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Consumers' Propensities to Hold Liquid Assets

Harold W. Guthrie

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## Consumers' Propensities to Hold Liquid Assets\*

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The effect of liquid asset holdings on consumers' saving, once regarded as a persistent and simple negative relationship, has not been clearly demonstrated in empirical tests. The results of some tests using cross-section data have suggested that the asset effect is variable over time and that it may have both positive and negative signs. Studies by Klein\*\* and Tobin\*\*\*

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\*\* Lawrence R. Klein, "Statistical Estimation of Economic Relations from Survey Data," Contributions of Survey Methods to Economics, ed. Lawrence R. Klein, New York, 1954, pp. 232-238.

\*\*\* James Tobin has kindly permitted reference to results of research not yet published.

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indicate that although liquid asset holdings had a relatively strong positive effect on durable goods expenditures in 1948, the effect was weaker in 1949 and had disappeared by 1951-52. Katona\*\*\*\* has suggested that there are

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\*\*\*\* George Katona, Psychological Analysis of Economic Behavior, New York, 1951, pp. 167-170.

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two different asset effects. Some consumers with high asset holdings may feel relatively saturated with assets and therefore save less than those with low asset holdings. Other consumers with high asset holdings may have formed a habit of saving, or may be more thrifty, and therefore save more

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than those with low asset holdings. Tobin and Morgan\* found that the sign

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\* James Morgan, "Factors Related to Consumer Saving When it is Defined as a Net Worth Concept," Contributions of Survey Methods to Economics, ed. Lawrence R. Klein, New York, 1954, pp. 89-156.

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of the asset effect depends on income change. According to Morgan, saving was positively associated with liquid asset holdings when the consumer's income had increased substantially and negatively associated with liquid asset holdings when his income had declined substantially.

The variety of hypotheses implicit in these findings suggests the need for an examination of liquid asset holding by consumers. Why do liquid asset holdings differ between consumer units? Why do they vary over time for given consumer units? Knowledge of the needs fulfilled by liquid asset balances seems to be a logical basis for hypothesizing the effect of the balances on saving. The following sections describe the results of an attempt to discover why some consumers hold larger liquid asset balances than others and to explain the differences in levels of liquid asset holdings among specified kinds of consumers over time.\*\*

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\*\* The important question of aggregation, the relationship of the various explanations discovered through micro-analysis to the aggregates of liquid asset holdings, is not considered here.

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### I. The Measurement of Liquid Asset Holdings

Consider two consumers, A and B, each holding \$1,000 in liquid assets. Suppose that A has an annual income of \$1,000 while B has an annual income of \$10,000. Although each has saved the same absolute amount

it is clear that the balances have been accumulated under different circumstances. The wide difference in incomes indicates that the two consumers probably have quite different standards of living. Furthermore it is reasonable to assume that A and B differ in their perceptions of need for liquid assets.

The two consumers can be distinguished by expressing their liquid balances as a per cent of annual income. The ratio of liquid assets to income for B is 10 per cent; the ratio of liquid assets to income for A 100 per cent. Thus the ratio of liquid asset holdings to annual income is a more meaningful measure than absolute balances for an analysis of liquid asset holdings. Hereafter it will be referred to as the IA ratio.

The IA ratio has been used as an explanatory variable in several studies of saving functions. The IA ratio is chosen over the absolute level of liquid asset holdings in saving functions primarily on grounds of partial elimination of the positive relationship between asset holdings and income, and the reduction of variance in saving by dividing both sides of the saving function by income. Both of these reasons for dividing liquid asset holdings by income are relevant to the present analysis, but perhaps even more important is the need for a measure of asset holdings which is appropriate for an investigation of the consumer's rationale for holding liquid assets. Assuming that the consumer's desire to hold liquid assets is related to his general standard of living, which is approximated by his income in a given year, the IA ratio measures liquid assets in an appropriate context.

The data analyzed were gathered in Surveys of Consumer Finances by the Survey Research Center, University of Michigan on behalf of the Board of Governors, Federal Reserve System. Liquid assets are defined as assets of

fixed money value which can be converted to money quickly and conveniently. Liquid assets, as measured in the surveys, consist of holdings at the end of a given year in the form of savings deposits in banks and other savings institutions, checking accounts, and U. S. bonds. Currency and the cash surrender value of life insurance policies, although liquid in the economic sense, are not included in the surveys for technical reasons. Total income includes cash income received by all members of the spending unit.

Each interview is assigned a numerical weight to correct the data for variable sampling rates between income groups and for differences in response rates. These weights have been used in all calculations presented here.

## II. The Rationale of Holding Liquid Assets

The usual motivations for holding money can also be ascribed to the holding of liquid assets. Spending units hold liquid assets for transaction purposes, for speculative purposes, or for precautionary purposes, and all three motivations might apply for many families. This analysis of IA ratios among spending units cannot distinguish clearly between these motivations but it can lead to some general conclusions about the relative importance of the precautionary motive between different kinds of spending units.

Except for differences in the propensity to consume between consumers, differences in the IA ratio should not show the effect of the transaction motive. Two consumers who receive different monthly salaries, each consuming his total salary from a checking account at a constant rate will each have an average IA ratio of  $1/24$  over the month. One month can be considered the longest period for which wage payments are made in practice. Moreover, there may be economies of scale in transactions for the higher income families which would result in transaction ratios of less than  $1/24$ . Therefore  $1/24$

approximates a maximum LA ratio for transaction purposes. The average LA ratios observed for many spending units in the Surveys of Consumer Finances are much larger than  $1/24$ , even when only checking account balances are used in the numerator. The empirical analysis therefore assumes that observed differences in LA ratios cannot be attributed to the transactions motive.

It is more difficult to eliminate the effect on the LA ratio of assets held for intended consumption or intended investment in securities or commodities. At a given point of time one consumer may hold \$1,000 for unforeseen contingencies. Another may hold the same amount for an intended purchase of a house. It is not possible to distinguish between the two motives by observation of the consumers' LA ratios.

The influence of assets held for intended consumption or investment can be partially identified, however, by comparisons over time. The empirical results reported here compare LA ratios for specified types of spending units in 1947 with the LA ratios for similar -- but not identical -- spending units in 1953. During the intervening period the supply of consumer goods increased rapidly, there was a boom in real estate and common stock, and interest rates on liquid assets were held at low levels through most of the period. It is reasonable to assume that assets held for intended consumption or investment had little influence on LA ratios in 1953 compared to their influence in 1947. The forced saving during World War II resulted in a disequilibrium with respect to liquid asset holdings in 1947 relative to 1953.

