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EFTS AND CONSUMER CREDIT

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1. The Suppliers of Consumer Credit: Trends in Market Structure

The purpose of this section is to review briefly the basic trends in consumer credit, for it is in this environment that the Electronic Funds Transfer System (EFTS) is being born. Certainly, development of rudimentary elements of EFTS systems (like credit cards) has played a major role in determining these trends. Explanations of historical developments should serve to anticipate future trends in the industry and how they might be affected by the introduction of more sophisticated EFTS systems.

The consumer credit series published by the Federal Reserve Board "relate to short- and intermediate-term credit that is extended through regular business channels to finance the purchase of commodities and services for personal consumption, or to refinance debts incurred for such purposes."¹ The restriction on maturity excludes mortgage credit, although not credit for mobile homes. Such transactions as loans to friends are eliminated by the requirement that the credit be extended "through regular business channels," and loans to finance commercial vehicles are excluded by the provision that the purchase must be for "personal consumption."

Over the past five years consumer debt outstanding has risen at about the same compound annual rate as other forms of net public and private debt (Exhibit 1.1). The annual rate of expansion of consumer debt of 10.3% was closely matched by that of net public debt (9.8%) and exceeded by the expansion of net corporate debt (12.0%). Even so, consumer credit makes up but a small portion of total net public and private debt -- only 7.1% at the end of 1973.

Consumer credit has, however, been more volatile than most other forms of credit, basically because a large portion of the demand for credit is derived from the demand for consumer durables. As evidenced by the current sharp decline in automobile sales, these demands are postponable, and because the purchase of many of the goods and services financed by consumer credit are income elastic, so is the associated use of consumer credit. For example, disposable personal income rose 12.6% from 1972 to 1973, but consumer credit outstanding rose 14.5% and installment credit extensions rose 15.5%. In contrast, net public debt rose only 6.4% and corporate debt, 13.6%. During 1974, real disposable income fell 4% from the level at the end of the fourth quarter, 1973, and outstanding installment debt grew by only 6% overall, and actually declined in the last two months of the year. This greater cyclical volatility is imposed on a considerable seasonal volatility, with the result that institutions providing consumer credit must maintain a liability structure that can accommodate fairly wide fluctuations in consumer receivables.

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¹ Division of Research and Statistics, Board of Governors of the Federal Reserve System, "Consumer Credit Review Report," (November 1974), p. 2.

EXHIBIT 1.1
Net Public & Private Debt, End of Calendar Year, 1968-1973
(Billions of Dollars)

	1968	1969	1970	1971	1972	1973	Compound annual Rate of growth 1968-1973
Total net public & private debt	1,582.5	1736.0	1868.9	2045.8	2270.2	2525.8	9.8%
Total net public debt	437.1	453.2	484.9	528.2	557.6	593.4	6.3
Federal government	291.9	289.3	301.1	325.9	341.2	349.1	3.6
Federal financing agencies	21.4	30.6	38.8	39.9	41.4	59.8	22.8
State & Local governments	123.9	133.3	145.0	162.4	175.0	184.5	8.3
Total net private debt	1,145.4	1282.9	1384.0	1517.6	1712.7	1932.4	11.0
Corporations	631.5	734.2	797.7	869.3	978.3	1111.1	12.0
Individuals & Corporate	513.9	548.7	586.3	648.3	734.4	821.3	9.8
Farm	51.8	55.5	58.7	63.2	67.8	77.3	8.3
Nonfarm mortgage	284.9	303.9	332.1	373.4	426	480.1	11.0
Commercial & financial	66.4	68.1	68.3	73.4	82.9	83.4	4.7
Consumer	110.8	121.1	127.2	138.4	157.6	180.5	10.3

Source: Survey of Current Business, (June, 1974), p.8

Installment and Non-installment credit

Installment credit consists of all consumer credit that is scheduled to be repaid in two or more payments. It includes the various forms of revolving credit, as well as personal installment loans and installment contracts to finance automobiles, other consumer goods, and home improvements. Non-installment credit is scheduled to be repaid at one time in a lump sum and includes single-payment loans, charge accounts, and service credit.

As shown in Exhibit 1.2, consumer installment credit is of greater significance than non-installment credit for several reasons. First, it is by far the largest component of total consumer credit, amounting to 82.5% of the total at the end of November, 1974. Second, it has grown more rapidly than non-installment credit, recording an annual compound rate of growth of 10.4% over the period 1958-73., compared to 7.3% for non-installment credit. Third, the volatility and economic impact of installment credit is much more significant than that of non-installment credit. It has been recommended by the Division of Research and Statistics of the Federal Reserve that the monthly series on non-installment credit be eliminated in future reporting.²

Installment Sales Credit and Installment Cash Credit

Sales credit involves the extension of credit in connection with a consumer's purchase of goods or services, whereas cash credit is extended for an indeterminate purpose, sometimes to refinance existing consumer debts. The distinction is not as clear as it might seem, since some lenders misclassify various forms of sales credit as personal loans. Outstandings on bank credit cards also include cash advances, which would be more properly classified as personal loans, rather than as "other consumer goods credit."

The relative growth rates of sales and cash credit may be seen in Exhibit 1.3. Installment credit outstandings designated "personal loans" are assumed to be cash credit and the balance, sales credit. Over the entire period, 1958-73, cash credit has increased somewhat more rapidly than sales credit -- a compound annual

² Ibid., p. 10

rate of 11.5% versus 10.0%. However, in recent years sales credit has been growing at a greater rate, showing an increase from year-end 1971 to September, 1974, of 41%, compared to 35% for cash credit. While the difference may be transitory, it does suggest that grantors of cash credit currently may be losing out to firms that can provide credit at the point of sale. If this is a trend, it could readily be accelerated by point-of-sale (POS) terminals that could either provide a transfer of funds (from a customer's account at his bank to a retailer, for example) or provide for payment by creation of a debt (from the bank to the consumer making the purchase). On the other hand, full and equal participation in an EFT system by cash lenders may bolster their competitive position, as they could provide credit at the point of sale as easily as the retailer. In each case, the customer would have to qualify for credit only once and then be issued a card. Legal restrictions will probably most affect the shapes of these relationships.

A portion of the more rapid growth of sales credit from year-end 1971 to September, 1974, can be attributed to the very sharp increase in outstandings on bank credit cards. Over the period those outstandings rose 72.8% and accounted for about two percentage points of the 41.2% growth in installment sales credit outstanding. Earlier data on bank credit cards are not available.

If one narrows the field of sales credit to focus on other consumer goods credit, the rising importance of revolving credit and bank cards becomes even more apparent. Non-installment charge accounts at retailers grew hardly at all over the period from year-end 1971 to September, 1974, while retail revolving credit and bank credit cards grew 36.4%. Check credit plans and "simple interest" direct loan arrangements of banks and revolving credit plans of credit unions add to the growing importance of revolving credit. As collateral becomes less useful to creditors due to increasing legislative restrictions, it will become less meaningful to tie a grant of credit to the item purchased. A consumer will ultimately be given a line of credit much like that of a business firm and draw on that line as needed, very likely through POS terminals. Combined with the indication of a growing importance of sales credit relative to cash credit, these trends suggest that a credit grantor planning for the future must consider how to participate in EFT systems and POS terminals in order not to be generally frozen out of the market.

Types of Consumer Installment Credit

As shown in Exhibit 1.4, since 1965 automobile credit has declined in importance relative to other consumer goods paper. The share of the market for automobile credit has declined by six percentage points, while the share of other consumer goods paper has risen correspondingly. One reason for this shift is the increased use of credit to purchase soft goods. In more recent years the rapid growth of credit to finance the purchase of mobile homes (included here in "other consumer goods") also helps to explain the larger market share. From 1968 to the present there has also been a slight decline in the proportion of outstandings in personal loans, a reflection of the shift from cash credit to sales credit noted earlier.

Major Holders of Consumer Installment Credit

Of greater interest than changes in the types of consumer credit outstanding has been the continuing shift in market shares. As shown in Exhibit 1.5, finance companies lost a significant share of the market over the period 1960-1974. Of the finance companies' 13.7 percentage-point loss, 7.9 percentage points were garnered by commercial banks, 5.2 percentage points by credit unions, and the balance by other financial institutions.

EXHIBIT 1.2 CONSUMER INSTALLMENT AND NONINSTALLMENT CREDIT OUTSTANDING 1958 - SEPTEMBER 30, 1974

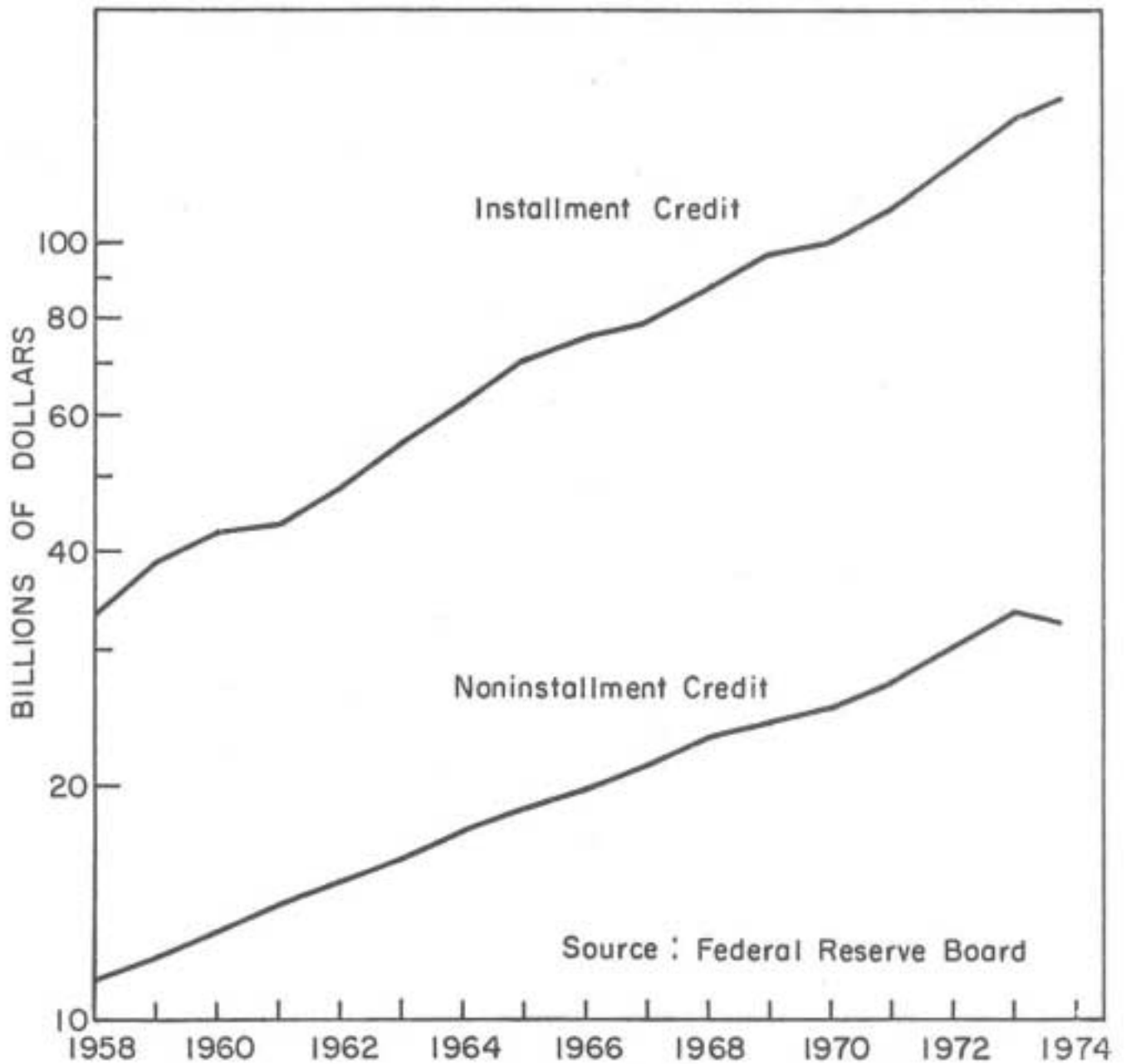
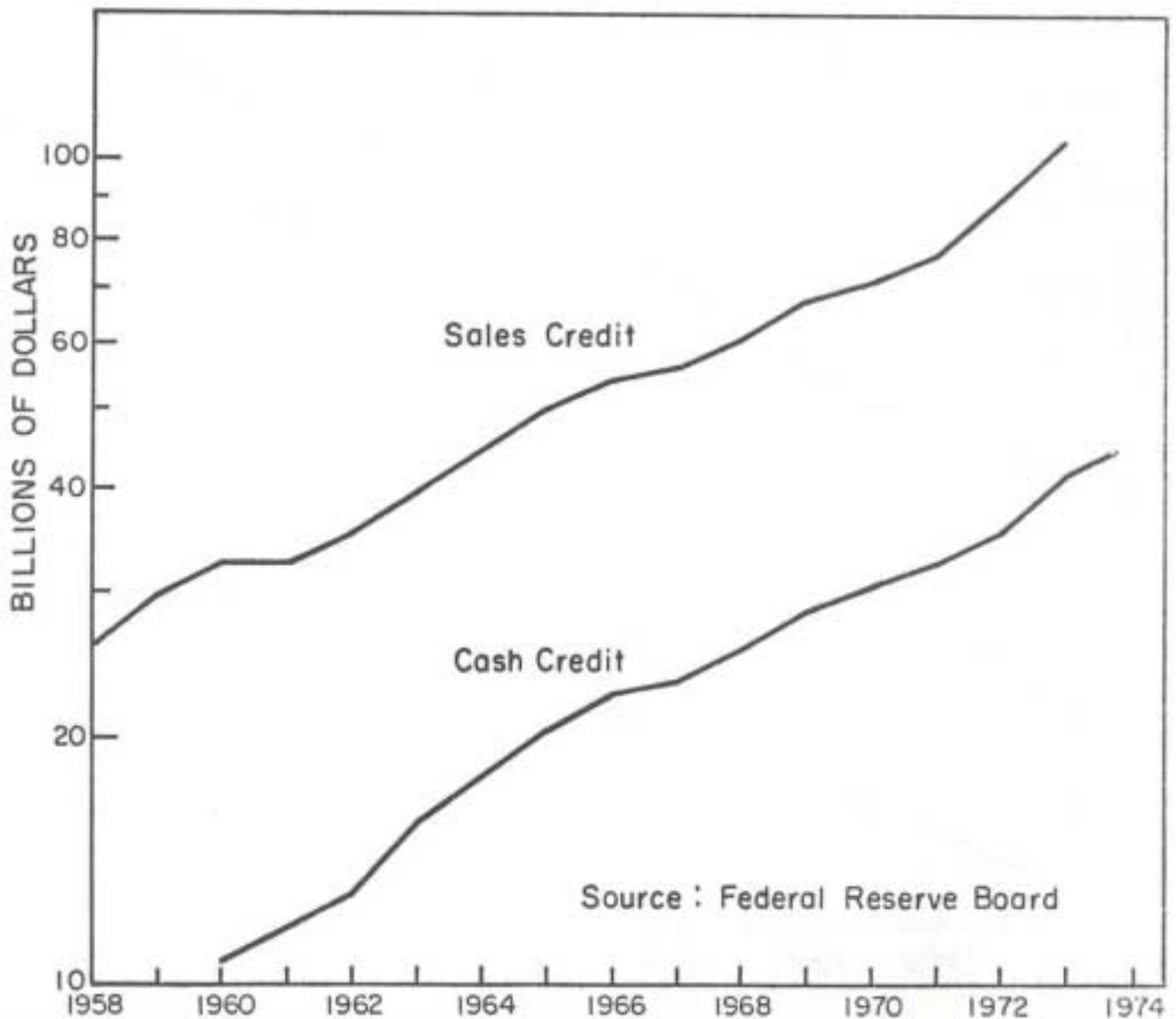


EXHIBIT 1.3 INSTALLMENT SALES CREDIT AND INSTALLMENT CASH CREDIT, 1958 - SEPTEMBER, 1974



Automobile Credit

As can be seen from Exhibit 1.6, about two-thirds of the shift is explained largely by the loss of the automobile credit market to commercial banks and credit unions, amounting to roughly \$10.3 billion in outstandings. The remaining loss of market share was made up about equally of other consumer goods paper and personal loans, with a very slight offset from a gain in home improvement loans.

