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The Market for Sales Finance Credit

THROUGH the facilities afforded by sales finance companies an army of new credit users came into the credit system within a short span of time; many others who had already made use of credit were encouraged to go into debt more extensively than formerly. Why was there this sharp increase in the practice of purchasing on the deferred payment plan? Who are these users of instalment credit? What are their economic circumstances? What kinds of goods do they buy on the instalment plan and how much do they pay for them? How much of their future income is tied up by instalment debt? These are a few of the numerous questions that might be asked about the millions of people who buy many millions of articles annually on the instalment plan and create the demand for the services of sales finance companies; some of the questions can be answered and some cannot.

INCREASE IN THE DEMAND FOR SALES FINANCE SERVICES

The majority of the sales finance companies now in existence were organized in the period from 1915 to 1929. Many factors combined to produce the expansion of instalment selling which took place in that period.

In earlier days, when the country was predominantly rural and agricultural, the retailer was frequently obliged to carry his customers until after harvest. Consumer goods

were bought extensively on what is known as book credit or open credit, the debt being paid off in whole or irregularly in parts at the convenience of the debtor, without carrying charge. But with the change from rural to urban, from agricultural to commercial and industrial life, with an increasing number of workers receiving their incomes regularly on a weekly or monthly basis, such a personal system of credit extension—which, in fact, did not have a great deal of system in it—had to be replaced by impersonal arrangements, providing for orderly methods of payment.

But the instalment system, as regularized in the sales finance company, did not merely replace, or supplement, other forms of credit. It also filled a need that had not hitherto been cared for, except meagerly and often at exorbitant rates. The people who found it difficult or impossible to save in anticipation of expenditure, but could discipline themselves to a regimen of periodic payments, were not willing, in large numbers, to pay the high charges that characterized instalment financing in its earliest days. Thus when credit facilities began to be widely available at more satisfactory rates there was an already existent demand for them which contributed to their still further development. A progressive liberalization of contract terms, stretching out payments over a longer period, characterized the rise of the business and enabled increasing numbers of lower-income buyers to provide for monthly instalment payments among their expenditures.

An important factor in this extension of sales finance company services was the invention and manufacture of certain new commodities, such as the automobile, electric washing machine, vacuum cleaner, radio, mechanical refrigerator and gas and electric range, which had a strong appeal to consumers. The possibility of owning these relatively expensive articles, and using them while they were being paid for, attracted many buyers who might never have acquired

such commodities if they had had to save the full cash price before buying. Moreover, it was not until instalment buying was introduced into the automobile industry that consumer debt became respectable. Instalment purchasing of automobiles was at first more common among higher than among lower income groups, and this, in conjunction with the prestige value of the articles bought, did much to free instalment purchasing from the social stigma which had formerly attached to it.

It should not be overlooked that the introduction of such new commodities onto the market was accompanied by an aggressive selling campaign, specifically pointing out the ease of obtaining relatively expensive commodities by use of the deferred payment plan. It was recognized by manufacturers and dealers as well as by sales finance companies that a widespread acceptance of the plan would prove a great stimulus to sales, and since the commodities were standardized, of fairly high unit price, relatively durable and resalable at second hand, the credit risk was minimized. At the present time whole industries rest upon the instalment system, and have reached their present volume largely because of it.

But these various influences could not have operated so strongly as they did, had it not been for the concurrent rise in the money and real incomes of the wage-earning and salaried classes of the country.[1] This increasing income meant that people could buy and pay and consume more than formerly on any terms of sale. Larger incomes, both actual and prospective, and the optimism they engender, make consumers more willing to borrow and lenders more willing to lend. Thus, in short, not only were new credit facilities provided by the development of finance companies, but also increasing real income gave consumers sufficient pur-

[1] See National Bureau of Economic Research, *Economic Tendencies in the United States,* by Frederick C. Mills (1922) pp. 477-79.

chasing power to meet instalment obligations, including finance charges, as they came due.

Throughout its development both the advocates and the critics of the system have generally agreed that a widespread expansion in instalment selling brings about a diversion of purchasing power; it is held that when individuals pledge their future income for goods suitable to the instalment plan they are obliged to buy less clothing and food or fewer articles of a luxury or semi-luxury nature than they would otherwise buy, and that the payment of a finance charge for the privilege of deferring payment means that fewer dollars are left for other expenditures. There has been disagreement, however, on the desirability of this change. The defenders of instalment selling have contended that if individuals were not making payments on furniture, vacuum cleaners, electric refrigerators, washing machines—all highly useful and relatively durable commodities—they would probably be spending their odd dollars for theater entertainment or luxuries of which they could have only temporary enjoyment. Others have been less sanguine about the implications of widespread instalment buying, in the belief that the resulting diversion of purchasing power warps the structure of production and adversely affects standards of consumption by encouraging extravagant, or at least unwise, expenditure.

FAMILY INCOMES AND OCCUPATIONS OF INSTALMENT DEBTORS

On the basis of data from the Study of Consumer Purchases,[2] a collaborative survey of expenditures of 60,000 non-

[2] A Works Progress Administration project conducted by the United States Bureau of Labor Statistics and the Bureau of Home Economics in cooperation with the National Resources Committee and the Central Statistical Board. For a complete analysis of these data see National Bureau of Economic Research, Bulletin 76-77 (1939), *The Statistical Pattern of Instalment Debt*, by R. A. Young and Blanche Bernstein.

relief families during the year 1935-36, conducted by several agencies of the federal government, it is possible to delineate broadly the market that is served today by retail instalment credit. On the original survey schedule the information to be obtained from each family referred only to *net change* in retail instalment debt during the year, and not to the current existence of, or to the total amount of, such debt. Therefore the use of instalment credit, that is, the total number of families indebted during the year for the time-purchase of retail goods, cannot be estimated accurately from Consumer Purchases data, because they do not account for instalment credit of relatively short duration (credit contracted and paid off within the terminal points of the schedule year). But since the commodities whose purchase underlies instalment debt are most often sold on fairly long contracts it would seem unlikely that the number of families having a net change in retail instalment debt in 1935-36 greatly underestimates the number of families indebted for instalment purchases in that year. For this reason it has been considered justifiable, in the following discussion, to use occasionally the looser terminology of "debtor families" and the like, instead of more accurate but more cumbersome phrases such as "families having a net change in debt."

