks

For two months, June 1953 and February 1960, we compiled a complete census of loans made by participating companies. Later, when the time series sample was collected, these two months were treated in the same way as every other month. Appendix Tables 9-1 and 9-2 compare items calculated from the census and the sample for each company and loan type, in absolute terms and relative to standard errors. There are eight comparisons apiece for FHA and conventional loans (four companies on each of the two dates), and four comparisons for VA loans, or twenty in all.[1] Differences are calculated for four loan items, making a total of eighty comparisons between census and sample values. Summary data are shown in Tables 9-1 and 9-2. In general, the

[1] Only two companies authorized VA loans in February 1960. Three companies authorized VA loans in June 1953, but data were not available for one of them when we took the census. These loans later became available for the time series, but we did not find it advantageous to complete the census.

TABLE 9-1

Distribution of Ratios to Standard Errors of Differences Between Census and Sample Values for Selected Loan Items, February 1960 and June 1953 Combined (number of cases)

	Ratio to Standard Error				
	1.0 or less	1.1-2.0	2.1-3.0	More than 3.0	Total
Gross yield	12	4	2	2	20
Value of property	14	4	2		20
Loan-value ratio	16	4			20
Maturity	13	6	1		20
Total	55	18	5	2	80
Per cent	69	22	6	3	100

Source: Appendix Tables 9-1 and 9-2.

comparison of census and sample values supports the validity of the sampling procedures used.

The distribution of differences between census and sample values by their ratio to standard errors is very close to what sampling theory would lead us to expect (Table 9-1). In 69 per cent of the cases (fifty-five of eighty cases), the difference between the census and sample value was one standard error or less; the theoretical expectation is 68 per cent. The difference was between one and two standard errors in 22 per cent of the cases (eighteen of eighty cases), compared to the theoretical expectation of 27 per cent. In only two of the eighty cases did the census-sample difference exceed three standard errors.

Table 9-2 shows the absolute difference in gross yield between census and sample values for the twenty samples. Eight of the differences were less than .005 per cent (that is, less than one basis point rounded), while only one exceeded .03 per cent. This was one of several cases where the number of loans fell well short of the sample target so that the census and sample values theoretically should have been the same. In fact, more loans were recorded in the sample than in the census. This is because the census was done first, and by the time we took the sample, our procedures were more thorough and our work force better

TABLE 9-2

Comparison of Gross Yield from Census and Sample, by Type of Mortgage and Company

	Gross Yield			Number of Loans	
	Census	Sample	Census less Sample	Census	Sample
February 1960					
Conventionals					
1	6.07	6.04	.03	1178	124
2	5.87	5.86	.01	14	16
4	6.10	6.10	.00	390	116
6	5.98	6.00	-.02	787	127
FHA					
1	6.40	6.40	.00	888	124
2	5.75[a]	5.75[a]	.00	7	8
4	6.26	6.26	.00	142	118
6	6.22	6.22	.00	2618	110
VA					
1	6.01	6.00	.01	755	125
6	5.90	5.92	-.02	15	20
June 1953					
Conventionals					
1	4.64	4.64	.00	2052	111
2	4.80	4.80	.00	33	34
4	4.84	4.82	.02	180	113
6	4.87[a]	4.88[a]	-.01	919	121
FHA					
1	4.52	4.53	-.01	1362	108
2	4.45	4.35	.10[b]	14	19
4	4.49	4.50	-.01	333	118
6	4.50	4.50	.00	1639	118
VA					
1	4.52	4.55	-.03	134	114
4	4.50	4.49	.01[b]	74	71

[a]Contract rate.

[b]More than three times the standard error.

Source: Appendix Tables 9-1 and 9-2.

trained; as a result, at one company loans were unearthed that had been overlooked in the census. In these cases, therefore, the sample values are correct.

Comparison of Sample Yields Covering One Company with Yields on All Loans by That Company

One of the companies in our sample, for its own use, began in 1954 to calculate an effective yield (net of service fee) on all its authorized loans with breakdowns by type of loan. Although these series are not completely comparable with ours, the differences are small and do not invalidate their use to test the reliability of our procedures. The two main differences between the series are that the company series include Canadian loans, while the NBER series do not: and the yield is cal-