The shifts in automobile credit outstanding among lenders are largely explained by the aggressive rate competition by commercial banks, especially on new car loans, both direct and indirect. The great share of the

remaining automobile paper held by finance companies is in the hands of the major captive finance companies. The automobile finance market will probably remain unattractive to independent finance companies. Rate competition is normally severe and will, if anything, intensify as new financial institutions, such as savings and loan associations, enter the automobile financing market.

Other consumer goods credit.

Over the period from the end of 1960 to 1973, commercial banks increased their share of other consumer goods credit to 61.1% from 46.1%, drawing their increase from finance companies (whose share dropped to 16.4% from 22.1%) and from retailers (who recorded a decline to 37.5% from 51.4%). Within this sector of the market, banks have increased their shares both of mobile home paper and other goods paper.

Data on mobile home financing are not available for earlier years, but since the end of 1971, commercial banks have increased their holdings of mobile home paper more than twice as rapidly as finance companies. As in the case of automobile financing, much of this market penetration appears to be on the basis of rate competition. At mid-1971, the median rate cited by commercial banks on \$7,000, 72-month direct loans on mobile homes was 10.87%, rather significantly below the median rate quoted on 36-month new car contracts (12.10%).³ In August, 1974, commercial banks reported their most common rate on new automobiles (36 mos.) as 11.15%, compared to 11.71% for mobile homes (84 mos.)⁴ The long-term commitments at relatively low yields, the low quality of much of the paper, and the very diverse quality of the units suggest a future "shake-out" similar to that which afflicted the shell home industry at one time.

In recent years the growth of commercial banks' share of the other consumer goods credit market excluding mobile homes may be attributed largely to the bank credit card. Between years-end 1970 and 1973, while their holdings of installment paper for other goods declined by over \$1 billion, their outstandings under credit cards rose by over \$2.8 billion -- a net increase of \$1.8 billion in holdings of consumer goods paper (excluding mobile homes).

³ National Commission on Consumer Finance, Technical Studies, Vol. III (Washington, D.C.: U.S. Government Printing Office, 1974), pp. 104-105.

⁴ Federal Reserve Bulletin, October, 1974, p. A48.

EXHIBIT 1.4
Types of Consumer Credit Outstandings, Selected Years, 1960-1974
(in millions of dollars)

<u>End of Period</u>	<u>Automobile Paper</u>	<u>Percent of Total</u>	<u>Other Consumer Goods Paper</u>	<u>Percent of Total</u>	<u>Home improvements loans^a</u>	<u>Percent of Total</u>	<u>Personal Loans</u>	<u>Percent of Total</u>
1960	17,658	41.1	11,545	26.9	3,148	7.3	10,617	24.7
1965	28,437	40.1	18,483	26.1	3,736	5.3	20,237	28.6
1966	30,010	39.4	20,732	27.2	3,841	5.0	21,662	28.4
1967	29,796	37.5	22,389	28.2	4,008	5.1	23,235	29.3
1968	32,948	37.6	24,626	28.1	4,239	4.8	25,932	29.6
1969	35,527	36.6	28,313	29.2	4,613	4.8	28,652	29.5
1970	35,184	34.5	31,465	30.8	5,070	5.0	30,345	29.7
1971	38,664	34.7	34,353	30.9	5,413	4.9	36,922	29.0
1972	44,129	34.7	40,080	31.5	6,201	4.9	26,922	29.0
1973	51,130	34.7	47,530	32.2	7,352	5.0	41,425	28.1
1974 ^b	52,848	34.1	49,664	32.0	8,252	5.3	44,375	28.6

^a Holdings of financial institutions; holdings of retail outlets are included in "Other Consumer Goods Paper."

^b September 30.

Percentages may not add to 100.00% due to rounding

Source: Federal Reserve Board

EXHIBIT 1.5
Total Consumer Installment Credit Held by Financial Institutions, Selected Years, 1960-1974
(in millions of dollars)

<u>Year</u>	<u>Total Financial Institutions</u>	<u>Commercial Banks</u>		<u>Finance Companies</u>		<u>Credit Unions</u>		<u>Other Institutions^a</u>	
		\$	% Share	\$	% Share	\$	% Share	\$	% Share
1960	36,673	16,672	45.5	15,142	42.0	3,923	10.7	643	1.7
1965	61,102	28,962	47.4	23,851	39.0	7,324	12.0	965	1.6
1966	65,430	31,319	47.9	24,796	37.9	8,255	12.6	1,060	1.6
1967	67,944	33,152	48.8	24,576	36.2	9,003	13.3	1,213	1.7
1968	75,727	37,936	50.1	26,074	34.4	10,300	13.6	1,417	1.9
1969	83,989	42,421	50.5	27,846	33.2	12,028	14.3	1,694	2.0
1970	88,164	45,398	51.5	27,678	31.4	12,986	14.7	2,102	2.4
1971	97,144	51,240	52.7	28,883	29.7	14,770	15.2	2,251	2.4
1972	111,382	59,783	53.7	32,088	28.8	16,913	15.2	2,598	2.3
1973	129,305	69,495	53.7	37,243	28.8	19,609	15.2	2,958	2.3
1974 ^b	137,461	73,455	53.4	38,921	28.3	21,792	15.9	3,296	2.4

^a Savings and loan associations and mutual savings banks.

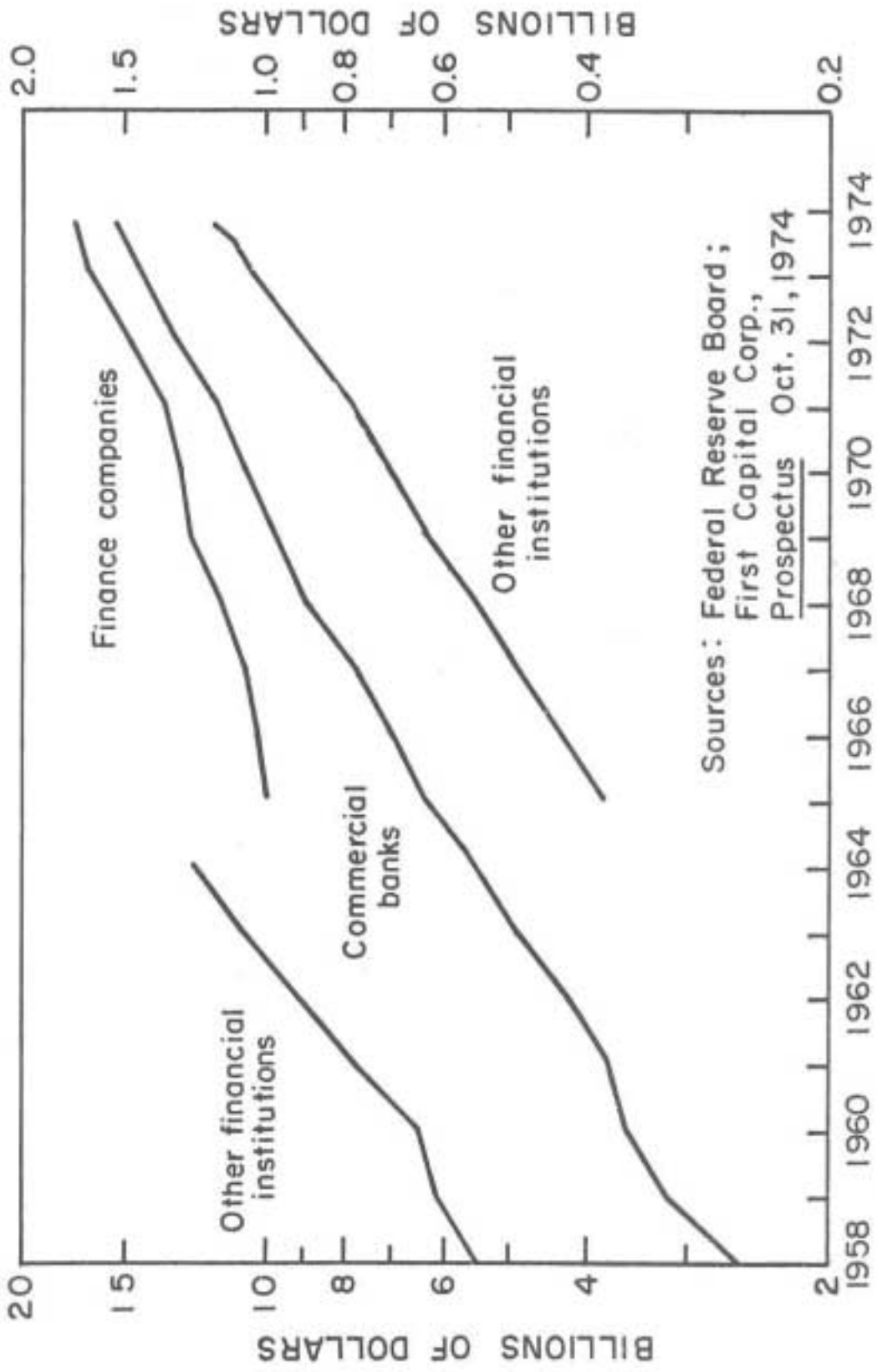
^b September 30.

Source: Federal Reserve Board

EXHIBIT 1.6
Consumer Installment Credit Held by Finance Companies,
December 31, 1960 and 1973, Actual and Hypothetical
(in millions of dollars)

	<u>Actual</u>	<u>Actual</u>	Outstandings if finance companies' Market share were unchanged from <u>1960-1973</u>	<u>Differences</u>	
	<u>1960</u>	<u>1973</u>	<u>1973</u>	<u>\$</u>	<u>%</u>
Automobile	\$7,703	\$11,927	\$22,267	\$10,340	65.7
Other consumer goods	2,553	7,812	10,529	2,717	17.3
Home improvement	173	917	405	-512	-3.3
Personal loans	<u>5,006</u>	<u>16,587</u>	<u>19,786</u>	<u>3,199</u>	<u>20.3</u>
Totals	\$15,435	\$37,243	\$52,987	\$15,744	100.0

EXHIBIT I.7 PERSONAL LOANS OUTSTANDING AT FINANCIAL INSTITUTIONS, 1958 - SEPTEMBER 1974



Personal loans

Basic trends in outstandings of personal loans are shown in Exhibit 1.7. Until 1965, data were not available to show the combined holdings of finance companies. Beginning with that date, credit unions dominate the "other financial institutions" category. From 1965 to year-end 1971, finance companies lost ground to commercial banks and other financial institutions, whereas from 1971 to the present, they have about held their own with . commercial banks, while both financial institutions have lost ground to credit unions.

Both in 1970 and 1974, the rates of growth of personal loans outstanding at finance companies decreased sharply, whereas commercial banks maintained the growth of their personal loans in 1970 and promise to do so again in 1974 (Exhibit.1.8). Other financial institutions have shown a consistently higher growth rate and somewhat greater stability recently than finance companies.

Because rising interest rates probably played a major role in affecting the differential rates of growth of banks and finance companies shown in Exhibit 1.8, the outlook for these institutions in general is probably closely tied to the outlook for interest rates. The rise in rates during 1969-70 was sharp, but not greatly prolonged. Because the rise was short-lived, finance companies did not have to roll over much long-term debt into higher-cost funds. Consequently, when their money costs fell in 1971 and 1972, they were able to increase their investments in personal loans, even exceeding the growth rate of commercial banks by the end of 1973.

In a prolonged period of higher money rates, credit unions may not fare much better than commercial banks. As money costs push them against their 12% rate ceiling, they must also become more selective in their lending. Moreover, their risk is likely to be more concentrated in a particular industry than are the loans of banks or finance companies. Abolition of Regulation Q would further increase their vulnerability. These pressures help to explain a growing movement among credit unions to increase their rate ceilings, the proposed legislation in Michigan to raise ceilings to 15% being a case in point.

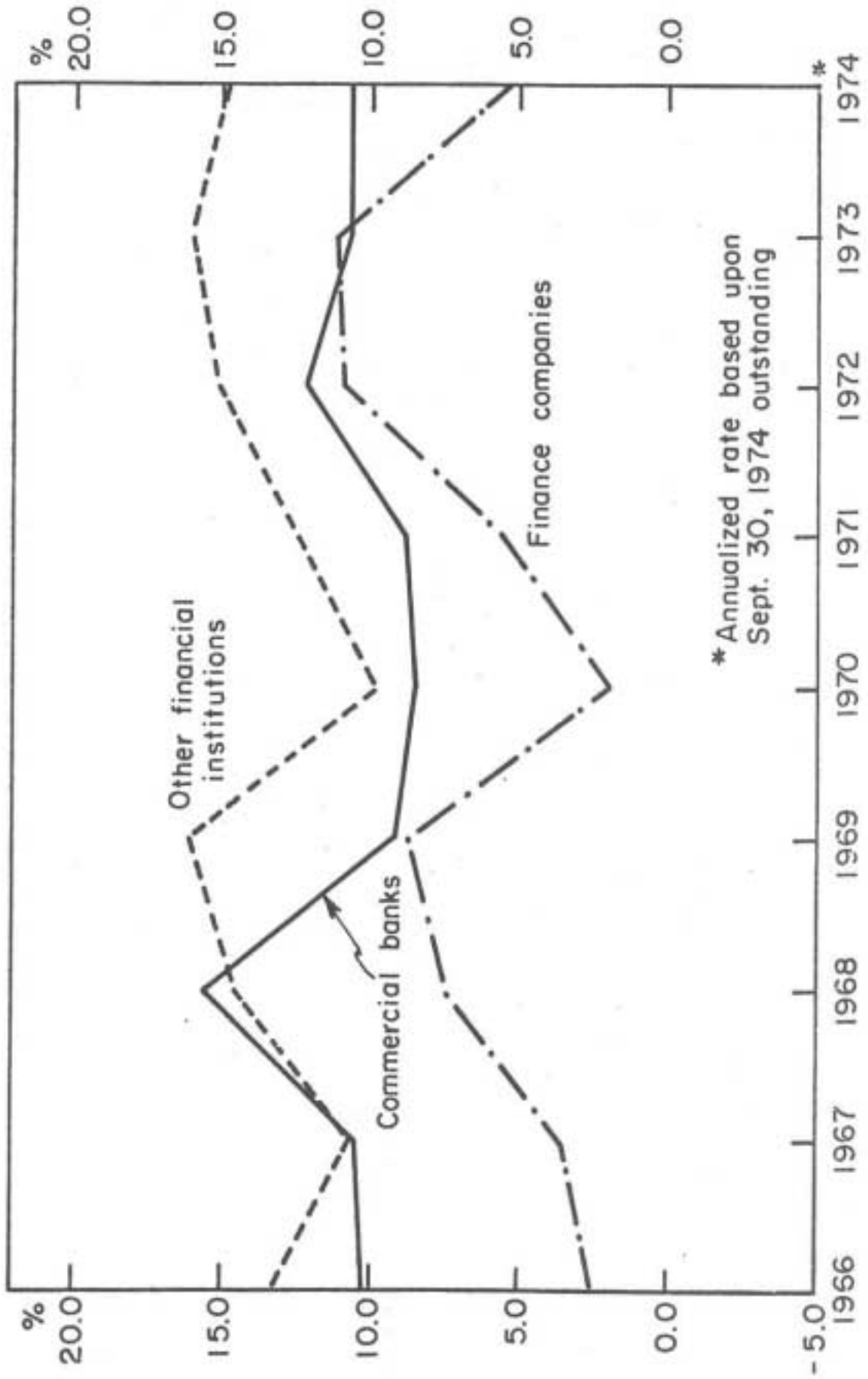
Summary

The demand for consumer installment credit is largely derived from the demand for consumer goods and services. Since the demand for many consumer durables is income elastic, variations in those credit sales produce similar volatility in consumer credit extensions and, on a lagged basis, consumer credit outstandings. At present, sales credit is growing more rapidly than cash credit, and revolving credit, especially bank-card, is showing the greatest rate of growth. These trends suggest the importance of being a credit grantor at the point of sale.

