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Part I

FACTORS AFFECTING THE DEMAND FOR INSTALMENT SALES CREDIT

EACH factor that has been examined for its influence on the demand for instalment sales credit will be described in this section. However, no effort will be made at this point to indicate the relative strength of individual factors; rather the qualitative nature of their relationship to instalment credit demand will be discussed. Since consumers, in using instalment sales credit, are generally spending funds for durable goods, the factors that affect the demand for this type of goods are prominent among those that influence the demand for instalment sales credit.[5] Also, since the terms on which instalment sales credit is extended are not constant over time, these also are examined for their effect on credit demand.

Consumer Income

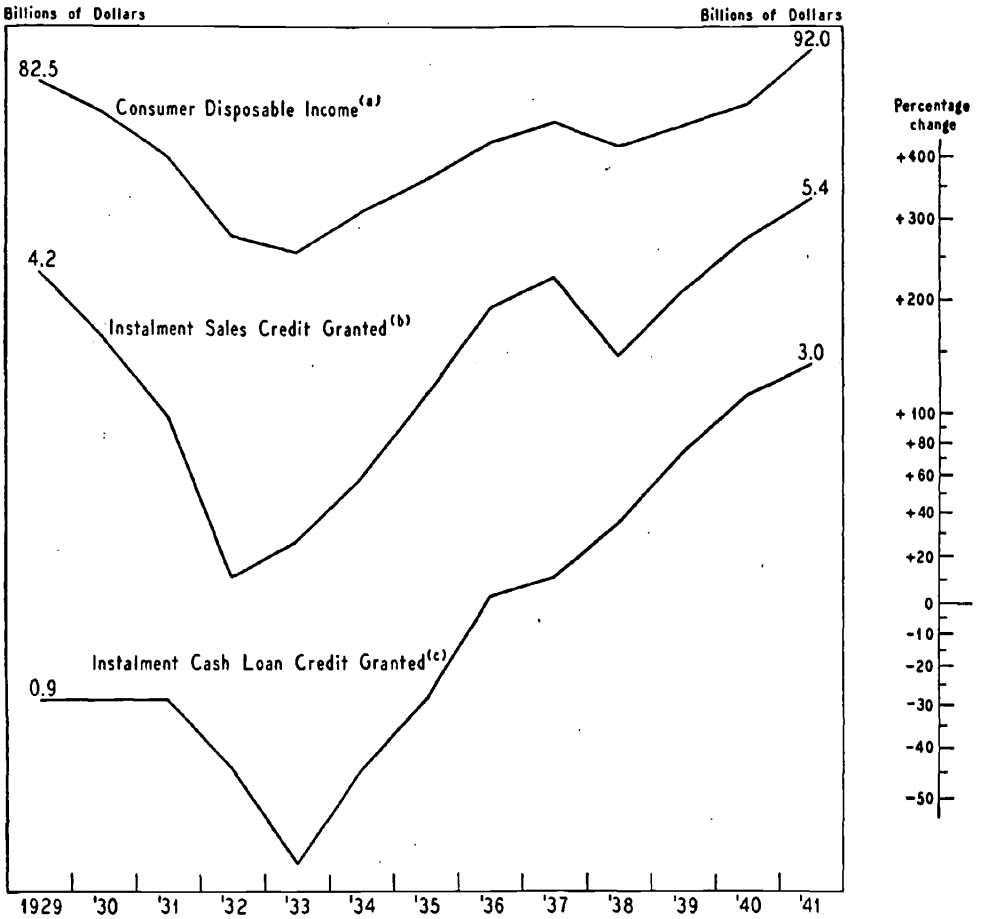
An analysis of the relationship between consumer income and the demand for instalment sales credit must begin with a consideration of the underlying relationship between income and the demand for durable consumer goods. Fundamental to this relationship is the fact that the proportion of their incomes which consumers spend on different types of goods varies in different phases of the business cycle. Expenditures on certain items of consumption—those of a high degree of urgency—are relatively stable over a business cycle, while expenditures on other goods—those of relatively low urgency—are highly volatile.[6] Since most

[5] In general the formal theory of individual demand is based on the assumption that the consumer allocates his income among the commodities that he currently purchases and those that he intends to purchase in the future (savings) in such a way that he maximizes his satisfactions (or preferences). According to this theory the maximization procedure is subject to the condition that current expenditures and savings are equal to the consumer's income. In the actual world the consumer's budget constraint is, however, more flexible. At any given period of time the consumer may spend more than his income through dissaving or through the use of credit. This means that actual consumer purchasing decisions and planning are made on the basis of a budget constraint including not current income alone but also salable assets and available credit. The maximization procedure based on a generalized budget constraint leads to a demand equation for instalment sales credit as a function of income, current prices of all goods, salable assets and interest rate which is assumed to form a link between current prices and prices of future goods.

[6] While the consumer tends to restore in a new expansion the consumption pattern of the previous expansion, the behavior is not necessarily symmetrical, there being some lag in the adjustment of expenditures to income. The degree of urgency among different expenditures at any given income level may be measured by the elasticity of expenditure with respect to income.

consumer goods sold on an instalment payment basis are durable goods of a low degree of urgency, the relationship between instalment credit and income may be expected to be affected by this pattern of consumer expenditures.

CHART 1 — Consumer Disposable Income, Instalment Sales Credit Granted, and Instalment Cash Loan Credit Granted, 1929-41
(logarithmic vertical scale)



Sources: (a) U. S. Department of Commerce, *Survey of Current Business;* (b) and (c) releases from the Division of Research and Statistics, Board of Governors of the Federal Reserve System.