CHART 9-1
NET YIELD ON CONVENTIONAL CORRESPONDENT LOANS BY ONE COMPANY, 1954–63: SAMPLE VERSUS UNIVERSE SERIES

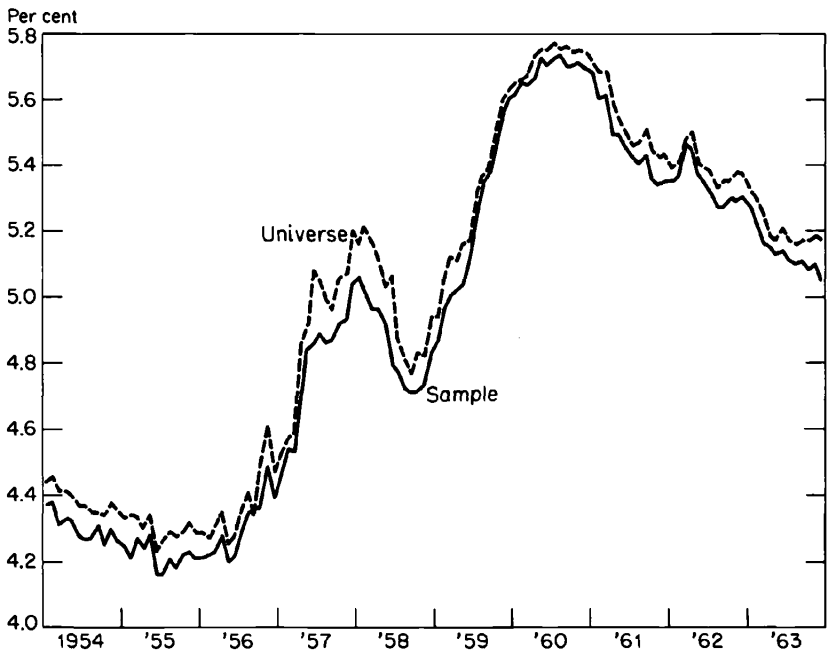
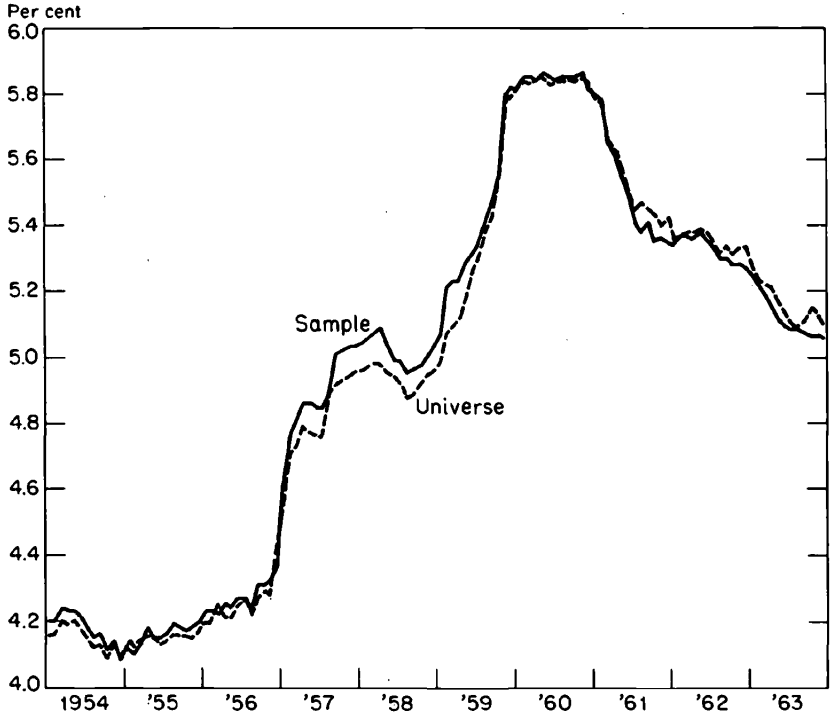


CHART 9-2
NET YIELD ON FHA CORRESPONDENT LOANS BY ONE COMPANY, 1954–63: SAMPLE VERSUS UNIVERSE SERIES

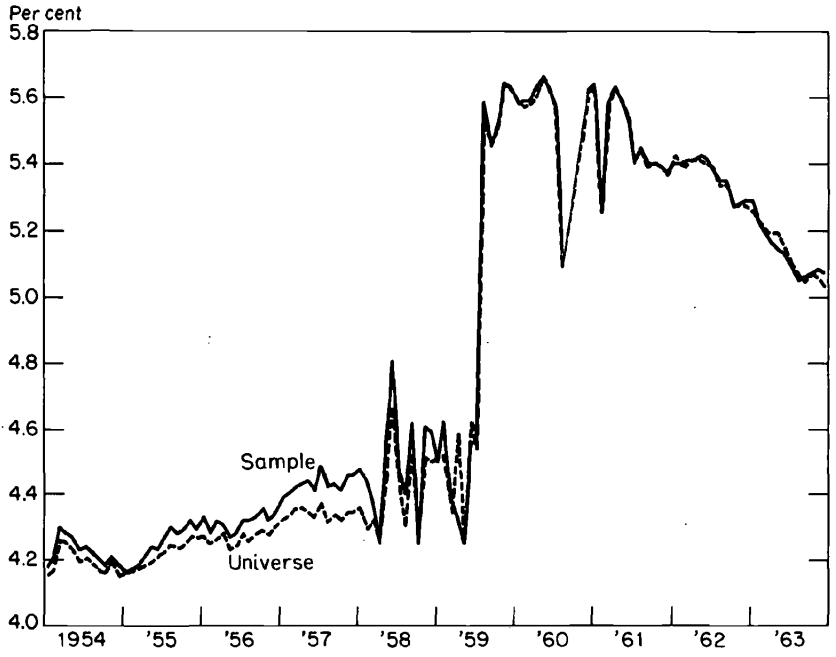


culated differently in the two series.[2] For this test, we plotted time series of census and sample values (Charts 9-1, 9-2, and 9-3), and compiled frequency distributions of the differences between census and sample values (Table 9-3).

Mainly because Canadian loans were included, the company series on conventional loans averaged about .08 percentage points higher than the National Bureau series (Chart 9-1). Therefore, we raised the Bureau series by a uniform .08 percentage points before calculating monthly differences. In about two-thirds of the observations the yield difference was .03 percentage points or less and in only five months was the difference greater than .08 percentage points (Table 9-3). These

[2] The company assumes a fixed maturity rather than the actual, and shifts its prepayment assumption.