Finance companies have lost a significant share of their market to commercial banks and credit unions over the period 1960 to 1974. About two-thirds of the loss in position is attributable to penetration of the automobile finance business by banks and credit unions..

There have been some major shifts in the structure of the market, and the trend data suggest that these may continue. Part of this is due to innovation in credit extension related to the development of EFTS -mainly the credit card and point of sale extension of credit. As will be shown in later sections, a major element of the cost of credit to the consumer is time and transportation costs related to the acquisition of credit. The development of credit cards has resulted in a major change in the total cost of credit to the consumer (the effective rate and transaction costs). In these terms, point of sale credit is offered at a rate far lower than cash credits. In addition, the credit card may be skimming the better risks out of the cash loan market. EFTS could potentially widen further the gap between the total cost of credit for these lenders unless they have full participation in EFTS. Clearly, future trends in market share will depend more heavily on the form of EFTS developed.

EXHIBIT 1.8 ANNUAL RATES OF GROWTH OF PERSONAL LOANS OUTSTANDING AT FINANCIAL INSTITUTIONS, 1966 - 1974



2. The Users of Credit and Their Motivations

Uses of Installment Credit.

Consumer credit is more widely used in the U.S. than in any other major country in the world. Of about 75 million families in the U.S., about half owe some installment debt (exclusive of mortgage and medical debt) in any given year. Although the total amount of installment debt owed varies considerably, its recent level has been about \$150 billion dollars, or about \$4000 on the average for every family with installment debt. There is a considerable amount of turnover among debtors in the U.S. For example, in 1968, about 40% of all U.S. families incurred some installment debt according to the Survey Research Center at the University of Michigan ([7], p. 35, 1968 edition). Over half of these families had no installment obligations prior to 1968. By implication, an approximately equal number of families must have paid off their obligations and incurred no new debt in 1968, as the proportion of debtors in the population remained essentially constant during this period. Looking at an even longer time horizon, most consumers make use of installment credit during their lifetimes (Exhibit 2.1).

There are many characteristics of credit users that one could study; only a few of those found to be important are examined here. Even these (age, income and family life cycle) are interrelated. For example, income and age are correlated with each other; i.e., other things equal, older workers tend to earn more than younger ones. This should be kept in mind when looking at univariate data such as that presented in this report.

Exhibit 2.2 gives some insight into the nature of users of installment credit. They tend to be young people, especially those with younger children. Their incomes are predominantly in the mid-ranges of the income distribution, with highest use levels occurring in the \$7500 to \$15000 family income range.⁵ Use of credit depends on the willingness of lenders to supply credit as well as the desire of consumers to obtain it. For example, at the lower end of the income distribution, lower credit use levels were probably due more to difficulties in borrowing than to a lack of demand for credit (although the very low income families may buy fewer of the types of goods commonly financed with credit). In comparison, less than half of all families earning incomes in excess of \$15000 per year used installment credit. However, this is more likely a result of the fact that these people could more easily pay for their purchases with income or savings, than of their inability to find a willing lender.

The amounts of debt owed by these various population groups varies considerably. For each group in Exhibit 2.2, the percentage owing less than \$1000 is shown by the inside bar. As can be seen, more than half of the young families (under age 35) in debt owed more than \$1000. In the next three age groups, a majority of the debtors owed less than \$1000, while practically all of the elderly debtors owed under \$1000. By income, the highest concentration of debtors owing over \$1000 was in the highest group. Here, over 60% of the borrowers owed \$1000 or more (and could probably easily afford to repay it). About half of the debtors in the \$7500 to \$15000 income range had installment debts in excess of \$1000. The detailed distribution of installment debt owed by income group for 1970 is shown in Exhibit 2.3.

By life cycle groups, the picture was pretty much as one might expect. Families early in the process of household formation tended to have larger debts much more frequently, particularly the young married families with no children. Late in the life cycle, for those few families that owed any installment debt, the magnitudes were predominantly under \$1000.

⁵ The reader should keep in mind the fact that these data were collected in January of 1970, the most recent comprehensive study of credit use available. Significant inflation has occurred since then, significantly altering the distribution of dollar income. Of interest here is not the dollar amount, but the relative position of users in the distribution, which is less affected by inflation.

Overall, these data indicate that the types of financial arrangements needed by consumers varies at any one point in time across various user characteristics but also that these needs vary for any given consumer over time. EFTS may provide a framework more favorable to the provision of specialized credit financial services, including the provision of major lines of credit at appropriate stages of the life cycle.

Credit Quality

One aspect of credit use that has always been of concern to lenders and policy makers alike is the "quality of credit." The most frequently used measure of quality has been a debt-income ratio. For many years, this ratio was published in the aggregate specifically, the ratio of aggregate debt payment commitments for a year to aggregate disposable income for the same year. In the late 1950s and early 1960s, this ratio began to rise and considerable concern was expressed about the degenerating quality of credit. Again, a look at the disaggregated side of the story gives a different picture. It is true that debt use was on the rise, but almost all the increase in use was among higher income families, who, based on an income criteria, were more capable of repaying the debts they incurred. According to Exhibit 2.4, debt use in the lower income groups has diminished since 1964, while in the highest income groups, it has gone up considerably. The proportion of debtors in these groups owing more than \$1000 in installment debt has also risen over the period. The observed shift of credit to higher income groups is exaggerated because of the change in the distribution of income over this period due to inflation (as shown in the right hand column of Exhibit 2.4), but still characterizes the change in use patterns.

Exhibit 2.5 provides information about the "quality of credit" as measured by an annual debt payment to disposable income ratio disaggregated by age, family income and life cycle groups. A higher proportion of the low income families in debt had payment ratios in excess of 20% (about 1/3) than did families with incomes above \$5000 (about 1/5 of the debtors had payment ratios above 20%). For example, in the lowest group, 19% of all families owed installment debt, with 12% (or about 2/3) having payment ratios under 20%. In the highest income group, half of all families had installment obligations and 45% (or 90% of the debtors in the group) had payment ratios under 20% (although their actual obligations were much larger as shown in Exhibit 2.2). Comparing these ratios to 1964 data (see Table 4-4, 1964 Survey of Consumer Finances, Survey Research Center, University of Michigan [7]), one might conclude that the quality of credit has improved since 1964, using the annual payment to income ratio as a criterion. A detailed distribution of the annual debt payment to income ratio is shown in Exhibit 2.6.

Summary: Installment Debt

From the demographic data presented, it would appear that the use of installment credit is related to two basic, interrelated characteristics of the consumer. First, an important determinant of debt use is the adequacy of funds and assets available to finance purchases the family wishes to make. Second, the volume and timing of necessary expenditures relative to the flow of income and the stock of financial asset is important. The life cycle variable is a good proxy for these effects. The formation of a family and the raising of young children comes at a time when financial assets have usually not been accumulated in large quantities, when a large part of the portfolio may be tied up in illiquid assets like a house, and income has certainly not reached its peak. At this time many large expenditures for durables, furnishings, clothes, etc. must be made. Given the financial constraints faced by such families, credit is the only way for many of these items to be purchased.

Credit use increased among higher income consumers (even after adjusting for inflation) thereby changing the nature of the demand side of the market. The entry into the market of more consumers of higher quality contributed to changing shares of credit extended by various types of lending institutions. The shift is especially relevant to revolving credit arrangements (like credit cards) since they are more likely to be granted to middle and upper income consumers than to lower income consumers. Certainly installment debt has become

an integral part of the consumers' portfolios as they become more capital intensive (buy more cars, appliances, etc.) in the operation of their households.

Credit Cards

The credit card bears special attention when looking at the importance of credit use and the development of EFT systems. It has been said that credit cards are what people use when they find that money cannot buy everything. Perhaps that should be modified to include "the money they have with them." The credit card is different from most retail installment credit arrangements in that it provides credit for all kinds of purchases for which no contract need be negotiated at the time of purchase. In essence, the credit card user is granted a line of credit that he is free to use up to a pre-specified limit. Each month, the user is given the option to convert to a liability all or part of any obligation he has incurred. This provides a considerable amount of financial flexibility to the extent that each month the buyer can decide on the best use for the funds he has accumulated. It also makes the management of cash balances much easier in that a consumer need not plan as carefully the amounts of cash (or checks and bank balances) he needs to keep. If a "short term loan" is needed, it is available without negotiation or trips to arrange financing. This may provide the consumer with quite a sizeable saving, both in time and other transaction costs.

Since the credit card provides more than "credit" in that it yields a financial convenience service as well, one might expect that the use of credit cards might be different from that of installment debt in general. More specifically, consumers that might never use installment credit may well use credit cards for the convenience they offer. Under the current system they can avoid the costs of using the card by paying their monthly statements before finance charges are assessed. The figures in Exhibit 2.7 suggest that this is the case, particularly the data relating to differences in the use of credit cards and installment debt by income groups. In general, the higher the income level, the higher the proportion of families that used at least one credit card. The number of credit cards used also rises with income level (Exhibit 2.8). Nearly half of all the families in the two highest income brackets (\$20000 or more) had six or more cards (well over half of those families with cards in the group). In the lower three income groups, a majority of the card holders had no more than two cards. Although 81% of all families in the highest income group use credit cards, only 29% of all families in the group have five or less cards. The remainder (52% of all families in the group and 64% of all families in the group using credit cards) have six or more credit cards.

For the higher income consumers, the frequency of credit card use and installment debt use clearly diverge. Although only about half of all families earning \$15000 or more per year owe any installment debt, well over 3/4ths of them use credit cards, indicative of the differences in services provided by the two types of credit. At the lower end of the income spectrum, the proportions are more nearly the same for credit card and installment credit use. This suggests a demand for services that can be effectively provided in an EFTS environment.

Exhibit 2.9 shows the types of cards used by consumers by income groups. In the lowest three groups, few consumers had any credit cards at all, but the store credit card and the gas card were the most frequently used. Few consumers had bank cards or travel and entertainment cards. These types of cards are most frequently used by consumers in the higher income groups who have more opportunities to use them. Larger volumes of credit are generally carried on these types of cards than on store or gas cards. This suggests that consumers in various income groups require different types of services by varying the type of credit card used. This may suggest that an EFTS environment will have to be oriented around a multiplicity of cards to continue to provide these services.

Exhibit 2.10 shows the number of credit cards (of all types) owned by consumers in each income group. Ownership rises dramatically with income, with over half the consumers with incomes (1970) of \$25000 or higher having 6 or more cards. The balances outstanding on these cards also varies with income, rising at first, and then declining for the highest income group (Exhibit 2.11). Balances for specific types of cards are shown in Exhibit 2.12. In general, a lower proportion of higher income consumers have unpaid balances, suggesting less frequent use of the revolving option. These families also have more cards to spread their balances over during any given period and, of course, a higher cash flow (income) to pay off their obligations in full. The frequency of balances outstanding and the large number of cards used suggest another set of services desired by consumers, related to the payment flexibility inherent to the use of multiple cards from different credit sources.

Use and Users of Retail Store Credit

Detailed studies have been made of just how consumers use their lines of retail revolving credit [3] [5][11]. Some of the information from a study of New York department store credit card users is presented here. These data provide some interesting insights into the findings from the national cross-section data just presented. Income groups-are not directly comparable due to the effects of inflation between 1970 and 1973 and the differences in the populations sampled.

Multiple card ownership is very high. Seventy percent of department store credit card users have 5 or more cards, 25% have ten or more (Exhibit 2.13.). Sixty seven percent have 1 or more bank cards, and 41% have 5 or more department store cards. By income group (Exhibits 2.14 and 2.15), card ownership can be seen to be highly income dependent, showing patterns similar to the national cross-section study. Ownership is very common in the higher income groups, and large numbers of cards are used by these consumers.

Account histories drawn at random from store records for a 12-month period illustrate patterns of account use (Exhibit 2.16). For sample respondents overall, the average account produced total sales of \$243 during the year, which after returns and other adjustments amounted to net sales of \$218.⁶ Net revolving credit sales averaged \$126, indicating that only 58 percent of net credit sales produced some finance revenue. These retail store credit accounts revolved, on average, only 5.2 months out of 12. As a result, finance charges averaged \$15.21, yielding a ratio of finance charges to net sales of 7.0 percent and to total revolving sales of 12.0 percent. It should be noted that even though finance charges are levied on revolving credit accounts at an annual percentage rate of 18 percent, such charges actually yield a much lower return. This difference arises from the number of days that precede the first billing cycle when no finance charges are assessed, from the timing of sales and repayments, and from the method of assessment.

Consider first the differences among cardholder accounts by income. Respondents with incomes of less than \$7,500 accounted for annual gross and net sales that averaged about \$100 less than sales in the higher income groups (Exhibit 2.16). Above the \$7,500 income level, there were no systematic differences among the various income groups in the amount of sales.

The two highest income groups (\$20,001-\$25,000 and above \$25,000) revolved a significantly lower proportion of their net sales. Finance charge revenues, the number of revolving months, and the percent of net sales revolved seem abnormally low in the \$20,000 to \$25,000 income group, but checks did not reveal any errors in the computations. The low proportion of sales revolved suggests that this group maximized use of the option to pay without finance charges during the initial billing cycle.

⁶ The terminology used in Tables 10 and 11 is the retailers' since the data were drawn from their records. The reader should note that what the retailer reports as a sale is, from the cardholder's point of view, a purchase.

The income groups between \$7,500 and \$15,000 contributed relatively more to finance charge revenues. They accounted for a large proportion of total sales which they chose to revolve over a relatively longer period of time. In contrast, the \$15,001 - \$20,000 group, though accounting for a large fraction of total sales, revolved a lower proportion of their sales for a shorter period of time, paying a relatively smaller share of finance charge revenues compared to their share of net sales.

Since the account use patterns analyzed here are limited to the retail store account histories from which the sample of respondents was drawn, it is essential to consider the effect that multiple credit card possession may have had on account use by retail store customers. Exhibit 2.7 indicates that the more cards a customer holds the less he will spend at a given store. That is, cardholders spread their purchases as the number of cards they hold increases. A similar pattern can be discerned in the percentage of purchases revolved.

For these consumers, the data again suggest that revolving accounts serve two different functions for their users. The first is convenience in using credit as a substitute for cash. The other is to spread out payment for purchases that cannot be fitted easily into a monthly budget. These functions resulted in patterns of use that differed according to income. These patterns of demand for financial services must be recognized in developing an EFTS system, and the data are suggestive of the population segments that are potential EFTS users.