Still another type of motive for holding liquid assets must be considered, a type that is less rationalistic than the others, but one that is subjectively important to the holders of the assets. There are many people who hold liquid assets because they are unaware of investments bearing a higher yield,

because they are averse to any risk of money value, or simply because they do not think of non-liquid assets as being marketable. The last point seems to apply to a substantial number of respondents who, in a recent study conducted by the Yale Workshop in Quantitative Economic Research, were asked, "What is the best kind of asset to pass along (in an estate) to your children?" Many of the replies mentioned various forms of liquid assets. The reason for this choice was typically that money is easily divided and family quarrels are avoided. These motives must be acknowledged but we shall consider them to be subsumed under the precautionary motive, the desire to have money conveniently at hand when emergencies arise. If emergencies do not arise the assets fulfill a residual function in yielding a small but sure return and as a store of money value for consumption during retirement or for bequests.

The empirical analysis of the relative strength of the precautionary motive among certain groups of consumers is based upon the following postulates:

1. During a given year differences in the IA ratio between groups of consumers cannot be attributed to the transactions motive.
2. Because of forced saving during World War II the year 1947 is "abnormal" with respect to liquid asset holdings. Differences in the IA ratio between groups of consumers arise from differences in the precautionary motive and from differences in intended expenditure.
3. The year 1953 is "normal," relative to 1947, with respect to liquid asset holdings, and differences in the desires for precautionary reserves account for large differences in the IA ratio.
4. Differences in the IA ratio between 1947 and 1953 for similar consumer groups indicate whether or not the IA ratios of 1947 were "normal" -- and therefore held primarily for precautionary purposes --

or "abnormal" -- and therefore held for both precautionary purposes and intended expenditure.

### III. The Hypotheses Tested

The hypotheses were developed after examining IA ratios for 1947 and 1951;\* the tests have been performed on data for 1947 and 1953.\*\* The

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\* Harold W. Guthrie, "Changes in the Ratio of Liquid Assets to Income Among Consumers in the United States Between 1947 and 1951," (Abstract), Econometrica, 23, 1955.

\*\* Data for the latter years are contained in the 1948 and 1954 Surveys of Consumer Finances, respectively. The data for 1947 were used both to develop and to test the hypotheses. Although this is not good statistical practice, data for 1946 were not fully comparable with data for subsequent years, and by 1948 consumers were well advanced in the process of adjusting to the post-war disequilibrium. Statistical purity was therefore sacrificed for a sharper economic effect.

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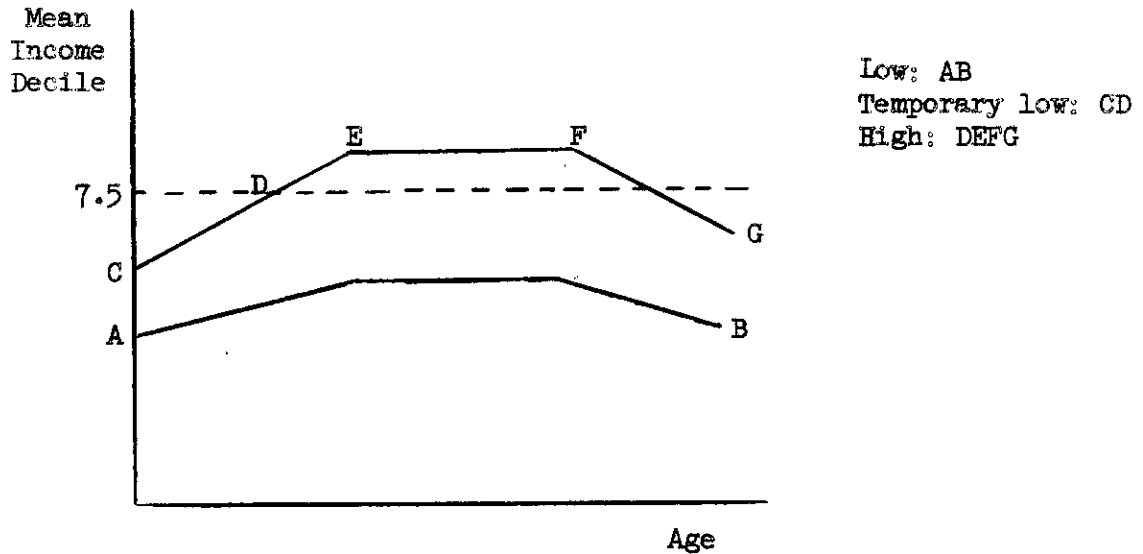
formulation of the hypotheses depended heavily on a consideration of the outcome of the conflict between the need and desire for consumption versus the need and desire for precautionary reserves. The outcome is expected to differ according to the number of persons in the spending unit and the position which the spending unit occupies in a profile of income over the life span of the head of the spending unit.

The preliminary examination of the IA ratios in 1947 and 1951 suggested that single-person spending units were so markedly different from multiple-person spending units that they should not be combined in a hypothesized continuum. Family formation apparently results in pressures to consume which lead to a lower propensity to hold liquid assets. Single-person spending units have therefore been separated from multiple-person spending units for empirical analysis.



The preliminary examination of LA ratios also suggested that the propensity to hold liquid assets varies with income in very complex relationships. To account for the income effect in the present study three separate income classes are defined by the occupation, education, age, race, and regional location of spending units. The latter variables define groups of spending units and the mean income decile has been computed for each group.

For example, one group consists of white spending units living in the South, the heads of which were skilled workers with a high-school education and were between 35 and 44 years old. For each spending unit in the group there is an income decile position which is determined by the relative position of his absolute income in an array of incomes for all spending units. The weighted mean of the individual income deciles within a group is the basis for combining groups of spending units into income classes. The income decile is used for classification rather than absolute income because relative income is assumed to be more stable over time. This comparative stability is also important in the regression model explained below. The groups were combined into classes by examining the mean income decile over the age span for each race-region-occupation-education group. If the mean decile is less than 7.5 for all ages the entire race-region-education group is classed as "Low." If the mean income decile is less than 7.5 for the younger age groups but 7.5 or more for at least one of the older age groups, the younger groups are classed as "Temporarily Low." The groups which have mean income deciles of 7.5 or more, or which are older than such a group, are classed as "High." The following diagram illustrates the classification procedure:



The income classes are intended to reflect the spending unit's income expectations. The "High" class includes spending units who can expect to maintain a high relative income position. The "Low" class is composed of spending units whose status is such that they could not expect to rise above a decile position of 7.5. The "Temporary Low" class consists of young people whose current relative income position is similar to the position of those in the "Low" class, but who can expect to rise to the upper levels of relative income as they grow older. A table showing the mean income decile position for all race-region-occupation-education-age groups is shown as an Appendix.