CHART 9-3
NET YIELD ON VA CORRESPONDENT LOANS
BY ONE COMPANY, 1954–63:
SAMPLE VERSUS UNIVERSE SERIES



differences are somewhat larger than those that would be expected from sampling error alone. (The median monthly standard deviation of .231 per cent implies a standard error of .02 percentage points, suggesting that about two-thirds of the differences should be within .02 rather than within .03 percentage points.) This probably reflects the difference in coverage, the effects of which are only partly eliminated by the over-all adjustment in yield level.

On FHA and VA mortgages, differences between the Bureau series and the company series are somewhat larger than on conventionals (Table 9-3). The yield difference is .03 percentage points or less in 65 of 120 months for FHAs, and in 69 of 117 months for VAs,[3] as compared to 78 of 120 months for conventionals. The difference is larger than .08 per cent in fourteen months for both FHAs and VAs as compared to five months for conventionals. This is due partly to the greater

[3] The Bureau series on VA loans is reduced a uniform .03 percentage points before calculating differences.

TABLE 9-3

Frequency Distribution of Monthly Differences in Net Effective Yield Between NBER Sample Series and Company Universe Series for One Company, 1954 – 63

Percentage Points	Conventional		FHA		VA	
	Number	Cum. Total	Number	Cum. Total	Number	Cum. Total
.00	19	19	6	6	9	9
.01	25	44	24	30	14 (2)	23
.02	21	65	18	48	19 (2)	42
.03	13	78	17	65	27 (12)	69
.04	14	92	15	80	15 (5)	84
.05	10	102	5	85	11 (4)	95
.06	7	109	5	90	2	97
.07	3	112	10	100	5 (1)	102
.08	3	115	6	106	1 (1)	103
.09	0		7	113	5 (3)	108
.10	1	116	3	116	0	
.11	0		2	118	0	
.12	1	117	0		2 (2)	110
.13	1	118	2	120	3 (3)	113
.14	1	119			0	
.15	0				1 (1)	114
.18	0				2 (2)	116
.19	1	120			0	
.23					1 (1)	117

Note: Differences are calculated after adjustment for conventionals (sample series) raised .08 percentage points), and VAs (sample series reduced .03 percentage points). Figures in parentheses refer to VA loans during the period December 1957-May 1961, when the sample was very thin. In three months, there were no observations.

impact on federally underwritten mortgages of the methods used to calculate gross yield. The company changed its assumption regarding average maturity and prepayment several times during 1954–63, and this resulted in shifts in the level of the company series relative to the Bureau's sample series.

VA loans accounted for nine of the fifteen yield differences of .12 per cent or more. All nine of these cases occurred during the period December 1957–May 1961, when the total number of VA loans authorized by the company fell short of the target, coverage was (theoretically) complete, and there should have been no sampling error. Part

of the explanation is that discounts were relatively large in the complete coverage months, so that the different maturity and prepayment assumptions had a larger effect. Probably the main reason, however, is that there were so few loans that small differences in loan coverage or recording errors had a substantial effect on the averages. In several cases that we were able to check, we found the recording error to be in the company series rather than in ours.

The frequency distribution of yield differences between the company and Bureau series are probably less significant than the pattern of differences over time; a given frequency distribution could have very different implications for the reliability and usefulness of sample series, depending upon how the differences are distributed over time. In this respect, Charts 9-1, 9-2, and 9-3 are reassuring. Although the relative levels of the sample series and company series change over the period, cyclical movements correspond very closely. The sample series, furthermore, are no more erratic than the company series. This constitutes strong evidence that our sample series accurately portray the experience of the companies participating in our survey.

Comparison with FHLBB Series

The third test is a comparison of our series on conventional mortgages with the new Federal Home Loan Bank Board series during 1963, when the series overlap. This is not a rigorous test because the series are not strictly comparable, yet their relationship is of considerable interest. We want to know the extent to which the differences in comparability actually affect the recorded yields, and whether the series can appropriately be spliced.

The most important differences in the series are as follows.

1. *Sample.* The FHLBB sample is somewhat larger and more variable, as shown on the lowermost two lines of Table 9-4. During 1963, it ranged from 351 to 767 loans per month while the National Bureau sample ranged from 305 to 381. The FHLBB series is drawn from forty-four companies, but not all of them have reported consistently; the National Bureau series covers four companies. The FHLBB sample is "proportional" in the sense that individual lenders contribute loans roughly in proportion to their relative importance, while the NBER aimed at a sample of equal absolute size for each lender.

2. *Coverage.* The FHLBB series only covers direct loans, while the National Bureau series includes direct and correspondent loans.

3. *Fees and Charges.* The FHLBB survey includes fees received by lenders but not fees paid, while the National Bureau series includes both, netting one against the other. As a result, the National Bureau series generally shows a small negative figure, while the FHLBB series shows a small positive figure. The difference between them, expressed as per cent of face loan amount, was .38 per cent in 1963 (see Table 9-4), the equivalent of about six basis points in yield.

4. *Purpose of Loan.* A larger proportion of the loans in the NBER series than in the FHLBB series is for the purpose of buying newly built homes. The NBER series does not have a "purpose of loan" breakdown, however, while the FHLBB series has a threefold break.

Despite these differences, the loan characteristics in the two series are remarkably similar. The contract rate averaged about .04 per cent higher in the Bureau series during 1963, with monthly differences ranging from .07 per cent to − .01 per cent. Similarly, average effective rate in the two series differed by only .02 per cent; property value by less than $1,000; loan-value ratio by two percentage points; and maturity by seven months. With the exception of the loan-value ratio, these differences between the series are smaller than some of the erratic month-to-month changes in both series.

