

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: The Quality of Consumer Instalment Credit

Volume Author/Editor: Moore, Geoffrey H. and Philip A Klein

Volume Publisher: UMI

Volume ISBN: 0-870-14484-7

Volume URL: <http://www.nber.org/books/moor67-1>

Publication Date: 1967

Chapter Title: Appendix G: Some Evidence on the Effect of Credit Terms on Credit Volume

Chapter Author: Geoffrey H. Moore, Philip A Klein

Chapter URL: <http://www.nber.org/chapters/c1470>

Chapter pages in book: (p. 228 - 232)

## Appendix G: Some Evidence on the Effect of Credit Terms on Credit Volume

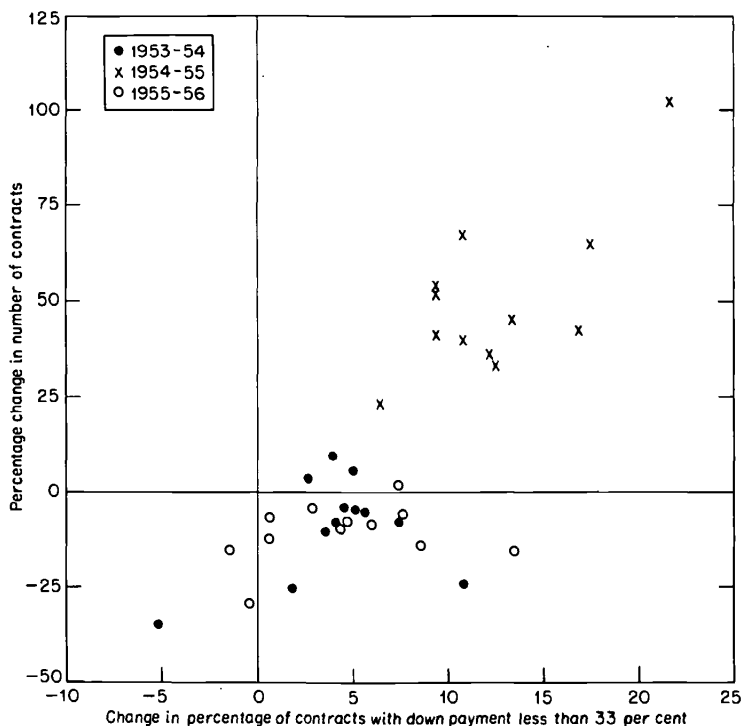
As noted in Chapter 1, the long-run upward trend in the volume of instalment credit extended in the United States has gone hand in hand with a general easing of credit terms, notably longer maturities and lower down payments. Over the short-run, also, there is evidence that an easing or tightening of terms has a corresponding effect on credit volume. Indeed, competitive practices suggest that an easing of terms is one of the important means available to lenders to achieve an increase in volume or prevent a decline. The federal government has used the credit terms instrument as a way of restricting the availability of credit. Insofar as changes in terms are associated with changes in credit quality, a connection between credit quality and quantity can be traced.

Some evidence on the relationship between credit terms and volume is provided by our local area data (Table G-1). Charts G-1 and G-2 show that areas in which the proportion of new-auto contracts with low down payments or long maturities increased the most also experienced the largest increases in the number of contracts during 1953-56. This is particularly clear when all the observations plotted are considered together, but it is also true to a degree in each of the three year-to-year periods taken separately. In 1954-55, when terms eased most rapidly, volume increased most rapidly. In 1953-54 and 1955-56, when terms eased less rapidly or tightened in a few areas, volume declined or rose only slightly.

It is interesting to note the indications in the data that without any easing of terms during this period, credit volume would have declined. This is clearly suggested by the data for 1955-56, but can also be inferred from the slope of the scatters in 1953-54 and 1954-55. That is to say, if a line through these points were extended to the left through

CHART G-1

## Year-to-Year Change in Down Payments and Volume of New-Automobile Contracts, Twelve Metropolitan Areas, 1953-56



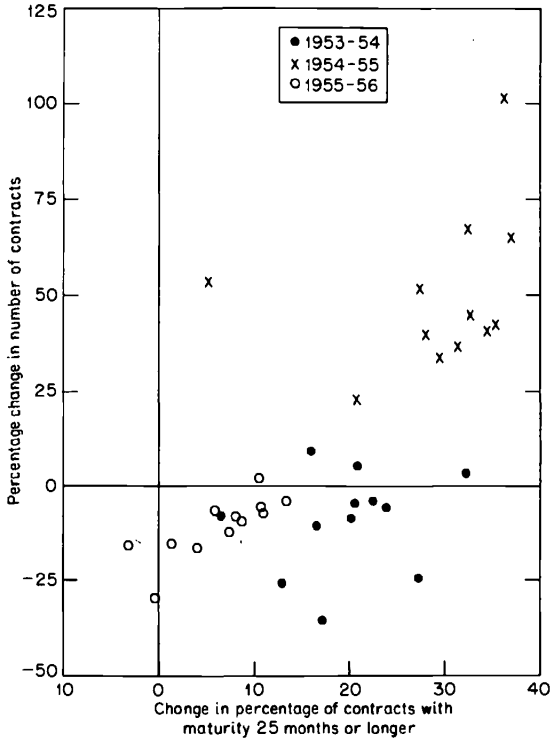
SOURCE: Table G-1.