Instalment sales credit fluctuates cyclically, as will be seen in Chart 1, in the same direction as consumer disposable income—i.e., personal income less taxes—but with a somewhat greater amplitude. This is due mainly to the fact that cyclical changes in income produce more than proportionate changes in the demand for durable consumer goods, and thus in the demand for instalment sales credit.[7] It may be observed,

[7] Elasticity of demand for durable consumer goods with respect to income was found to be high in the following studies: C. F. Roos and Victor von Szeliski, *The Dynamics of Automobile Demand* (General Motors Corporation, New York, 1939); Richard Stone, *The Analysis of Market Demand* (London, 1945) pp. 42-46; P. de Wolff, "The Demand for Passenger Cars in the United States," *Econometrica,* Vol. 6, No. 2 (April 1938) pp. 113-29.

however, that sizable increases in income may have the effect of encouraging cash rather than credit purchases, and the long-run effect of an income increase may be similar. Other factors, also, may affect the relation under consideration, but their influence will be discussed subsequently in the other sections of the study.

The demand for durable consumer goods, and thus the demand for instalment sales credit, would also be affected in its relation to fluctuations in total income by any tendency for individuals to spend a greater proportion of their incomes on consumption goods as incomes fall, and vice versa. However, available data do not indicate that instalment sales credit has acted as a buffer for a dwindling living standard during recessions. As a matter of fact, in the two recessions of the thirties consumers paid off more debt than they borrowed and, moreover, their cash purchases as compared with instalment sales credit purchases tended to increase. This may represent in part an increase during such periods in the relative importance of buyers in higher income brackets, who use less instalment sales credit, but it probably also reflects a tendency for consumers ordinarily using instalment sales credit to retrench on durable goods expenditures during periods of economic uncertainty.[8]

Finally, the aggregate demand for instalment sales credit depends on the distribution as well as on the level of income. Since individuals in different income groups may have different marginal propensities to spend, any substantial change in the shares of total income held by these groups will likely affect the demand for durable goods and instalment sales credit. Data for the fiscal year 1935-36 show that almost one-quarter of all nonrelief families in the United States were using instalment sales credit.[9] Of the families indebted on instalment account, 98 percent had incomes of less than $5,000 a year and approximately 92 percent had incomes of less than $3,000.[10] About one-quarter of the debtors received less than $1,000; almost one-half received $1,000 to $2,000; and another quarter received $2,000 or more per annum.[11] As measured by the net increase in instalment indebtedness during the period, families having

8 See Duncan McC. Holthausen in collaboration with Malcolm L. Merriam and Rolf Nugent, *The Volume of Consumer Instalment Credit, 1929-38* (National Bureau of Economic Research, Financial Research Program, 1940) Table A-6.

9 Although these data—taken from the Study of Consumer Purchases, a project of the Works Progress Administration—are subject to many limitations, they are the most comprehensive available.

10 Blanche Bernstein, *The Pattern of Consumer Debt, 1935-36* (National Bureau of Economic Research, Financial Research Program, 1940) p. 124. Data for 1941 are not fundamentally different from those observed in 1935-36, although of narrower coverage. See Reavis Cox, *Instalment Buying by City Consumers in 1941,* Bureau of Labor Statistics, Department of Labor, Bulletin No. 773.

11 In considering the relation between aggregate income and the volume of instalment sales credit one must take into account the fact that although families with incomes of $5,000 and more were responsible for a very small percentage of total demand for instalment sales credit, they received in that year 22.4 percent of the aggregate national income. Obviously, changes in aggregate income which are due to changes in incomes received by families with $5,000 and more cannot be expected to affect significantly the relation under consideration.

incomes above $3,000 used only slightly more than 10 percent of all instalment sales credit granted, and about 14 percent when credit use was measured by the gross increase in instalment debt. Families with incomes above $5,000 used 3.1 and 4.5 percent, respectively.

The frequency of use of instalment sales credit also varies in different income groups: 1935-36 data show that smaller proportions of the families with incomes under $1,000 and over $5,000 were using instalment sales credit than of the families with incomes between $1,000 and $5,000. Also, the average amount of credit used was found to increase rapidly with income but to constitute a diminishing proportion of income as income advanced.

Available data do not permit a direct answer to the question: How is the demand for instalment sales credit affected by cyclical fluctuations in the distribution of income? Some broad generalizations can nonetheless be made. An investigation of cyclical fluctuations in the distribution by size of family income for thirty-three cities suggests that an increasing proportion of total family money income goes to lower income groups during periods of expansion and a decreasing proportion during recessions.[12] These cyclical shifts are due to a tendency for incomes below, say, $2,000 to be more flexible than higher incomes, and this in turn reflects a greater incidence of unemployment, and greater fluctuations of wage rates, in the lower income groups.

These findings, when related to the distribution of instalment sales credit per income bracket, suggest that during the recessions of the recent past approximately 75 percent of all users of instalment sales credit concentrated in the income brackets below $2,000 were more affected by income decreases than the approximately 25 percent having incomes of more than $2,000. Since the users of instalment sales credit in the low income brackets tend to use more credit relative to their incomes than those in the higher income brackets, a fall in aggregate income will cause a disproportionate fall in the total volume of instalment sales credit extended, and an expansion will cause a disproportionate increase.

Liquid Asset Holdings of Individuals

The accumulation of liquid assets by individuals during World War II led to a greatly increased interest in the economic implications of such holdings. The aspect of this accumulation that is important to the present study is, of course, the question whether liquid asset holdings—which for this general discussion may be defined as consisting of currency, demand and time deposits, savings bonds, and public and private market-

12 Horst Mendershausen, *Changes in Income Distribution During the Great Depression* (National Bureau of Economic Research, 1946) p. 68. See also Simon Kuznets, *Shares of Upper Income Groups in Income and Savings* (National Bureau of Economic Research, Occasional Paper 35, 1950) pp. 39-44, especially.

able securities—influence the demand for instalment sales credit. The answer depends largely on the reasons for the accumulation of liquid assets, since some are held to meet current obligations and emergency situations (the so-called "transactions" and "precautionary" motives for holding balances of liquid assets), some as short-run savings to provide for deferred expenditures, and others as long-run savings.