These results reflect the relative homogeneity of conventional mortgage loans authorized by life insurance companies, as discussed in Chapter 2. They lend support to the assumption underlying our study that a series covering a small number of national lenders would provide an accurate picture of life insurance company lending in general.

Comparability between the National Bureau and the FHLBB series is even closer if the latter is limited to loans covering newly built homes, since the National Bureau series is heavily weighted by such loans. As indicated in Table 9-5 (based on Table 9-4 and Appendix Table 9-3), the differences in average contract rate, property value, loan-value ratio, and maturity between the National Bureau and FHLBB series are smaller on this basis than using the over-all FHLBB series.

Strict comparability in effective yield is not possible because of the different definition of fees and charges. It is analytically neater to use the contract rate for both series. In practice, however, it makes little difference whether contract rate or effective yield is used because fees and charges are very small. Effective yield in the Bureau series turns out to be virtually identical to contract rate in the FHLBB series on

TABLE 9-4

Characteristics of Conventional Loans Authorized by Life Insurance Companies in 1963, NBER and FHLBB series

	Jan.	Feb.	March	April	May	June	July
Contract rate (%)							
NBER	5.65	5.63	5.59	5.58	5.54	5.57	5.56
FHLBB	5.58	5.59	5.54	5.52	5.55	5.52	5.53
Difference	.07	.04	.05	.06	-.01	.05	.03
Fees and charges							
NBER	-.28	-.08	-.29	-.26	-.18	-.25	-.22
FHLBB	.16	.17	.20	.15	.22	.18	.17
Difference	-.44	-.25	-.49	-.41	-.40	-.43	-.39
Effective rate (%)							
NBER	5.61	5.61	5.55	5.54	5.51	5.53	5.53
FHLBB	5.60	5.60	5.56	5.54	5.58	5.54	5.54
Difference	.01	.01	-.01	.00	-.07	-.01	-.01
Value of property ($)							
NBER	27349	28783	28150	27864	27486	27092	26982
FHLBB	28980	27822	28433	28621	28189	29153	28723
Difference	-1631	961	-283	-757	-703	-2061	-1741
Loan-value (%)							
NBER	70.5	70.4	70.5	70.3	69.5	70.4	70.3
FHLBB	67.3	69.1	68.6	68.0	67.7	68.5	68.1
Difference	3.2	1.3	1.9	2.3	1.8	1.9	2.2
Maturity (mos.)							
NBER	307	310	307	312	307	309	313
FHLBB	302	300	304	299	303	306	300
Difference	5	10	3	13	4	3	13
Number of loans							
NBER	323	367	347	363	354	305	357
FHLBB	385	460	539	579	670	639	767

[a]Unweighted.

Aug.	Sept.	Oct.	Nov.	Dec.	1963 Average[a]
5.52	5.55	5.55	5.52	5.50	5.56
5.50	5.50	5.49	5.49	5.51	5.52
.02	.05	.06	.03	-.01	.04
-.21	-.19	-.24	-.24	.01	-.20
.17	.18	.15	.18	.18	.18
-.38	-.37	-.39	-.42	-.17	-.38
5.48	5.52	5.51	5.48	5.50	5.53
5.52	5.52	5.51	5.51	5.53	5.55
-.04	.00	.00	-.03	-.03	-.02
27166	27307	27923	28358	27817	27689
28700	28693	28626	28638	29358	28660
-1534	-1386	-703	-280	-1541	-971
70.1	70.0	70.3	70.3	68.7	70.1
68.8	67.7	67.7	68.7	67.5	68.1
1.3	2.3	2.6	1.6	1.2	2.0
314	306	318	314	309	310
308	304	300	306	303	303
6	2	18	8	6	7
355	381	359	314	342	347
678	571	612	351	523	564

TABLE 9-5

Characteristics of Conventional Loans Authorized by Life Insurance Companies, NBER and FHLBB Series, 1963 Annual Averages

	Contract Rate (per cent)	Fees and Charges (per cent)	Effective Rate (per cent)	Property Value (dollars)	Loan-Value (per cent)	Maturity (months)
FHLBB						
all	5.52	.18	5.55	28660	68.1	303
newly built	5.54	.17	5.55	28074	68.6	312
construction	5.51	.18	5.53	29631	67.5	300
previously occupied	5.54	.18	5.56	28521	68.1	292
NBER	5.56	-.20	5.53	27689	70.1	310
NBER less FHLBB (all)	.04	-.38	-.02	-971	2.0	7
NBER less FHLBB (newly built)	.02	-.37	-.02	-385	1.5	-2

newly built homes, because a slightly higher contract rate in the Bureau series during 1963 was offset by the inclusion of fees paid. A pragmatic case can be made, therefore, for splicing effective yield in the Bureau series with contract rate in the FHLBB series (the procedure used in this study).

Comparison with FHA Secondary Market Series

The Bureau series on FHA mortgage yields were compared with the FHA secondary market series based on quotations reported by that agency. The FHA series has been widely used, but it has always been somewhat suspect because the underlying quotations are based on *opinions* of FHA insuring-office directors about the prices at which mortgages are trading in market areas of insuring office cities. A priori, the National Bureau series are thus more soundly based than the secondary market series, so that comparison of the two constitutes more a test of the latter than the former.