According to estimates that we have derived from this survey, presented in Table 10, approximately 5,877,000 families had a net change in retail instalment debt during the year 1935-36. This number represents nearly one-fourth of all the families in the United States that were not on relief at that time. In the aggregate their increases in instalment indebtedness exceeded their decreases by nearly $408,000,000.

There was striking variation in the frequency of debt within the various family income groups. Instalment debt was least prevalent in the lowest income group tabulated—non-relief families with annual incomes under $500—but

TABLE 10

PERCENT OF NON-RELIEF FAMILIES HAVING A NET CHANGE IN INSTALMENT DEBT, AND PERCENTAGE DISTRIBUTION OF THESE FAMILIES, OF ALL NON-RELIEF FAMILIES, AND OF THE NET INCREASE IN INSTALMENT DEBT, 1935–36, BY ANNUAL FAMILY INCOME[a]

Annual Family Income[b]	*Families Having a Net Change, per 100 Non-Relief Families*	*Percentage Distribution*		
		Net Increase in Debt	Families Having a Net Change	All Non-Relief Families
Under $500	12	3.7	5.3	10.6
500–1000	19	14.8	20.2	24.7
1000–1500	26	24.2	26.5	24.0
1500–2000	30	23.5	21.0	16.4
2000–2500	30	15.5	12.2	9.5
2500–3000	29	8.0	6.5	5.2
3000–4000	24	5.5	4.8	4.8
4000–5000	22	1.7	1.5	1.6
5000 & over	15	3.1	2.0	3.2
TOTAL	24	100.0 ($407,600,000)	100.0 (5,877,000)	100.0 (24,913,000)

[a] Based on data from the Study of Consumer Purchases, conducted by agencies of the federal government. Data on "All Non-Relief Families" from National Resources Committee, *Consumer Incomes in the United States* (1938) Table 8, p. 25.

[b] Each level is inclusive of the lower figure and exclusive of the higher.

even in this group 12 percent of the families reported a net change in instalment debt during the period studied. From this level for the lowest income groups the proportion rose steadily as income increased, until it reached the level of 30 percent, or nearly one family out of three, among income groups receiving from $1500 to $2500 a year. Families with incomes above $2500 made progressively less use of instalment credit facilities. That the actual use of this type of

credit is nevertheless fairly widespread even among the highest income groups is demonstrated by the fact that 15 percent of the families with incomes of $5000 or more showed a net change in their instalment indebtedness in 1935-36.

Despite the disposition of a great number of families among the higher income groups to make use of instalment financing, the great bulk of the instalment business is concentrated among families with annual incomes of less than $3000. This concentration merely reflects the well-known fact that families with annual incomes of $3000 or more constitute a relatively small proportion of all families of the country. Table 10 indicates that in 1935-36 families with incomes of less than $3000 constituted about 90 percent of the total number of non-relief families and accounted for about 90 percent both of the number of families having a net change in instalment debt during that time and of the total net increase in that debt. It also indicates that families with annual incomes between $1000 and $3000 accounted for 66 percent of the instalment debt families and for 71 percent of the net increase in debt, despite the fact that they constituted only 55 percent of the total number of non-relief families. The fact that 90 percent of instalment debtor families received annual incomes of less than $3000 accounts in large part for the development of sales finance companies as specialized institutions apart from the commercial banks. In the field covered by retail instalment financing the amounts advanced on individual notes are relatively small, and the periodic monthly repayments much smaller still. To grant credit safely and efficiently under these conditions required the development of specialized techniques adapted to the mass handling of thousands of small risks.

Because the facilities for instalment credit have been evolved to meet the needs of families having a regular flow of income, the use of this kind of credit is much more characteristic of urban than of rural residents. In the North

Central region, for example, approximately 70 percent of the families that had a net change in instalment debt during 1935-36 were urban dwellers. Almost all income classes showed the greatest frequency of instalment debt (percentage of non-relief families having a net change in debt) in large cities, while small cities, middle-size cities and villages ranked next in the order mentioned; farm families exhibited the lowest relative use of instalment credit. Only the metropolitan centers constituted an exception to this correlation between the degree of urbanization and the frequency of the use of instalment credit: in spite of the fact that metropolises represent the highest degree of urbanization they ranked between villages and farms in the relative frequency of instalment indebtedness.[3] This is probably due partly to the well-known fact that traffic congestion in the large metropolitan centers has reached the point where it has affected the ratio of automobile ownership to population.

The data indicate also the regional differences in family instalment debt, and the main types of commodities acquired through its use. One-third of all non-relief families in the Pacific region were indebted for instalment purchases, in the North Central region one-fifth, and in the other regions one-fourth. For almost a third of the debtor families the changes in instalment debt resulted from purchases of furniture, for two-fifths they resulted from purchases of electric refrigerators, radios and "other electric equipment," for one-fifth from automobiles, and for one-tenth from miscellaneous commodities, according to estimates based on data from larger centers—metropolises, large cities and middle-size cities. The distribution of debt volume, however, as opposed to the number of debtor families, was quite different, for automobiles were by far the greatest single source

[3] Metropolises are defined as centers with 1,500,000 population and over; large cities, 100,000 to 1,500,000; middle-size cities, 25,000 to 100,000; small cities, 2,500 to 25,000; villages, less than 2,500.

of instalment debt change, expressed in dollars, being responsible for almost three-fifths of the net increase in such debt; electric refrigerators, radios and other electric equipment originated just under a third, and furniture and miscellaneous purchases the balance. For furniture, refrigerators and radios debt frequency was highest in the South; the highest debt frequency for automobiles and miscellaneous goods occurred in the Mountain-and-Plain region and for "other electric equipment" in the Pacific region.