To the extent that liquid assets are held because of the transactions or precautionary motive, the demand for durable consumer goods, and thus for instalment sales credit, is unaffected; but their accumulation to finance all or part of future purchases of durable consumer goods, that is, the "savings component" of liquid asset holdings, doubtless affects instalment sales credit demand. The nature of this effect, however, is not clear. The existence of accumulated liquid assets—when it means that the individual's purchasing power is greater than that provided by current income alone—may cause individuals to make full payments in cash when purchasing durable goods, or to make larger down payments than usual, and thus have the effect of diminishing the demand for instalment sales credit. On the other hand, it may increase the demand for credit by causing the consumer to spend a larger than usual proportion of his current income on consumption.

No *a priori* determination can be made of the nature of the effect of liquid asset accumulations on instalment sales credit demand without knowing the conditions under which the accumulations have been made and something about the strength of the savings habits of individuals. Likewise, the effect of a decrease in the savings component of liquid assets on the proportion of income spent is unclear. Nonetheless, some observations may be made on the relation between the use of instalment sales credit and the growth or decline of the savings component of liquid assets.

If they are to undertake an instalment sales debt at all, consumers ordinarily view the savings component of their liquid assets as a source of funds to meet down payment requirements rather than as a source of funds to meet instalment payments.[13] Accordingly, since additional purchases are likely to increase the individual's debt burden they will ordinarily be avoided except where current and anticipated income is thought to be adequate. In the short run, therefore, the demand for instalment sales credit is chiefly dependent on current and anticipated incomes. Thus, an accumulation of liquid assets can have a stimulating effect on demand by facilitating down payments, provided the expansion

[13] During World War II individuals were virtually forced to save an increased proportion of their incomes because of the unavailability of durable consumer goods. The National Survey of Liquid Assets for 1946 indicated that a large majority of consumers had no intention of using their liquid assets for any purpose in that year; individuals attached great importance to a continuation of saving and planned to finance their intended purchases out of current income. See *Federal Reserve Bulletin*, August 1946, p. 84.

is feasible in terms of the level of income. Contrariwise, a decrease in holdings of liquid assets, constituting a drain on funds usable for down payments, might, other things being equal, have a depressing effect on the demand for instalment sales credit.

One further point should be noted. Since, as indicated in the previous section, the use of instalment sales credit varies substantially in the different income groups, the effect of increased holdings of liquid assets on instalment sales credit demand cannot be correctly appraised without a knowledge of how these holdings are distributed among individuals. Factual information on this point was provided by the National Survey of Liquid Assets for 1946, conducted by the Board of Governors of the Federal Reserve System. In this survey liquid assets are defined as time and demand deposits and United States government securities. Although this definition differs from the one given at the beginning of this section, in excluding currency and private marketable securities, the survey data on liquid assets probably give a fair idea of the distribution of such holdings, however defined, among consumer spending units.[14] The 1946 survey showed that 60 percent of all liquid assets were held by the 10 percent of the spending units having the largest dollar amounts of liquid assets and that the 40 percent of the spending units having the lowest amounts of liquid assets held only 1 percent.

TABLE 1

DISTRIBUTION OF SPENDING UNITS AND LIQUID ASSETS BY INCOME CLASSES, EARLY 1946 [a]

Income Class	*Percent Total Spending Units*	*Percent Total Liquid Asset Holdings*	*Median Liquid Asset Holdings*
Under $1,000	20%	7%	$20
1,000 – 1,999	27	14	230
2,000 – 2,999	23	17	470
3,000 – 3,999	15	16	900
4,000 – 4,999	7	10	1,450
5,000 – 7,499	5	13	2,700
7,500 and over	3	23	7,270
All Income Classes	*100%*	*100%*	

[a] *Federal Reserve Bulletin,* July 1946, pp. 717-18.

Information on the average amount of liquid assets held by individuals in the different income classes is also available from the 1946 survey (Table 1). The important fact revealed by these data is that, while a substantial part of all liquid assets is held by individuals in the lower and middle income groups, where most of the users of instalment sales

14 A consumer spending unit is defined as "all persons living in the same dwelling and related by blood, marriage, or adoption, who pooled their incomes for their major items of expense." *Federal Reserve Bulletin,* June 1948, p. 634.

credit are found, the amount of liquid assets typically held by spending units in these income groups is not large. The typical (median) liquid asset holdings of more than three-quarters of all spending units in early 1946 were substantially less than the cost of a new passenger car. If we also take into account the fact that individuals' liquid asset holdings are intended for a variety of purposes, the funds available for cash purchases of durable goods will be smaller than is suggested by Table 1.

However, increases in the relative share of all liquid assets held by persons of modest income will probably be a factor favorable for the expansion of instalment sales credit and decreases will probably be an adverse factor. On the other hand, changes in the aggregate of liquid assets due to changes in the holdings of consumers in the upper income classes would probably have little effect on the demand for instalment sales credit because these individuals make very little use of such credit and probably would not change their pattern of expenditures on durables as a result of changes in their liquid assets.