Sometime ago one of the authors commented on the secondary market series as follows:

> Although economists are apt to be skeptical toward such data, the writer has come to the conclusion that they reflect the prevailing state of the market with considerable accuracy. In the first place, although the quotations are not actual offers to buy or sell they are nevertheless the opinions of persons who must be considered experts with respect to conditions in their local markets (these are the directors of FHA insuring offices). Secondly, the procedure of taking a simple unweighted average of quotations from 60 to 70 such offices solves in a fashion the most difficult part of the problem of maintaining from month to month an underlying security of fixed yield-determining characteristics. The structural variation in yields associated with location does not influence the movement of the series over time. Unfortunately, the same cannot be said for the terms of the mortgage (down payment and maturity). Until 1956 respondents were instructed to report the price of "typical transactions," which left the question of maturity and down payment an open one. It is not believed, however, that this constitutes a major source of error in the series. . . .[4]

In addition to a fundamental difference in the source of quotations, other differences in the two series are as follows.

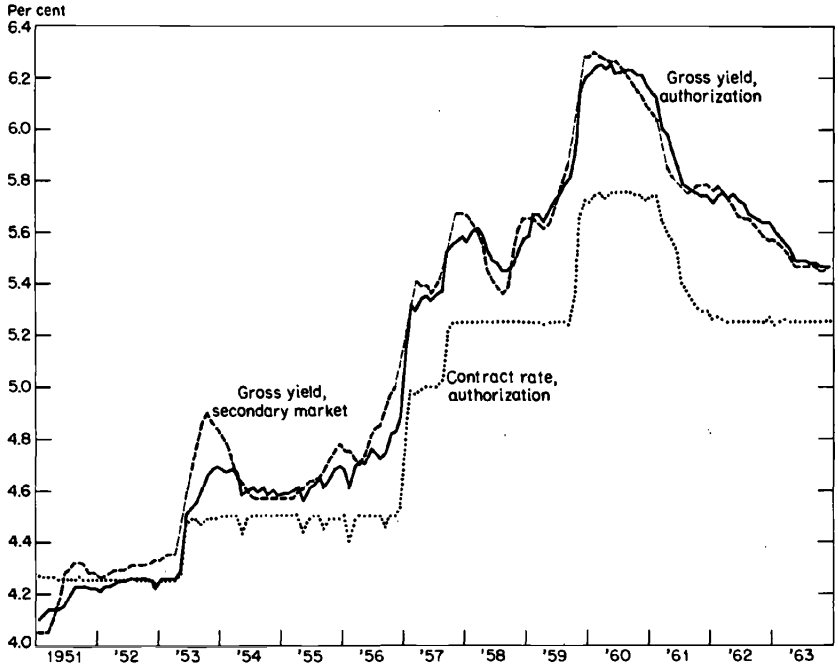
[4] Guttentag, "Some Studies of the Post-World War II Residential Construction and Mortgage Markets," pp. 68–70.

1. Terms on the Bureau series pertain to the characteristics of mortgages currently authorized. In contrast, no terms were specified in the secondary market series prior to January 1957, the series covering "typical transactions." During 1957–63, the secondary market series refer to new home mortgages with 10 per cent down payment and twenty-five year maturities. In 1957 maturities on the Bureau series were a little longer and loan-value ratios a little lower than those specified in the secondary market series, but the terms in the Bureau series became increasingly liberal during the balance of this period. This may explain why the secondary market yield series is generally higher in the early part of the 1951–63 period while the Bureau series is higher at the end of the period (Chart 9-4). The shift is very gradual, however, and does not affect their comparative cyclical behavior.

2. The secondary market series always pertains to mortgages carrying the current maximum allowable contract rate, whereas the Bureau series sometimes includes mortgages at rates other than the current

CHART 9-4

GROSS YIELD AND CONTRACT RATE ON FHA LOANS, 1951–63



maximum. The number of such mortgages, however, is very small except in the period immediately following a change in the maximum rate. As shown in Chart 9-4, the contract rate in the Bureau series hugs the maximum allowable rate with only minor deviations. During these periods of transition, the FHA does not report secondary market prices, as indicated by the light dashed lines in the chart.[5]

3. The National Bureau series covers new commitments, implying actual delivery of the instrument sometime in the future, while the secondary market series pertains to "immediate delivery" transactions, sometimes referred to as "over-the-counter" transactions. The difference is one of degree, since commitment periods may be quite short in some cases (as on loans secured by existing houses), while "immediate delivery" may involve a month or more between the transaction and delivery dates. Nevertheless, the average delivery time is no doubt considerably longer in the Bureau series.[6]

4. The NBER series is weighted by the loan volume of the individual lenders covered by the series (see Appendix A), while the secondary market series is weighted by "the probable volume of secondary market sales in the jurisdiction of each of the insuring offices throughout the country."

5. The lender groups covered are different. Whereas the Bureau series covers only large life insurance companies, the secondary market series apparently is weighted heavily by mutual savings banks, which are most active in over-the-counter purchases. Beyond this is a difference in market relationships and organization. Because of their investment in branch organization or correspondent relationships, large life insurance companies tend to maintain continuity in their over-all mortgage investing. Savings banks, in contrast, while maintaining continuity in their local lending, are in and out of the national market, depending on their available funds.[7] It was argued in Chapter 4 that this probably