In the $1000-3000 annual income levels the percentages of non-relief families having a net change in debt were greater for electric equipment than for any other type of commodity; they were exceeded, below the $1000 level, by those for furniture and, above the $3000 level, by those for automobiles. This frequency is corroborated by the data in Table 11 regarding the income distribution of the debtor families. It is clear from this table that the families indebted for automobiles were concentrated mainly in the $1000-4000 income levels, whereas those indebted for other commodities were concentrated mainly in the $500-2500 levels (although refrigerator debtors were relatively infrequent in the income classes below $1000, and 10 percent of the debtors for "other appliances" had incomes of $2500-3000). The net increases in debt for the various commodities were distributed in much the same way, except that 10 percent of the net increase in automobile debt was incurred by families with incomes over $5000, and the net increase in furniture debt was mainly in the $500-2000 levels.

The greater frequency of instalment buying among urban than among farm families is reflected, of course, in the occupational composition of instalment debtors. Thus only 12 percent of the non-relief families having a net change in instalment debt during 1935-36 were farm families, though farming was the principal source of income for 25 percent of all non-relief families. A larger proportion of instalment

TABLE 11

PERCENTAGE DISTRIBUTION OF NON-RELIEF FAMILIES HAVING A NET CHANGE IN INSTALMENT DEBT FOR SIX TYPES OF COMMODITIES AND OF THE NET INCREASE IN SUCH DEBT, 1935–36, BY ANNUAL FAMILY INCOME[a]

Annual Family Income[b]	*Families Having a Net Change in Instalment Debt*						*Net Increase in Instalment Debt*[c]					
	Automobiles	Furniture	Electric Refrigerators	Radios	Other Appliances	Miscellaneous	Automobiles	Furniture	Electric Refrigerators	Radios	Other Appliances	Miscellaneous
Under $500	.2	5.9	.5	4.3	2.2	3.9	.1	7.1	.5	5.1	.1	2.0
500–1000	6.1	22.4	8.7	25.7	13.1	20.7	2.5	16.4	11.1	22.4	15.1	14.5
1000–1500	16.8	26.8	24.9	30.0	28.4	28.3	13.4	39.5	29.2	33.2	26.2	20.9
1500–2000	22.7	20.4	30.5	22.0	23.4	19.7	26.9	38.0	30.5	17.5	24.7	18.9
2000–2500	20.3	11.4	17.9	10.1	13.8	12.1	20.7	6.5	18.1	9.6	17.5	18.5
2500–3000	13.5	6.7	8.6	3.6	10.1	5.6	12.7	1.2	5.5	6.0	8.0	8.8
3000–4000	11.0	4.3	6.4	3.1	5.7	5.5	9.9	1.2	4.6	5.4	7.1	11.2
4000–5000	3.5	1.2	1.8	.7	1.7	2.1	3.6	[d]	[e]	.2	1.0	4.7
5000 & over	5.9	.9	.7	.5	1.6	2.1	10.2	[d]	.8	.6	.3	.5
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0[d]	100.0[e]	100.0	100.0	100.0

[a] Based on data fom the Study of Consumer Purchases, conducted by agencies of the federal government. These figures pertain only to metropolises, large cities and middle-size cities.

[b] Each level is inclusive of the lower figure and exclusive of the higher.

[c] Gross increase minus gross decrease.

[d] This total is actually 109.9 percent because in the $4000-5000 income level there was a net decrease of 3.8 percent and in the income level of $5000 and over there was a net decrease of 6.1 percent.

[e] This total is actually 100.3 percent because in the $4000-5000 income level there was a net decrease of 0.3 percent.

debt families than of all non-relief families belonged in the wage-earning group—47 and 38 percent respectively; and the same was true for all other occupational groups combined—41 and 37 percent respectively. But if farm families are disregarded these proportions become almost identical: the wage-earning group is found to contain 53 percent of the debtor families and 51 percent of all non-relief families living in urban communities.

As is evident from Table 12, of all wage-earning non-relief

TABLE 12

OCCUPATIONAL GROUPING OF NON-RELIEF FAMILIES HAVING A NET CHANGE IN INSTALMENT DEBT, 1935–36, BY ANNUAL FAMILY INCOME[a]

Annual Family Income[b]	*Occupational Grouping of Debtor Families Per 100 Non-Relief Families*		
	Farming	Wage-Earning	Other Groups[c]
Under $500	8	15	14
500–1000	10	26	19
1000–1500	12	32	28
1500–2000	14	37	31
2000–2500	17	34	31
2500–3000	18	33	30
3000–4000	13	32	24
4000–5000	15	[d]	22
5000 & over	17	[d]	16
TOTAL	12	30	26

[a] Based on data from the Study of Consumer Purchases, conducted by agencies of the federal government. A family's occupational grouping is determined by the occupation of the person who is the chief source of family earnings. If that person is a wage-earner the family is classified in that group, even though other members of the family may have a different occupational status.

[b] Each level is inclusive of the lower figure and exclusive of the higher.

[c] Includes professional and business occupations, whether salaried or independent, and clerical occupations.

[d] Data not available.

families 30 percent had a net change in instalment debt during 1935-36, and of those in other non-farm occupations, 26 percent. In contrast, only 12 percent of the non-relief farm families had a net change in instalment debt. Among wage-earners debt frequency was above average in all income levels between $1000 and $4000, but among other non-farm occupations it was above average only in the $1000-3000 levels.

ECONOMIC CIRCUMSTANCES OF SALES FINANCE COMPANY CUSTOMERS

While the foregoing data depict fairly well the market for retail instalment credit, they do not delineate exactly the market for the services of sales finance companies. For one thing, not all commodity fields pervaded by instalment selling are extensively served by sales finance companies; in the time selling of furniture, for example, dealers most frequently carry their retail instalment paper themselves. Also, sales finance companies deal in the first instance with retailers, and it is the latter who are the initial grantors of credit to consumers. In general finance companies handle paper of buyers of all income ranges, but they may reject individual transactions for some disqualifying feature, such as the low income status of the buyer, particularly when the worth of the dealer's endorsement is in question.

Specific data on the economic circumstances of sales finance company customers are available from only two sources, one a large sales finance company which has periodically made factual studies of its retail automobile customers, and the other the Electric Home and Farm Authority, which has made a special tabulation of a sample of its appliance customers. Neither of these sets of data is employable without qualification. In the first place, they represent the incomes of individual buyers and not family incomes, even

though the income of other members of a family, as well as of the purchaser, may be available for meeting the contracted instalment payments. And in the second place, the data, based on income reports made by customers at the time of credit application, have not been verified by the companies, since both companies, in purchasing retail instalment paper, provide for dealer repurchase in the event of repossession. The private finance company has stated that it is not confident of the reliability of the reports, and EHFA has similarly evaluated its data, declaring it has found from experience that customer income reports on credit applications are more likely to be overstatements of actual income than understatements. But such data as these, in spite of their limited reliability, are both a complement and a supplement to those already presented.