Although credit cards do not account for a lion's share of the volume of consumer credit outstanding, they do play a unique and increasingly important role in the consumer's use of credit, providing financial flexibility and services not ordinarily associated with the more conventional forms of credit such as an automobile loan. Although credit card outstandings amount to about 10% of installment credit, they are used to finance a much higher volume of sales. Large retailers estimate that about half their sales are on credit cards. It is this transaction volume that is important to EFTS, -and, in turn EFTS will have a profound effect on the further development of revolving credit.

Why Consumers Use Credit

In the discussion of the characteristics of credit users, several of the reasons for using credit were alluded to. At this point, it will be useful to consider this issue more rigorously, particularly as it relates to the future of EFTS. Such a treatment of the rationale for using credit will shed further light on the reasons for the use differential of credit across consumer characteristics just documented. First, the benefits of using credit will be systematically examined. Then, the costs associated with credit use will be discussed in the context of a specific example. These two basic considerations provide the essentials needed to explain the use of credit by consumers and also the means to predict their response to changes in credit costs and/or availability.

There are many idiosyncrasies peculiar to individuals but unrelated to any important observable characteristics such as age or income that affect credit use. Some people will not use credit under any circumstances, for moral reasons or whatever.⁷ Other individuals may tend to misuse credit because they are poor financial planners, or have bad judgment or little willpower. The same might be said about any service or good produced in our economy, including cars, food, alcohol, pornography, drugs and medicines or education. The point is that the provision of credit is of value to consumers - maybe not to all consumers, but presumably to those who choose to use it.

Although it is not too difficult to describe the nature of the service that credit provides, it is most difficult to attach an actual value to it. Yet, implicitly, this is what consumers must, to some degree or another, be

⁷ See the Bank Marketing associations study [10] of people who do not use checking accounts as a parallel example.

doing each time they decide to use installment credit. The following considerations underlie the most important dimensions of the value of credit to the user:

1. Consumption needs (the need to use cars, houses, food, clothing, etc.) do not always match the flows of income accruing to consumers. The classic example is the farmer, who is paid once a year but must continue to eat and finance the operation of the farm from one harvest to another. A more common example is the need to have a washer and dryer when there are very young children in the home, even though the family may not be earning a lot of money at that time or may have heavy financial commitments in a new house. Credit availability makes it easier to acquire goods when they are most needed in terms of the value of the services they will provide the user.
2. For many consumers, installment buying is a good budgeting device as they find it difficult to save effectively. The existence of credit allows them to pay for services of durables as they consume them.
3. Credit can be used to insulate accumulations of liquid assets from unexpected large expenditures. That accumulations of liquid assets (such as savings accounts) are of value to consumers in and of themselves is evidenced by the fact that we observe consumers with financial obligations when they also hold enough liquid assets to pay them off.
4. The financial management benefits of some types of credit (in particular, that provided by revolving credit accounts) have already been discussed. Many consumers have a line of credit they can use to purchase almost any commodity. This saves time in managing cash balances and for negotiating loans, and eliminates transactions and transportation costs related to the search for credit. In addition, the consumer has the option of paying off these obligations with one check and at no cost (service charge). That this flexibility is of value to consumers is evidenced by the data presented in Exhibits I and IV consumers used credit cards but owed no installment obligations.
5. Finally, and this point relates primarily to durable goods, clothing and the like, the purchase (ownership) of some goods provides the consumer with a net savings that makes the use of credit, even at very high costs, advantageous. For example, one has the option of owning a washer and dryer, or of going to a laundromat or of sending the laundry out to be done. Each option has associated with it a flow of costs (including direct financial costs, materials and time). Cost savings from ownership of the two durables may justify purchasing them on credit if the savings exceed the cost of financing. If credit were not available, this option would be closed to consumers who did not have enough savings to purchase desired goods, or did not wish to reduce existing savings by the amount of the purchase.

This list of advantages is likely not exhaustive, but it covers the major considerations. The value of each of these elements will vary from consumer to consumer and product to product. But, to one degree or another, these are factors that consumers-consider in deciding about-their use of credit.

As noted earlier, the value of items 1 to 5 are very difficult to estimate, but clearly could be of major importance to consumers and illustrate how changes in the ease of getting credit could be even more important to the consumer than changes in the actual cost of funds. EFTS will likely have a profound effect on the former - the transactions cost of acquiring credit, including the costs of shopping for credit, filling out applications, delays in authorization, etc.

As an example, Exhibit 2.18 presents calculations showing the value of net savings attributable to ownership of a washer and dryer for use levels varying from one load to eleven loads per week. The procedure followed was to calculate the NET savings associated with owning a washer and dryer over the life of the equipment when the alternative for cleaning clothes was to take them to a laundromat. The calculations are documented in a paper done for the National Commission on Consumer Finance [6]. The stream of savings was then converted to a "rate of return" which showed what rate of interest would be required to yield the same stream of net savings if the money were invested in a savings account instead of using it to buy a washer and dryer. Clearly, if one does only a few loads of wash per week, ownership may not be worthwhile. One can always earn some positive return just by putting his money in the bank. The total cost of financing a purchase (and therefore its net value to the consumer) depends on the cost of getting credit as well as the cost of the credit per se (i.e., the total cost of credit). And, if "price specials" can be taken advantage of; the rate of return is increased for any given number of loads per week. EFTS will probably change the total cost of credit, the availability of credit, and the relative total cost of credit among existing credit grantors, affecting both the total volume of credit transactions as well as the distribution of those transactions across credit grantors.

Summary

Throughout the period 1964-1970, the composition of installment credit users changed. Inflation aside, it appears that credit use by higher income consumers probably increased and declined somewhat for lower income families.

The credit card has become a widely used payment mechanism for making purchases of goods and services, cutting into the small cash loan market. Credit card use was found to vary directly with education, age, life cycle and income. The higher the level of income, the more frequent the use of credit cards. In terms of the convenience of this type of credit, and the value of that convenience to users, it is not surprising that income-related use is observed. In general, the larger family income, the greater the volume of transactions. These people could benefit most from a service that consolidated payments or that minimized cash management requirements. Although it is difficult to place a value on this aspect of credit use, as was done in the case of the washer and dryer, the importance is quite clear.

Examination of the use of installment credit suggests several points of concern for the development of EFTS:

- (a) The high volume users of credit are also the higher income, better educated consumers. The success of EFTS will likely depend on acceptance by a large proportion of these credit users.
- (b) This point is underscored by data on credit card use. Some type of card will likely be the backbone of the consumer interface with EFTS. To be economically feasible, EFTS must attract the heavy credit card user - primarily higher income consumers. Looked at from the positive side, this same group has already become accustomed to using the card medium. Little effort would be required to convince these users of the advantages of plastic. Consumers who use cards heavily prefer a large number of cards. Although this could be a result of periods when bank cards were less widely accepted, the phenomenon is probably more complex than that.
- (c) Consumers spread their purchases out so that payments occur more evenly. Families specialize their cards for budgeting - the wife may have certain types, the husband others. Certain credit cards entitle their owners to the receipt of specialized information (sales, advertisement, etc.). In case of trouble, the customer knows exactly who to deal with and can reduce his use of one card and shift the burden to others. If these and similar factors are of value to consumers, the development of

EFTS must incorporate equivalent features or provide new advantages and/or lower costs to compensate users for the loss of these features.

- (d) Since about half of all consumers make regular installment payments, the potential for pre-payment authorizations is high. However, legal provisions that permit consumers to suspend payments when not satisfied with product performance present a tough problem for this aspect of EFTS. Some consumers intentionally fall behind in payments from time to time for budgetary purposes or due to irregularities in income. These consumers would not be disposed to use preauthorized schemes.

EXHIBIT 2.1
Use of Installment Credit
(percentage distribution of families)

<u>Group Characteristics</u>	<u>Use</u> All, or almost <u>All the time</u>	<u>of</u> Most of <u>the time</u>	<u>Installment</u> Only for a Period of <u>Time</u>	<u>Credit</u> Hardly <u>Ever</u>	<u>Never</u>	<u>Don't know;</u> Not <u>Ascertained</u>
All families	6	23	33	26	11	1
<u>Total family income</u>						
Under \$3,000	2	15	25	39	18	1
\$3,000-4999	4	19	30	32	14	1
\$5000-7499	7	24	33	25	10	1
\$7500-9999	9	30	36	18	7	*
\$10,000-14,999	10	29	36	19	6	*
\$15,000 and over	7	22	39	23	9	*

The question was: "Since you (HEAD) were 18, how much of the time have you been making installment payments on something or other: all the time, most of the time, only for a period of time, or hardly ever?"

* less than .5 percent

Exhibit 2.2

1970 SURVEY OF CONSUMER CREDIT

THE USE OF INSTALMENT CREDIT: 1970

LONG BAR - have instalment debt SHORT BAR - owe less than \$1000

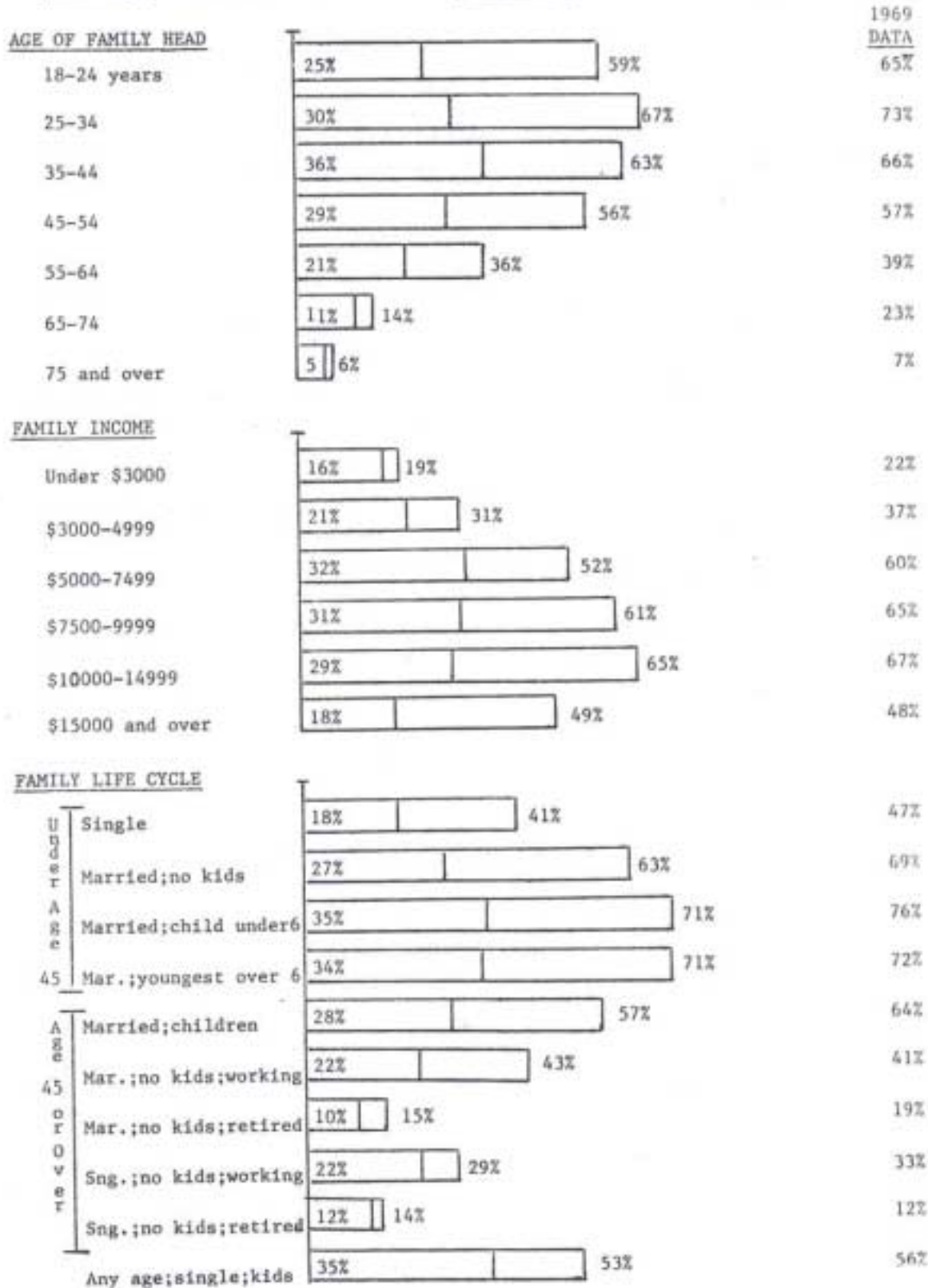


EXHIBIT 2.3
Amount of Installment Debt Outstanding
(Percentage distribution of families)

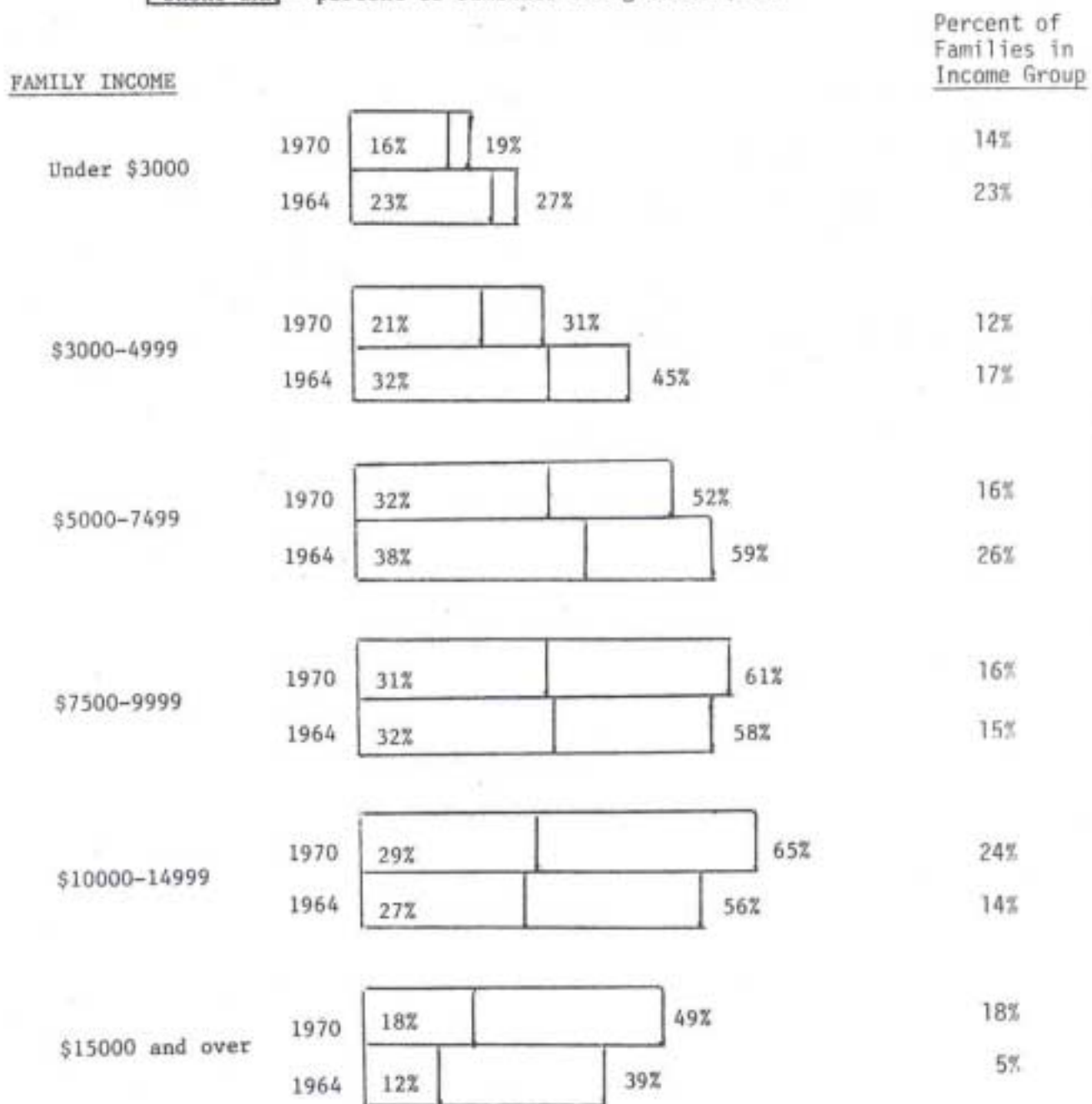
	<u>Any debt</u>	<u>Amount of</u>	<u>Installment</u>	<u>Debt:</u>	<u>Early</u>	<u>1970</u>
		<u>\$1-199</u>	<u>\$200</u>	<u>\$500</u>	<u>\$1,000</u>	<u>\$2,000</u>
			<u>-499</u>	<u>-999</u>	<u>-1,999</u>	<u>or more</u>
All families	49%	8%	8%	9%	11%	13%
<u>Annual family income</u>						
Less than \$3,000	19	10	5	1	2	1
\$3,000-4,999	31	9	7	5	5	5
\$5,000-7,499	52	10	10	12	11	9
\$7,500-9,999	61	9	9	13	15	15
\$10,000-14,999	65	9	10	10	17	19
\$15,000 or more	49	4	6	8	11	20