There are strong a priori grounds for expecting consumers to hold more liquid assets for precautionary purposes as they grow older. First, the need for such reserves increases with age because the threat of adverse economic events (e.g., illness, disability, loss of favorable employment opportunities) is greater for older people than for younger people. Second, the positive relationship between income and age gives older people the

ability to accumulate liquid reserves. Finally, the preference for holding liquid assets vs. consumption may be expected to become stronger as the pressures for consumption decline with age. On all three points -- need, ability, and preference -- precautionary reserves should increase with age. The results of the tests are consistent with this hypothesis.

As the size of a spending unit grows larger, the need for precautionary balances should increase. An adequate reserve for medical expenses and other contingencies for families of several persons may be expected to be greater than the reserve needed for smaller families. The pressure for current consumption also increases with family size, however, and the preference which families express between the satisfaction of desires for current consumption and the security of the desired level of liquid reserves is not obvious. Let us posit a preference for consumption as the stronger of the two demands. There is then a conflict between need and preference which is to be resolved by ability, the income position of the spending unit. As high income spending units increase in size, they are able to fulfill their consumption demands and also maintain the desired level of precautionary reserves. But as low income spending units grow larger, their needs for current consumption have priority over the demand for liquid reserves. They will increase their liquid balances only as their incomes increase. The empirical tests support the posited preference for consumption over security as family size increases. The data do not support the hypothesis that the income position of the spending unit affects the relationship between liquid reserves and size of spending unit.

Although this analysis concentrates on liquid assets as one of the more important forms of wealth held by consumers, the size of holdings in other forms ought to affect liquid balances. The high frequency of life insurance

ownership seems to indicate that life insurance is regarded as a favorable substitute for other forms of wealth. The available data permitted testing only the simple hypothesis that precautionary balances are negatively related to the spending unit's equity in an owner occupied home. Since it is reasonable to assume that home ownership satisfies a desire for security this hypothesis tests for one relevant kind of substitution effect. The results of the test indicate that there is not a general substitution effect between home ownership and liquid balances.

#### IV. The Data and the Regression Model

The original samples drawn for Surveys of Consumer Finances represent the entire consumer sector with minor exceptions, e.g., institutional and transient population. Several segments of the original samples have been omitted from this analysis. Farmers and owners of unincorporated businesses have been omitted because it is difficult, and in some cases impossible, to separate business assets from household assets. Although non-white spending units had IA ratios which were significantly lower than IA ratios among white spending units, all hypotheses attempting to explain differences in IA ratios among non-whites were rejected, and these spending units were excluded from further analysis. Similarly, spending units in which the head is retired have IA ratios significantly higher than the IA ratios of other spending units, but hypotheses formulated to explain differences in the IA ratios had to be rejected. Retired spending units were therefore omitted. A small number of spending units have IA ratios which, because their incomes are very low, are extremely high relative to others. To avoid the distorting influence of these extreme values, IA ratios of 1,000 per cent or more have been omitted. It was also necessary to omit those spending units for which

values of one or more of the independent variables were not ascertained.

After these omissions the remaining observations were classified as follows according to the procedures described above:

<u>Class</u>	<u>Number of cases</u>	
	<u>1947</u>	<u>1953</u>
Single-person spending units:		
High income	86	100
Temporarily low income	78	79
Low income	313	266
Multiple-person spending units:		
High income	520	584
Temporarily low income	188	231
Low income	941	678
	Total	1938
	2126	1938

For each of the six classes and for 1947 and 1953 separately a regression equation of the following form has been calculated:

$$100 \frac{IA}{Y} = b_0 + b_1 A + b_2 N + b_3 D + b_4 D^2 + b_5 (OA) + u$$

where:  $100 \frac{IA}{Y}$  = the IA ratio described above, expressed in per cent

A = age of head of spending unit in the scale:

- 1 = age 18-24
- 2 = age 25-34
- 3 = age 35-44
- 4 = age 45-54
- 5 = age 55-64
- 6 = age 65 and over

N = number of persons in the spending unit except that N = 0 for single-person spending units

D = value of income decile for the individual spending unit regardless of its income class

$D^2$  = squared value of D

O = home ownership = 1 if owns home  
0 if does not own home

u = residual

Table 1  
 Values of  $b_1$  and Means of the IA Ratio in 1953 for Specified Classes  
 (standard errors shown in parentheses)

Class	Mean IA Ratio	Regression Coefficients					
		Intercept	Age	Number	Decile	Decile <sup>2</sup>	Home Ownership
Single-person Spending Units:							
High income	56.53	19.53 (51.78)	22.63* (8.47)	--	-15.04 (18.85)	1.35 (1.42)	-11.38* (4.91)
Temporarily low income	25.48	63.91* (22.33)	4.10 (9.94)	--	-21.83* (10.69)	2.19 (1.36)	1/
Low income	62.98	54.73 (32.52)	13.66* (4.65)	--	-31.31* (14.05)	3.83* (1.67)	1.57 (3.58)
Multiple-person Spending Units:							
High income	33.20	37.23 (28.71)	10.41* (2.65)	-6.76* (1.75)	-9.90 (7.56)	.93 (.53)	.57 (1.34)
Temporarily low income	9.33	4.99 (8.38)	.08 (2.15)	-3.06* (.86)	4.15 (2.57)	-.26 (.20)	-.25 (1.05)
Low income	29.98	28.56 (18.68)	11.38* (2.44)	-6.09* (1.85)	-7.05 (5.60)	.48 (.47)	2.64 (1.54)

1/ Not calculated because there were no home owners in the class in 1947. Consistent procedures were used in both years to allow comparisons between years.

\* $b_1$  significantly different from zero at a level less than 5 per cent

Table 2  
Analysis of Variance for Differences Between Levels of the IA Ratio in 1953

Source of Variation	Sum of Squares		Degrees of Freedom		Estimated Variance		F
	Explained	Unexplained	Used	Remaining	Explained	Unexplained	
Spending unit	277,566	11,823,179	1	1,936	277,566	6107	45.45**
Income	178,425	11,922,319	2	1,935	89,212	6161	14.48**

\*\* Significant difference at the 1 per cent level.

The curvilinear form for the influence of D on the IA ratio fits the U-curve of  $\frac{IA}{Y}$  plotted against D for all spending units. The OA variable is a proxy for equity in an owner-occupied home assuming that equity is positively related to the age of the owner.

