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II

Consumer Knowledge of Finance Rates

Introduction

We turn now to a consideration of the extent to which consumer knowledge of finance rates affects rate response, and therefore borrowing decisions. An empirical investigation of the extent and market influence of consumer knowledge is bound to be a difficult task. Two consumers buying automobiles on credit are not usually purchasing the same commodity. In addition to differences in credit sources and in product quality, there are apt to be tied-in purchases of insurance, service and, to some extent, "packaging." There are also differences in the cost of acquiring commodities aside from their market prices: shopping time, transportation—all costly. Even when commodities or services purchased are apparently the same, the transactions may have differentiating characteristics. Empirical evidence that consumers pay different prices for similar commodities need not necessarily imply lack of knowledge, unless the purchases, including all elements of the transactions, can be shown to be identical—a condition rarely met, as noted by numerous authors.¹

¹A. Oxenfeld, "Consumer Knowledge: Its Measurement and Extent," *Review of Economics and Statistics*, Nov. 1950; comments by Ruth Mack in "The Economics of Consumption," *Survey of Contemporary Economics*, Philadelphia, Blakiston, for American Economic Association, 1948. Other studies dealing on an analytical plane with the economics of information are G. J. Stigler, "The Economics of Information," *Journal of Political Economy*, June 1961; and S. A. Ozga, "Imperfect Markets Through Lack of Knowledge," *Quarterly Journal of Economics*, Feb. 1960.

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Our empirical examination of consumer knowledge of the cost of credit is able to avoid some, but not all, of these problems. The basic service (use of X dollars for Y months) is homogeneous, so the most important source of comparability is present. However, there are different amounts of tied-in services: credit obtained from dealers, for example, may carry higher probability of prompt servicing than a loan obtained directly from a financial institution, say a bank. Other differentiating factors clearly exist: among consumers, time spent in shopping, taste for bargaining, and so forth; among lenders, differences in evaluation of the credit standing of borrowers, legal regulations, geographic location, credit granting and collection procedures, and methods of quoting charges.² Further, the actual cost of credit may differ from the nominal or contract cost if the retail dealer provides both goods and credit. The product may be available at the agreed price only if the buyer also purchases credit from the dealer. In some transactions, a cash buyer may not be offered as low a product price as a credit buyer. See Appendix D for a detailed discussion of this problem.

To have complete information about the cost of credit, the buyer must know the cost of obtaining credit from the source selected as well as from alternative sources. As pointed out in Appendix D, it is not necessary for buyers who are rationed (in the terminology of Section I) to have accurate information about finance rates in order to decide whether and where to purchase a durable asset on credit. Such information is essential for unrationed buyers and will obviously do no harm in any case. We were, therefore, interested in determining the extent of consumer rate knowledge per se, recognizing that ignorance need not imply suboptimal purchase decisions.

It seems reasonable to suppose that knowledge of the finance rates in an actual transaction is a precondition to knowledge of rates at alternative—presumably foregone—sources. Hence we measure consumer knowledge of finance rates by comparing the actual rate paid, f_a , as computed from data supplied by the buyer-borrower, with the borrower's own reported estimate of the finance rate paid, f_r . The actual rate is computed as the annual rate of charge on the average unpaid

²See Haberler, *Consumer Instalment Credit*, p. 25; and T. O. Yntema, "The Market for Consumer Credit," *Annals of the American Academy of Political and Social Science*, Mar. 1938, pp. 79-85.

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balance, i.e., the effective annual interest or finance rate,³ since in our view complete knowledge must include this rate.⁴

Description of Basic Data

The basic data were obtained from responses to a mail questionnaire sent to Consumers Union subscribers, discussed in Section I.⁵ A copy of the schedule is shown as Table 6. Computation of the effective annual finance rate required answers to questions about the amount borrowed, number of payments, and size of the monthly payment. Responses stating the amount repaid as less than the amount borrowed were considered in error and eliminated from the sample. Contracts in which monthly payments were known to include some insurance costs were excluded since respondents were not asked to report dollar costs. Effective annual finance rates could be estimated for 1,059 cases, of which 219 did not reply to the question, "What interest rate did you have to

³As noted in footnote 1, sect. I, the term finance rate is used, instead of interest rate, on consumer instalment purchases to avoid misunderstanding. We use finance rates, instead of dollar charges, as the price of credit because alternative credit opportunities of different amounts and maturities must be converted to some rate of charge for a meaningful comparison.

⁴The buyer's ability to compare the prices charged by alternative credit sources obviously depends on use of a common denominator to measure price. Sellers of consumer credit quote prices in many different ways: total dollar charges, various rate measures such as annual add-on, annual discount, per cent per month and, occasionally, effective annual rate. Any of the above rate measures, if adopted by all sellers, will permit relevant comparisons among credit sources. Since the majority of all nonconsumer credit transactions are quoted in terms of the effective annual rate, we use it as the common denominator. The cost of reducing liquid assets is a relevant alternative to borrowing for some consumers and liquid assets yields are almost always quoted as effective annual rates. For a thorough discussion of this problem see W. P. Mors, *Consumer Credit Finance Charges: Rate Information and Quotation*, a National Bureau study, in preparation.

⁵The characteristics of this sample are described in Juster, *Anticipations and Purchases*, a National Bureau study, in press; and Juster, "The Predictive Value of Consumers Union Spending Intentions Data" in *The Quality and Economic Significance of Anticipations Data*, Special Conference Vol. 10, Universities-National Bureau Committee for Economic Research, Princeton for NBER, 1960.

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TABLE 6

QUESTION 25A, REINTERVIEW QUESTIONNAIRE, MAY 1960, CONSUMERS UNION MEMBERS' PANEL

Have you bought anything on the instalment plan since April 1958?

Yes No

If yes, please write in the items in the boxes; then fill in the rest of the information as best you can remember. Otherwise skip to question 26.

Items Purchased on Instalment			
Price of item	.....	.....	.....
Amount received on trade-in	.....	.....	.....
Cash downpayment	.....	.....	.....
Amount borrowed	.....	.....	.....
Size of monthly payments	.....	.....	.....
Number of payments made	.....	.....	.....
Number of payments left	.....	.....	.....
Do your monthly payments include:			
Credit life insurance?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Other insurance?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
What interest rate did you have to pay?	.....	.....	%

pay?", indicating either inability or unwillingness to reply.⁶

The Empirical Results

The responses are classified into four groups based on loan size—the

⁶The question about the reported rate needs further comment. The respondent filled in his answer as a per cent on the line provided. The choice of the word interest was deliberate, as we felt that most consumers view any rate of charge for credit as interest. We avoided asking the consumer whether or not he had in mind an add-on, discount, per cent per month, or other form of percentage rate of charge lest such qualifications lead to confusion and non-response. Rather, the term interest rate implies an annual rate of charge on the unpaid balance. We sought a natural response to an uncomplicated question.