Incomes of Automobile Customers

The automobile customers of the private sales finance company are located in all regions of the country and live in communities of all types and sizes. Table 13 compares their percentage distribution by income levels, 1934, with that of urban non-relief families having a net change in debt for the purchase of automobiles, 1935-36, and also with that of all urban non-relief families. The distribution of the sales finance company's customers shows a much heavier concentration in the $500-1500 income levels and a lighter concentration in the $2000-4000 income levels than does the distribution of instalment debtor families. This difference is partly ascribable to the fact that the data pertain to different years, but more largely to the fact that the income data of the sales finance company customers cover individual rather than family incomes and include single individuals, who are of course excluded from the family data. As to the latter point, it is to be noted that the distribution of the finance company's married customers is slightly

TABLE 13

PERCENTAGE DISTRIBUTION OF A LARGE SALES FINANCE COMPANY'S AUTOMOBILE INSTALMENT CUSTOMERS, 1934, OF URBAN NON-RELIEF FAMILIES HAVING A NET CHANGE IN AUTOMOBILE INSTALMENT DEBT, 1935–36, AND OF ALL URBAN NON-RELIEF FAMILIES, 1935–36, BY ANNUAL INCOME

Annual Income[a]	*Sales Finance Company Customers*[b]				*Urban Non-Relief Debtor Families*[c]	*All Urban Non-Relief Families*[d]
	All Customers	Married Customers	New-Car Customers	Used-Car Customers		
Under $500[e]	1.6	1.2	.3	2.4	.2	5.3
500–1000[e]	13.6	11.1	5.0	18.9	6.1	20.2
1000–1500	22.6	20.8	14.5	27.6	16.8	26.5
1500–2000	22.2	22.1	19.2	24.0	22.7	21.0
2000–2500	14.0	15.9	16.5	12.5	20.3	12.2
2500–3000	10.5	11.3	16.0	7.1	13.5	6.5
3000–4000	7.3	8.4	12.7	4.0	11.0	4.8
4000–5000	3.3	3.6	5.8	1.8	3.5	1.5
5000 & over	4.9	5.6	10.0	1.7	5.9	2.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

[a] Each level is inclusive of the lower figure and exclusive of the higher. Incomes reported by the sales finance company's customers are individual and not family incomes. For these customers the income levels used in the original data were not identical with those used here, and therefore these distributions should be regarded as rough estimates. The transformation from the original to the present classifications was effected by simple proration or linear interpolation.

[b] Based on a sample survey conducted by the company, covering 39,100 new-car contracts and 40,127 used-car contracts.

[c] Based on data from the Study of Consumer Purchases, conducted by agencies of the federal government, covering metropolises, large cities and middle-size cities.

[d] Data from National Resources Committee, *Consumer Incomes in the United States* (1938) Table 8, p. 25.

[e] Many customers who fall within these income groups are not entirely dependent on their own income for support.

closer to that of debtor families than is the distribution of all customers.

The important fact for present purposes is that both sets of data show the same broad outlines. For example, both the finance company married customers and the non-relief debtor families have a smaller representation in the income levels below $1500 than have non-relief families in general; in the $1500-2000 level both have about the same representation as all non-relief families; and in the levels above $2000 both have a larger representation. These figures, corroborating those presented in the preceding section, suggest that sales finance company automobile customers are drawn almost entirely from classes having annual incomes over $500 and under $4000, and are mainly concentrated within still narrower limits. The data in Table 13 indicate that nine-tenths of such customers fall within the $500-4000 income range, four-fifths within the $500-3000 range and three-fifths within the $1000-2500 range. There are, of course, differences between new-car and used-car customers in regard to income distribution. The data for this company show that while approximately four-fifths of the new-car customers were concentrated within the $1000-4000 levels, this proportion of used-car customers were contained within the lower and narrower range of $500-2500.

Other data of this same finance company indicate that there has been a conspicuous increase in the proportion of automobile instalment customers coming from lower income groups, and a corresponding decrease in the proportion of those coming from higher income groups. Table 14 shows that just over one-third of the customers had incomes under $200 a month in 1919, but that fifteen years later, in 1934, more than two-thirds fell within this income group. In large measure this shift is to be attributed to the substantial decrease in the prices of automobiles, new and used. This decrease in average price is also evident from Table 14,

TABLE 14

PERCENTAGE DISTRIBUTION OF A LARGE SALES FINANCE COMPANY'S AUTOMOBILE INSTALMENT CUSTOMERS, AND AVERAGE CASH PRICE PAID, 1919, 1925 AND 1934, BY MONTHLY INCOME[a]

Monthly Income[b]	*Automobile Customers*			*Cash Price Paid*[c]		
	1919	1925	1934	1919	1925	1934
Under $100[d]	1.2	5.7	19.3	$ 653	$ 501	$338
100–200	33.1	48.4	49.6	829	637	518
200–300	32.7	27.3	18.3	1,012	869	694
300–500	21.3	13.9	8.8	1,293	1,165	814
500 & over	11.7	4.7	4.0	1,617	1,648	975
TOTAL	100.0	100.0	100.0			

[a] Based on sample surveys conducted by the company, covering 17,955 customers from October 1, 1919, to March 1920, and 133,328 customers for the year 1925, and 79,227 customers for the year 1934.
[b] Each level is inclusive of the lower figure and exclusive of the higher.
[c] The cash price is the actual delivered price paid for the car before the addition of insurance and finance charges. Besides the F.O.B. factory price, which provides for the dealer's profit, the cash price includes charges for freight from the factory to the purchaser, for servicing and inspection by the dealer, and for extra or special accessories, equipment and paint jobs.
[d] Many customers who fall within this income group are not entirely dependent on their own income for support.

which shows that with one minor exception all income groups paid far less for their cars in 1934 than they did in 1919. Another significant factor in the shift toward lower income groups was the lengthening of the instalment contract, and the concomitant decrease in the amount of monthly payment.