The quantitative effect of liquid asset holdings on instalment sales credit demand is suggested by additional information obtained in the National Survey of Liquid Assets for 1946 in which it was found that among prospective buyers of durable goods ". . . three-fourths of the buyers with large amounts of liquid assets relative to their incomes intended to pay all cash. Thirteen percent of this group expected to borrow or use the instalment plan, while over 40 percent of the small holders would resort to instalment financing." [15]

The Availability of Cash Loan Instalment Credit

We may turn now to the effect of the availability of instalment cash loans on the demand for instalment sales credit. Presumably the availability of this type of credit, since it may be used as a substitute for instalment sales credit, exerts some influence on the use by consumers of the latter. That such a substitutive effect is exerted is evident in data which indicate that in the latter half of the thirties about 15 percent of all funds advanced to consumers on an instalment cash loan basis was used directly to finance purchases of durable goods.[16] Furthermore, data for the years 1929-41 reveal that consumers frequently borrowed to refinance debts and to consolidate other obligations. It is reasonable to assume that some of these borrowings were used to meet obligations incurred originally in the form of instalment sales credit. The rapid growth of cash instalment lending by commercial banks from a negligible amount at the end of the twenties to $750 million at the end of 1941—of which a part normally goes for the direct financing of purchases of

[15] *Federal Reserve Bulletin,* August 1946, pp. 848-49.

[16] M. R. Neifeld, "What Consumer Credit Is," *The Annals of the American Academy of Political and Social Science,* March 1938, p. 69.

durable consumer goods—indicates that an increasing proportion of the purchases of durable goods on a debt-incurrence basis is financed by direct cash instalment loans.[17]

There are insufficient facts available to determine whether instalment cash loan credit is more effective as a substitute for instalment sales credit in one phase of the business cycle than in another, but it is evident that fluctuations in instalment cash loan credit are less pronounced than those characteristic of instalment sales credit, as was shown in Chart 1.

Population Growth and Family Formation

Since durable consumer goods are more frequently purchased for family than for individual use, changes in family formation are more significant than changes in total population for an analysis of factors affecting the demand for instalment sales credit.[18] Marriage statistics show that people have a pronounced tendency to establish families at higher rates in periods of prosperity than in periods of depression; moreover, periods of prosperity induce family members to form new households. These increases in the number of consumer units, occurring without any substantial change in population, produce an increase in the demand for durable consumer goods and, thus, for instalment sales credit. However, cyclical fluctuations in family formation are to some extent a reflection of changes in income and it is therefore difficult to estimate the quantitative effect of fluctuations in family formation alone on instalment sales credit demand. The most that can be said is that although newly formed families represent only a very small proportion of existing families they probably contribute substantially to the total demand for instalment sales credit.

Differences in American families as regards size and age are also clearly related to the demand for instalment sales credit, but information on these differences is scanty. According to the 1941 survey of consumers' income and expenditures, family size is positively correlated with the proportion of the family units buying on instalment; on the other hand, the age of the head of the family is negatively correlated with the proportion of the units buying on instalment.[19]

Since changes in population and family formation are governed by a

17 *Federal Reserve Bulletin,* August 1946, p. 923.

18 Differences in the rates of increase of population and of families are indicated by the following figures from the *Statistical Abstract, 1946,* pp. 4 and 48:

	1900	1910	1920	1930	1940
		(percentage increase over preceding census)			
Population	20.7%	21.0%	14.9%	16.1%	7.2%
Families	25.8	26.9	20.2	22.8	16.9

19 See R. Cox, *op. cit.,* p. 9.

complex set of biological, social, economic, political, and cultural factors, they occur slowly and, consequently, may be reasonably assumed to exert mainly a long-run, or secular, influence on consumption. During the period under consideration both the number of families and the amount of instalment sales credit granted exhibited an upward trend. While the period studied is too short to warrant a firm generalization on this point, it may be interesting to note that when each of the credit granted series is divided by the population series the slopes of the upward trend of the credit series are only slightly reduced.[20]

Changes in Consumer Tastes and Habits

Presumably, the buying habits and preferences of individuals, and changes in these habits over a period of years, are relevant to an analysis of the factors influencing the demand for instalment sales credit. Not all individuals with sufficient income purchase durable goods to the same extent; and those who do buy them differ in the extent to which they are prepared to use instalment sales credit. A wider acceptance of instalment buying as a means of acquiring goods would increase the demand for instalment sales credit.

Evidence of changing consumer habits in this connection would be reflected, along with other factors exerting a similar influence, in data on the ratio of instalment sales credit granted to the total amount spent on new consumer durable goods.[21] The trend in the use of instalment sales credit in the purchase of new durable consumer goods is shown on Chart 2. It was rapidly rising during the period under consideration and reached its peak in 1940, the year before the introduction of Regulation W. According to our estimates, the instalment sales credit extended in 1940 was about 50 percent of the value of new durable goods purchased. Since the down payments for all new durable consumer goods averaged approximately 20 percent in that year and since some durable consumer goods are not sold on an instalment basis, either by business convention or consumer preference, it is evident that instalment sales credit was then reaching a very high level relative to total sales of new durable consumer goods.

Information on the extent to which instalment sales credit is utilized in the purchase of used durable consumer goods is available only for automobile financing, and even this evidence is incomplete and indirect.

20 When the slope of the curve representing ratios of instalment sales credit granted to consumer disposable income is compared with the slope of the curve representing numbers of families, a similar result is obtained.

21 Although it would be most appropriate to use a ratio of total instalment sales credit granted to the purchase value of both new and used durable consumer goods, the unavailability of data on purchases of used goods compels the use, as a substitute, of the ratio of total instalment sales credit to new durable consumer goods. Increases in this ratio may mean either that the use of instalment sales credit per dollar of purchased new goods has increased, or that relatively more credit is used for the purchase of secondhand durables, or both.