TABLE 7

DISTRIBUTION OF REPORTED AND EFFECTIVE ANNUAL FINANCE RATES,
BY AMOUNTS BORROWED

AMOUNT BORROWED (dollars)	RESPONDENTS REPORTING RATES				RESPONDENTS NOT REPORTING RATES			
	N	Per Cent of Cases in Loan Class	Mean Rate <i>f_r</i>	Mean Rate <i>f_a</i>	N	Per Cent of Cases in Loan Class	Mean Rate <i>f_r</i>	Mean Rate <i>f_a</i>
Under 500	440	71.7	9.4	30.8	174	28.3	—	32.2
500-999	113	82.5	7.4	19.5	24	17.5	—	20.8
1,000-1,999	207	86.5	6.9	13.8	17	13.2	—	18.6
2,000 and over	80	95.2	7.4	10.6	4	4.8	—	19.2
Total	840	79.3	—	—	219	20.7	—	—
Mean			8.3	23.2				29.9

SOURCE: Basic data from Consumers Union-NBER reinterview sample.

NOTE: *f_r* = reported annual finance rates; *f_a* = effective annual finance rates.

"amount borrowed" line in Table 6. Mean reported and effective rates are shown for each group. Only mean effective rates are shown for those who reported the details of the transaction but did not or could not answer the rate query.

The data in Table 7 indicate that mean effective rates, *f_a*, as estimated from details of the transaction, vary sharply and inversely with loan size. The mean rates reported by respondents, *f_r*, show some tendency to vary in the same way, except that reported rates in the largest loan-size class (\$2,000 and over) are higher than those in the adjacent class. Thus consumers seem to know that finance rates are appreciably higher on credit transactions involving relatively small (under \$500) loan sizes than on credit transactions for larger loans. The level of effective rates is much higher than the level of reported rates in every loan-size class, although both absolute and relative differentials are greater, the smaller the size of loan. For example, mean effective rates

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are more than three times as high as mean reported rates on loans of under \$500; in contrast, the mean effective rate is about 50 per cent higher than the mean reported rate on loans of over \$2,000.

In addition, respondents willing to provide an estimate of the rate paid in addition to the details of the credit transaction appear to have paid somewhat lower effective rates than those unwilling (or unable) to estimate the rate paid. In every loan-size class, the mean effective rates computed from the payments data are higher for respondents not reporting rates, although the differentials are negligible in the under \$500 and \$500-999 loan-size classes, where the absolute levels of effective rates were quite high for both groups. However, the nonreporting group is a larger proportion of the total cases, the smaller the loan-size class. More than a quarter of those with loans of under \$500 did not (or could not) estimate the rates paid, while less than 5 per cent of those in the over-\$2,000 class failed to report an estimate.

Since the differences in mean effective rates for reporting and non-reporting groups are substantial only for the relatively few cases involving large loan sizes, failure to report rates does not, for the most part, seem to result in payment of appreciably higher rates. The evidence suggests that, for credit transactions involving relatively small loan sizes, households reporting rates are guessing, while those not reporting rates are admitting complete ignorance. In contrast, for credit transactions involving large loan sizes, the few nonreporting households paid appreciably more. We infer that they had less information about rates and that lack of information was responsible for the high rates they paid.⁷

⁷These conclusions are not based on the presence of a smaller number of cases estimated to have paid extremely high effective rates. The pattern of the loan-size group means is about the same if the extreme cases are excluded. Data excluding cases with estimated effective annual rates less than 6 per cent or greater than 50 per cent are shown below:

Loan Size	Estimated Mean Actual Rates	
	Respondents Reporting Rates	Not Reporting Rates
Under \$500	22.7%	22.1%
\$ 500 - 999	16.7	17.3
\$1,000 - 1,999	13.8	17.5
\$2,000 and over	12.7	19.2
Total	18.7	21.1

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ESTIMATES OF THE EXTENT OF RATE INFORMATION

An alternative arrangement of the data helps to illuminate the relation between rate knowledge and loan size. Respondents who both reported payment details and furnished estimates of the rates they paid were divided into three groups: (1) those who reported rates roughly equal to the estimated effective annual finance rate; (2) those who reported rates roughly equal to one-half the effective annual rate; and (3) all other households. The first group is an estimate of the maximum number of respondents who could be said to possess accurate information⁸ about effective annual rates; the second, an estimate of the maximum number to possess accurate information about add-on or discount rates; and the remainder, the minimum number to possess neither kind of rate information.

An estimate of the most probable, rather than the maximum, number of respondents with accurate rate information was then constructed. Assume that respondents have no information at all about finance rates, and that a respondent reporting he paid X per cent is just as likely to have paid any given effective rate as a respondent reporting he paid Y or Z per cent. By chance, some respondents would fall into the intervals associated with groups 1 and 2. Given the distribution of reported and effective rates, it is a simple matter to estimate the expected proportion of cases where effective rates would fall within plus or minus 2 percentage points of reported rates or within plus or minus 2 percentage points of two times the reported rates, on the assumption of independence between reported and effective rates. That is to say, from the distribution of effective rates we estimated the expected proportion of respondents who, by chance, would have reported rates of X , Y , or Z per cent and paid effective rates in the ranges $X \pm 2\%$, $Y \pm 2\%$, or $Z \pm 2\%$, and the expected proportion who would have paid effective

⁸In this context, "accurate" means that the effective annual rate was within plus or minus 2 percentage points of the reported rate. A respondent reporting a 5 per cent rate would fall into the first category if he is estimated to have actually paid between 3 and 7 per cent, while he would fall into the second category if the effective annual rate is estimated to be between 8 and 12 per cent.

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rates in the ranges $2X \pm 2\%$, $2Y \pm 2\%$, or $2Z \pm 2\%$.⁹ Any excess of the observed over the expected proportion falling into the above groups is presumably due to the fact that accurate rate information of some kind is not completely lacking among respondents. The difference between observed and expected proportions constitutes the expected value of the proportion of cases with accurate information about either effective annual or add-on (and discount) rates.¹⁰

Table 8 presents these results for households cross-classified by loan size and information. The information groups 1, 2, and 3 have just been described. The percentage of cases in the information classes is calculated as the observed proportion of cases minus the proportion expected on the assumption of independence between reported and effective rates, adjusted as indicated by the procedure described in footnote 10. The mean effective finance rates for the observed cases in each classification are also shown.

It is clear enough from Table 8 that the extent of respondents' information about rates is inversely related to loan size. Only 11 per cent of the respondents in the under \$500 loan-size class appear to have any information about rates, and a majority of those knew only add-on or discount rates rather than effective annual finance rates. In contrast, about 30 per cent of the respondents in the over \$2,000 loan class appear

⁹ An illustrative calculation is as follows: If 20 respondents in the sample report they paid a 4 per cent rate, and if 10 per cent are estimated to have actually paid between 2 and 6 per cent, then 2 households—10 per cent of the 20 respondents that reported paying 4 per cent—would be the number expected to pay rates between 2 and 6 per cent on the above assumptions. A similar calculation for each reported-rate group would yield the total number, and proportion, of respondents expected to fall into the group with reported rate equal to effective rate ± 2 per cent.