V. Analysis of the Level of the IA Ratio in 1953

Table I shows the mean value of the IA ratio and the regression coefficients in 1953 for each group. Table 2 shows an analysis of variance of the level of the IA ratio within classes with the regressions not taken into account. Table 3 shows the F ratios which test for significant net differences between classes, accounting for the joint effect of all regression variables and coefficients. Table 3 tests the hypothesis that the variance explained by separating classes is equal to the remaining variance of u after separation of classes. Both Tables 2 and 3 test for differences between single- and multiple-person spending units, and between the three income classes.

Table 3

F Tests for Differences in  $b_1$  Between Groups, 1953

<u>Groups Tested</u>	<u>Sums of squares of u</u>			<u>Degrees of Freedom</u>				<u>F</u>
	<u>Unexplained</u>		<u>Explained</u>	<u>Used</u>			<u>Remaining</u>	
	<u>Pooled</u>	<u>Separate</u>		<u>Pooled</u>	<u>Separate</u>	<u>Net</u>		
Spending Units	10,711,883	10,673,744	38,139	6	11	5	1926	1.38
Income	10,711,883	10,668,707	43,176	6	18	12	1919	.65

The mean IA ratio is higher among single-person spending units than among multiple-person spending units. Moreover, the regression coefficients indicate that a reduction of the IA ratio is associated with each additional person in the spending unit. A tentative conclusion based on 1953 data is that as family size increases, consumption (and other forms of saving) gains in preference over holding liquid assets.

The significant difference between income classes shown in Table 2 is accounted for, in part, by the low IA ratio for the temporarily low income group. By definition this group contains relatively young spending units, however. The regression coefficients indicate that the IA ratio is positively related to age in both high and low income groups. The low IA ratio among spending units with temporarily low incomes is probably explained in part by their age.

According to Table 3 there are no significant net differences in the regression coefficients between classes when all coefficients are tested jointly. Inspection of the individual coefficients in Table 1 suggests, however, that the effect of the income decile position is different between classes. The income coefficients in the multiple-person spending unit classes are not significantly different from zero. Among multiple-person spending units, regardless of income class, the IA rate is not affected by income differences. Similarly in the high income, single-person spending unit class, the IA ratio is not affected by income decile position. In both low income, single-person spending unit classes there is an income effect, however. Those who have temporarily low incomes show declining IA ratios as their income position is improved. Spending units who, by their occupation-education characteristics, have been classed in a permanently low income group show changing preferences for liquid assets as their income increases. In the lower range of income deciles the IA ratio is reduced as income increases, but with further increases in income the IA ratio rises.



In only one class, the high income, single-person spending units, is there any evidence that equity in a home substitutes for liquid asset holdings. The variable for measuring equity is crude, and it yields no information about the magnitude of the substitution effect. Nevertheless, it is interesting to note the occurrence of the substitution effect only in the class in which the need for liquid asset holdings is relatively low and the ability to save is relatively high. The data suggest that, except for the very minor group noted above, consumers do not shift between asset forms while maintaining some normative level of security in total wealth. Rather it is possible that each form of asset has a desired normal level and there is no "portfolio problem."

The analysis of the level of the IA ratio in 1953 suggests the following tentative conclusions. Once a household of more than one person is established the IA ratio is determined by the age of the head and the size of his family. Furthermore there are no economically significant differences in the effect of these variables between the high and low income classes. The propensity to hold liquid assets among single-person spending units varies with their income class, however. Those in the high income class have a relatively high average IA ratio but individual IA ratios are not associated with differences in the income decile. There is some evidence of satisfaction with the level of the IA ratio in this group in the tendency to let equity in a home substitute for higher IA ratios. Those who can expect high income, the temporarily low income class, have a low propensity to hold liquid assets. But additional income is evidently diverted primarily to consumption and, possibly, other forms of saving, indicating satisfaction with the low IA ratio. The single-person spending units who have low incomes and cannot expect to rise to high income positions show a latent unsatisfied demand for

higher liquid balances. Their average IA ratio is comparable to the average IA ratio in the high income class but it tends to increase in the higher range of income deciles.\*

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\* An alternative interpretation is that only those few persons who attain higher income levels are concerned. As a result of a desire for higher liquid balances they may work harder than others, work overtime, or hold more than one job in an effort to raise their IA ratio.

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#### VI. Analysis of Differences in IA Ratios Between 1947 and 1953

A dynamic analysis of the change in the IA ratio over time for identical spending units -- if it could be performed -- might reveal clearly the motivations for holding liquid balances. The data available do not describe identical spending units in two years. If we regard the motivations for holding liquid assets as a set of preferences between security and current consumption -- the preferences varying with income expectations and family structure -- we may expect to find differences in behavior over time between similar spending units. We may expect that different kinds of spending units reacted to the relatively large liquid balances accumulated during World War II according to differing preferences. It is possible that the forced saving of the early 1940's produced abnormally large liquid balances for some spending units. To other spending units the war-time accumulations may not have seemed abnormal even though they had never held such large liquid balances previously. Given that the consumer sector held unprecedented liquid balances at the end of World War II, for which kinds of consumers were these balances abnormal in terms of their motivations to hold liquid assets? One kind of answer is found by comparing the levels of the IA ratios between 1947 and 1953 for different classes of spending units.

Table 4 shows the mean IA ratios in the two years for specified classes of spending units. Table 5 shows the results of an analysis of variance of the IA ratio for different groups of spending units when time is introduced as an independent variable. Significant differences in mean IA ratios between 1947 and 1953 occur for all spending units (T), and for spending units classified by income (TxY).\*

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\* The test of significance of the interaction effect (TxY) requires equal or proportional cell frequencies. The frequencies for the two years are tabulated in Section IV. The numbers of cases in each income group in the two years are assumed to be sufficiently similar, and large, to justify the test.

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Thus there is a significant decline in the IA ratio for the entire consumer sector, but the high income class and the temporarily low income class account for the decline. The trivial change in the IA ratio among permanently low income spending units suggests that their 1947 liquid balances were not abnormal. The needs and preferences for liquid assets were evidently stronger among these people than among those who had, or could expect, high incomes. If these results evolved from an analysis of identical spending units we would conclude that permanently low income people maintained their post-war liquid reserve position more tenaciously than others. Given similar -- but not identical -- spending units in the two years, the differences indicate only that the motivations for holding liquid assets at the 1947 level were stronger in 1947 among low income groups than among high income groups.