CHART 2 — Instalment Sales Credit Granted as a Percent of Total Durable Consumer Goods Purchased, 1929-41

Sources: Releases from the Division of Research and Statistics, Board of Governors of the Federal Reserve System; U. S. Department of Commerce, *Survey of Current Business.*

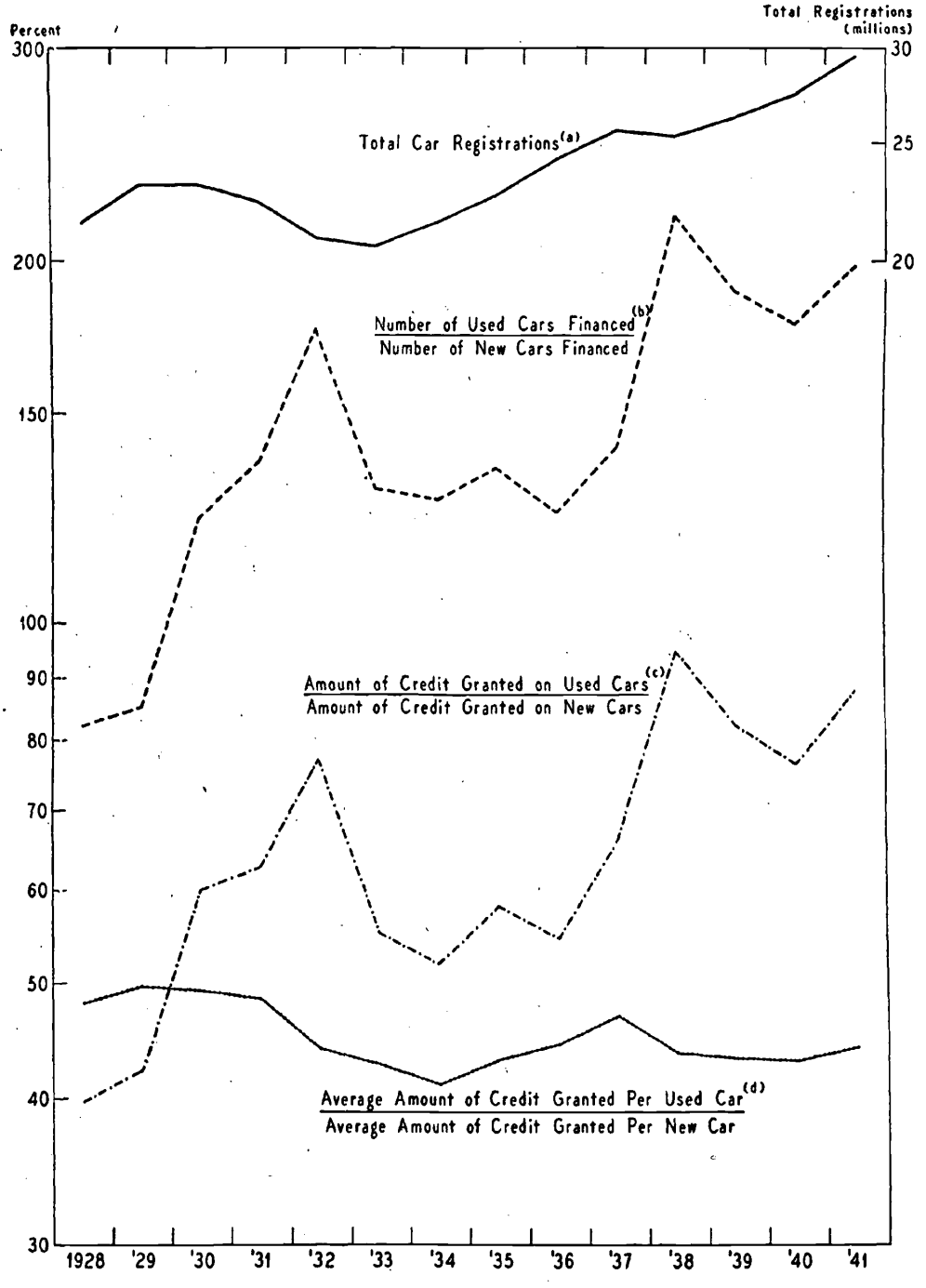
The percentage of used car to new car financing was 39.7 in 1928 and while it fluctuated somewhat in subsequent years it rose on the whole, reaching a peak at 94.9 in 1938 (Chart 3). Since total automobile instalment sales credit granted increased only slightly for the same period, these percentages suggest an increasing use of credit for the purchase of used automobiles. Additional evidence of an increased use of instalment credit facilities in purchasing used automobiles is provided by the fact that during the years 1928-41 the stock of passenger cars, as measured by registrations, increased 38 percent while the annual volume of credit granted on used cars increased 84 percent (Charts 3 and 4).[22]

Stock of Durable Consumer Goods

A full analysis of the problem must take into account the effect on the demand for instalment sales credit of changes in the stock of durable goods in the hands of consumers. This effect is complex and cannot be determined on *a priori* grounds. The magnitude of the stock affects the two components of total demand for durable consumer goods, namely, new demand and replacement demand. The ratio of new demand to total demand would be expected to decrease with increases in stock and, other things equal, one would expect new consumer demand for durables, and the collateral credit demand, to increase until the market was saturated and then to disappear entirely. On the other hand, replace-

22 The tendency of used car instalment sales credit transactions to increase faster than the stock of used cars is confirmed by data on the number of used cars sold on instalment. Used cars bought on instalment were 10 percent of registered passenger cars in 1928 and 13 percent in 1941, despite an increase of about eight million in the stock of cars during this period.

CHART 3 — Selected Data Relating to Automobile Instalment Sales Financing, 1928-41
(logarithmic vertical scale)



Sources: (a) Automobile Manufacturers Association, *Automobile Facts and Figures;* (b), (c), and (d) releases from the Bureau of the Census.

ment demand for consumer durables, and its collateral credit demand, would be expected to increase with increases in the existing stock and, after stock ceased to increase, to constitute the entirety of demand.[23]

A stock of durable consumer goods also exerts a cyclical influence on the demand for such goods and on the volume of instalment sales credit needed to finance it. When consumer income falls, new demand is drastically reduced and replacement demand also falls as consumers postpone purchases. Furthermore, consumer decisions may be affected by the uncertain outlook characteristic of a period of declining income as well as by an actual decline in income. On the other hand, a favorable prospect or a rise in incomes releases an accumulated backlog of demand for consumer durable goods, the magnitude of which is influenced by such factors as the size and age distribution of the stock of goods.