¹⁰ The estimating procedure actually used is not precisely that described in the text. We followed three steps: (1) calculated the proportions of cases in which actual rates fell within the ranges described above (P_a); (2) estimated the proportions of cases in which actual rates would have fallen within these ranges by chance (P_e), and (3) subtracted P_e from P_a . Then we divided the result obtained in (3) by the difference between 100 per cent and P_e . The rationale is that we wanted a simple statistic to indicate the extent of rate knowledge, but required that the statistic vary between 0 and 100 per cent. The estimate in step (3) could never reach 100 per cent because P_e must be positive. Our procedure does permit the calculated fraction of those with knowledge to reach 100 per cent if every respondent reports exactly the rate he paid, since it consists of the quantity $P_a - P_e/100 - P_e$.

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TABLE 8

ESTIMATED PERCENTAGE DISTRIBUTION AND MEAN EFFECTIVE RATES OF SAMPLE HOUSEHOLDS, CLASSIFIED BY RATE INFORMATION AND LOAN SIZE

LOAN SIZE (dollars)	Sample Size	ESTIMATED DISTRIBUTION OF HOUSEHOLDS, BY CLASS WITH:			Mean Effective Annual Finance Rate Paid, by Class			
		<i>Accurate Information on</i>			(1)	(2)	(3)	Total
		Effective Rates (1)	Add-on Rates (2)	No Rate Information (3)				
Under 500	440	5.1	6.0	88.9	12.1	17.1	37.0	30.8
500-999	113	7.4	8.3	84.3	8.3	14.8	24.8	19.5
1,000-1,999	207	7.6	19.0	73.4	8.1	10.9	19.7	13.8
2,000 and over	80	10.6	20.3	69.1	7.2	11.0	18.7	10.6
Total	840	6.6	11.3	82.1				

SOURCE: Estimates derived according to procedures described in the text. In the under \$500 loan-size class, for example, 12.5 per cent of the respondents actually paid finance rates falling in the range of plus or minus 2 percentage points of the rate they reported having paid. From the distribution of actual and reported rates, we estimate that 7.8 per cent of respondents would have fallen into this range by chance. Thus the excess of the observed over the predicted proportion, divided by 100 minus the predicted proportion—12.5-7.8 divided by 92.2, or 5.1—are estimated to have reasonably accurate information about the level of effective annual rates, and this is the figure shown for information class 1.

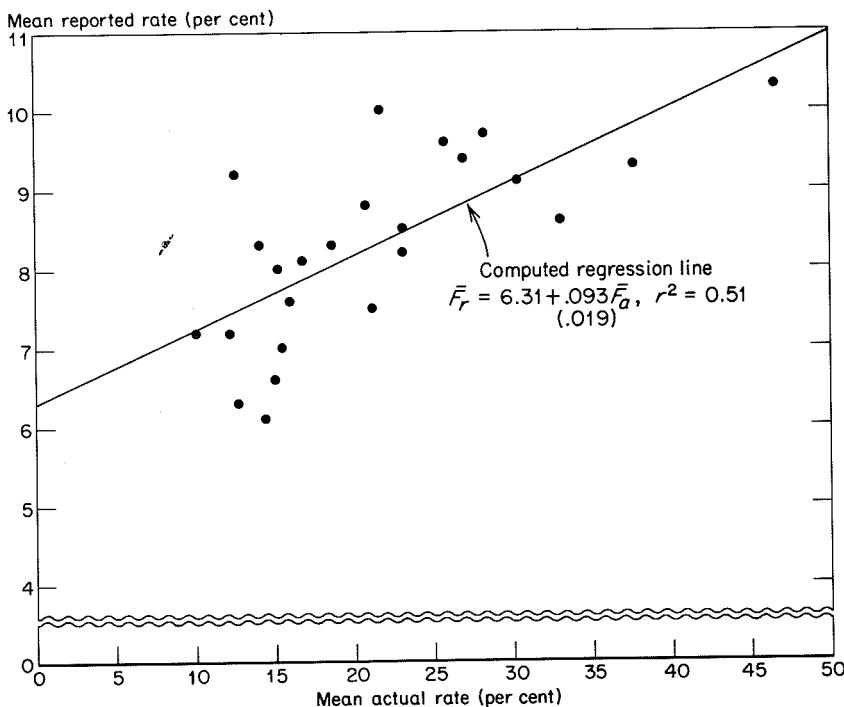
The mean effective annual rates shown in the right hand side of the table are the mean rates paid by all respondents falling into the respective ranges covered by information classes 1 and 2; we had no way of identifying those respondents who fell into these respective classes by chance.

to have had fairly accurate rate information, predominantly about add-on or discount rates. In general, only a small proportion of the sample appears to have reasonably accurate information about rates charged on their own credit transactions.

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FIGURE 1

**Mean Actual and Reported Finance Rates,
Given Type of Product Financed and Loan Size**



NOTE: \bar{F}_a = mean effective finance rate; \bar{F}_r = mean reported finance rate.

INSTITUTIONAL KNOWLEDGE

Although the presumably cost-conscious Consumer Union subscribers seem to be little aware of the finance rates that they have actually paid on past transactions, they seem to be aware of differences in market rates among broad categories of credit transactions. For example, the data in Table 7 suggest that both effective and reported rates varied

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inversely with loan size. Classified by information (Table 8), the group with no apparent information had higher mean effective rates as well as higher reported rates than the other groups had.

To give more insight into the relation between information and rates paid, we divided respondents into twenty-four groups based on loan size and type of commodity financed. The commodity classes are: new cars, used cars, home improvements, household appliances, furniture, a miscellaneous category, and a group of products not identified by respondents. For each group, we computed mean effective and mean reported finance rates, then estimated the simple correlation between them. Figure 1 shows a scatter diagram of these twenty-four pairs of means, and the regression and correlation coefficients. About one-half the variance in mean reported rates is explained by mean effective rates, and the *F* ratio is 11.0—significantly greater than unity at the .01 level. We also estimated the correlation between reported and actual rates *within* each group. In only one of the twenty-four groups is the correlation significantly different from zero at the .05 level, about the proportion to be expected if the true correlation were zero in all groups.

A more precise view of the relations between reported rate, effective rate, type of commodity financed, and loan size is provided by a multivariate regression analysis.¹¹ The variables are defined as follows:

Dependent

f_a , Effective annual finance rate as computed from payments data, per cent

f_r , Finance rate reported paid by respondent, per cent

¹¹ To prevent extreme observations from dominating the results of the regression analysis, all contracts were excluded in which the effective annual finance rate was estimated as less than 3 per cent per annum. Such contracts must involve errors in either reporting or processing, since consumer credit is not available at that low a rate under most circumstances. A few high-rate contracts were also eliminated, including all with effective annual rates above 150 per cent, and all with loan sizes above \$1,000 and effective annual rates above 75 per cent. We simply did not believe that the basic data could have been accurate. Finally, a number of cases containing no information about the respondents' attitude toward credit use were eliminated, since this variable is utilized in the regression analysis. Of the 840 contracts, 749 remain after the exclusions, which were mainly in the first and third categories.