Table 6 shows the results of F tests for significant net differences in the regression coefficients between years, accounting for the joint effect of all regression variables and coefficients. Table 6 tests the hypothesis that the variance explained by separate regressions for the two years is

Table 4

Mean Values of the IA Ratio for Specified Classes of Spending Units, 1947 and 1953

<u>Class</u>	<u>1947</u>	<u>1953</u>	<u>% Change</u>	
<u>Spending Units</u>				
N = 1	53.9	55.2	+ 2	
N > 1	37.1	27.8	-25	
<u>Income Groups*</u>				
High	54.1	36.6	-32	
Temporarily Low	25.3	13.2	-48	
Permanently Low	39.7	39.0	- 2	
<u>Spending Unit and Income</u>				
N=1 {	High	92.7	56.5	-39
	Temporarily Low	28.8	25.5	-12
	Permanently Low	51.3	63.0	+23
N>1 {	High	46.9	33.2	-29
	Temporarily Low	23.7	9.3	-61
	Permanently Low	35.4	30.0	-15
<u>All Spending Units*</u>	41.2	34.0	- 7	

\* Differences in mean IA ratios between years are statistically significant; see Table 5.

Table 5

Analysis of Variance for Differences Between Levels of the IA Ratio, 1947 and 1953

<u>Source of Variation</u>	<u>Sums of Squares</u>		<u>Degrees of Freedom</u>		<u>Estimated Variance</u>		<u>F</u>
	<u>Explained</u>	<u>Unexplained</u>	<u>Used</u>	<u>Remaining</u>	<u>Explained</u>	<u>Unexplained</u>	
Years (T)	51,900	27,024,006	1	4062	51,900	6,653	7.80**
Spending Unit (SU)	366,015	26,709,892	1	4062	366,015	6,576	55.66**
Income (Y)	272,772	26,803,134	2	4061	136,386	6,600	20.66**
TxSU	15,263	26,642,728	1	4060	15,263	6,562	2.33
TxY	50,826	26,700,410	2	4058	25,413	6,580	3.86*

\* Significant difference at the 5 per cent level.

\*\* Significant difference at the 1 per cent level.

Table 6

F Tests for Differences in  $b_1$  Between Years

Groups Tested	Sums of Squares			Degrees of Freedom Used				F
	Unexplained		Explained by Separate Years	Years Pooled	Years Separate	Net	Remaining	
	Years Pooled	Years Separate						
All Units	24,000,614	23,876,801	123,813	6	12	6	4051	3.50**
Spending Units								
N = 1	9,897,458	9,777,415	120,044	5	10	5	911	2.21*
N > 1	13,884,898	13,823,726	61,172	6	12	6	2129	2.21*
Income								
High	4,664,121	4,524,978	139,143	6	12	6	1977	6.54**
Temporarily low	589,995	563,787	26,208	6	12	6	563	4.36**
Permanently low	18,635,921	18,601,222	34,699	6	12	6	2185	.68
Spending Unit and Income Groups								
N = 1 { High	1,534,425	1,367,453	166,972	5	10	5	175	4.23**
Temp. low	266,820	255,316	11,504	4	8	4	148	1.67
Perm. low	7,978,182	7,925,230	52,952	5	10	5	568	.75
N > 1 { High	3,032,355	3,006,661	25,694	6	12	6	1091	1.55
Temp. low	318,785	297,407	21,384	6	12	6	406	4.87**
Perm. low	10,477,974	10,440,615	37,959	6	12	6	1606	.97

\* Significant difference at the 5% level.  
 \*\* Significant difference at the 1% level.

Table 7

Regression Coefficients and Standard Errors for Specified Classes, 1947 and 1953

		<u>Regression Variables</u>					Home
		<u>Intercept</u>	<u>Age</u>	<u>Number</u>	<u>Decile</u>	<u>Decile<sup>2</sup></u>	<u>Ownership</u>
	$b_{i53}$	33.12*	12.96*	-6.09*	-10.93*	.92*	.77
	$\sigma b_{i53}$	(8.99)	(1.37)	(.95)	(2.97)	(.25)	(.96)
All	$b_{i47}$	34.86*	18.11*	-7.12*	-14.36*	1.37*	-1.81
Spending	$\sigma b_{i47}$	(9.66)	(2.18)	(1.03)	(3.13)	(.27)	(1.75)
Units	$b_{i53} - b_{i47}$	-1.74	-5.15*	1.03	3.43	-.45	2.58
	$\sigma b_{i53} - b_{i47}$	(13.19)	(2.58)	(1.40)	(4.31)	(.36)	(1.99)
Single-	$b_{i53}$	42.45*	15.09*	--	-20.10*	2.02*	-1.58
Person	$\sigma b_{i53}$	(20.87)	(3.20)		(8.58)	(.92)	(2.68)
Spending	$b_{i47}$	5.05	24.24*	--	-14.23*	2.00*	-1.82
Units	$\sigma b_{i47}$	(20.34)	(3.93)		(8.19)	(.84)	(3.13)
	$b_{i53} - b_{i47}$	37.40	-9.15	--	-5.87	.02	.24
	$\sigma b_{i53} - b_{i47}$	(29.14)	(5.07)		(11.87)	(1.25)	(4.12)
Multiple-	$b_{i53}$	31.53*	11.31*	-6.12*	-8.69*	.72*	1.70
Person	$\sigma b_{i53}$	(11.93)	(1.47)	(1.11)	(3.45)	(.27)	(.95)
Spending	$b_{i47}$	76.02*	11.33*	-7.45*	-21.58*	1.82*	.44
Units	$\sigma b_{i47}$	(13.05)	(2.88)	(1.30)	(3.59)	(.29)	(2.40)
	$b_{i53} - b_{i47}$	-44.49*	-.02	1.33	12.89*	-1.10*	1.26
	$\sigma b_{i53} - b_{i47}$	(17.68)	(3.23)	(1.71)	(4.98)	(.40)	(2.58)
High	$b_{i53}$	39.13	12.17*	-6.19*	-11.69*	1.05*	-1.34
Income	$\sigma b_{i53}$	(21.70)	(2.61)	(1.44)	(5.97)	(.44)	(1.36)
Spending	$b_{i47}$	97.09*	22.60*	-9.96*	-30.65*	2.54*	-6.60*
Units	$\sigma b_{i47}$	(26.52)	(4.24)	(1.78)	(7.00)	(.51)	(2.98)
	$b_{i53} - b_{i47}$	-57.96	-10.43*	3.77	18.96*	-1.49*	5.26
	$\sigma b_{i53} - b_{i47}$	(34.26)	(4.98)	(2.15)	(9.19)	(.67)	(3.28)

(continued)