Exhibit 2.4

A COMPARISON OF DEBT USE, 1970 AND 1964

LONG BAR - percent of families owing any instalment debt

SHORT BAR - percent of families owing under \$1000



data from: Survey of Consumer Finances

RATIO OF ANNUAL DEBT PAYMENT TO DISPOSABLE INCOME : 1970

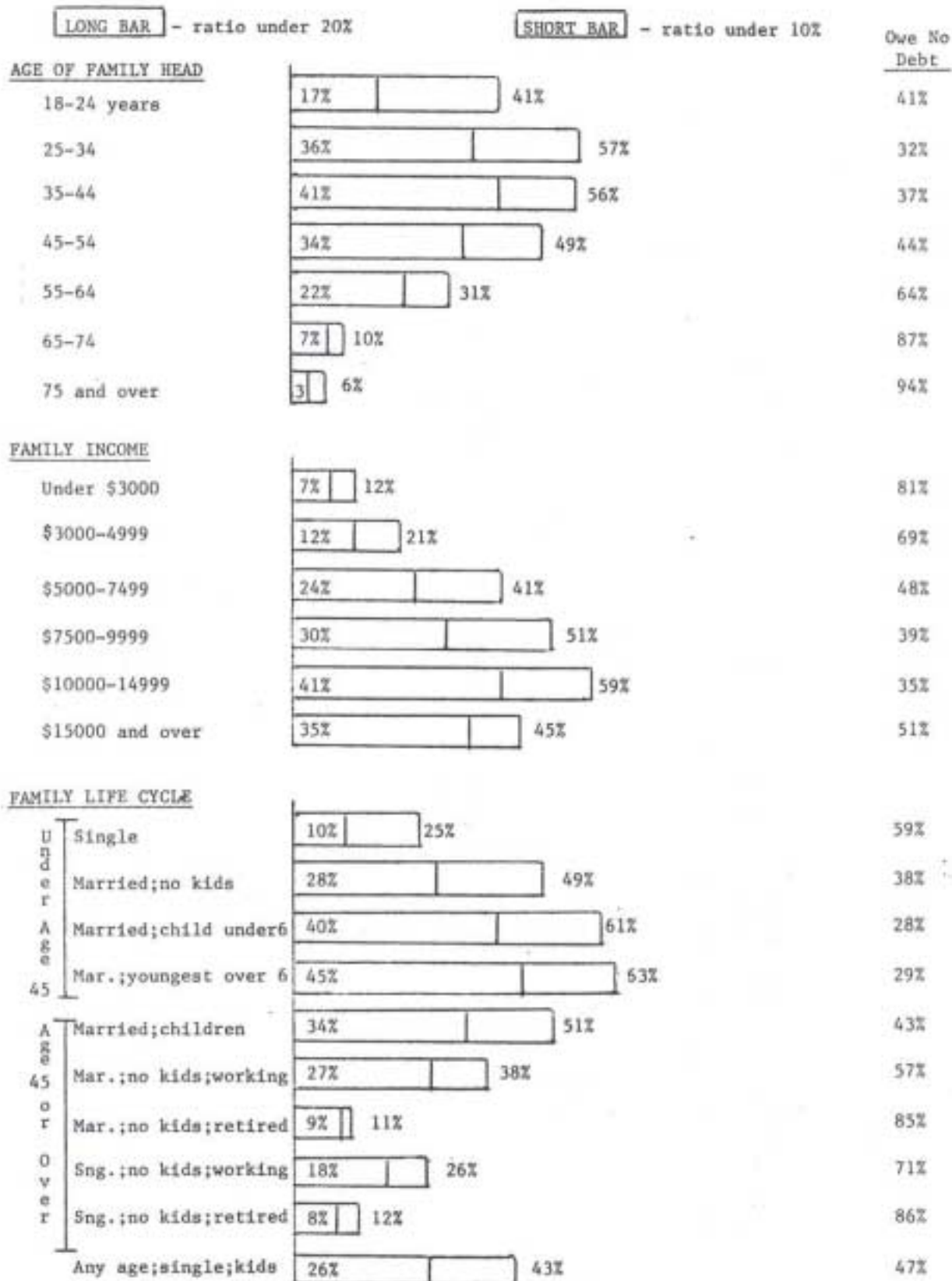


EXHIBIT 2.6

**Ratio of Annual Installment Debt payment to Previous Year's Annual Income: Early 1970
(Percentage distribution of families)**

<u>Annual family Income, 1969</u>	<u>No payments; No debt</u>	<u>Less than 5 percent</u>	<u>5-9 percent</u>	<u>10-19 percent</u>	<u>20-39 percent</u>	<u>40 percent or more</u>	<u>D.K., N.A. Amount of Payment</u>	<u>Total</u>
All families	51	12	15	14	5	1	2	100
Less than \$3,000	81	2	5	5	4	2	1	100
\$3,000-4,999	69	5	7	9	7	2	1	100
\$5,000-7,499	48	11	13	17	8	2	1	100
\$7,500-9,999	39	14	16	21	8	*	2	100
\$10,000-14,999	35	17	24	18	3	1	2	100
\$15,000 or more	51	17	18	10	1	1	2	100

* less than .5 percent

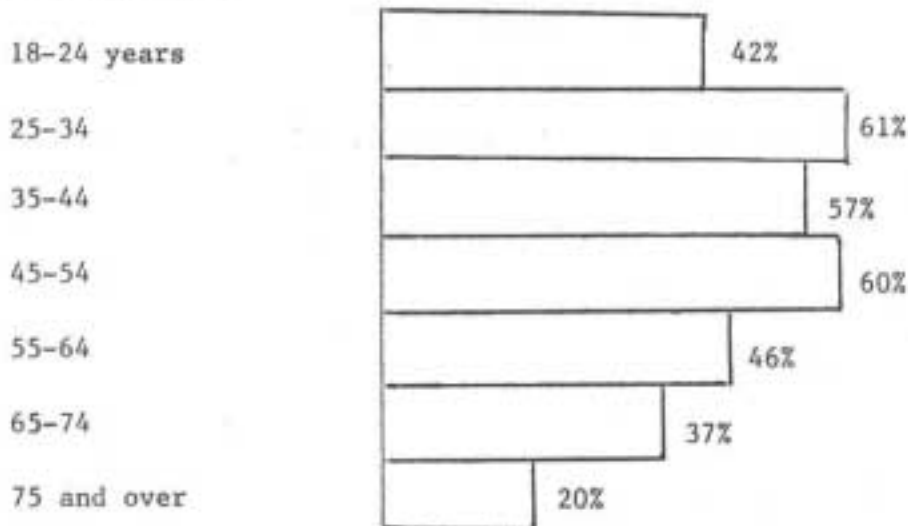
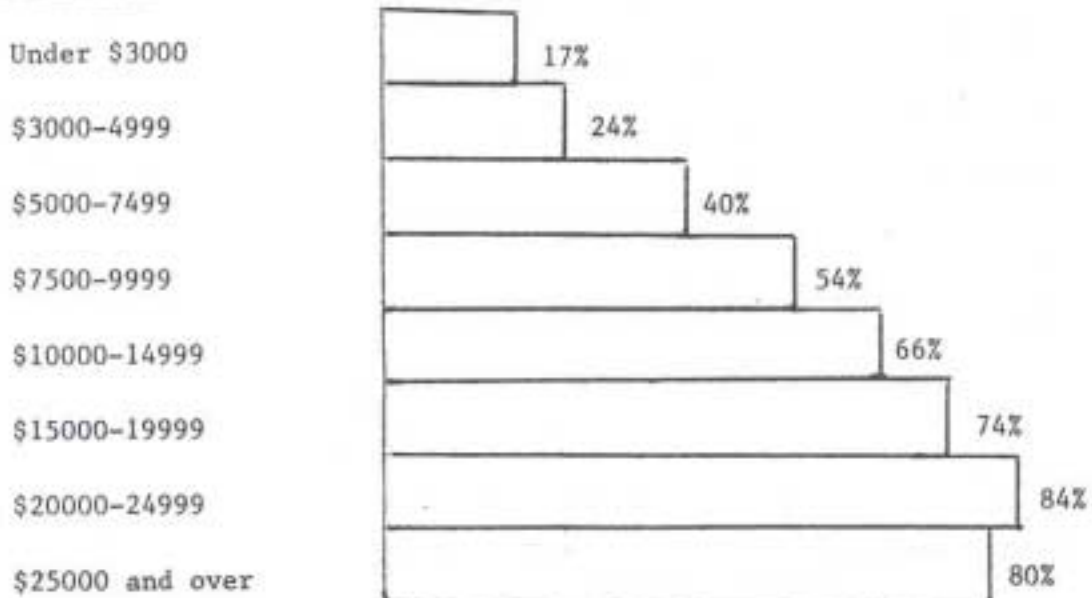
**Monthly Installment Debt Payments: Early 1970
(Percentage distribution of families)**

	<u>Amount</u>	<u>of</u>	<u>Monthly</u>	<u>Debt</u>	<u>Payments</u>			
	<u>None</u>	<u>\$1-24</u>	<u>\$25-49</u>	<u>\$50-74</u>	<u>\$75-99</u>	<u>\$100 or more</u>	<u>D.K., N.A. Amount of Payment</u>	<u>Total</u>
All families	51	8	8	8	8	16	1	100
<u>Annual family income</u>								
Less than \$3,000	81	8	6	2	1	1	1	100
\$3,000-4,999	69	8	10	5	3	4	1	100
\$5,000-7,499	48	10	9	14	8	10	1	100
\$7,500-9,999	39	9	11	11	10	18	2	100
\$10,000-14,999	35	8	7	11	13	24	2	100
\$15,000 or more	51	3	5	5	8	26	2	100

Exhibit 2.7

CREDIT CARD USE

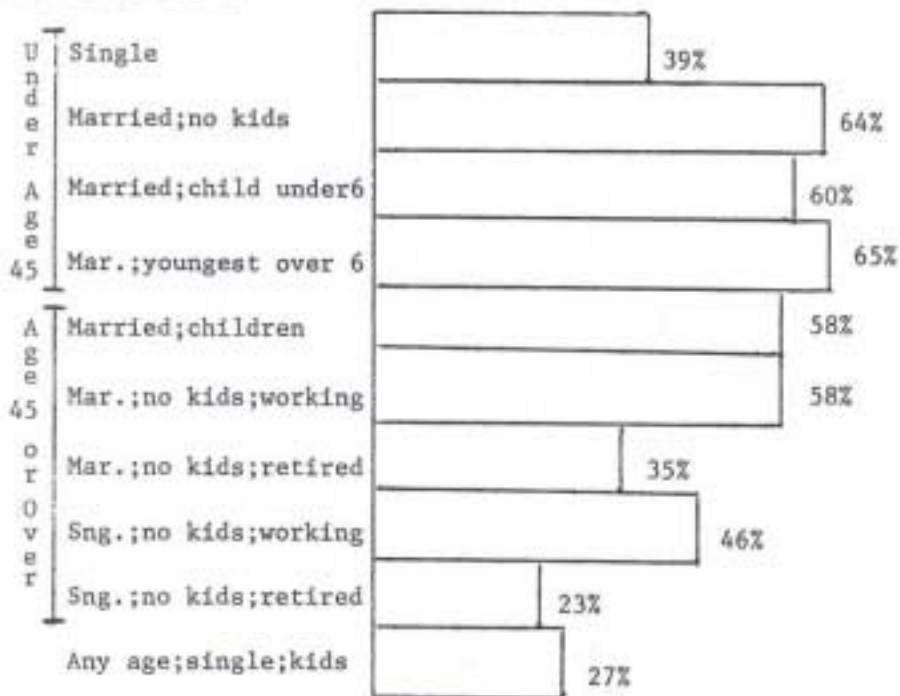
Percent of families using at least one credit card