the zero line on the horizontal scale (no change in down payments or maturities), it would cut the vertical axis below its zero point, indicating a decline in volume. This impression from the chart is confirmed by the regression analysis summarized in Table G-2, since the constant term in these regressions is negative in three cases out of four.

The regression analysis also attempts to take account of the possibility that changes in maturities and down payments each have an effect on credit volume. The coefficients of both variables are statistically significant in most of the regression equations, indicating that down payments and maturities each independently have an influence on credit volume.

CHART G-2

Year-to-Year Change in Maturities and Volume of New-Auto-mobile Contracts, Twelve Metropolitan Areas, 1953-56



SOURCE: Table G-1.

TABLE G-1  
*Year-to-Year Changes in Volume, Down Payments and Maturities of New-Automobile Contracts,  
 Twelve Metropolitan Areas, 1953-56*

Area	Percentage Change in Number of Contracts		Change in Percentage of Down Payments of Less Than 33 Per Cent			Change in Percentage of Contracts With Maturities of 25 Months or More			
	1953-54	1954-55	1955-56	1953-54	1954-55	1955-56	1953-54	1954-55	1955-56
A	-4.8	42.3	-3.9	5.2	16.9	2.9	20.4	35.2	13.4
B	5.1	44.5	-6.8	5.1	13.4	0.7	20.9	32.5	5.9
C	3.2	64.1	-16.1	2.7	17.5	13.5	31.8	37.0	4.0
D	-8.1	39.9	-8.6	4.2	10.8	6.0	20.2	28.1	8.0
E	-35.1	102.1	-29.9	-5.1	21.7	-0.4	17.0	36.2	-0.3
F	-3.9	23.1	-9.7	4.6	6.5	4.4	22.6	20.7	8.7
G	-24.9	67.0	-12.5	10.8	10.8	0.6	27.1	32.4	7.4
H	-7.9	53.7	-14.2	7.4	9.4	8.6	6.5	5.1	1.4
I	9.8	32.9	-15.8	4.0	12.5	-1.4	16.0	29.5	-3.3
J	-10.7	51.9	-7.8	3.6	9.4	4.7	16.6	27.3	10.9
K	-25.3	40.3	2.0	1.8	9.4	7.4	13.0	34.5	10.5
L	-5.1	36.6	-6.7	5.7	12.2	7.6	24.0	31.3	10.8

Source: A large sales finance company. See Appendix F.

Note: Changes are computed from annual averages based on data for January, April, July and October, except that the 1956 average is for January and April only. The 1955-56 changes are therefore affected by seasonal variations, but the effect seems to be slight.

TABLE G-2

*Regression Analysis of Credit Volume on Credit Terms, 1953-56*

	1953-54	1954-55	1955-56 (2Q)	1953-56 (2Q)
No. of observations	12	12	12	36
Regression coefficients <sup>a</sup>				
<i>a</i>	1.13 (1.13)	3.79 (1.41)	.10 (.40)	3.23 (.72)
<i>b</i>	.29 (.63)	-.45 (.69)	1.18 (.34)	.95 (.34)
<i>c</i>	-19.33 (13.21)	15.75 (18.09)	-18.88 (2.95)	-30.25 (6.14)
<i>T</i> values for				
<i>a</i>	1.00	2.69 (S)	.25	4.50 (S)
<i>b</i>	.46	-.66	3.43 (S)	2.75 (S)
<i>c</i>	-1.46	.87	-6.39 (S)	-4.93 (S)
Multiple corr. coeff.	.36	.70 (S)	.77 (S)	.82 (S)
Simple corr. coeff.				
<i>D</i> and <i>N</i>	.34	.68 (S)	.25	.77 (S)
<i>M</i> and <i>N</i>	.19	.26	.77 (S)	.68 (S)
<i>M</i> and <i>D</i>	.15	.58 (S)	.26	.60 (S)

Source: Table G-1.

Note: Standard errors of regression coefficients are shown in parentheses.

<sup>a</sup>The regression equation is  $N = aD + bM + c$  where*N*: year-to-year percentage change in number of new-automobile contracts.*D*: year-to-year change in percentage of contracts with down payment less than 33 per cent.*M*: year-to-year change in per cent of contracts with maturity twenty-five months or longer.*S*: significant at .05 level.