		Intercept	Age	Number	Decile	Decile <sup>2</sup>	Home Ownership
Temporarily	$b_{i53}$	37.13*	.89	-3.66*	-6.03*	.49*	-.46
	$\sigma b_{i53}$	(7.47)	(2.90)	(.92)	(2.73)	(.23)	(1.60)
Low Income	$b_{i47}$	6.24	3.32	-2.52	5.35	-.22	-4.15
	$\sigma b_{i47}$	(14.97)	(5.40)	(2.14)	(5.23)	(.44)	(3.99)
Spending	$b_{i53}$	30.89	-2.43	-1.14	-11.38	.71	3.69
	$\sigma b_{i53}$	(16.73)	(6.13)	(2.33)	(5.91)	(.49)	(4.30)
Units	$b_{i53}$	29.18*	13.25*	-6.24*	-9.94*	.78	1.92
	$\sigma b_{i53}$	(14.41)	(2.22)	(1.58)	(4.93)	(.44)	(1.51)
Low Income	$b_{i47}$	32.25*	17.08*	-6.52*	-13.98*	1.25*	-.46
	$\sigma b_{i47}$	(13.19)	(2.94)	(1.41)	(4.57)	(.42)	(2.37)
Spending	$b_{i53}$	-3.07	-3.83	.28	4.04	-.47	2.38
	$\sigma b_{i53}$	(19.54)	(3.68)	(2.12)	(6.72)	(.61)	(2.81)
Units	$b_{i53}$	19.53	22.63*	--	-15.04	1.35	-11.38*
	$\sigma b_{i53}$	(51.78)	(8.47)		(18.85)	(1.42)	(4.91)
High Income	$b_{i47}$	154.18	30.39*	--	-73.45*	6.82*	-6.96
	$\sigma b_{i47}$	(86.76)	(12.78)		(23.63)	(2.01)	(6.78)
Single-	$b_{i53}$	-134.65	-7.76	--	58.41*	-5.47*	-4.43
	$\sigma b_{i53}$	(101.04)	(15.33)		(28.45)	(2.46)	(8.37)
Person	$b_{i53}$	63.91*	4.10	--	-21.83*	2.19	--
	$\sigma b_{i53}$	(22.33)	(9.94)		(10.69)	(1.36)	
Spending	$b_{i47}$	2.13	-.94	--	12.48	-1.10	--
	$\sigma b_{i47}$	(24.95)	(9.82)		(10.97)	(1.18)	
Units	$b_{i53}$	61.79	5.04	--	-34.31*	3.29	--
	$\sigma b_{i53}$	(33.48)	(13.97)		(15.32)	(1.80)	
Temp. Low	$b_{i53}$	54.73	13.66*	--	-31.31*	3.83*	1.57
	$\sigma b_{i53}$	(32.52)	(4.65)		(14.05)	(1.67)	(3.58)
Income	$b_{i47}$	-10.26	23.23*	--	-7.12	1.33	-.86
	$\sigma b_{i47}$	(26.67)	(4.83)		(11.66)	(1.32)	(3.93)
Single-Person	$b_{i53}$	64.99	-9.57	--	-24.19	2.50	2.43
	$\sigma b_{i53}$	(42.06)	(6.70)		(18.26)	(2.13)	(5.32)
Spending	$b_{i53}$						
	$\sigma b_{i53}$						
Units	$b_{i53}$						
	$\sigma b_{i53}$						

(continued)

		<u>Intercept</u>	<u>Age</u>	<u>Number</u>	<u>Decile</u>	<u>Decile<sup>2</sup></u>	<u>Home Ownership</u>
High Income	$b_{i53}$	37.23	10.41*	-6.76*	-9.90	.93	.57
Multiple-	$\sigma b_{i53}$	(28.71)	(2.65)	(1.75)	(7.56)	(.53)	(1.34)
Person	$b_{i47}$	71.78*	14.58*	-8.11*	-18.15*	1.57*	-3.02
Spending	$\sigma b_{i47}$	(29.54)	(4.68)	(2.07)	(7.84)	(.55)	(3.75)
Units	$b_{i53} - b_{i47}$	-34.55	-4.17	1.35	8.25	-.64	3.59
	$\sigma b_{i53} - b_{i47}$	(41.19)	(5.38)	(2.71)	(10.89)	(.76)	(3.98)
Temp. Low	$b_{i53}$	4.99	.08	-3.06*	4.15*	-.26	-.25
Income	$\sigma b_{i53}$	(8.38)	(2.15)	(.86)	(2.57)	(.20)	(1.05)
Multiple-	$b_{i47}$	-12.52	8.97	-2.90	8.76	-.41	-7.01
Person	$\sigma b_{i47}$	(29.95)	(7.19)	(2.62)	(8.84)	(.66)	(4.66)
Spending	$b_{i53} - b_{i47}$	17.51	-8.88	-.16	-4.61	.14	6.76
Units	$\sigma b_{i53} - b_{i47}$	(31.10)	(7.51)	(2.76)	(9.21)	(.69)	(4.77)
Perm. Low	$b_{i53}$	28.56	11.38*	-6.09*	-7.05	.48	2.64
Income	$\sigma b_{i53}$	(18.68)	(2.44)	(1.85)	(5.60)	(.47)	(1.54)
Multiple-	$b_{i47}$	80.44*	10.00*	-7.56*	-23.83*	1.95*	2.27
Person	$\sigma b_{i47}$	(18.15)	(4.09)	(1.85)	(5.24)	(.46)	(3.41)
Spending	$b_{i53} - b_{i47}$	-51.88	1.38	1.48	16.78*	-1.48*	.37
Units	$\sigma b_{i53} - b_{i47}$	(26.04)	(4.77)	(2.62)	(7.67)	(.66)	(3.74)

\* Significantly different from zero at a level less than 5 per cent.



equal to the remaining variance of  $u$  after separation of the years. The significant net differences between the regression coefficients in the two years do not necessarily imply significant differences between years for particular coefficients. Differences between years for particular coefficients can be submitted to tests, however, in a search for varying effects of the independent variables. Table 7 shows the results of these tests for specified groups including all groups for which significant  $F$  ratios were noted in Table 6.

The decline in the mean IA ratio between 1947 and 1953 for all spending units is partially explained by the significant reduction in the regression coefficient for age. The 1947 IA ratio may therefore be regarded as abnormal for older spending units. Since the high income group consists largely of older spending units, the age effect is consistent with the differences in mean IA ratios between income groups. When single-person spending units are separated from multiple-person spending units, the single-person spending units seem to account for the shift in the IA function of the age variable. The observed change in the regression coefficient for age among multiple-person spending units is negligible; the change for single-person spending units fails by only a small margin to meet the 5 per cent criterion for significant differences between years.

There is no evidence of a shift in the IA ratio function on the income variable for single-person spending units as a group. As shown in Chart 1, the IA ratio functions for 1947 and 1953 intersect, indicating that the 1947 IA ratios may have been abnormal for those with higher incomes but not abnormal for those with lower incomes. The significant shift from the abnormal 1947 levels of the IA ratio for the multiple-person spending units is also shown in Chart 1.