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Independent¹²

Commodity Class (each commodity class = 1, if respondent purchased designated commodity; otherwise, that commodity class = 0)

- C_1 , new automobile
- C_2 , used automobile
- C_3 , home improvements
- C_4 , home appliance
- C_5 , furniture
- C_6 , other

L , amount borrowed, in dollars

f_r , finance rate reported paid by respondent, per cent

The empirical results are summarized in Table 9. The simple correlation of f_a with f_r (equation 1) indicates that these consumers have some—but not much—information about the finance rates paid on past credit transactions. However, equation 2, which standardizes for commodity class and loan size, indicates that our sample of consumers had no idea whether they had paid a relatively high or low finance rate, given the class of credit transactions as indicated by type of commodity and size of loan.

The last four equations indicate that consumers not only paid relatively low rates for certain classes of credit transactions, but also knew they had. Equation 3 indicates that credit transactions in commodity classes C_1 , C_2 and C_3 actually carried relatively low effective annual rates, those in C_5 relatively high ones. Equation 4 indicates that consumers reported that credit transactions for commodities in C_1 , C_2 , and C_3 cost less and those in C_5 cost more.¹³ The extent of the actual rate differences are seriously understated by the reported differences in all cases.

When both f_a and f_r are regressed on loan size along with commodity class in equations 5 and 6, the differences in finance rates actually

¹²The six commodity classes constitute a system of dummy variables; to avoid singularity in the matrix, C_6 is excluded from the regression. The coefficients of C_1 through C_5 thus represent differences in the value of the dependent variables associated with transactions in commodity classes C_1 to C_5 , relative to transactions in C_6 .

¹³Reported rate differences are not significant except for C_5 , although effective annual rate differences are highly significant for C_1 , C_2 , and C_5 commodity groups.

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TABLE 9

REGRESSION COEFFICIENTS FOR SELECTED INDEPENDENT VARIABLES IN
RELATION TO REPORTED AND EFFECTIVE ANNUAL FINANCE RATES

Equation	Dependent Variable	Independent Variables ^a							Constant	r^2 or R^2
		C_1	C_2	C_3	C_4	C_5	L	f_r		
1.	f_a								.45 ^b	.18.6 .010
2.	f_a	- 2.7	- 5.2 ^c	- 5.2 ^c	- 0.1	6.6 ^b	- 0.007 ^b	.09	27.5	.126
3.	f_a	- 10.4 ^b	- 7.3 ^b	- 5.6	1.8	8.4 ^b			24.3	.090
4.	f_r	- 2.0 ^b	- 0.9	- 0.4	0.7	1.0 ^c			8.6	.053
5.	f_a	- 2.7	- 5.3 ^c	- 5.2 ^c	- 0.1	6.7 ^b	- 0.007 ^b		28.4	.126
6.	f_r	- 1.2 ^b	- 0.7	- 0.4	0.5	0.8	- 0.0007 ^b		9.0	.060

SOURCE: Basic data from Consumers Union-NBER reinterview sample.

NOTE: f_r = reported annual finance rate; f_a = effective annual finance rate. The number of contracts is 749.

^aFor description of variables, see text, p. 57 f.

^bMore than 1.96 times its standard error.

^cMore than 1.5 times its standard error.

paid still match those in finance rates reported paid in four of the five commodity classes. Further, the coefficients of loan size in the f_a and f_r regressions have the same signs, and both coefficients are significantly different from zero. As before, the magnitude of the finance-rate differences associated with commodity class and loan size are much larger for actual than for reported rates.

In general, consumers seem to be aware that some classes of loans (automobile, home improvement) are likely to carry relatively low finance rates, others (furniture), to carry relatively high rates, and small loans, to carry higher rates than larger ones. They seriously underestimate the extent of the existing rate differences, partly but not

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entirely because they underestimate the level of finance rates.¹⁴

The empirical results suggest the following interpretation of the nature and extent of consumer knowledge of credit costs. Consumers generally have little notion of the price they pay for credit—more precisely, the effective annual rate paid on their most recent credit transactions. If asked the price, they respond with essentially random figures, except that the mean of the figures is higher for consumers having borrowed relatively small amounts or having purchased furniture and lower for those having borrowed relatively large amounts or having purchased automobiles.¹⁵ In effect, the responses may be thought

¹⁴If consumers possessed wholly accurate information about add-on or discount—as opposed to effective annual—finance rates, the regression would show that a difference of 1 percentage point in reported rates is associated with a difference of 2 percentage points in actual rates, since effective annual rates are roughly double their add-on or discount equivalents. The observed regression coefficient of f_r is much smaller than that.

However, that some respondents may have been reporting accurate add-on or discount rates tends to weaken our conclusion that consumers show practically no knowledge of rates within a given class of transactions. Some households presumably gave accurate effective annual rates (our criterion of perfect knowledge), some gave accurate add-on rates with or without knowing that add-on rates are about one-half of effective annual rates, and some gave random figures, as indicated in Table 8. It can be argued that responses consisting of accurate add-on rates imply more knowledge of the cost of credit and of alternative sources of credit than random responses do. It is conceptually possible that the low correlations observed in the data reflect about equal proportions of responses in the first two categories and a very small proportion in the last. If so, actual rates of 6 per cent would be equally likely to be matched against reported rates of roughly 3 or 6 per cent; actual rates of 12 per cent with reported rates of roughly 6 or 12 per cent, or so on. The result would be a relatively weak, though positive, observed correlation. The evidence in Table 8, however, suggests that the possible explanation does not account for the results.

¹⁵An interesting sidelight, which serves as a rough measure of the extent to which the data reflect pure guesses about the price of credit, is the frequency of 6 per cent responses. The belief that money is lent at 6 per cent is widely held in the population as a whole. On the basis of general population sample data, George Katona testified before the Douglas Subcommittee in 1960:

"The relatively great frequency with which costs of 4 or 5 and especially 6 per cent were mentioned may be interpreted as a carryover from other information." *Consumer Credit Labeling Bill*, Hearings before a subcommittee of the Senate Committee on Banking and Currency, 86th Cong., 2d sess., GPO, 1960, p. 806.

To judge from the data, the "6 per cent myth" is also widely held in our sample of respondents. Fully 28 per cent of the sample reported that the rate of interest they paid was 6.0 per cent. Less than 3 per cent of the total in the sample

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of as reflecting correct information about the relative rates on different specified classes of loans, but not as demonstrating any knowledge of whether the respondent himself had paid a high or low rate, given the class of transactions. On the assumption that such knowledge of rates is derived from familiarity with institutions serving borrowers, we call this institutional knowledge.¹⁶ Such limited knowledge is by no means

actually paid rates between 5.5 and 6.5 per cent. Further, the relative frequency of 6 per cent reported rates appears to be almost wholly independent of the actual rate paid. The data follow.