Financial Obligations Incurred by Automobile Customers

The financial obligations incurred by sales finance company customers are measured by the actual dollar amounts required to meet cash selling prices, unpaid balances and

monthly payments. The financial *burden* of these commitments, however, is indicated by the ratios of these items to the purchaser's monthly income, by the percent of cash selling price required for down payment, by the length of time income is taxed by monthly payments. Tables 15 and 16 present, according to income level, available data on the financial obligations incurred in 1934 by automobile customers of the sales finance company under consideration, and on the burden that these obligations represent. Table 16 shows also the percent of purchasers having bank accounts, a point that is of interest in a consideration of financial commitments.

Table 15 reveals an unbroken tendency for average dollar amounts of cash selling prices, unpaid balances and monthly payments to increase with rising income. That is to say,

TABLE 15

FINANCIAL OBLIGATIONS INCURRED BY A LARGE SALES FINANCE COMPANY'S AUTOMOBILE INSTALMENT CUSTOMERS, 1934, BY MONTHLY INCOME[a]

Monthly Income[b]	*Average Cash Selling Price*		*Average Unpaid Balance*		*Average Monthly Payment*		*% Distribution of Customers*	
	New	Used	New	Used	New	Used	New	Used
Under $100[c]	$715	$245	$433	$160	$33	$18	7.8	30.5
100–200	759	318	458	204	35	21	45.7	53.5
200–300	824	405	490	254	39	25	25.7	11.1
300–400	887	477	528	293	44	29	9.5	2.6
400–500	929	521	552	325	47	32	4.5	1.0
500 & over	1,048	597	635	380	53	40	6.8	1.3
TOTAL	811	315	487	202	38	21	100.0	100.0

[a] Based on data supplied by the company, covering 39,100 new-car and 40,127 used-car customers.

[b] Each level is inclusive of the lower figure and exclusive of the higher.

[c] Many customers who fall within this income group are not entirely dependent on their own income for support.

TABLE 16

BURDEN OF FINANCIAL OBLIGATIONS INCURRED BY A LARGE SALES FINANCE COMPANY'S AUTOMOBILE CUSTOMERS, 1934, BY MONTHLY INCOME[a]

Monthly Income[b]	*Ratio of Cash Selling Price to Income*		*Ratio of Unpaid Balance to Income*		*Ratio of Monthly Payment to Income*		*Ratio of Down Payment to Cash Selling Price*[c]		*Index of Average Length of Contract*[d]		*Percent of Customers with Bank Accounts*[e]	
	New	Used	New	Used	New	Used	New	Used	New	Used	New	Used
Under $100[f]	9.8	3.5	6.0	2.3	.46	.25	39.4	34.7	13.2	9.2	44	25
100–200	5.2	2.3	3.2	1.5	.24	.15	39.7	35.8	13.1	9.8	58	43
200–300	3.5	1.8	2.1	1.1	.16	.11	40.4	37.4	12.8	10.0	73	63
300–400	2.6	1.4	1.6	.9	.13	.09	40.5	38.6	12.1	10.0	81	72
400–500	2.2	1.2	1.3	.8	.11	.08	40.6	37.7	11.8	10.1	83	81
500 & over	1.4	.8	.9	.5	.07	.05	39.5	36.5	12.0	9.6	89	80
TOTAL	3.4	2.2	2.1	1.4	.16	.14	39.4	36.2	12.7	9.6	66	41

[a] Based on data supplied by the company, covering 39,100 new-car and 40,127 used-car customers.
[b] Each level is inclusive of the lower figure and exclusive of the higher.
[c] Computed by deducting the average unpaid balance from the average cash price and dividing by the latter.
[d] In months. An estimate of the average contract length can best be derived by dividing the average amount of note by the average monthly payment, but since the average amount of note was not available the average original unpaid balance was used here instead. The original unpaid balance is less than the amount of note by the amount of the finance charge, and hence the length-of-contract index here given understates the actual duration. It is not unlikely, however, that the amount of understatement is relatively constant; and therefore the given series should provide a fairly good indication of the extent to which contract length varies with income.
[e] Checking account or savings account, or both.
[f] Many customers who fall within this income group are not entirely dependent on their own income for support.

automobile purchasers with higher incomes bought higher-priced cars and committed themselves for larger unpaid balances and higher monthly payments than did lower-income purchasers. But the financial burden represented by these items (Table 16) declined steadily from lower to higher income levels; that is, the ratios (to income) of sales price, unpaid balance and monthly payment fell consistently as income increased.

Thus, to take one extreme, new-car buyers with monthly incomes of less than $100 obligated themselves in 1934 to pay an average purchase price which was the equivalent of almost 10 months' income, to meet an average unpaid balance 6 times monthly income, and to make monthly payments averaging nearly half of monthly income.[4] At the other extreme, for new-car buyers having monthly incomes of $500 and over the purchase price was not quite equal to 1½ months' income, the unpaid balance was nine-tenths of one month's income, and the monthly payment was one-fourteenth of monthly income. The $100-300 income levels, which included 71 percent of the new-car buyers, showed commitments representing, approximately, 3½ to 5 months' income for purchase price, 2 to 3 months' income for unpaid balance, and 16 to 24 percent of income for monthly payments. Through all income groups the financial commitments assumed by used-car buyers were substantially less than those undertaken by new-car buyers.

A noteworthy feature of Table 16 is the tendency for average down payment (in percent of cash selling price) and average length of contract to remain almost constant

[4] The proportion of car buyers in this income group is, of course, relatively small—less than 8 percent of all new-car buyers in 1934. It is likely that when the burden is so disproportionately high, in relation to income, the purchaser is not entirely dependent on his own income for support; for example, he may be one of several wage-earners in a family, individual incomes being combined for family expenditures. In most cases instalment paper of low-income buyers carries the endorsement of one or more relatives or friends.

through all income classes. Apparently such competitive pressures as were operating in 1934 to liberalize the terms of instalment purchase were not reflected in concessions to lower-income as compared with higher-income buyers.