When all spending units are separated into the three income classes, different patterns of variation in the LA ratio between 1947 and 1953 emerge. In the high income group there is a significantly lower slope for age in 1953 than in 1947, again indicating abnormally high LA ratios in 1947 for the older spending units. There is no difference in the age effect between years for either of the two low income groups.

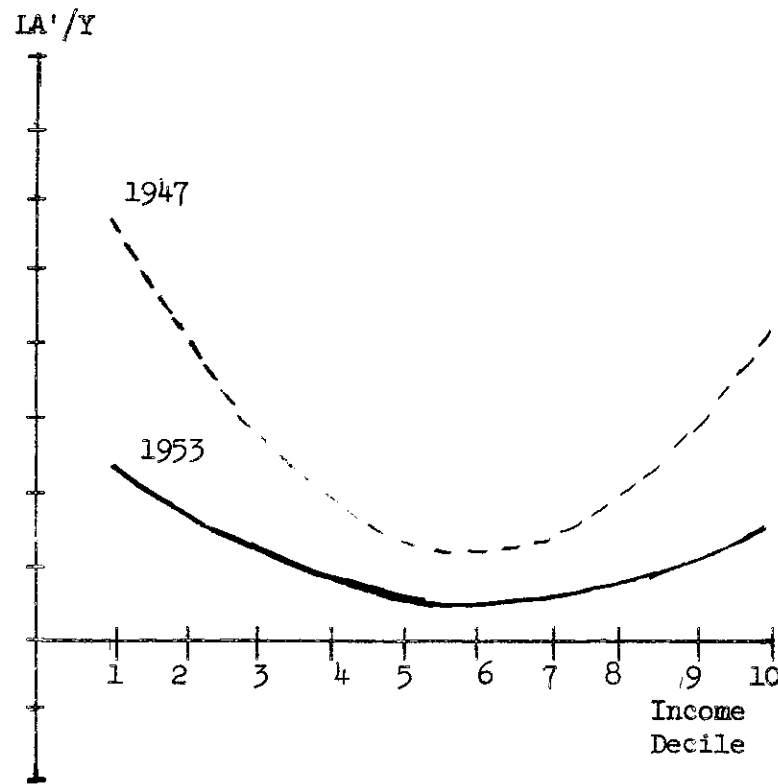
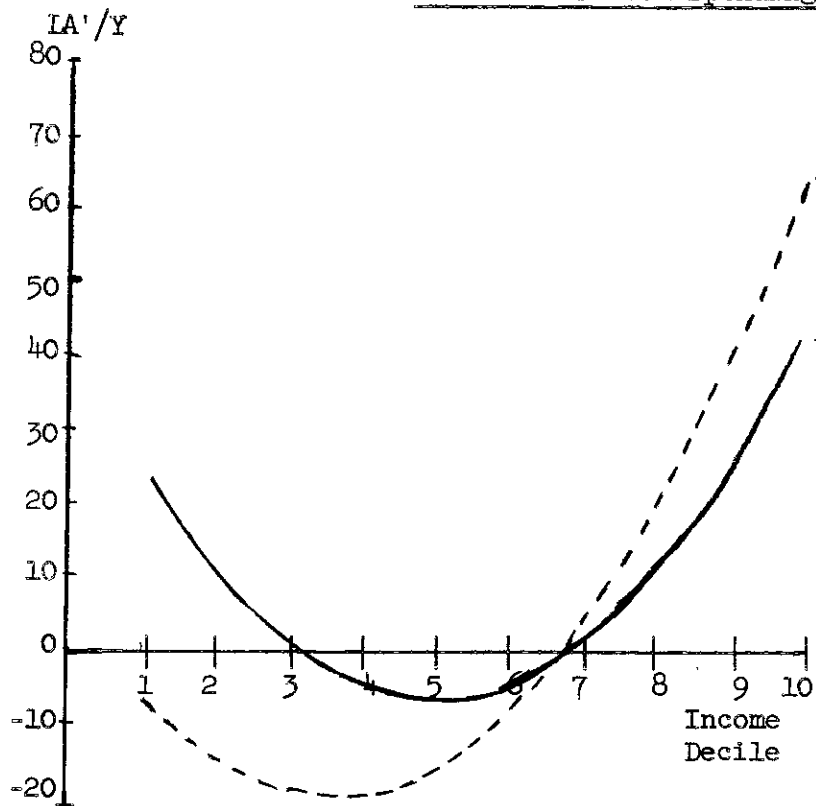
The poor regression fit for 1947 in the temporarily low income group does not allow meaningful interpretation of the significant inter-year difference noted in Table 6 for this group. The inter-year differences in regression coefficients for the permanently low income groups are remarkably small. There is no evidence of any shift in the LA function for the permanently low income spending units, and the 1947 LA ratios for this group must be regarded as normal in the context of their needs and preferences for liquid reserves.

The effect of the level of income for individual spending units in the income classes is shown in Chart 2 which contrasts the high income class with the permanently low income class. The functions have been plotted for the entire range of income decile because it is possible for a spending unit to have an income which deviates considerably from the mean for his class. It should be noted, however, that the observations tend to cluster above the 7.5 income decile for the high income class and below the 7.5 income decile for the permanently low income class. According to the t-tests in Table 7 the inter-year differences in the income effect are statistically significant in the high income group. The right branches of the parabolas for 1947 and 1953 indicate a lower propensity to hold liquid assets in 1953 than in 1947 for this group.

Chart 1

Effect of Income on the LA Ratio for Single and Multiple  
Person Spending Units, 1947 and 1953