AGE OF FAMILY HEADFAMILY INCOME

CREDIT CARD USE

Percent of families using at least one credit card

FAMILY LIFE CYCLE



OCCUPATION OF FAMILY HEAD

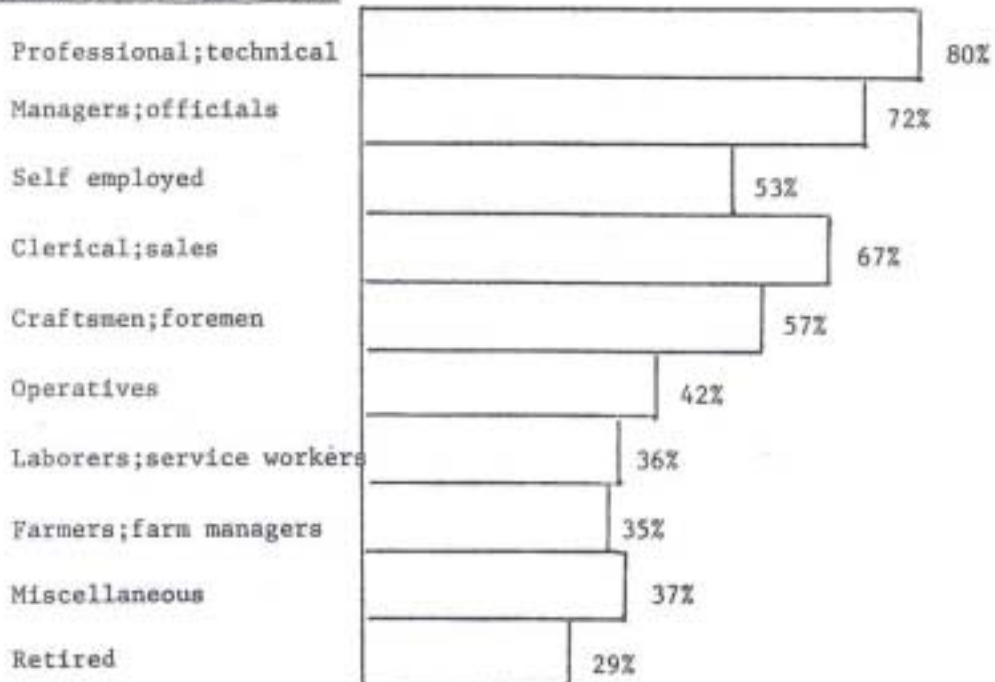


Exhibit 2.8

NUMBER OF CREDIT CARDS USED

LONG BAR - use 1 or 2 credit cards
SHORT BAR - use 1 to 5 credit cards

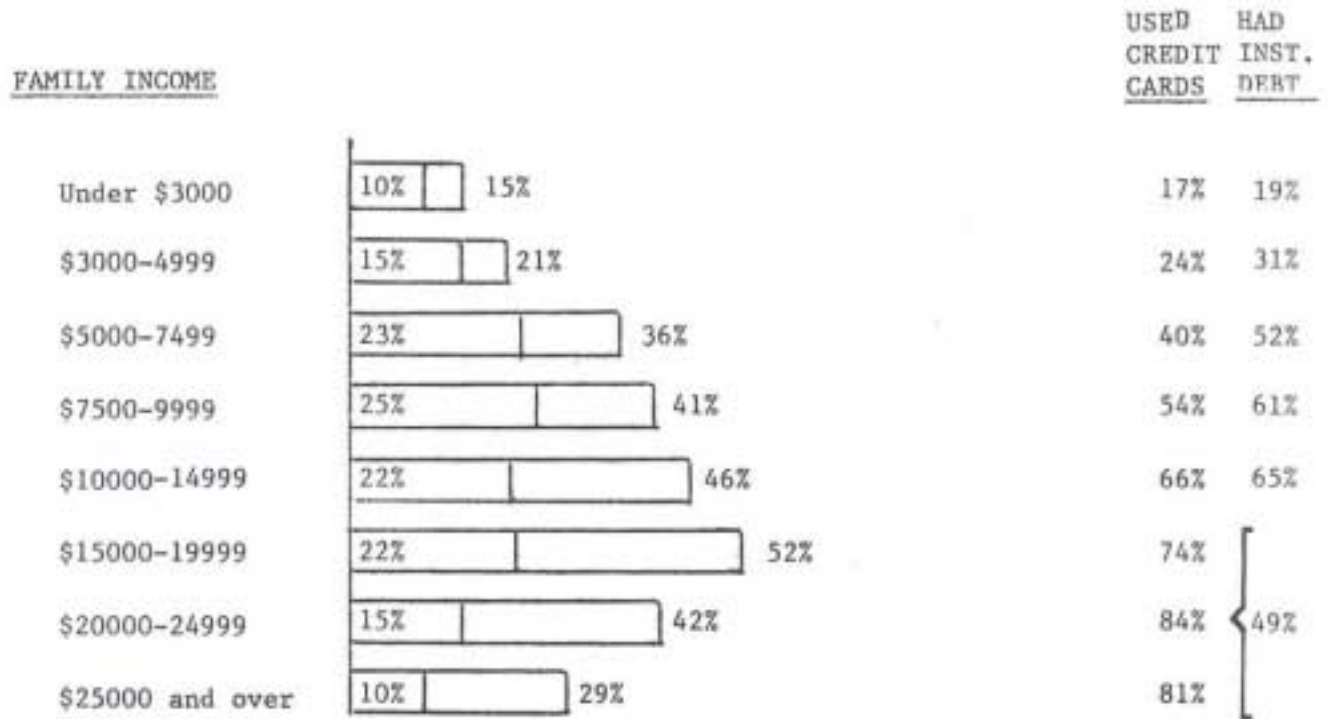


EXHIBIT 2.9
Type of Credit Cards Used by Income Groups: Early 1970¹
(Percentage distribution of family units)

<u>Annual Family Income</u>	<u>Percent of Families</u>	<u>Percent Gas Cards</u>	<u>Using Bank Cards</u>	<u>T&E</u>	<u>Store Cards</u>	<u>All Other Than Gas Cards²</u>	<u>Any Card</u>
Under \$3,000	14	8	2	2	11	11	17
\$3,000-4,999	12	14	3	4	12	21	24
\$5,000-7,499	16	24	11	5	23	34	40
\$7,500-9,999	16	32	14	8	36	48	54
\$10,000-14,999	24	45	22	10	50	56	66
\$15,000-19,999		56	30	14	56		74
\$20,000-24,999	18	68	40	30	66	72	84
\$25,000 or over		67	37	40	61		81

1 As of January, 1970

2 1969 Survey of Consumer Finances

EXHIBIT 2.10
Number of Cards Used by Income Groups: Early 1970

<u>Family Income</u>	<u>Number of Credit Cards Used</u>	<u>None</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6 or more</u>	<u>All</u>
Under \$3,000	83	7	3	3	1	1	2	100	
\$3,000-4,999	76	9	6	3	1	2	3	100	
\$5,000-7,499	60	14	9	5	4	4	4	100	
\$7,500-9,999	46	14	11	7	6	3	11	100	
\$10,000-14,999	34	12	10	9	8	7	20	100	
\$15,000-19,999	26	11	11	13	8	9	22	100	
\$20,000-24,999	16	6	9	5	13	9	42	100	
\$25,000 or more	19	6	4	9	3	7	52	100	

EXHIBIT 2.11
Unpaid Balance—All Credit Cards: Early 1970
(Percentage distributions of family units)

<u>Annual Family Income</u>	<u>None</u>	<u>\$1-14</u>	<u>\$15-29</u>	<u>\$30-49</u>	<u>\$50-74</u>	<u>\$75-99</u>	<u>\$100-149</u>	<u>\$150+</u>	<u>N.A.</u>	<u>Total</u>
Under \$3,000	60	7	6	10	7	*	3	4	3	100
\$3,000-4,999	66	7	1	7	5	3	1	7	3	100
\$5,000-7,499	52	2	9	5	8	4	4	14	2	100
\$7,500-9,999	50	3	3	3	5	3	6	23	4	100
\$10,000-14,999	47	3	5	5	5	3	4	22	6	100
\$15,000-19,999	57	2	2	6	3	2	4	17	7	100
\$20,000-24,999	56	*	1	4	6	1	5	22	5	100
\$25,000 or more	73	3	1	1	*	1	4	11	6	100
All families	53	3	4	5	5	3	4	8	5	100

* less than .5 percent

EXHIBIT 2.12
Unpaid Balance on Credit Cards by Total Family Income: Early 1970
(Percentage distribution of families)

	<u>No unpaid Balance</u>	<u>Unpaid \$1-14</u>	<u>Balance \$15-29</u>	<u>\$30-49</u>	<u>\$50-74</u>	<u>\$75-99</u>	<u>\$100-149</u>	<u>\$150-199</u>	<u>\$200 or more</u>	<u>Amount NA-DK</u>	<u>Total</u>
<u>Store Credit Cards</u>	<u>(913 families)</u>										
All families	54	2	5	5	6	3	4	3	14	4	100
<u>Total family Income</u>											
Less than \$3,000	57	7	5	10	8	*	3	3	*	7	100
\$3,000-4999	60	8	*	8	11	5	*	3	5	*	100
\$5000-7499	49	1	10	5	11	4	3	3	11	3	100
\$7500-9999	46	3	4	3	9	6	7	2	16	4	100
\$10000-14999	48	2	6	5	7	4	4	3	17	4	100
\$15000-19999	60	3	5	4	3	3	3	3	13	3	100
\$20000-24999	56	*	*	3	3	2	8	7	16	5	100
\$25000 or more	82	*	2	3	1	*	*	2	5	5	100
<u>Bank Credit Cards</u>	<u>(414 families)</u>										
All families	61	1	2	2	3	2	5	4	16	4	100
<u>Total family Income</u>											
Less than \$3000	62	*	*	*	13	12	*	*	13	*	100
\$3000-4999	89	*	*	*	*	*	*	*	11	*	100
\$5000-7499	57	*	4	2	5	5	7	9	11	*	100
\$7500-9999	53	*	3	2	3	3	9	4	21	2	100
\$10000-14999	57	1	3	3	4	2	4	4	18	4	100
\$15000-19999	62	*	1	1	1	5	6	4	14	6	100
\$20000-24999	73	*	*	3	*	3	3	3	13	2	100
\$25000 or more	73	3	*	5	*	*	*	*	14	5	100

* less than .5 percent

EXHIBIT 2.12 (continued)
Unpaid Balance on Credit Cards by Total Family Income: Early 1970
(Percentage distribution of families)

	No unpaid Balance	<u>Unpaid</u> \$1-14	<u>Balance</u> \$15-29	\$30 -49	\$50 -74	\$75 -99	\$100 -149	\$150 -199	\$200 or more	Amount NA-DK	Total
<u>Gas Credit Cards</u>	(872 families)										
All families	81	4	4	3	2	1	1	1	1	2	100
Total family Income											
Less than \$3,000	79	7	7	7	*	*	*	*	*	*	100
\$3,000-4999	88	3	7	*	*	*	2	*	*	*	100
\$5000-7499	77	6	5	3	5	1	1	*	*	2	100
\$7500-9999	79	5	5	4	2	2	2	*	*	1	100
\$10000-14999	77	4	6	4	2	1	1	1	2	2	100
\$15000-19999	85	2	2	4	1	1	1	*	1	3	100
\$20000-24999	91	2	1	2	3	*	*	*	*	1	100
\$25000 or more	81	3	2	2	7	2	*	1	1	1	100
<u>Travel & Entertainment Cards</u>	(239 families)										
All families	74	2	3	4	2	*	2	*	10	4	100
Total family Income											
Less than \$3000	62	*	38	*	*	*	*	*	*	*	100
\$3000-4999	50	17	*	17	8	*	*	*	8	*	100
\$5000-7499	84	*	*	6	*	*	*	*	5	5	100
\$7500-9999	61	*	*	3	6	*	6	*	18	6	100
\$10000-14999	77	2	2	3	3	*	1	*	10	2	100
\$15000-19999	74	3	*	5	*	*	*	*	16	3	100
\$20000-24999	78	*	7	4	*	*	*	*	4	7	100
\$25000 or more	80	*	3	*	*	*	5	*	5	7	100

* less than .5 percent

EXHIBIT 2.13
Credit Card Possession by Types of Cards Held
(New York Department Store Credit Card Users)

	<u>Percentage of</u>	<u>Sample</u>	<u>Respondents</u>		
<u>Number of</u> <u>Cards</u>	<u>Retail Store</u> <u>Credit Cards</u>	<u>Bank</u> <u>Credit</u> <u>Cards</u>	<u>Travel and</u> <u>Entertainment</u> <u>Credit Cards</u>	<u>Gas</u> <u>Credit</u> <u>Cards</u>	<u>All</u> <u>Credit Cards</u>
None	a	33%	%7	45%	
1	10%	40	19	16	
2	15			15	
[2 or more]	(90)	27	4		
3	18			12	
4	16			5	
5	14				
[5 or more]					
[6 or more]	27				
Under 5					30%
5-9					45
10-14					20
15 or more					5
<u>Total</u>	100%	100%	100%	100%	100%

a All respondents held at least one retail store credit card as this sample was drawn from those who held such accounts in New York.

EXHIBIT 2.14
Total Number of Cards Owned
(New York Department Store Credit Card Users)

			<u>Number</u>	<u>Of</u>	<u>Cards</u>	<u>Held^a</u>	
<u>Income Groups</u>	<u>Number of</u> <u>Accounts^b</u>	<u>Pct.</u> <u>Dist.^c</u>	<u>Under 5</u>	<u>5-9</u>	<u>10-14</u>	<u>15 or</u> <u>more</u>	<u>All</u>
\$5000 or under	39 (50)	2.3%	44%	56%	*/	*/	100%
\$5001-7500	115 (70)	6.7	45	53	2	*	100
\$7501-10000	153 (90)	8.9	70	22	8	*	100
\$10001-15000	454 (252)	26.5	38	46	11	5	100
\$15001-20000	449 (212)	26.2	24	51	21	4	100
\$20001-25000	212 (103)	12.4	10	54	30	6	100
\$25001 or more	294 (120)	<u>17.1</u>	10	39	39	13	100
All	1716 (897)	100.0%	29.0%	45.4%	19.6%	5.4%	100%

^a Includes department store, bank, gas T&E and other cards (airline, rent-a-car, etc.) If more than 8 cards of any one type were held, respondent was counted as holding 8.

^b Data are weighted to reflect the volume of outstanding balances in each of the 17 stores. 100 accounts were selected from each store. The actual number of accounts in each income group are shown in ().

^c Percentages may not add to 100 because of rounding.

* Less than one-half of one percent.

EXHIBIT 2.15
Type of Credit Card Ownership by Income
(New York Department Store Credit Card Users)

	<u>Number</u>	<u>of</u>	<u>Department</u>	<u>Store</u>	<u>Cards</u> ^a	
<u>Income Groups</u>	<u>Percent of Sample</u> ^b	<u>One</u>	<u>Two</u>	<u>Three</u>	<u>Four</u>	<u>Five or more</u>
\$5,000 and under	2.2%	5%	26%	8%	31%	30%
\$5,001-7,500	6.7	17	18	30	7	27
\$7,501-10,000	8.4	25	19	25	18	14
\$10,001-15,000	24.7	13	20	17	12	38
\$15,001-20,000	26.4	7	13	20	24	36
\$20,001-25,000	12.8	4	12	20	12	54
Over \$25,000	<u>17.7</u>	6	11	9	13	62
All	100.0%	10%	16%	18%	16%	40%
	<u>Number</u>	<u>of</u>	<u>Bank</u>	<u>Cards</u>		
\$5,000	2.2%	100%	*%	*%	*%	100%
\$5,001-7,500	6.7	97	3	*	*	100
\$7,501-10,000	8.4	98	2	*	*	100
\$10,001-15,000	24.7	88	10	2	*	100
\$15,001-20,000	26.4	76	16	7	1	100
\$20,001-25,000	12.8	65	33	1	1	100
Over \$25,000	<u>17.7</u>	51	43	5	1	100
All	100.0%	77%	19%	3%	1%	100%
	<u>Number</u>	<u>of</u>	<u>the</u>	<u>Cards</u>		
<u>Income Groups</u>	<u>Percent Of Sample</u> ^b	<u>None</u>	<u>One</u>	<u>Two or More</u>	<u>All</u>	
\$5,000 and under	2.2%	77%	13%	10%	100%	
\$5,001-7,500	6.7	53	45	2	100	
\$7,501-10,000	8.4	51	33	16	100	
\$10,001-15,000	24.7	39	48	13	100	
\$15,001-20,000	26.4	21	41	38	100	
\$20,001-25,000	12.8	23	38	39	100	
Over \$25,000	<u>17.7</u>	22	38	40	100	
All	100.0%	33%	41%	26%	100%	

^a Since this is a sample of retail credit users, all respondents held at least one account.

^b Adds to less than 100 percent due to the omission of 19 cases (14 unweighted) for which income was not ascertained. Data are weighted to reflect the volume of outstanding balances in each of the 17 stores. 100 accounts were selected from each store. The actual number of accounts in each income group are shown in ().