Table 16 indicates also the proportion of automobile instalment buyers in the various income levels who carried bank accounts. On the average, two out of three new-car instalment buyers, but only two out of five used-car instalment buyers, had bank accounts in 1934. For both buyer groups the proportion varied directly with income, and supplementary data indicate that it was larger for higher- than for lower-paid occupations.

Incomes of Appliance Customers

Information on the income of sales finance company appliance customers is not so extensive as that for automobile customers, but some data are available from the Electric Home and Farm Authority, for January-June 1938.[5] Customers acquired by this sales finance agency during the fiscal year 1937-38 came from widely diverse areas: 29 percent of them from the four Tennessee Valley states, 27 percent from California, 11 percent from Minnesota, and 33 percent from twenty-three other states mainly in the middle west.[6] Most customers resided in small and middle-size cities, rather than in large cities or rural areas. Appliances that were financed in the fiscal year 1937-38 included refrigerators (43 percent), ranges (17 percent), washers (19 percent), radios (8 percent), and others (13 percent). About one-seventh of

[5] For a full discussion of the operations and customers of EHFA see National Bureau of Economic Research (Financial Research Program), *Government Agencies of Consumer Instalment Credit,* by Joseph D. Coppock (ms. 1940) Chapters 5-6.

[6] Customers were not distributed evenly within these states but were concentrated in districts served by utilities that had financing agreements with EHFA.

the contracts were for combination purchases of two or more appliances, the average number of appliances per contract being 1.16 during 1937-38.

There is no way of knowing to what extent the customers of this government sales finance agency come from the same income groups as private company appliance customers. It is clear, however, from Table 17 that the income distribu-

TABLE 17

PERCENTAGE DISTRIBUTION OF ELECTRIC HOME AND FARM AUTHORITY CUSTOMERS, 1938, OF URBAN NON-RELIEF FAMILIES HAVING A NET CHANGE IN ELECTRIC APPLIANCE INSTALMENT DEBT, 1935–36, AND OF ALL URBAN NON-RELIEF FAMILIES, 1935–36, BY ANNUAL INCOME

Annual Income[a]	*EHFA Customers*[b]	*Non-Relief Debtor Families*[c]	*All Urban Non-Relief Families*[d]
Under $500[e]	.6	2.0	5.3
500–1000[e]	11.3	14.1	20.2
1000–1500	25.7	27.4	26.5
1500–2000	28.1	25.9	21.0
2000–2500	18.8	14.7	12.2
2500–3000	9.5	8.1	6.5
3000 & over	6.0	7.8	8.3
TOTAL	100.0	100.0	100.0

[a] Each level is inclusive of the lower figure and exclusive of the higher. Incomes reported by EHFA customers are individual and not family incomes. For these customers the income levels used in the original data were not identical with those used here, and therefore these distributions should be regarded as rough estimates. The transformation from the original to the present classifications was effected by simple proration or linear interpolation.

[b] Based on a sample of 2,000 customers for the first six months of 1938.

[c] Based on data from the Study of Consumer Purchases, conducted by agencies of the federal government, covering metropolises, large cities and middle-size cities.

[d] Data from National Resources Committee, *Consumer Incomes in the United States* (1938) Table 8, p. 25.

[e] Many customers who fall within these income groups are not entirely dependent on their own income for support.

tion of EHFA customers conforms remarkably closely with that of non-relief families having a net change in instalment debt for electric appliances during 1935-36. EHFA customers, in spite of the fact that their income data cover individual rather than family incomes, are concentrated slightly less in the income levels under $1500 and slightly more in the $1500-2500 levels; but both distributions show approximately 90 percent of the appliance debtors within the income levels of $500-3000, and about 70 percent in the $1000-2500 levels. Moreover, appliance instalment debtors, like automobile instalment debtors, are concentrated less in the lower income levels, and more in the intermediate income levels, than are non-relief families in general. For automobile instalment debtors the dividing line, where debtors and non-relief families were represented in about the same proportion, was the $1500-2000 level; for electric appliance instalment debtors the dividing line is slightly lower—$1000-1500.

The financial obligations assumed by appliance customers of sales finance companies are roughly indicated by EHFA data for 1937-38. The average cash selling price was $138 per contract, but because of the practice of "combination" purchases the average cash selling price per appliance financed was somewhat lower. Down payments averaged 16.3 percent of cash selling price per appliance financed, time payment charges 10.8 percent of instalment notes, contract lengths about 29 months, and monthly payments $5.30. The face value of contracts was on the average about the same as the cash selling price per contract, the deduction for down payment being compensated by the addition of the time payment charge. In other words, purchasers in effect paid the financing charge in the form of down payment and then paid the full cash purchase price by periodic remittances.

COMPARISON OF CASH AND INSTALMENT BUYERS

The market for retail instalment credit in general, and for the services of sales finance companies in particular, has now been roughly delineated. The question remains whether there are significant differences between cash and instalment buyers in regard to their economic circumstances. Data bearing on this question are particularly limited, and apply only to automobile buyers. It is possible that quite different conclusions would be suggested by an analysis of commodities other than automobiles. No other articles customarily bought on instalment terms entail such high upkeep expenses, and it is likely that the buyer considers these expenses when determining how he will pay for his car. Moreover, few other commodities have, on the average, such high unit prices as automobiles. Only scanty statistics have been compiled, however, on this significant aspect of instalment financing, and therefore it is necessary to make the most of such limited data as are available.

Differences between cash and instalment buyers of automobiles are shown by tabulations covering a small random sample of family expenditure schedules for the year 1935-36, assembled by federal agencies in the Study of Consumer Purchases.[7] The entire sample covers only 730 families, living in small cities situated in the Mountain-and-Plain and Pacific regions, who bought a single automobile during the schedule year. New cars were bought by 378 families, and used cars by 352; neither group contained a notably preponderant number of instalment buyers.[8] Although any conclusions based on such a small sample of cases must be

[7] We are indebted to the Bureau of Home Economics of the United States Department of Agriculture for furnishing these special tabulations for our use.