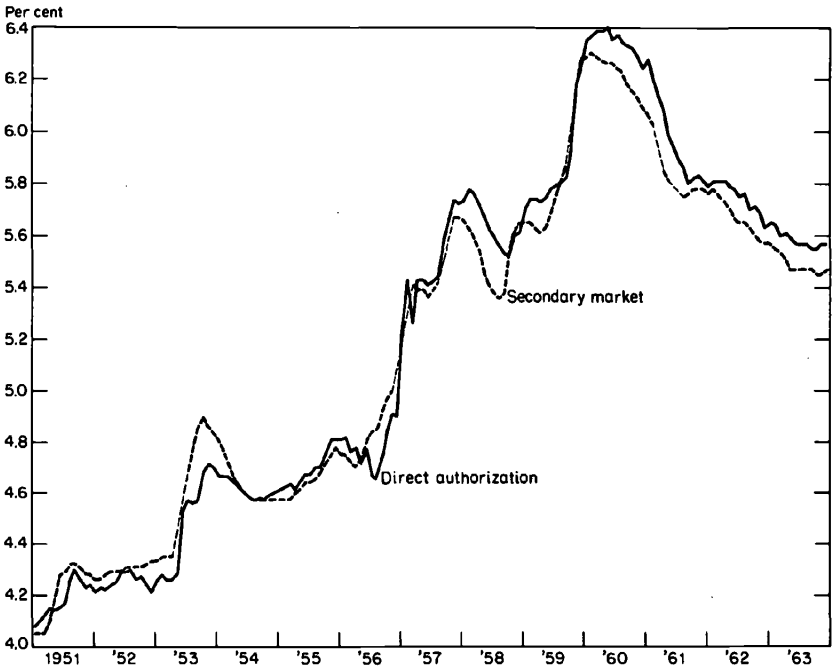
[5] To provide a continuous secondary market series, we have interpolated values for these months based on FNMA quotations. The complete series is given in Appendix Table 9-4.

[6] The secondary market series is dated as of the first day of the stated month, while the Bureau series covers transactions throughout the month; this implies a recording lead in the Bureau series of about fifteen days. On the other hand, this lead tends to be offset by the short recording lag in the Bureau series between the date of approval of the loan application and the date of finance committee meeting.

[7] For further discussion of differences in modus operandi between life insurance companies and mutual savings banks, see Klaman, *The Postwar Residential Mortgage Market*, pp. 137–156.

CHART 9-5

GROSS YIELD ON FHA MORTGAGES, 1951–63: AUTHORIZATION SERIES ON DIRECT LOANS VERSUS SECONDARY MARKET SERIES



accounts for the greater cyclical sensitivity of the secondary market series.

The secondary market and National Bureau series are compared in Chart 9-4, which shows the Bureau series on all FHA loans, and Chart 9-5, which shows the Bureau series on direct loans only.[8]

In general, these statistical comparisons defend the view expressed earlier that the secondary market series reflects the state of the market with considerable accuracy. Cyclical correspondence between the series is quite close, particularly when the authorization series is limited to

[8] To make the National Bureau and secondary market series as comparable as possible, gross yields in the Bureau series have been recomputed from the yield book using the average discount, contract rate, and maturity for each month. The secondary market series is calculated on an assumed twenty-five-year maturity (see Appendix Table 9-4). The assumed prepayment period is ten years for both series.

direct loans, as in Chart 9-5. Several intracyclical movements in the secondary market series have only a dim counterpart in the Bureau's series on all loans but do show up in the direct loan series. During the entire 1951–63 period, there is only one persistent movement of four months or longer in the direct loan series—the brief decline in the second half of 1952—that does not have a counterpart in the secondary market series. There is not a single such movement in the secondary market series that does not have a counterpart in the direct loan series.

APPENDIX TABLE 9-1

Sample and Total Loans Authorized by Each of Four Life Insurance Companies in February 1960: Comparison of Selected Items, Total United States

	Company 1			Company 4		Company 6			Company 2	
	FHA	VA	Conv.	FHA	Conv.	FHA	VA	Conv.	FHA	Conv.
Number of loans										
(T)	888	755	1178	142	390	2618	15	787	7	14
(S)	124	125	124	118	116	110	20	127	8	16
Gross yield (%)										
T	6.40	6.01	6.07	6.26	6.10	6.22	5.90	5.98	5.75[b]	5.87
S	6.40	6.00	6.04	6.26	6.10	6.22	5.92	6.00	5.75[b]	5.86
T-S	.00	.01	.03	.00	.00	.00	-.02	-.02	.00	.01
std. dev. (T)	.293	.075	.164	.097	.158	.079	.200	.190	.169	.323
std. error[a]	.026	.007	.015	.009	.015	.008	.044	.017	.060	.081
(T-S) ÷ std. error	.00	1.4	2.0	.00	.00	.00	0.5	1.2	.00	0.1
Value of property ($)										
T	15835	17073	25467	16233	25268	16045	19308	23384	13843	25234
S	15512	17010	25184	16413	25634	16139	18013	23708	13362	26363
T-S	323	63	283	-180	-366	-94	1295	-324	481	-1129
std. dev. (T)	3135	1849	7643	3281	8993	3676	4331	7665	3612	8375
std. error	282	165	689	301	832	350	962	678	1281	2094
(T-S) ÷ std. error	1.1	0.4	0.4	0.6	0.4	0.3	1.3	0.5	0.4	0.5