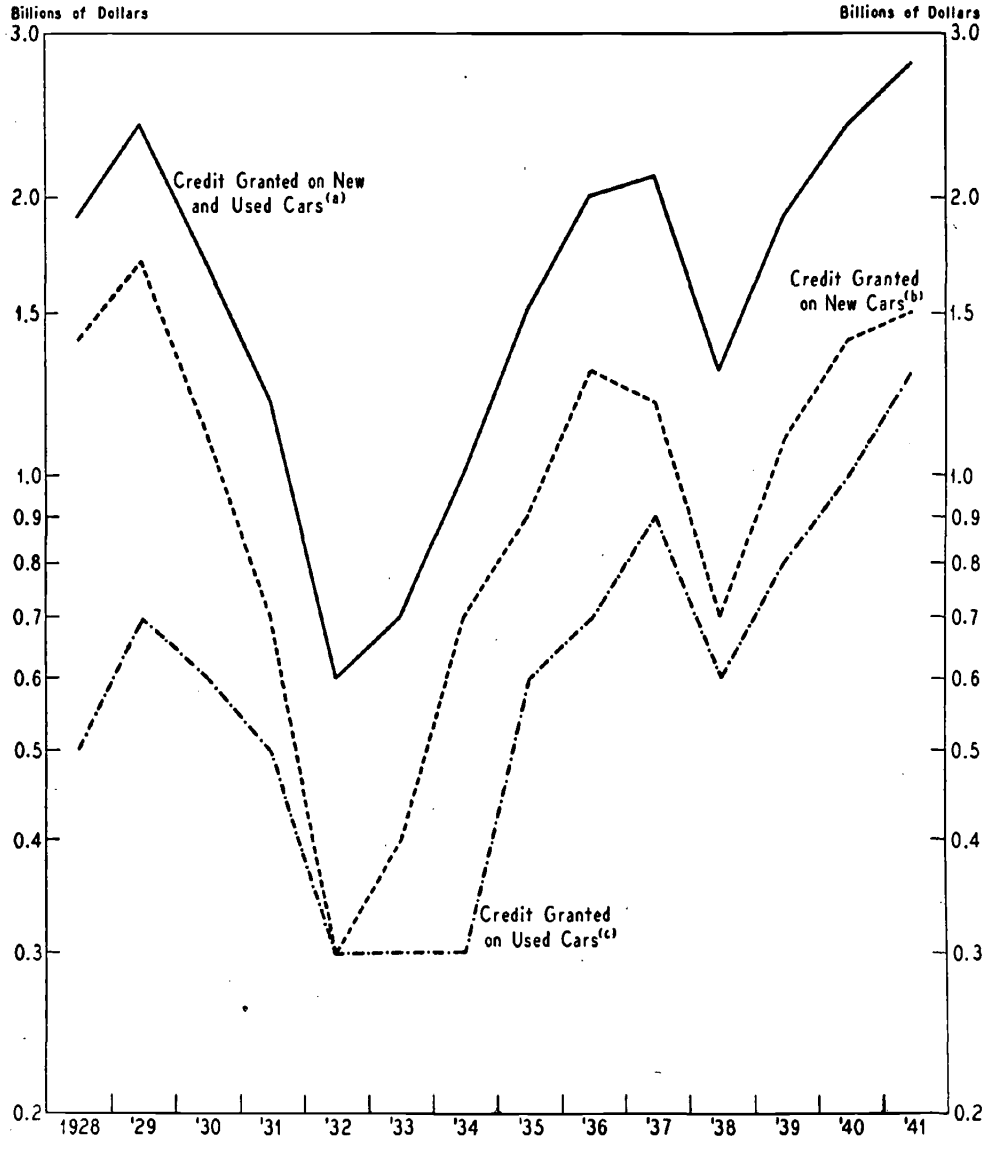
Divergent trends over the period 1928-41 in the amount of credit granted on new and on used cars are reflected indirectly in Chart 3 and directly in Chart 4. The curve of total automobile financing shows no pronounced trend over this period, but the ratio of the number of used cars financed to the number of new cars financed rose. This latter tendency is partly due to the increased stock of cars in the hands of the public, which in turn is partly traceable to additions of cars and partly to the lengthening of the average life of cars. Also, the proportion of new cars bought for cash increased, owing in large part to the concomitant increase in consumer holdings of liquid assets and to the predominance of replacement demand and the improved possibility that the latter condition presents for new car buyers to use the trade-in value of their used cars for the purchase of new ones.[24] The years 1928-41 also witnessed an increasing tendency for individuals to finance purchases of cars by borrowing cash on an instalment repayment basis. Since cash loans of this type are ordinarily restricted to persons intending to buy new cars, this practice may also have been partly responsible for the rise in the ratio of used car financing to total automobile financing.

[23] If the stock of a durable commodity is large, even a small replacement demand for new goods may be accompanied by a considerable number of transactions in used commodities since replacement induces a downward shifting of used goods from one level of income recipients to another. This process will be reflected in the volume of instalment sales credit demand if the commodity concerned has been largely purchased on that basis.

[24] More than 85 percent of all new car purchases during the years 1935-38 involved the trade-in of a used car; the ratio of used cars traded against other used cars varied from 51 to 59 percent over this period, but since these percentages exclude scrapped cars they are smaller than they should be.