Actual Rate Paid (per cent)	Number of Respondents in Class (1)	Number Reporting 6 Per Cent Paid (2)	Column 2 Divided by Column 1 (3)
Under 4.50	53	15	28
4.50 - 5.49	17	2	12
5.50 - 6.49	24	6	25
6.50 - 7.49	29	12	41
7.50 - 8.49	30	5	17
8.50 - 9.49	48	12	25
9.50 - 10.49	44	17	39
10.50 - 11.49	36	15	42
11.50 - 12.49	45	16	36
12.50 - 13.49	33	10	30
13.50 - 14.49	19	6	32
14.50 - 15.49	36	10	28
15.50 - 16.49	23	5	22
16.50 - 17.49	32	9	28
17.50 - 18.49	15	3	20
18.50 - 19.49	35	5	14
19.50 - 29.49	124	31	25
29.50 - 39.49	76	18	24
39.50 - 49.49	39	14	36
49.50 - 99.49	65	18	28
99.50 and over	17	5	29
Total	840	234	28

SOURCE: Consumers Union-NBER reinterview sample.

¹⁶That consumers have generally correct information about which types of lenders have relatively low or high finance rates also appears to be true, although our data do not bear on this question (see Katona, Statement before the Senate Subcommittee on Banking and Currency, p. 807).

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useless. Consumers making decisions to borrow know that under some circumstances loans will probably cost more. Although that degree of knowledge is unlikely to guide credit buyers' actions toward maximizing real income or to insure that the suppliers of credit operate under competitive conditions, the available knowledge clearly tends to influence actions in the appropriate direction.¹⁷

DIFFERENCES IN RATE INFORMATION OF RATIONED AND UNRATIONED CONSUMERS

The analysis in Section I suggests that one group of consumers—those designated unrationed—should be comparatively responsive to differences in finance rates, while the other group—rationed consumers—should be unresponsive to rate differences. Monthly payment effects aside, consumers can hardly be expected to respond to rate differences unless aware of their existence. The data analyzed in Section I indicated that unrationed consumers reacted significantly to rate differences on credit contracts for a specific commodity (an automobile) and loan size (\$1,500); however, the analysis in this section suggests that information about finance rates is almost totally lacking if commodity and loan size are kept constant—precisely the circumstances specified in Section I.

The apparent contradiction can be resolved. The unrationed consumers in the subsample analyzed here actually have information about finance rates, holding loan size and commodity class constant; but the subsample as a whole is dominated by the behavior of rationed consumers with little or no information about rates. It will be recalled that one of the rationed-unrationed classifications tested in the first section was based on responses to a question about attitude toward credit use; those with favorable attitudes were classed as rationed, those with

¹⁷If institutional knowledge of the sort described is the sum of consumer finance rate knowledge, it is important to know whether, in the light of experience, consumers alter their current impressions about which loans or lenders have relatively high rates. If consumer information about lender rates and standards of acceptability were always out of date, such information could hardly contribute much to the effective functioning of competition.

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unfavorable attitudes as unrationalized. Let us introduce the following independent variables into the multiple regression analysis:

R , attitude toward credit use; $R = 1$, if attitude is favorable toward use of instalment credit (rationed), otherwise $R = 0$ (unrationed)

Zf_r , the interaction of reported finance rate and rationing status

$Z = 1$ for unrationalized consumers, otherwise $Z = 0$; thus, $Zf_r = f_r$ for unrationalized consumers and $Zf_r = 0$ for rationed consumers

The regression of the independent variables used above, plus R and Zf_r , on effective finance rate shows the following result:

$$f_a = 21.5 - 2.6 C_1 - 5.5 C_2 - 5.2 C_3 - 0.1 C_4 + 6.6 C_5 \\ (2.4) \quad (3.0) \quad (3.0) \quad (2.1) \quad (2.4)$$

$$-0.0070L + 6.8 R + .04 f_r + .42 Z f_r, R^2 = .130; \\ (0.0018) \quad (4.2) \quad (.17) \quad (.41)$$

when $Z = 1$, the coefficient of $f_r = .46$;

when $Z = 0$, the coefficient of $f_r = .04$.

Although neither of the added variables has a statistically significant coefficient, the results suggest that unrationalized consumers (for whom $Z = 1$) have substantially more information about finance rates than rationed ones, holding loan size and commodity class constant. The coefficient of reported rate on actual rate is fully ten times as large for unrationalized as for rationed consumers.

The same conclusion is shown by a somewhat simpler computation. We divided the sample into rationed, R , and unrationalized, U , groups on the basis of attitude toward credit use, and estimated simple regressions of f_a on f_r within each group.¹⁸ Rationed consumers show a much weaker

¹⁸The subsample of households that supplied the details of recent instalment credit transactions contains a disproportionate number of rationed consumers, as might have been anticipated. The ratio of R to U consumers in the subsample is approximately 6:1; for the sample as a whole, the same classification basis (attitude toward credit use) shows that $R:U$ is roughly 2.5:1.

For R consumers, $N = 632$, $f_a = 19.5 + .39 f_r, r^2 = .007$
(.19)

For U consumers, $N = 117$, $f_a = 12.1 + .87 f_r, r^2 = .069$
(.30)

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relation between reported and actual rates than unrationed ones do. The f_r variable explains roughly ten times as much of the variance of f_a in the U group than it does in the R group, and the coefficient of f_r is more than twice as large in the U group. The differences between R and U groups in both correlation and regression coefficients is large enough to be statistically significant at the .05 level of probability.¹⁹

Finally, a simple comparison of mean values for actual and reported rates again suggests that knowledge of finance rates is much greater among unrationed than among rationed consumers. The mean reported rate of R consumers is 8.1 per cent, the mean actual rate 22.7 per cent; in contrast, the mean reported rate of U consumers of 9.4 per cent is higher, while the mean actual rate of 20.2 per cent is lower. Although consumers in both groups appear to believe that finance rates are considerably lower than they are, those in the U groups are closer to the true rate—defined as the effective annual rate on the average unpaid balance—than their counterparts in the R group are. On the whole, the data suggest that rationed consumers are almost completely lacking in accurate rate information net of loan size and commodity class, while unrationed consumers have a bit more information but still not very much.

Consumer Response to Increased Information About Finance Rates

If consumers had more and better information about the cost of credit, would they act differently? For example, would consumers borrow less if they knew that finance rates are more than twice as high as generally supposed? Would consumer response to changes in finance rates be much greater than it is at present? The experimental data examined in Section I can throw light on these problems, although the evidence is harder to interpret, in principle, with respect to these questions than it is with respect to those examined earlier.

¹⁹Equation 1 in Table 9 shows the results of regressing f_a on f_r for the sample as a whole.