Loan-value (%)										
T	92.3	99.7	69.9	90.2	69.5	92.0	88.1	69.1	91.5	63.9
S	92.7	99.8	69.9	90.0	69.1	91.9	90.1	69.3	92.1	59.9
T-S	-0.4	-0.1	.00	0.2	0.4	0.1	-2.0	-0.2	-0.6	4.0
std. dev. (T)	5.22	2.57	8.77	6.76	8.73	4.39	8.06	8.33	4.01	12.38
std. error	0.57	.23	.79	.62	.81	.42	1.79	.74	1.42	3.10
(T-S) ÷ std. error	0.8	0.5	0.0	0.3	0.5	0.2	1.1	0.3	0.4	1.3
Maturity (mos.)										
T	346.5	358.8	285.6	334.4	281.9	346.3	352.9	279.7	352.9	262.2
S	344.2	358.2	286.8	335.8	285.2	340.4	354.4	281.3	331.5	256.1
T-S	2.3	0.6	-1.2	-1.4	-3.3	5.9	-1.5	-1.6	21.4	6.1
std. dev. (T)	29.75	5.27	33.02	30.73	36.12	32.38	20.40	37.30	21.00	43.01
std. error	2.68	.47	2.97	2.82	3.33	3.08	4.53	3.30	7.44	10.75
(T-S) ÷ std. error	0.9	1.3	0.4	0.5	1.0	1.9	0.3	0.5	2.9	0.6

[a]Standard deviation of all loans divided by the square root of the sample size.

[b]Contract rate.

T=total.

S=sample.

APPENDIX TABLE 9-2

Sample and Total Loans Authorized by Each of Four Life Insurance Companies in June 1953: Comparison of Selected Items, Total United States

	Company 1			Company 4			Company 6		Company 2	
	FHA	VA	Conv.	FHA	VA	Conv.	Conv.	FHA	Conv.	FHA
Number of loans										
(T)	1362	134	2052	333	74	180	919	1639	33	14
(S)	108	114	111	118	71	113	121	118	34	19
Gross yield (%)										
T	4.52	4.52	4.64	4.49	4.50	4.84	4.87[b]	4.50	4.80	4.45
S	4.53	4.55	4.64	4.50	4.49	4.82	4.88[b]	4.50	4.80	4.35
T-S	-.01	-.03	.00	-.01	.01	.02	-.01	.00	.00	-.10
std. dev. (T)	.116	.152	.209	.048	.027	.143	.241	.115	.132	.103
std. error[a]	.011	.014	.019	.004	.003	.013	.022	.011	.023	.023
(T-S) ÷ std. error	0.9	2.1	0.0	2.5	3.3	1.5	0.5	0.0	.00	4.3
Value of property ($)										
T	11862	13620	19937	12214	12799	20993	19089	10610	20795	10293
S	11704	13099	19560	11757	12766	20046	17751	10382	20584	10450
T-S	158	521	377	457	33	947	1338	228	211	-157
std. dev. (T)	2869	3283	7594	2156	2367	7095	6728	2435	5094	2080
std. error	276	307	723	198	282	669	612	223	878	473
(T-S) ÷ std. error	0.6	1.7	0.5	2.3	0.1	1.4	2.2	1.0	0.2	0.3

Loan-value(%)										
T	80.7	91.1	65.6	80.5	86.8	62.3	62.2	84.1	61.9	84.9
S	81.5	91.5	65.9	80.8	86.8	61.1	62.0	84.5	61.9	84.9
T-S	-0.8	-0.4	-0.3	-0.3	0.0	1.2	0.2	-0.4	0.0	0.0
std. dev. (T)	6.99	8.86	9.08	5.36	5.23	7.00	5.95	6.91	5.01	5.31
std. error	.67	.83	.86	.49	.62	.66	.54	.63	.86	1.21
(T-S) ÷ std. error	1.2	0.5	0.3	0.6	0.0	1.8	0.4	0.6	0.0	0.0
Maturity (mos.)										
T	251.4	268.9	224.9	248.6	266.6	229.6	223.4	255.6	222.6	271.3
S	255.6	262.8	228.6	249.7	268.3	227.1	222.4	254.6	222.9	274.8
T-S	-4.2	6.1	3.7	1.1	1.7	2.5	1.0	1.0	-0.3	-3.5
std. dev. (T)	26.42	32.44	26.57	22.75	29.82	24.71	25.41	29.62	23.84	30.00
std. error	2.5	3.0	2.5	2.1	3.6	2.3	2.3	2.7	4.1	6.8
(T-S) ÷ std. error	1.7	2.0	1.5	0.5	0.5	1.1	0.4	0.4	0.1	0.5

[a]Standard deviation of all loans divided by the square root of the sample size.

[b]Contract rate.

T=total.

S=sample.

APPENDIX TABLE 9-3

Characteristics of Conventional Loans Authorized by Life Insurance Companies in 1963: NBER Series and FHLBB Series on Newly Built Homes

	Jan.	Feb.	March	April	May	June	July
Contract rate (%)							
NBER	5.65	5.63	5.59	5.58	5.54	5.57	5.56
FHLBB	5.59	5.59	5.55	5.51	5.57	5.53	5.55
difference	.06	.04	.04	.07	-.03	.04	.01
Fees and charges (%)							
NBER	-.28	-.08	-.29	-.26	-.18	-.25	-.22
FHLBB	.16	.16	.19	.14	.20	.19	.18
difference	-.44	-.24	-.48	-.40	-.38	-.44	-.40
Effective rate (%)							
NBER	5.61	5.61	5.55	5.54	5.51	5.53	5.53
FHLBB	5.61	5.60	5.57	5.52	5.59	5.56	5.56
difference	.00	.01	-.02	.02	-.08	-.03	-.03
Value of property ($)							
NBER	27349	28783	28150	27864	27486	27092	26982
FHLBB	28728	27965	28057	27520	27938	28691	27507
difference	-1379	818	93	344	-452	-1599	-525
Loan-value (%)							
NBER	70.5	70.4	70.5	70.3	69.5	70.4	70.3
FHLBB	68.5	69.5	70.1	68.7	68.1	69.2	68.3
difference	2.0	.9	.4	1.6	1.4	1.2	2.0
Maturity (mos.)							
NBER	307	310	307	312	307	309	313
FHLBB	317	313	316	305	314	319	305
difference	-10	-3	-9	7	-7	-10	8
Number of loans							
NBER	323	367	347	363	354	305	357
FHLBB	178	199	227	210	309	249	297

[a]Unweighted.