[8] Of the new-car sample 55 percent, and of the used-car sample 59 percent, bought on terms of deferred payment. About 60 percent of all new and used cars were sold on instalment terms in 1935-36, according to data assembled by the National Association of Sales Finance Companies.

carefully guarded, generally valid inferences may be drawn with the aid of accredited statistical tests for sample significance.[9]

The analysis of this sample, shown in Table 18, indicates a number of appreciable differences between cash and instalment buyers. Those who purchased new cars—which sell at higher unit prices than used cars—had, of course, considerably higher incomes than used-car buyers, but for both new and used cars cash buyers had higher incomes, on the average, than instalment buyers. For new-car buyers this difference was fairly substantial, but for used-car buyers it was not very great.

New-car buyers were slightly older, on the average, than used-car buyers, but in both groups cash buyers were somewhat older than instalment buyers. Since age and income are directly related this perhaps connotes no more than that greater earning power facilitates the purchase of new cars (which sell, on the average, for higher prices than used cars) and the payment of cash. It also suggests, however, that younger buyers may employ the instalment plan because they anticipate higher incomes in the future and because they have had a shorter earning span for building up a savings fund from which large cash purchases might be made.

For both new and used cars a higher proportion of cash than of instalment buyers were families whose principal

[9] Two methods were used to test significance. In considering occupation and other qualitative factors the chi-test was used; in considering measurable factors such as age and family income the t-test for the significance of the difference between two means was frequently used in place of the chi-test. The t-test requires more labor than the chi-test, and it is not adaptable to qualitative factors such as occupation, but for the measurable factors it is usually more sensitive.

A discussion of methods of applying the chi-test and the t-test may be found in most advanced texts on statistics. The chi-test is discussed, for example, in R. A. Fisher, *Statistical Methods for Research Workers* (6th ed. 1936) Chapter 4, and in George W. Snedecor, *Statistical Methods Applied to Experiments in Agriculture and Biology* (1937) Chapters 1 and 9. The t-test is described in Fisher, Chapter 5.

breadwinner was engaged in business pursuits. Other occupational differences between cash and instalment buyers are not so clear, and probably do not bear stressing, except

TABLE 18

SELECTED CHARACTERISTICS OF A SAMPLE OF FAMILIES BUYING FOR CASH AND ON INSTALMENT TERMS DURING 1935–36[a]

Characteristic	*New-Car Buyers*		*Used-Car Buyers*	
	Cash	Instalment	Cash	Instalment
Family income	$2842	$2385	$1775	$1627
Age of husband	44 yrs.	40 yrs.	41 yrs.	37 yrs.
Occupation	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Business	38.8	28.1	31.2	17.3
Professional and clerical	47.9	47.0	27.1	38.0
Wage-earner	13.3	24.9	41.7	44.7
Family size	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Husband and wife	40.6	21.6	20.8	26.0
Additional dependents	59.4	78.4	79.2	74.0
Home	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Rented	41.8	56.6	54.2	66.9
Owned	58.2	43.4	45.8	33.1
Net change in family net worth[b]	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Surplus	49.6	31.4	51.4	30.7
Deficit	45.4	67.6	41.6	67.3
No change	5.0	1.0	7.0	2.0
Checking account	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Account reported	72.1	46.9	32.6	32.4
None or not reported	27.9	53.1	67.4	67.6

[a] Based on special tabulations from the Study of Consumer Purchases, conducted by agencies of the federal government, covering 730 families.
[b] Savings and insurance minus new debts; changes pertain to a 12-month period during the years 1935-36.

that wage-earning families who bought new cars, and professional and clerical families who bought used cars, were more predominant among instalment than among cash purchasers. Regardless of age of car or method of payment, the majority of families that bought cars included one or more children or other dependents, though the families that bought new cars for cash were more preponderantly childless than any other type of buyer. New-car instalment buyers, and used-car buyers, cash and instalment, showed a fairly close similarity in their distributions according to this characteristic.

Home ownership was reported by a greater proportion of cash buyers than of instalment buyers, and also, in each of these groups, by a greater proportion of new-car than of used-car buyers. Moreover, cash buyers less frequently incurred a deficit for the year 1935-36 in family net worth (reckoned on the basis of savings and insurance minus new debts) than did instalment buyers. Families that bought new cars for cash carried checking accounts and savings accounts to a considerably greater extent than did new-car instalment purchase families, but among used-car buyers there was no significant difference in this respect between the two types of buyers.

Taken together, these findings merely confirm the commonsense inference that the economic circumstances of families purchasing on instalment terms are generally less favorable than those of families in a position to purchase for cash. But the findings should not be thought to contradict the previous conclusion that instalment buyers exist in all strata of society. Although higher-income purchasers are found to pay cash more frequently than others, it is clear that a substantial proportion of them buy on instalment. In fact, the situation may be summarized by saying that although there are bona fide differences between cash and

instalment purchase groups, the differences are less striking than the similarities.

COMPARISON OF PRICES PAID BY CASH AND BY INSTALMENT BUYERS

A criticism frequently made of the instalment credit system is that consumers are encouraged to enter into contracts for the purchase of goods that they cannot afford, and imprudently to incur a debt that ties up future income to meet instalment payments. This criticism has two fairly distinct implications: that buyers are attracted by instalment terms who should not purchase at all, and probably would not purchase if they had to save and pay cash; and that buyers are induced by instalment terms into purchasing a good of a higher price-quality class than they would otherwise feel justified in buying. As to the first of these implications the foregoing data afford some evidence for judgment, but the answer must remain in the realm of opinion, for it is not possible to determine empirically what is prudent or imprudent for a buyer to afford. The second implication, however, raises questions of objective fact; with data available from the Study of Consumer Purchases it is possible to test statistically—though only for automobiles—whether there is a tendency for instalment purchasers to buy higher-priced commodities than purchasers from the same income group who buy the same type of commodity for cash.

It is self-evident that for a given commodity an instalment buyer pays a higher price than a cash buyer, the difference representing the finance charge. It is possible that if no finance charge were imposed for time purchasing he would still be willing to pay that higher price in order to acquire a commodity of the same type but of a higher price-quality class. In fact, there are economists of the automobile industry who contend that "making the terms easier does

not induce more people to buy cars so much as induce those who were going to buy anyway, to buy a car of higher price."[10] The customary criticism goes farther than this, however, and contends that the instalment system itself induces a consumer to spend more than he would otherwise feel justified in spending.[11]

The data pertinent to this question are derived from a sample tabulation of 5,900 family expenditure schedules obtained by the Study of Consumer Purchases from families living in small cities in East Central, Mountain-and-Plain and Pacific states, of which almost 1,400 indicated the purchase of an automobile.[12] Table 19, which contains these data, shows for both cash and instalment automobile purchases[13] the average gross price paid (including trade-in allowance and, on instalment purchases, the total insurance and finance charges) and the average net price paid (gross price minus trade-in allowance), and also the hypothetical instalment prices that would correspond to the given cash prices at each income level.