* Less than .5 percent

EXHIBIT 2.16
Account Data by Family Income Groups
(New York Department Store Credit Card Users)

			<u>Account</u>	<u>Averages</u>	<u>(12-Month</u>	<u>Period)^a</u>	
<u>Total Household Income</u>	<u>Number of Accounts^b</u>	<u>Percentage Distribution^c</u>	<u>Total Sales</u>	<u>Net Sales</u>	<u>Net Revolving Sales</u>	<u>Finance Charges</u>	<u>Number of Revolving Months</u>
\$5,000 or under	39 (50)	2.3%	\$101	\$92	\$72	\$10.27	4.3
\$5,001-7,500	115 (70)	6.7	172	169	107	5.18	4.1
\$7,501-10,000	153 (90)	8.9	263	250	172	21.26	6.6
\$10,001-15,000	454 (252)	26.5	246	219	138	18.95	5.9
\$15,001-20,000	449 (212)	26.2	253	232	136	14.95	5.2
\$20,001-25,000	212 (103)	12.4	269	205	85	6.74	4.0
\$25,001 or more	294 (120)	<u>17.1</u>	239	224	115	17.36	4.8
All	1,716 (897)	100.0%	\$243	\$218	\$126	\$15.21	5.2
				Ratio of Finance	Charge Revenues to:		
<u>Total Household Income</u>	<u>Percent of Net Sales Revolved</u>	<u>Share of Net Sales^c</u>	<u>Share of Finance Charges</u>	<u>Net Sales</u>	<u>Revolving Sales</u>		
\$5,000 or under	78.2%	1.0%	1.5%	11.2%	14.3%		
\$5,001-7,500	63.2	5.2	2.3	3.1	4.9		
\$7,501-10,000	68.7	10.3	12.5	8.5	12.4		
\$10,001-15,000	63.1	26.6	33.0	8.7	13.7		
\$15,001-20,000	58.5	27.8	25.7	6.4	11.0		
\$20,001-25,000	41.4	11.6	5.5	3.3	7.9		
\$25,001 or more	51.6	<u>17.6</u>	<u>19.6</u>	7.8	15.1		
All	58.0%	100.0%	100.0%	7.0%	12.0%		

^a Data weighted according to each store's relative share of sales among the 17 stores in the sample.

^b Data are weighted to reflect the volume of outstanding balances in each of the 17 stores. 100 accounts were selected from each store. The actual number of accounts in each income group are shown in ().

^c Percentages may not add to 100 because of rounding.

EXHIBIT 2.17
Account Data by Number of Credit Cards Used

			<u>Account</u>	<u>Averages</u>	<u>(12-Month</u>	<u>Period)^a</u>	
Total Number Of Credit Cards	Number of Accounts ^b	Percentage Distribution ^c	Total Sales	Net Sales	Net Revolving Sales	Finance Charges	Number of Revolving Months
Under 5	508 (272)	29.6%	\$250	\$233	\$157	\$20.29	6.5
5-9	778 (413)	45.4	265	231	127	15.21	4.8
10-14	337 (168)	19.7	207	190	95	10.19	4.7
15 or more	92 (44)	5.3	144	130	70	5.65	3.4
All	1,715 (897)	100.0%	\$243	\$218	\$126	\$15.21	5.2
				Ratio of Finance	Charge Revenues to:		
Total Number Of Credit Cards	Percent of Net Sales Revolved	Share of Net Sales ^c	Share of Finance Charges	Net Sales	Revolving Sales		
Under 5	67.3%	31.6%	39.5%	8.7%	12.9%		
5-9	55.0	48.0	45.4	6.3	12.0		
10-14	50.1	17.1	13.2	5.4	10.7		
15 or more	53.4	3.2	2.0	4.3	8.1		
All	58.0%	100.0%	100.0%	7.0%	12.0%		

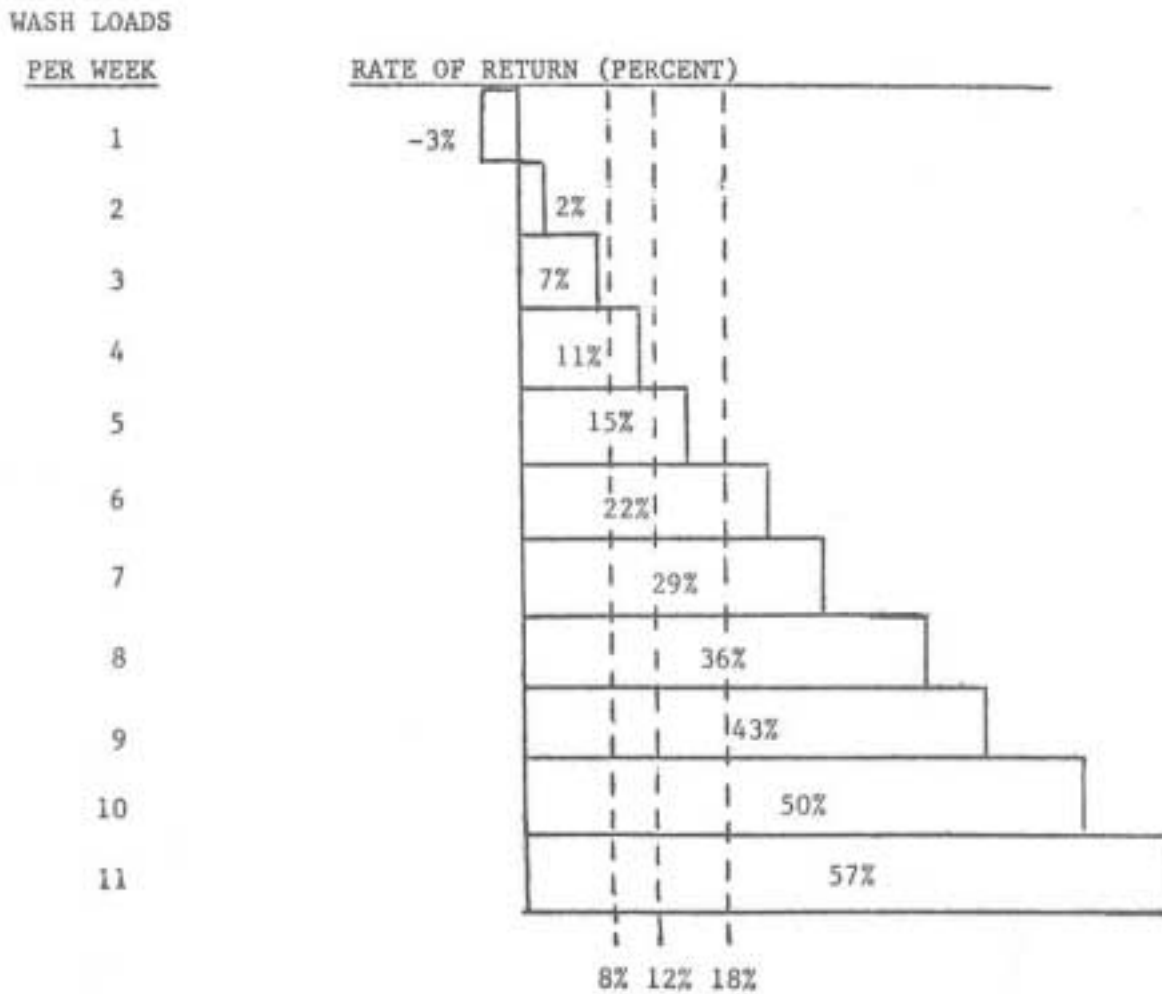
^a Data weighted according to each store's relative share of sales among the 17 stores in the sample.

^b Data are weighted to reflect the volume of outstanding balances in each of the 17 stores. 100 accounts were selected from each store. The actual number of accounts in each income group are shown in ().

^c Percentages may not add to 100 because of rounding.

Exhibit 2.18

THE RETURN TO OWNERSHIP OF A WASHER & DRYER^a



^aCost of financing not included.

^bSavings calculated relative to the cost of using a laundromat.

3. Issues for EFTS Development

The Consumer and EFTS

Not all dimensions of EFTS require consumer cooperation. Inter-bank and inter-firm transfers of funds can be and are being handled by electronic transfer. But to accomplish the major paper handling savings hoped for, EFTS developments will have to become an accepted part of the consumer payments mechanism. For the consumer, there are two general concerns:

- (1) What will "EFTS" cost? The term "cost" in this context should be interpreted to include any lowering or raising of charges, new fees, any changes in convenience and time requirements to accomplish transactions, and the cost and adequacy of information about these transactions.
- (2) Can "EFTS" be trusted? This includes issues of privacy, confidence in the ability of such a system to handle transactions accurately, the potential for misuse of funds or information, the likelihood of a breakdown, a sense of lack of control and similar problems (perceived or real).

From the consumers' point of view, EFTS will be "better" only if it costs less than the current system. Otherwise, there is no motivation to use it. Keeping in mind that "costing less" is synonymous with being better off, and that this can happen even if some aspects cost more, so long as some others cost even less, the following questions must be kept in mind when designing and marketing EFTS:

1. Will it make anything that consumers do now more difficult, less certain, or more expensive?
2. Will it add new services that are of value to consumers?
3. Will it take away advantages that now attract customers to existing financial systems?
4. How do various aspects of the system influence the consumers comfort with and confidence in the financial system?

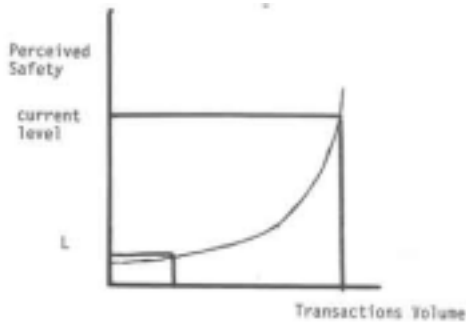
The answers to these questions will be fairly specific in most cases for a given EFTS configuration. Putting these answers together will yield a particular set of changes in the relative prices of services. For example, paying for goods without cash might be much faster and therefore less costly to the consumers. Less documentation may make bookkeeping harder and therefore more expensive. Just how these "relative prices" change will determine who uses EFTS, since consumers use financial services for different reasons.

An example may make this clearer. Suppose that the system really reduces the time required for filling out charge slips, making credit checks and so on. This would make it more attractive to consumers who (a) make a lot of transactions and (b) value their time highly.

Suppose, however, that the system is also perceived as being less safe than the existing one. This will likely discourage everyone to some degree, but have most effect on those consumers for whom even a temporary mix-up may be very expensive in terms of ability to pay continuing obligations, the value of time required to resolve problems and personal anxiety possibly elderly and lower income users.

High income consumers have financial alternatives and reserves, and a better understanding of the system (although a higher value for time spent correcting errors). Thus, a small reduction in perceived safety would probably have less of an effect on them (assuming that everyone has insurance like existing credit card insurance to protect against permanent loss).

This suggests the existence of a trade-off between perceived safety and usage that hypothetically might look as follows:



If the new system were perceived to be somewhat safer than the existing one (one shown as "current safety level"), little new transaction volume would be attracted since those that do not use the system now for the most part generate few transactions. And, making the system "safer" (either in fact or by perception) costs money. That cost should be weighed against the new volume that might be attracted. Using the Bank Marketing Association's study of non-users of checking accounts [10] as a guide, it does not appear that adding people who are currently out of the checking account system would add much to the volume of transactions if they were induced to participate.

In contrast, if perceived safety is very low (say at point L), raising safety (at least as perceived by Potential users) would add a lot of volume to the system. Raising the level of perceived safety would be both a technological and a marketing problem.

But even high income consumers may resist using EFTS if they feel too uncomfortable with it. They will be least willing to invest time in straightening out errors as they have the highest opportunity time prices. They will also be the most likely group to employ legal remedies when problems occur. So, just which consumers will be "turned off" by EFTS will depend on the nature of the problems that accompany the particular configuration put in place.

Where is the EFTS Market?

An examination of reports on EFTS experiments and studies and of speeches and articles on the subject indicates that for the most part, the affected industries appropriately recognize the role of the consumer in the success of pervasive EFT systems. But concern seems to end there. Many of the "experiments" appear to have been ill-defined, with no provision for a meaningful "post-mortem," perhaps the most crucial part of any experiment that "fails."

Many of the articles also seem to suggest that "consumers" are not ready for EFTS. Part 2 of this paper illustrated the diversity of the users and non-users of consumer credit. The same will be true for EFTS: there are some consumers who will use the system, and some who will not. The real question to be answered is

whether or not there is a group of consumers that is large enough, not simply in terms of numbers, but in terms of transactions volume, to support the use of a particular EFT system.

The answer to that question is probably "yes," although much depends on the nature of the system made available. The likely group of users will be those consumers who:

- (a) Have a large volume of transactions to handle;
- (b) Have a high opportunity price of time which means that convenience is valuable to them;
- (c) Like flexibility and options in managing their cash flow;
- (d) Understand the use of credit and non-money payment mechanisms.

A likely group of consumers can be quite easily identified from the data presented in Part 2. This is not to say that they are demanding EFTS, but that in light of the potential advantages and changes inherent in most of the proposed systems today, it is highly likely that these consumers would adopt such a system for their own needs, basically because it is better. The design and implementation problem, of course, is to make sure that it is perceived as being and is in fact "better."

Asking consumers now if they are in favor of a "cashless/checkless" society is like trying to sell tickets to the moon in 1930. Even if consumers were all in favor of it, the technology is not available to accomplish that paperless paradise. Yet, these are the kinds of questions consumers are being asked in surveys designed to measure the probable acceptance of EFTS. The system is not going to replace money or checks, at least not for a long time (can you imagine a newspaper stand with POS terminal? Will the newsboy carry a POS terminal? Will the Salvation Army become a big customer for its Christmas collections? Will kids get their allowances in the form of a debit card with a ceiling? Will vending machines take only debt cards? Not likely).

EFTS does represent a potentially valuable and new set of services to the consumer. This is the way it will have to be sold (and therefore the way it will have to be designed). Consumers are not going to go EFTS to save the banks 5 or 10 billion dollars; they will go with it to save themselves money (time) or to get a share of that savings.

So, in many cases, much of the negative reaction found seems to be a result of the rather extreme alternatives that were presented to consumers. And, even then there appeared to be a fairly large group in favor of proposed EFTS developments. So, the studies done for the industry indicate that there is a market for EFTS, even for the rather extreme "all or nothing" forms often proposed in the surveys.

In general, the studies done have suggested that higher income better educated young consumers seem to be the most likely candidates for EFTS customers, but that overall, there are not that many of them, and even many in these groups are not interested in EFTS (at least in the form presented to them).

Looked at from another perspective, however, the situation may be much better than it seems. Most transactions in the economy are made by a disproportionately small group of consumers. In fact, based on studies conducted by the Survey Research Center at the University of Michigan and the Credit Research Center at Purdue University, these consumers have higher incomes, are well educated and young. That is a familiar set of descriptors, based on a reading of the summaries of EFTS studies in the trade journals.

The point is that everyone is not going to participate in EFTS just as not everyone participates in the current financial system. The group that is most likely to use the system is in fact that group which generates the most transactions (they also generate larger transactions, but once POS is in place, volume and not size will be most important).

As examples of the volume of transactions generated, Exhibit 3.1 presents estimates of the share of credit card charge slips and checks written by the income group of the consumer, a proxy for the volume of transactions. In a national cross section sample of families conducted in 1970 [7], 18% of the families had incomes of \$15000 or more. These families accounted for 30% of all checks written. A 1973 study of users or retail credit in New York found 55% of the users with incomes in excess of \$15000. These users accounted for 72% of all the credit card charge slips generated.