The accumulation by individuals of durable consumer goods that are currently traded is equivalent to an accumulation of liquid assets and, as such, is a factor in purchasing decisions. If the value of such goods is high, the difference between the cost of new goods and the trade-in value of used goods may be so small that consumers who would otherwise use credit may find this unnecessary. Thus, the accumulation of consumer stocks of durable goods may have the same kind of influence on instalment sales credit demand as the accumulation of liquid assets.

CHART 4—Instalment Sales Credit Granted on New and Used Automobile Purchases, 1928-41
(logarithmic vertical scale)



Sources: (a) Release from the Division of Research and Statistics, Board of Governors of the Federal Reserve System; (b) and (c) estimated from data on automobile financing released by the Bureau of the Census.

Finally, cyclical factors affecting the demand for instalment sales credit appear to have a differential effect on new and used car financing. As Chart 3 shows, cyclical fluctuations are more marked in new than in used car financing. New car financing fell to a very low level in 1930-32, and most of the cars purchased were probably for replacement. Many individuals who might otherwise have purchased new cars bought used cars during these years; since this demand could be absorbed in

part from dealers' stocks of used cars, no increase in new car purchases was necessary. The reverse is probably true in periods of expansion.

Prices of Durable Consumer Goods

Statistical studies of the demand for durable consumer goods have shown that, in general, cyclical changes in the prices of the goods concerned have not been great enough to offset cyclical swings in consumer income. Moreover, it may be presumed that the availability of instalment credit modifies the influence of the price factor on demand. It is likely that most time-sales purchasers of durable goods attach more importance to the size of the monthly instalment payment than to the total price of the commodity. For the consumer anxious to obtain possession of a desired commodity, the addition of a few more monthly instalments, coming as they do in the not too immediate future, or a small increase in the amount of each instalment, is probably of no great significance. So it is not likely that in the short run, except for a relatively large change, prices would greatly affect consumer buying decisions. However, the general decrease in the prices of consumer durable goods that occurred in the period between the first and second World Wars probably did increase the demand for these goods and account in part for the increased demand for instalment sales credit which occurred over this period.[25] It should be observed, however, that most of the consumers using instalment sales credit have modest incomes, and significant changes in the prices of durable goods relative to the prices of nondurable goods may be expected to affect consumer purchasing decisions.

Finance Charges

The cost of instalment sales credit—the difference between a commodity's cash and time-sales price—is ordinarily referred to as the "finance charge"; in most instances it provides for insurance and special loss reserves as well as for the credit service. When expressed in percent of the unpaid principal balance, the finance charge is generally high as compared with the interest rates on loans for nonconsumption purposes and so might be presumed to affect consumption. Its actual effect in this connection, however, is questionable. Reduced interest rates might encourage some consumers to spend a higher proportion of their incomes, but others might decrease their spending and increase savings. It is likely, however, that the great majority of individuals would not react in either way to moderate changes in interest rates.

[25] In the case of automobiles the consumer presumably takes account of operating cost as well as price. C. F. Roos and V. von Szeliski (*op. cit.*, pp. 69-71) found that car operating costs are highly correlated with automobile prices and, therefore, can be well represented in the demand function by proxy; operating costs are of little significance on most other goods. Operating costs probably have a secular rather than a cyclical influence on the demand for durable consumer goods.

The likelihood of interest rates affecting consumption is perhaps increased somewhat by the use of instalment credit, since a higher interest rate increases both the premium on saving and the price of current consumption goods, but even this is a remote possibility. The differential between the effective interest rate component of the finance charge and the rate paid on savings is wide and changes in it are not likely to be of practical significance. Furthermore, experience indicates that the elasticity of demand for instalment sales credit with respect to finance charges is very low. This unresponsiveness may be partly attributable to the fact that many credit users are not wholly aware of what they are paying for the credit service, but it is mainly due to the fact that the cyclical changes that are likely to occur in finance charges are relatively small and can have, therefore, only very little effect on the amount of the required monthly payments. For example, if the effective interest rate were increased from 6 to 18 percent annually, the required monthly payments on a fifteen-month contract would increase by only 0.55 percent on the original unpaid balance.[26] An increase of this magnitude, though large in terms of the interest rate change, is unlikely to alter the purchasing plans of many consumers.

Instalment Sales Contract Terms: Down Payment and Contract Length

While changes in the level of finance charges are not likely to exert a significant effect on the demand for durable consumer goods, nor on the demand for instalment sales credit, there would seem to be a strong *a priori* case that changes in the down payment required under instalment contracts and in the length of the period over which repayments must be made—the "contract length"—do exert a significant influence on credit demand. An increase in the down payment requirement would be expected, other factors remaining constant, to have a contractive effect on instalment sales credit demand by reducing the amount of credit required for a given purchase, and eliminating some potential credit purchasers from the market. An opposite effect would be expected from a lowering of down payment requirements. Likewise, a shortening of the contract length would be expected to reduce instalment sales credit demand, other things equal, by increasing the amount of each required monthly payment and thus eliminating some potential buyers; an extension of the contract length would increase credit demand.

Since the terms of the credit contract are designed primarily to protect the lending agency, they exhibit a certain stickiness reflecting the

[26] Under the specified conditions, the monthly payment required on an original unpaid balance of $100 is increased from $6.94 to $7.49. The difference represents 0.55 percent of the original unpaid balance.

past experience of lenders in the field who, not being able to evaluate risks precisely, act conservatively. Necessarily, credit terms also reflect the competitive conditions of the market, and would be expected to vary in accordance with changes in economic conditions and prospects. In fact, actual changes in credit terms for the period studied have been, in a sense, small adjustments from a "standard" level of terms and, furthermore, they appear to follow no regular or systematic cyclical pattern.[27]

Available data point to a distinct stability in automobile down payment requirements and to a trend toward lower down payment requirements in diversified financing. The significance of the change in automobile financing terms is affected by the fact that 85 percent of all new car financing in the period under consideration, and more than half of all used car financing, involved a trade-in, which permits the inference that, for the great majority of buyers, the down payment requirement was a relatively unimportant constraint on purchasing.[28] The importance of the down payment for first buyers would be greater, of course, having to be paid out of accumulated savings. In diversified financing, on the other hand, the down payment requirement is such a modest one that even though trade-ins are infrequent the cyclical relaxation of terms was probably not of great importance as a determinant of demand.