Aug.	Sept.	Oct.	Nov.	Dec.	1963 Average[a]
5.52	5.55	5.55	5.52	5.50	5.56
5.51	5.51	5.51	5.49	5.52	5.54
.01	.04	.04	.03	-.02	.02
-.21	-.19	-.24	-.24	-.01	-.20
.17	.17	.15	.15	.16	.17
-.38	-.36	-.39	-.39	-.15	-.37
5.48	5.52	5.51	5.48	5.50	5.53
5.53	5.53	5.52	5.51	5.54	5.55
-.05	-.01	-.01	-.03	-.04	-.02
27166	27307	27923	28358	27817	27689
27869	28651	27422	27549	28999	28074
-703	-1344	501	809	-1182	-385
70.1	70.0	70.3	70.3	68.7	70.1
69.3	67.4	67.9	68.7	67.5	68.6
.8	2.6	2.4	1.6	1.2	1.5
314	306	318	314	309	310
317	310	312	310	308	312
-3	-4	6	4	1	-2
355	381	359	314	342	347
292	242	229	184	218	236

APPENDIX TABLE 9-4

Secondary Market Yields on FHA (Section 203) Home Mortgages, for Immediate Delivery, 1948 – 66

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1948 (4.50)	4.15	4.19	4.22	4.26	4.28	4.29	4.29	4.29	4.29	4.30	4.32	4.32
1949	4.33	4.33	4.33	4.33	4.33	4.32	4.33	4.32	4.32	4.30	4.30	4.30
1950	4.30	4.29	4.29	4.28	(4¼)		4.07	4.05	4.05	4.05	4.05	4.05
1951	4.05	4.05	4.05	4.10	4.18	4.28	4.29	4.32	4.32	4.31	4.28	4.28
1952	4.26	4.26	4.28	4.29	4.29	4.29	4.31	4.31	4.31	4.31	4.32	4.33
					4.40[e]	4.66[e]						
1953	4.33	4.35	4.35	4.35	(4½)		4.68	4.77	4.86	4.90	4.86	4.84
1954	4.81	4.78	4.71	4.65	4.63	4.60	4.58	4.57	4.57	4.57	4.57	4.57
1955	4.57	4.57	4.57	4.60	4.61	4.64	4.64	4.65	4.68	4.72	4.75	4.78
1956	4.75	4.75	4.72	4.70	4.74	4.81	4.85	4.85	4.92	4.97	5.00	5.09[e]
	5.26[e]	5.36[e]							5.56[e]	5.64[e]		
1957	(5)		5.41	5.39	5.39	5.36	5.39	5.42	(5¼)		5.67	5.67
1958	5.66	5.63	5.60	5.54	5.45	5.41	5.38	5.36	5.38	5.53	5.62	5.65
										6.18[e]	6.28[e]	
1959	5.65	5.65	5.63	5.62	5.63	5.69	5.76	5.81	5.87	(5¾)		6.28
1960	6.28	6.30	6.28	6.27	6.26	6.26	6.24	6.23	6.18	6.15	6.13	6.09
			6.03[e]			5.79[e]	5.77[e]					
1961	6.08	6.03	(5½)	5.85	5.81	(5¼)		5.75	5.76	5.78	5.78	5.78
1962	5.76	5.78	5.75	5.73	5.70	5.66	5.65	5.65	5.63	5.60	5.58	5.57
1963	5.57	5.55	5.53	5.50	5.47	5.47	5.47	5.47	5.47	5.45	5.45	5.47
1964	5.47	5.47	5.47	5.47	5.47	5.47	5.47	5.47	5.47	5.47	5.47	5.47
1965	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.47	5.48	5.51	5.54
			5.89[e]		6.36[e]					6.81[e]	6.99[e]	
1966	5.68	5.77	(5½)	6.10	(5¾)	6.44	6.59	6.67	6.77	(6)		7.01
1967	6.97	6.78	6.58	6.44	6.36	6.55	6.64	6.68	6.77	6.79	6.83	6.97

Note to Appendix Table 9-4

Yields are derived from FHA field office opinions on secondary market prices for Section 203 home mortgages, and pertain to the first day of the month. Figures in parentheses show the contract rate to which the figures apply. Beginning March 1, 1956, data have been weighted to reflect the probable volume of transactions in regional areas, but this did not affect the national average on that date. Beginning in 1958, quotations refer to "new home mortgages," whereas before that the reference was to "home mortgages." Starting January 1957, quotations refer to mortgages having 10 per cent down payment and twenty-five-year maturity. Prior to that, no terms were specified. Beginning December 1966, quotations refer to thirty-year mortgages and "minimum" down payment. Breaks in the series occur at times of change in maximum allowable rate when prices are not reported. Rates during these months (labeled "e") are interpolations based on FNMA quotations. Prices are converted into yields on the assumption of a twenty-five maturity (thirty years beginning December 1966) and ten-year prepayment.

APPENDIXES