Other regular payments on installment loans, mortgages, and the like are disproportionately made by higher income consumers. About 20% of all consumers in 1970 used the cash advance option on their bank credit cards. The highest proportion of users was in the \$10,000 to \$15,000 income range ([8], p. 72).

EXHIBIT 3.1
Estimates of Transaction Paper Generated

<u>Income Groups</u>	<u>Percent of Population^a</u>	<u>Share of Checks Written^a</u>
Under \$10,000	57%	40%
\$10,000-14,999	25%	30%
\$15,000 or more	<u>18%</u>	<u>30%</u>
	100%	100%
<u>Income Groups</u>	<u>Percent of Population^b</u>	<u>Share of Checks Written^b</u>
Under \$7,500	9%	5%
\$7,500-10,000	9%	5%
\$10,001-15,000	25%	18%
\$15,001-20,000	26%	28%
\$20,001-25,000	12%	15%
\$25,001 or more	<u>17%</u>	<u>29%</u>
	100%	100%

^a Approximated from data in the 1970 Survey of Consumer Finances reported in Mandell [8], page 100. Consumers were asked how many checks they wrote per month on average. Survey was a sample of U.S. Households.

^b Approximated from a sample of department store credit card users in New York [11]. Respondents were asked how many times they used all their credit cards per month on average.

In summary, the potential users of EFTS are already in the financial system. They are a smaller fraction of the population, but generate a disproportionate volume of all transactions. They are already quite accustomed to and apparently satisfied with plastic and associated cashless transactions. But, they will not pay to use EFTS (either through higher charges or through more inconvenience and less information). If banks save even two or three billion dollars a year, that amounts to \$20 or \$30 on the average for each member of the workforce in the U.S. These savings must be shared (after allowing for a reasonable return on EFTS investments) either directly or through improved services. Otherwise, the consumer has no motivation to use EFTS. With continued rate regulation, benefits may have to be primarily in the form of new and improved services.

Advantages

The advantages of EFTS to the consumer are potentially numerous and substantial. A few that might be more immediately realizable are discussed here, leaving the rest to creative and imaginative dreamers and their technologically trained counterparts.

1. Consumers may be able to more effectively "earn" interest on their balances if they can more easily and quickly move deposits from one institution's account to another's (depending, of course, on Federal Reserve regulations).
2. The transactions cost of making payments can be substantially reduced:
 - a. Debit cards and check guarantees will speed up transactions at the time of payment, saving the consumer time (perhaps reducing the need for floor personnel in stores)
 - b. Moving deposits is much faster since physical transportation and paper handling can be eliminated. Thus, it could be much cheaper to get funds from a credit union into a demand deposit. But the cost (in general terms) of such transfers clearly depends on how the system is designed and which institutions are allowed to participate.
3. A consumer may be able to receive a more complete and up to date picture of his financial position, including (pre-authorized) commitments, memo balances, etc. This information might be provided on a regular basis or at the request of the consumer at any time.
4. Electronic recording of price and merchandise identification may permit the provision of more detailed billing statements. This would almost be necessary to convince the consumer that he made all the expenditures itemized (especially on a debt card) and to head off time consuming discussions of the legitimacy of charges. This will probably be a big problem early on in the EFT system due to lack of trust. The provision of POS terminal-printed receipts would also facilitate this process.
5. Consumer complaints about tardiness in the posting of credits and payments might disappear (although they were not too frequent in studies of consumer complaints [4] [11], as would reliance on the mail service for payment delivery (not to mention the postage saving).
6. The fact that more transactions will be possible at all hours of the day will make the convenience of the system a positive factor for the potential user, especially if the locations of automated tellers and their equivalents are in convenient and safe places like frequented stores or shopping centers.
7. The potential use of pre-authorized payments represents significant cost and time savings potential. To coin another mnemonic for this topic, PPSP - preauthorized payments save postage, in addition to check

charges and the time required to pay these bills. Fraud losses and bad checks losses, and some losses due to overextension will probably be eliminated due to more efficient authorization systems. This could lower credit costs and increase the availability of credit to consumer.

Disadvantages: Current Criticism

The disadvantages of the system need not be much different than those of the existing system, provided EFTS is designed to insure that this is the case. An examination of some of the current criticism may show why:

NO MORE FLOAT. As a technical matter, float could be programmed into the system, preserving the existing payments lags. However, the Federal Reserve Board is moving to eliminate float, and faster check clearing will become a fact of life, regardless of the type of EFTS interface and whether or not there are checks. Nothing can or should prevent the bank from clearing electronically and then mailing the checks along later.

LOSS OF FREE PERIOD ON CREDIT CARDS. Again, as a technical matter, this can be "programmed" into the system. The debit card will probably have to be separate from the credit card anyway. It is not likely, however, that this "free" period will be maintained. The move toward use of average daily balance methods of rate calculation will eliminate most if not all of this free time (which someone is now paying for, so why not the user of it?) by the time EFTS is in widespread use.

LOSS OF THE CHECK AS A RECEIPT. This does not need to happen. The POS terminal is capable of printing an equally valid receipt, and, once the funds enter the lines, the consumer has in principle legally and legitimately paid, regardless of what happens to the funds. Alternatively, well documented statements may suffice, but are not issued at the actual time of the transaction and may not be as satisfactory.

LESS INFORMATION FOR CHARGE CARDS AND CHECKING ACCOUNT LEDGERS. Again, there is no reason why "customer copies" and receipts for deposits, and memos on the use of debit cards cannot be printed by POS terminals. Of course that makes it more expensive and harder to do technically, but the system must be acceptable if it is to work at all. In addition, the EFT system may be able to provide more information in a consolidated statement to the consumer at less cost than he is currently able to assemble that same information from his own records.

LOSS OF CONTROL. Pre-authorized payments are not essential to the success of EFTS. The important ingredient is that the consumer uses EFTS transfers to make payments when he decides to do so. Pre-authorizations for regular fixed payments for which there is little chance of controversy over the amount (like the mortgage) will likely gain in acceptance anyway, once the mechanism for doing that is well established. If the consumer desires, a paper record could be sent notifying him of the transfer. Admittedly, this is not as cheap, but still represents a large reduction in paper handling and may be the only way to get the consumer to go along. Developers of EFTS should not make the mistake of trying to go too far too fast, leaving the consumer behind.

LOSS OF SATISFACTION FROM BEING PAID DIRECTLY. This may be less of a problem than many think. Basically, it would seem that an employee cashing his check at the grocery store with a check cashing I.D. card differs little in a behavioral sense from one with a debit memo showing gross pay, deductions, and net pay (and perhaps looking much like a check) and a debit card. And, the outcome is essentially the same - the check is "cashed":

EFTS IS LESS SAFE. This is an interesting problem that the authors do not feel competent to talk about as it is mostly a technological one. From each consumer's viewpoint however, it would seem that the problem

could be dealt with in much the same way that the fraudulent use of credit cards is handled today. The consumer could be insured against loss from misuse, transmission error, etc. This makes the POS receipt more important to the consumer, as it shows his good faith in making the transfer. He can not help it if lightning hits the transmission wire. This kind of protection should help allay fears the customer might have and provide incentive to POS designers to deal with the perceived safety problem.

Overall, EFTS ought to provide new and useful services to the consumer, many at lower prices than those currently charged (directly or indirectly). Dealing with the major criticisms (to the extent that they are empirically valid ones) is a technological and design problem that can be solved. Other problems would seem to require only some creative marketing that focuses on cost savings, new features, and how Commonly perceived problems have been dealt with. A radical break with the current mode of transfers would scare away a lot of potential users and probably is not feasible in the near future anyway. Parallels between the EFT system and the current one will need to be made clear to attract enough users. It is uncertainty that will keep consumers away and uncertainty rises with the difference between what is happening now and what is proposed. Focusing on aspects of the system that are very different but that do not effect the consumer very much is probably counter-productive. Less time should be spent telling how dollars will flow along electric lines to switching points, and more time telling about time savings, flexibility, record keeping and other benefits (to consumers) of the EFT systems.

Credit Institutions and EFTS

As the brief overview of the structure of the consumer credit market suggests, there are many types of institutions that provide financial services to consumers. And, in general, there is a fair overlap among the institutions in the groups of consumers that they serve. This raises some tough issues:

1. How will EFTS alter the current relationship between the consumer and the set of institutions that serve him?
2. How will each type of institution (banks, savings and loans, finance companies, credit unions, etc.) react to expected changes in these relationships?

The general outcome will depend on how much cooperation there is between institutions in the development of EFTS, how much cooperation the government allows, how the system is regulated or its growth and structure determined by government regulation, how effective various segments of the industry can be at developing transfer systems independently and a host of other factors. How all this is resolved will also affect how interested consumers will be in using the system, and in continuing existing relationships with credit institutions. If it becomes harder to make transactions, the consumer may work outside the system. If the consumer transfers his business to institutions operating within EFTS, there will be major changes in market shares which will not be tolerated by those firms adversely affected. As an example, suppose that finance companies are not given equal access in the system. This, of course, would put these companies at a further competitive disadvantage (recall from Part 1 that these firms have been losing cash loan business and from Part 2, that 20% of all consumers are using cash advances on credit cards), causing them to try to develop a competing system or to seek relief in Washington.

Consumers are affected too. Bank loans and retail credit cards serve a different set of consumers than do finance companies. For example, in 1970, about five times as many low income consumers had department store credit cards as had bank cards (Table 4). If access to credit from finance companies or retailers was not available at POS terminals then their customers would have less motivation to use the system at all. Clearly, if

access to EFTS systems required qualifying for a bank card based on current standards, potential EFTS use would be severely restricted.

On the other hand, if finance companies had full participation in E their customers would be more likely to participate in the system. In addition, other extenders of credit would have more competitors.

Overall, EFTS probably will have a profound effect on the structure of the market, as one type of institution is bound to end up in a better competitive position than some others. At the moment, it appears that the banks will be in the best position. But it will be difficult and dangerous to exploit that position with regulators watching carefully on one side, other institutions using their power to counteract that of the banks, and consumer's ready to abandon EFTS or demand government intervention if the service they expect is impaired.

The exact outcome will depend on the form of EFTS finally introduced which in turn depends on the relative balance of power just discussed. But a few general observations are appropriate:

1. Most financial institutions are going to be able to participate on a pretty much equal footing. Regulators will in part be responsible for this, but more importantly, this will be necessary to insure that the consumer has the same or a better set of financial options. Customers must be able to use their credit union, finance company or other institutions as conveniently as before or they may not support EFTS.
2. Even so, institutions that have experience with the technology will probably fare better competitively.
3. Smaller firms adopting POS terminals may benefit in that certain types of services may be more cheaply supplied to them via these lines. The market should become more competitive because, in principle, a firm in San Francisco could easily handle the accounts of a store in New York.

4. CONCLUDING OBSERVATIONS

With so much uncertainty, it is hard to draw firm conclusions about a problem as complex as EFTS and consumer credit. Most studies of consumer reaction to EFTS are unjustifiably pessimistic about its potential. This paper has presented some new information and arguments along those lines. If properly developed, the system can be designed to deal with the desires and fears of the consumer users. The danger lies in rushing too fast to get EFTS in place, paying most attention to technical implementation problems and advantages for financial institutions rather than to the needs of the users and the technological development required to meet those needs. The introduction of credit cards may provide a useful model.

Perhaps more difficult to satisfy than consumers will be the existing credit institutions and the regulators in Washington. This is one season in **which** no team can afford a losing record, and spring training has started in earnest, both in Washington and on the drawing boards of engineers.

It is hard to predict the outcome of this race, for there are too many factors to be considered. However, based on existing and prospective developments in the near future, the following observations seem sensible comments on the development of EFTS as it applies to consumer credit:

1. Many of the potential problems and objections can be solved by technology:

A). Point of sale terminals and similar remote installations could print the equivalent of "customer copies" for:

- (a) Credit card charges, once authorized.
- (b) Debt card charges.
- (c) Deposits to demand and savings accounts.

All this would provide the consumer with "tangible" proof of the transactions that would also provide assistance in reconciling consolidated monthly statements and keeping daily records. This would eliminate many customer complaints and inquiries while still eliminating the processing of paper records.

B). The electronic "capture" of information will permit the creation of more detailed billing statements. Many consumers would favor this and the provision of this information would eliminate many misunderstandings and questions that would require staff time. The overall success of EFTS will depend on how well this is done.

2. Checks do not have to be eliminated in a EFTS debit card system. If POS terminals provide a printed record of the transaction, the consumer would then have the information needed to make appropriate entries in a check book ledger. This would allow the benefit associated with debit card use when possible, the flexibility of writing checks when necessary or desirable, and the information needed to allow the keeping of ledgers as accurately as in the existing system. From the banks point of view, there would still be the potential for overdrafts, but no more than is the case now.

1. The Debit card will probably have to be kept separate from credit cards, at least for many consumers (this does not preclude the possible provision of a single card to those who qualify and desire it:

- (a) Not all consumers that qualify for a debit card would qualify for a credit card. In 1970, 75% of all families had checking accounts, while only 50% had credit cards and only 16% used bank credit cards ([7], p. 98, and [8], pp. 14,23). The qualification for a debit card is simply a checking account. The credit card can be issued only to "credit-worthy" individuals that may or may not have a checking account.
- (b) If a consumer wishes to maintain the flexibility of using short-term credit granted by creditors other than the bank, a separate credit card would be required.
- (c) If a consumer desires the ability to choose when to pay off particular obligations, these must be owed to several different institutions, not just the bank. EFTS would then have to accommodate retailer credit programs.
- (d) Institutional extenders of credit will have different credit standards, precluding the use of one universal credit card. One need only examine the differences between holders of bank credit cards and department store credit cards to see this [see Table 4 in Part 21].
- (e) If firms wish to provide "free periods." or believe that their card is an important marketing device, they will be reluctant to give up their own cards. This makes standardization an important problem to resolve. Necessary standardization must be achieved without arrangements that lead to reduction in competition among credit grantors.

4. Critics of EFTS suggest that it will set the state for a dangerous expansion of the use of credit. This danger is overstated:
- (a) Many "credit" transactions on credit cards are made because they are more convenient and safer than checks or keeping adequate cash on hand. A debit card would probably replace many of these transactions.
 - (b) "Check credit" as it is known today is granted based on "creditworthiness." A debit card will not change this, and overdrafts may be more easily prevented.
 - (c) Easier access to savings deposits would probably reduce the number of credit card transactions made. Trips to savings institutions to transfer funds are expensive and time consuming. With EFTS, direct payment can be made from these deposits.
 - (d) If a consumer is presented with a more complete picture of his financial position, he may be less prone to use (or overuse) credit. Under the current system, the consumer must mentally keep track of charges on numerous cards. An EFTS system may be able to provide this information in consolidated form upon request.
5. On line authorization for credit transactions should reduce bad debt and fraud losses, lowering costs that consumers must pay, and making credit more available.
6. Some major retailers and card issuers already have eliminated the return of copies of the credit transaction, or are in the process of doing so. Itemized reports of transactions will probably be quite widespread by the time any large scale EFTS can be put into operation. The key to the success of this development is the provision of adequately detailed information on the charge listing (or on a debit listing in future EFTS statements) and adequate documentation (the customers copy) to check this against if the consumer wishes to do so. This should not provide a major obstacle to the development of EFT systems.⁸

⁸ In studies of credit card users satisfaction with existing systems [4][11], only two percent of the respondents asked for more specific information on billings and only 1% complained that duplicate slips were not sent. This may be due to the fact that few card issuers omit duplicate charge slips yet, but also suggest that the current trend toward elimination of these is not meeting any major resistance to date.

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