Comparison of average gross prices paid for new cars bought for cash and on instalment terms shows that in the income classes below $2500 the instalment buyers paid considerably higher prices than the cash buyers. In the $2500-4000 levels the instalment buyers paid lower gross prices, and above $4000 they paid prices only slightly higher. For instalment purchases, however, the average gross price includes insurance and finance charges. If to each given cash

[10] See the study by C. F. Roos and Victor von Szeliski, "Factors Governing Changes in Domestic Automobile Demand" in *The Dynamics of Automobile Demand*, published by General Motors Corporation (1939) p. 68.

[11] See, for example, Roger W. Babson, *The Folly of Instalment Buying* (1938) pp. 60-63.

[12] This sample tabulation too was furnished by the Bureau of Home Economics of the United States Department of Agriculture.

[13] It is significant to mention that the income distribution of instalment purchasers which is shown in this table conforms fairly closely with that shown by other samples.

TABLE 19

AVERAGE PRICES PAID FOR CASH AND FOR INSTALMENT PURCHASES OF AUTOMOBILES, 1935–36, AND PERCENTAGE DISTRIBUTION OF PURCHASERS, BY ANNUAL FAMILY INCOME[a]

Annual Income[b]	*Average Gross Price*[c]		*Average Net Price*[d]		*% Distribution of Purchasers*	
	Cash	Instalment[e]	Cash	Instalment[e]	Cash	Instalment
			NEW CARS			
$500–1500	717	780 (756)	470	541 (510)	8.7	16.5
1500–2000	778	809 (822)	509	538 (553)	15.3	29.5
2000–2500	804	861 (849)	502	553 (547)	19.6	22.2
2500–3000	880	836 (929)	578	619 (627)	19.9	15.0
3000–4000	925	872 (977)	618	632 (670)	18.5	11.0
Over 4000	940	956 (993)	666	677 (719)	18.0	5.8
TOTAL					100.0	100.0
			USED CARS			
$500–1000	143	207 (177)	101	161 (135)	18.6	17.8
1000–1500	198	321 (234)	150	241 (186)	28.0	34.7
1500–2000	283	397 (332)	199	299 (248)	25.5	26.4
2000–2500	333	431 (385)	250	341 (302)	12.6	12.7
2500–3000	347	449 (401)	269	296 (323)	8.7	3.9
Over 3000	582	500 (644)	402	394 (464)	6.6	4.5
TOTAL					100.0	100.0

[a] Based on special tabulations from the Study of Consumer Purchases, conducted by agencies of the federal government, covering 1,384 purchases. Of the new cars 367 were purchased for cash and 346 on instalment; of the used cars 334 were purchased for cash and 337 on instalment.

[b] Each level is inclusive of the lower figure and exclusive of the higher. For new cars the $500-1000 income level has been combined with the $1000-1500 level because of the small proportion of purchasers that it contains (0.5 percent of cash buyers and 4.3 percent of instalment buyers). And the specification of used-car purchasers' income levels has been stopped at $3000 rather than $4000; buyers receiving incomes of more than $4000 constituted only 2.4 percent of those buying for cash, and 1.5 percent of those buying on instalment.

[c] Including trade-in allowance and, on instalment purchases, the total insurance and finance charges.

[d] Gross price minus trade-in allowance.

[e] The figures in parentheses represent, for each income level, the average cash price plus the hypothetical total charges that would be applicable on a car of that price if bought on instalment terms (assuming, for new cars, down payments of 40 percent and contract lengths of 15 months, and, for used cars, down payments of about one-third and contract lengths of 12 months). The hypothetical charges on used cars are computed from the used-car rate charts of several leading finance companies; no allowance has been made for a possible dealer's pack.

price are added the hypothetical charges that would be required on a car of that price if bought on instalment terms it appears that in no income group did instalment buyers purchase significantly higher-priced cars than cash buyers; in fact, above the $2500 income level the instalment buyers bought notably lower-priced cars. Average net price (gross price minus trade-in allowance) was higher in every instance for instalment buyers than for cash buyers, but again when allowance is made for insurance and finance charges there appears to have been no tendency for instalment purchasers to buy cars of higher price than did cash purchasers.

In regard to used cars, however, instalment buyers in each income group up to $3000 appear to have bought cars of substantially higher gross price than did cash buyers, even when allowance is made for insurance and finance charges; instalment purchasers who received incomes amounting to more than $3000 a year bought much lower-priced cars than cash buyers. When the trade-in allowance is deducted there is much the same pattern, except that $2500 income rather than $3000 seems to mark the dividing line between instalment buyers who tended to purchase higher-priced cars than cash buyers and those who tended to purchase lower-priced cars.

It would seem, then, that only in the used-car market, where there is a wide range of prices and where price differences may mean considerable differences in quality, does the possibility of financing on instalment induce people to buy higher-priced cars than those bought by cash buyers of the same income level. This conclusion apparently does not apply to purchasers above the $3000 income level, but about 95 percent of used-car buyers received annual incomes under that amount.

It must be emphasized that the apparent extravagance which these data indicate for certain classes of buyers is not necessarily extravagance in the literal sense of the word.

If a buyer purchases on instalment a commodity of a higher price-quality class than he would be able to purchase for cash he may or may not be spending unwisely. Determination of that question depends not only on highly relative value judgments concerning what is and what is not the proper way for him to spend his money, but also on his actual and prospective economic situation, and the extent to which his fixed monthly payments make demands on his monthly income. In some circumstances his action, constituting a regulated form of saving for the purchase of a desired commodity, may be a commendable way for him to improve his standard of living. These considerations lead too far afield for discussion here, but they should be kept in mind in a consideration of this problem.