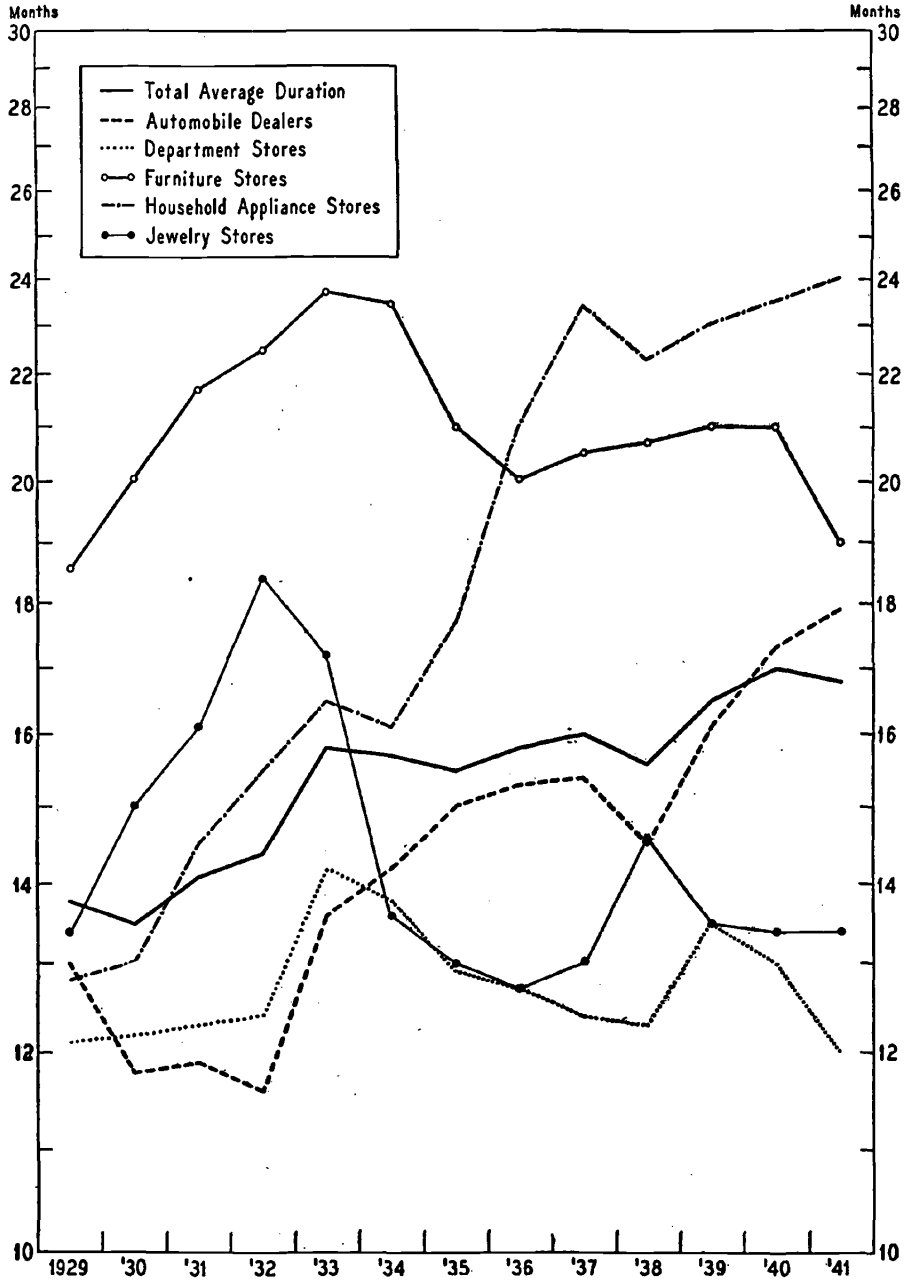
Except for some shortening of contract length in automobile financing in the two recessions of the thirties, there was no pronounced pattern of cyclical behavior in this element of credit terms; however, there was a clear upward trend over the period under consideration for all contracts combined (Chart 5). Unfortunately, the data in Chart 5, except for that on automobiles, refer to the average duration of all outstanding contracts and not to the average duration of written contracts, a fact which limits their use in the study of consumer decisions. Nevertheless, the chart does clearly indicate that the lengthening of the contract period over the thirties could have been, and probably was, a factor contributing to the expansion of instalment sales credit over those years.

[27] See Gottfried Haberler, *op. cit.*, p. 95.

In 1941 the Board of Governors of the Federal Reserve System introduced Regulation W, the purpose of which was to reduce the purchasing power available to consumers through instalment credit and thereby (a) to divert resources from the industries producing durable consumer goods to those producing defense materials and (b) to check inflation. It was sought to do this through the tightening of credit terms. Although Regulation W was in force for more than five years, and coincided with the fall in the demand for instalment sales credit, it is still open to question whether this fall in demand for credit was due to the stringent credit terms or to the severe shortage of durable consumer goods.

[28] *Composite Experience of Sales Finance Companies and Automobile Dealers—1938,* released by the National Association of Sales Finance Companies, Chicago, 1938.

CHART 5 — Average Contract Length in Automobile and Other Instalment Sales Financing, 1929-41
(logarithmic vertical scale)



Source: Release from the Division of Research and Statistics, Board of Governors of the Federal Reserve System.