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The first eight sets of hypothetical financing alternatives (variants) shown in Table 1 comprise four matching sets. The alternatives in each set are completely identical in substance; each variant contains the same set of choices on downpayment, loan size, contract maturity, monthly payment, and finance rate. The only difference is that, for variants 1 through 4, the effective annual finance rate for each alternative financing plan is listed, while for the matching variants 5 through 8 no information on rates is provided. Comparison of responses to variants 1 and 5, say, is essentially a comparison of responses to a substantively identical set of alternatives with, in the one case, whatever information about finance rates respondents can infer from data on loan size, monthly payments, and contract maturity, and in the other, costless information in the form of effective annual finance rates. Since the majority of respondents are known to have little accurate information about rates, the presumption is that a comparison of responses to the matching variants is really a comparison of the difference in response resulting from the acquisition of information.

RESPONSE BIAS

The analysis is not quite so simple, however. Suppose we are comparing the responses of two samples of consumers, all of whom believe the "6 per cent myth" about rates.²⁰ One of the samples is asked to choose from a number of financing alternatives, all of which are said to cost 16 per cent; a relatively large proportion report that none of the alternatives is acceptable. In the other sample, where no specific information is given about the cost, a smaller proportion report that none of the alternatives is acceptable. Can we infer that the acquisition of knowledge will result in consumers undertaking fewer credit transactions? Not necessarily. The difficulty is that one of our samples has been provided with accurate information relating to a specified set of financing alternatives, but not with comparable information about the whole range of available financing alternatives. Respondents are likely to retain and use whatever misinformation they currently possess about the cost of financing arrangements other than those listed in the questionnaire.

²⁰ Almost one out of four respondents in the subsample of 840 cases reported they had paid rates of 6 per cent. See footnote 15.

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Thus a response that all alternatives given are unacceptable may simply mean that the respondent is saying, "I certainly would not pay 16 per cent for credit when I can get it at 6 per cent." If the respondent had been told that his only choice was to use one of the specified 16 per cent alternatives or not to buy on credit at all, the reaction might have been different. In sum, many respondents are likely to reject financing alternatives said to cost 16 per cent, or likely not to accept alternatives said to cost 4 per cent, because they suppose that the 16 per cent alternatives are much more expensive and the 4 per cent alternatives not much cheaper than alternatives available to them in the credit market. The data show that 16 per cent is a bit higher than the average actual cost of automobile credit reported by households in this sample (approximately 13.5 per cent), while 4 per cent is clearly a bargain rate.

THE EMPIRICAL RESULTS

Despite the difficulty of interpretation, responses to the four matching pairs of variant questions constitute an interesting body of evidence. Table 10 summarizes the responses of households in these variant groups. The first three columns show the sample size for each group and its distribution between rationed and unrationed consumers (R and U, respectively).²¹ Columns 5 and 6 show the proportion of households indicating that one or more of the financing alternatives would be acceptable to them. Columns 7 and 8 show the average contract maturity of the preferred financing alternative for respondents indicating that at least one alternative was acceptable.²²

Differences in acceptance ratios, A , and in average preferred contract maturity, \bar{M} , between pairs of matched variant groups ($S =$ rate stated,

²¹ The basis for classification into R and U groups is the response to a question about attitude toward the use of credit, as discussed above. Columns 2 and 3 will not add up to Column 1 because some respondents did not answer the attitude question.

²² The reader will recall that respondents were asked to rank the alternatives as 1, 2, etc., indicating by an X alternatives that were unacceptable. The average preferred maturity is calculated from the choices marked 1; excluded are households marking X throughout.

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TABLE 10

ACCEPTANCE RATIOS AND AVERAGE MATURITY PREFERENCES,
SELECTED VARIANT GROUPS

Variant Group, Rates Specified (S) or Not Specified (NS)	Finance Rates Contained in Alternative Financing Arrangements ^a (per cent)	Number of Respondents				Acceptance Ratios ^b (per cent)		Average Preferred- Maturity (months)	
		Total (1)	R (2)	U (3)	Not Classi- fiable (4)	R (5)	U (6)	R (7)	U (8)
1 (S)	4 to 16	282	176	65	41	87.5	63.1	20.0	14.8
5 (NS)	4 to 16	256	161	73	22	86.3	63.0	24.8	19.0
2 (S)	16	373	238	101	34	55.9	37.6	27.1	23.6
6 (NS)	16	255	153	73	29	86.9	47.9	26.4	20.5
3 (S)	16 to 4	243	146	67	30	77.4	58.2	37.2	36.7
7 (NS)	16 to 4	231	141	70	20	89.4	58.3	28.7	28.4
4 (S)	4	265	176	60	29	90.9	78.3	23.9	22.0
8 (NS)	4	211	123	59	29	89.4	55.9	24.1	21.1

SOURCE: Consumers Union-NBER reinterview sample.

^aSee Table 1 for a complete description of the alternative financing arrangements in each variant group.

^bPer cent of respondents accepting at least one of the alternative financing arrangements.

^cAverage contract maturity of financing alternative preferred by households willing to accept at least one alternative.

NS = rate not stated) permit computation of what is essentially a finance rate information elasticity, while differences in A and \bar{M} between pairs of S or NS groups with different finance rates permit computation of the finance rate elasticity itself. Both A and \bar{M} measure aspects of the quantity of credit demanded. The acceptance ratio measures the number of credit users, while average preferred maturity is a rough measure of the quantity of credit used per credit-using household.

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RESPONSE TO SPECIFIED AND IMPLICIT RATE DIFFERENCES

Perhaps the most striking comparison in Table 10 is the contrast in finance rate elasticity for S and NS groups. The percentage of respondents accepting at least one of the alternatives is at its lowest point (56 per cent for R consumers, 38 per cent for U consumers) when the finance rate is specified as 16 per cent (variant 2). When the finance rate is specified as 4 per cent (variant 4) the acceptance ratio rises to its highest point (91 per cent for R, 78 per cent for U). Comparing responses to the identical alternatives with finance rate not specified (variants 6 and 8), we find the acceptance ratios much closer, although the differences go in the same direction. The finance rate elasticities are -0.40 for R and -0.58 for U, when rates are specified; -0.02 and -0.13 for R and U, respectively, when the identical rates are not specified.²³

The sharpness of the difference in elasticity does not imply that actual behavior would be correspondingly more sensitive to rate differences if rates were specified, for reasons already discussed. Variant 2 respondents rejecting all financing alternatives are presumably saying that a 16 per cent rate is too high. As noted earlier, if the reaction of these respondents is predicated on an assumption that 5 or 6 per cent finance rates are available from other lenders, responses might well be different if they acquired accurate knowledge of the higher than assumed rates charged by alternative lenders.

The maturity preferences resulting from specified rate differences are relatively small, although both R and U groups appear to prefer longer maturities when faced with the high rate alternative. This is an interesting result, since it would ordinarily be supposed that rational behavior requires a preference for shorter maturities in such a case. It is suggestive that this preference pattern tends to keep the average monthly payment roughly constant; payments are still a bit higher with the 16 per cent rate because the increased cost of financing outweighs the lengthened maturity. When the rate is implicit rather than specified, R consumers continue to prefer longer maturities when faced with the

²³The difference in elasticities between S and NS groups is due mainly to the greater acceptance of the 16 per cent rate alternatives in the NS group, relative to their acceptance in the S group, rather than to the difference in acceptance between specified and unspecified rates at the 4 per cent level.

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high rate alternative, while U consumers have a slight preference for shorter maturities.

The elasticity coefficients tabulated below clearly indicate that finance rate elasticity is much weaker for rationed consumers. Not only is the elasticity weaker, but also the level of the acceptance ratios is consistently higher for the R group, even at the "bargain" rate level of 4 per cent. The R group also shows a stronger tendency than the U group to lengthen preferred maturity when the rate is high, indicating a stronger preference for adjustments that hold monthly payments roughly constant.

Elasticities Based on

Variant Groups	Acceptance Ratios			Average Preferred Maturity		
	Total	R	U	Total	R	U
2 and 4 (S)	-.416	-.397	-.585	+.087	+.104	+.058
6 and 8 (NS)	-.048	-.024	-.128	+.014	+.076	-.024

To summarize: our experimental data show that consumer response to rate differences is stronger when finance rates are known than when finance-rate knowledge is incomplete.²⁴ Further, responses to rate differences—both when rates are specified and when they are not—are much stronger for unrationed than for rationed households.

A further interpretation of the differences between R and U consumers offers a subject for speculation. The R, U classification in this

²⁴The same data can be used to examine the relationship between finance rates and total borrowing. We have estimates of the percentage change in the number of credit users and the percentage change in average amounts borrowed, both relative to the same percentage change in the price of credit. The first is simply the percentage change in the acceptance ratio, the second is approximated by the percentage change in average preferred maturity. The estimated elasticity of credit extensions with respect to finance rates is the product of the two changes relative to the percentage change in finance rate. Since the preferred maturity is not very sensitive to rate change in any of the comparisons, the results essentially reflect differences in the number of credit users, as shown by the computations summarized below.

Estimated Finance Rate Elasticities, Quantity of Credit Demanded

Variant Groups	Total	R	U
4 and 2 (S)	-.331	-.288	-.530
8 and 6 (NS)	-.035	+.018	-.154

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section is based on the respondent's attitude toward the use of credit. An unfavorable attitude purports to be a statement that the respondent does not intend to use consumer instalment credit in the future under current conditions; a favorable attitude purports to be the reverse. We could interpret unfavorable attitudes as unwillingness to continue to pay relatively high costs for consumer credit—that is, costs that are high relative to, say, the return on savings accounts or bonds. If so, we should find that the finance rate elasticity of demand for credit is stronger for those with unfavorable attitudes, and the data clearly indicate that it is. This interpretation is consistent with the view that consumers with unfavorable attitudes toward the use of credit are unrational, in the terminology of Section I. On the other hand, relatively more households with unfavorable attitudes indicated an unwillingness to borrow even at a rate specified as 4 per cent, a rate about the same as the yield on liquid assets and less than many bond yields. Hence, many of those households are apparently reporting that, in principle, they dislike borrowing to buy a car irrespective of the cost of credit.

EFFECT OF FINANCE-RATE INFORMATION ON DEMAND FOR CREDIT

We turn now to analysis of the effect of increased finance-rate knowledge on the demand for credit, given the market rate. A comparison of acceptance ratios and weighted average first preferences for variants 2 and 6 measures the influence of increased knowledge at a relatively high (16 per cent) market-rate level. A similar comparison between variants 4 and 8 shows the influence of increased knowledge at a relatively low (4 per cent) rate level. Since the alternatives are identical for both pairs of variants—the only difference being in specified or not specified rates—differences in acceptance ratios and first preferences must be attributable to the knowledge differential.

The relevant percentage changes in acceptance ratios and weighted average first preferences are summarized below. At the 16 per cent finance-rate level, the acceptance ratio falls by about 38 per cent when the rate is specified, while the average preferred maturity is slightly

Percentage Change from Implicit to Specified Rate Variant in:

Variant Groups (rate)	Acceptance Ratios			Average Preferred Maturity (per cent)		
	Total	R	U	Total	R	U
6 and 2 (16%)	-38.2	- 43.4	- 24.1	+6.9	+3.6	+15.2
8 and 4 (4%)	+ 6.6	+ 1.7	+33.4	- 2.5	- 4.8	+ 4.0

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longer.²⁵ At the 4 per cent rate level, the acceptance ratio is less than 7 per cent larger when the rate is specified, and the preferred maturity is a bit shorter.

The classification into rationed and unrationed groups shows further interesting differences. When the finance rate is 16 per cent, increased knowledge results in a much greater fall in acceptance ratios for rationed consumers than for the unrationed group. When the finance rate is 4 per cent, on the other hand, the increase is very large for the latter group but negligible for the former. These results suggest again that unrationed households—those with unfavorable attitudes toward the use of credit—view existing credit opportunities in consumer financing as involving relatively higher costs than do their rationed counterparts. To unrationed households, 4 per cent seems like a relatively low price for credit, while to rationed households 16 per cent seems a relatively high price.

The analysis of knowledge differentials at high (16 per cent) and low (4 per cent) rate levels thus suggests that if market finance rates were at 16 per cent or higher levels, there might initially be less use of credit in response to the acquisition of finance-rate knowledge. There might be somewhat more borrowing, if market finance rates were at 4 per cent or lower levels, but the change would be smaller than observed at the 16 per cent level. The data presented earlier in Figure 1 show that actual rates tend to be clustered toward the higher end of this range, while consumer estimates of finance rates tend to cluster at the lower end. Our data imply that borrowing would be reduced in response to the acquisition of finance-rate knowledge, with the bulk of the reduction being made by rationed credit users.

These findings doubtless exaggerate the impact of finance-rate knowledge on borrowing decisions, particularly among rationed consumers. There might well be an initial reaction to learning the unex-

²⁵ Lengthened maturities seem to be a perverse reaction to the acquisition of rate knowledge, but the difference is small and is within the limits of sampling variability. It is also demonstrable that the average preferred maturity of those accepting under implied rate conditions and rejecting under specified rate conditions (the marginal rejectees) is shorter than for those accepting under both specified and implied rate conditions. For unrationed consumers, particularly, the increase in rejections at the 16 per cent level could be expected from the group most likely to forego credit use—those with shortest maturity preferences. Hence, the longer average maturity does not necessarily represent a lengthening of preferred maturities for a given group of individuals who acquire finance-rate knowledge.

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pectedly high price of credit, but on investigating the choices open to him, the prospective borrower would be forced to rethink his alternatives. Since rationed consumers have only the alternatives of paying the going rate for credit or doing without the commodity, it may be that the eventual impact of rate knowledge would be quite small. Among unrationed consumers, however, some of whom presumably have the option of paying cash in whole or in part, the reaction might well be a reduction in borrowing. Since the raw data suggest that unrationed consumers do not react as strongly as the rationed group and are presumably a minority of the total population, and since rationed consumers will have to reconsider real rather than imagined alternatives, we can interpret the results as suggesting that the over-all reaction is unlikely to be very strong.

The reader should bear in mind the nature of the data on which these observations are based. Conclusions are customarily hedged by caveats, to be interpreted as warning that, while the conclusions rest on less than solid foundations, they are probably accurate. Our observations about the effect of increased rate knowledge are less firmly based; at most, we have gained some useful insights into the relative magnitudes of change, but we have not established measures with quantitative significance for predictive purposes.

The variant data also permit analysis of consumer reactions to increased rate knowledge, when market finance rates are assumed to vary with contract maturity. That condition does not generally exist in consumer instalment financing at present. Yet segments of the automobile financing market occasionally graduate the finance rate with maturity while in the 1920's and early 1930's the automobile financing industry generally offered a decreasing finance rate as maturity lengthened.²⁶ Hence, a brief examination of consumer response under these conditions is useful. When the finance alternatives contain rates that vary directly with maturity and the rate is not specified, the average preferred maturity is about 23½ months. When the finance rates vary inversely with maturity, the average preferred maturity is about 28½ months. The difference in average preferred maturities, rate not specified, is about 5 months. The specification of finance rates widens the difference from 5 to about 19 months. Rate knowledge has less effect on the acceptance ratios; when information is increased, the only sizeable shift is a

²⁶A common procedure involved a flat rate of charge on the amount borrowed. Hence, the effective annual rate was inversely proportional to maturity.

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fall in acceptance for the decreasing-term structure variant, probably because some borrowers tend to resist lengthening of maturities and are unwilling to pay the high rates offered with the shorter maturities.²⁷

Summary

In this section we have examined the extent of consumer knowledge of finance rates charged on instalment credit contracts, investigated the relation between knowledge of rates and rate sensitivity, and considered the implications for borrowing decisions of the acquisition of finance-rate knowledge. Questionnaire responses that gave estimates of finance rates reported by the borrowers were compared with finance rates calculated from payment details on the same transactions, also supplied by the borrowers. These data give insights into the amount of rate knowledge and, when coupled with the experimental data in Section I, into the relation between rate knowledge and rate sensitivity. The experimental data used in Section I are also utilized to explore the impact of rate knowledge on borrowing decisions.

First, few respondents had any awareness of the finance rates they had actually paid on instalment credit transactions. Only about 7 per cent of the sample provided reasonably accurate estimates of the effective annual finance rates, and another 11 per cent reported rates approximately equal to the add-on or discount equivalent of the effective annual rates. A comparison of reported with effective mean finance rates indicates that, on the whole, respondents substantially underestimated rates.

Second, despite the lack of rate knowledge, consumers appeared to know that certain kinds of credit cost more than others. Reported and effective mean finance rates showed some tendency to vary together by loan-size class, suggesting that consumers know finance rates are higher on small than on large loans. Similarly, consumers seemed to know that

²⁷ On the basis of the foregoing, it seems likely that lenders with a term structure of finance rates graduated upward with maturity would derive greater benefit from the acquisition by borrowers of finance-rate information than would lenders with a declining term structure of rates. For lenders whose current rate level is somewhat above the average thought reasonable by consumers, the data suggest that an increasing term structure of rates may be a plausible alternative to a general lowering of the constant rate level under circumstances where consumer knowledge of finance rates produces an adverse effect upon the volume of borrowing.

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finance rates on automobile and home-improvement credit are usually lower, and on furniture credit usually higher, than rates on credit purchases of other groups of commodities. Within any commodity group or loan-size class, however, there was no correlation between reported rates and rates actually paid. We termed this degree of rate knowledge "institutional" and observed that, although consumers in general appear to have little idea of the cost of credit measured as a rate per unit of time, institutional rate knowledge may be useful in deciding what kind of commodity to finance and, perhaps, what kind of credit source to use. However, institutional knowledge, alone, cannot be expected to guarantee that borrowers will secure the lowest cost alternatives available to them.

Third, the limited amount of rate information is mainly concentrated among unrationed consumers. In a regression of actual rate on a number of variables, including rationing status and reported rate, the regression coefficient of reported rate was more than ten times as large for unrationed consumers as for rationed ones. Also, a simple regression between actual and reported rates showed that the latter explained about ten times as much of the variance in the former among unrationed consumers as among rationed ones. Finally, the simple comparison of differences in mean actual and reported finance rates shows that unrationed consumers actually paid lower rates than rationed ones while reporting that they had paid higher rates, although both groups reported paying much lower rates than they actually paid.

These findings throw some light on the results in Section I. What little rate information exists is concentrated mainly among unrationed consumers, who were shown to be relatively sensitive to rate differences. Since unrationed consumers need rate knowledge to facilitate borrowing decisions where choice of maturity or size of indebtedness is at issue, the data suggest that knowledge of rates contributes to rate sensitivity. That unrationed consumers are quite uninformed about rates implies that this group would benefit considerably from additional finance-rate information, since attainment of the best (minimum cost) borrowing position is otherwise a matter of chance. Rationed consumers, on the other hand, are faced with less complicated credit decisions. Since they desire more indebtedness than primary credit sources are willing to provide at going rates, attaining their best borrowing position requires finding the longest maturity available to them, then shopping for the lowest monthly payment among competing credit sources.

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Fourth, responses to rate differences were substantially stronger when finance rates were specified for borrowers than when identical rates of charge were unspecified, although implied by payment details. Furthermore, responses to specified rate differences were stronger for unrationed than for rationed consumers.

Our last finding concerns the effect of rate knowledge on credit use. It is based on comparison of responses to alternative sets of credit contracts, identical in all respects except that the finance rate was specified on one set but not on the other. When the rate was set at a relatively high level (16 per cent), the response to the acquisition of finance-rate information was substantial; far fewer households indicated a willingness to borrow when told that a set of credit contracts all carried a 16 per cent finance-rate than when given the same set of contracts but no explicit information about rates. When offered a set of contracts with a relatively low (4 per cent) rate, more households indicated a willingness to borrow when the rate was specified. On balance, the results suggest that the provision of finance-rate information would reduce borrowing, since actual market rates are closer to 16 per cent than to 4 per cent. When the sample is separated into rationed and unrationed groups, we find that the strongest response to the acquisition of finance-rate knowledge is a reduced willingness to borrow among households in the rationed groups.

The empirical results testing the acquisition of rate knowledge are subject to the qualification that consumers, especially rationed ones, believe rates to be substantially lower than they are. Thus many respondents are likely to have rejected high specified rates if they supposed (incorrectly) that lower cost alternatives are available to them in the market. Hence, it is likely that the response to financing alternatives with specified rates overstates the response which would have been observed if finance rates on all alternative credit opportunities had also been specified.