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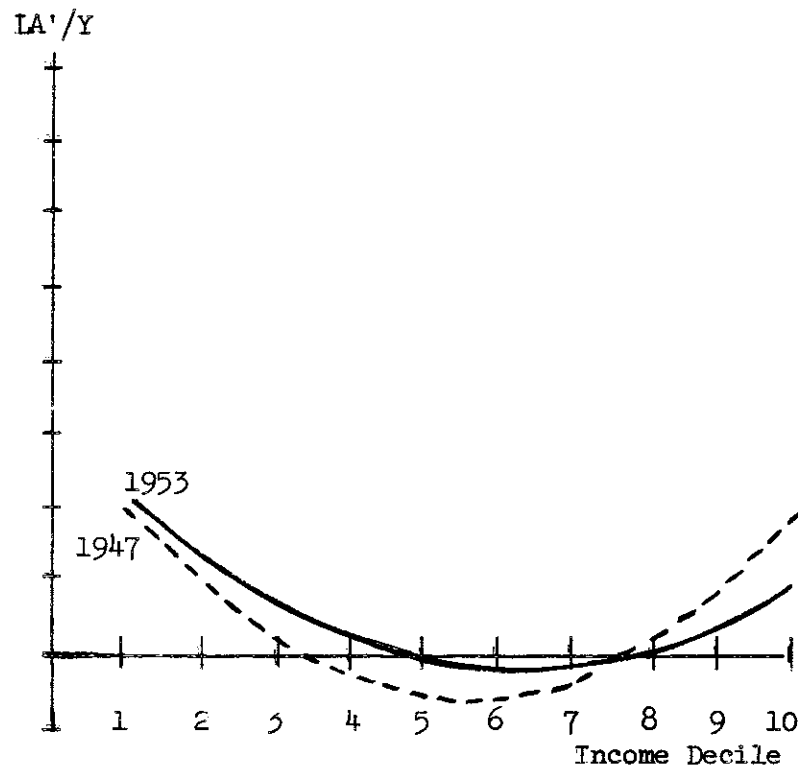
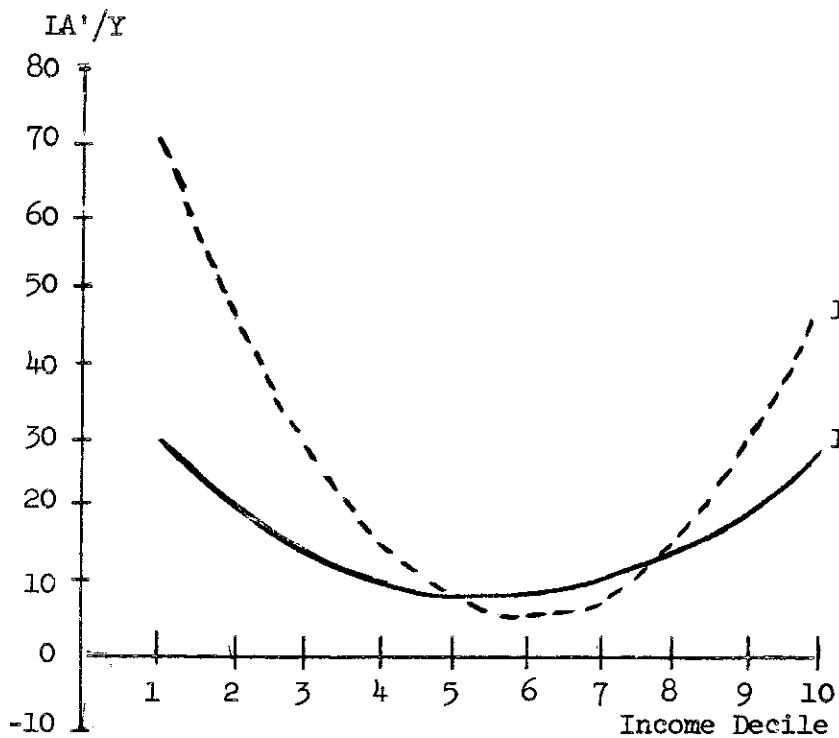
$$LA'/Y = b_0 + b_3 D + b_4 D^2$$

Single-Person Spending Units

Multiple-Person Spending Units

Chart 2

Effect of Income on the LA Ratio for High Income and  
Permanently Low Income Classes, 1947 and 1953



$$LA'/Y = b_0 + b_3D + b_4D^2$$

High Income Class

Permanently Low Income Class

Of the six income-spending unit classes submitted to F-tests for net increases in explained variances by separating years, only two tests showed significant differences. In the class consisting of temporarily low income, multiple-person spending units only one of twelve regression coefficients differs significantly from zero. The large unexplained variance for this class precludes further analysis. In the other of the two classes, single-person spending units in the high income class, there is a significant change from a parabolic income effect in 1947 to no income effect in 1953. Noting again that the most relevant range of income deciles for this group is above the 7.5 level, it appears that World War II conditions resulted in abnormally high liquid asset accumulations among single-person spending units in high income groups. The 1953 data for similar people show that equity in a home is regarded as a favorable substitute for liquid balances and there is no tendency for the IA ratio to increase with income.

## VII. Conclusions

Perhaps the most important single conclusion to be drawn is that there is no such thing as "the" propensity to hold liquid assets. The evidence adduced here indicates that the motivations for holding liquid balances vary widely and that the motivations can be delineated -- if not defined -- by a demographic and economic classification of consumers. This conclusion seems important, in retrospect, to the controversy of 1945 and 1946 about the possible inflationary effect of post-war holdings of liquid assets.

The IA ratio is positively related to age in each of the years 1947 and 1953. The rise in the IA ratio with age has limits, however, as indicated by the abnormal levels attained in 1947 by the older single-

person spending units and by the older high income spending units. Thus the evidence confirms the hypothesis that precautionary reserves increase when spending units need more reserves, are able to cumulate more reserves, and have a lower relative preference for consumption.

A preference for consumption and other non-liquid forms of saving over liquid balances was posited for larger families, and the evidence supports this assumption. The IA ratio is generally higher among single-person spending units than among larger spending units. Furthermore, the regression coefficient of the size variable is consistently negative. The preference for satisfaction derived from sources other than liquid balances is also suggested by the abnormally high intercept in 1947 for multiple-person spending units.

The effect of the level of income on the propensity to hold liquid assets varies between the groups examined. The IA ratios of 1947 were abnormally high for spending units who had high incomes. The high income people had evidently passed a point of saturation with liquid reserves, but this conclusion applies particularly to the single-person spending units. In 1953 there was no evidence of a relationship between the IA ratio and the level of income among the high income, single-person spending units. Moreover, this was the only group showing a tendency to let equity in a home substitute for liquid reserves.

Like the high income spending units, those in the temporarily low income class had abnormally high IA ratios in 1947. The decline in the IA ratio from 1947 was greater, in relative terms, for the temporarily low income, multiple-person spending units than for any other group. This sharp decline, along with the very low level of the IA ratio in 1953,

suggests a low propensity to hold liquid assets. As implied by the Modigliani-Brumberg\* and Friedman\*\* theories of saving,\*\*\* the expectation of higher incomes may reduce the need for current saving.

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\* France Modigliani and Richard Brumberg, "Utility Analysis and the Consumption Function -- An Interpretation of Cross-Section Data," Post-Keynesian Economics, ed. K. K. Kurihara, New Brunswick, 1954, pp. 388-436.

\*\* Milton Friedman, A Theory of the Consumption Function, Princeton, 1957.

\*\*\* See also Harold W. Watts, "Long-run Income Expectations and Consumer Saving," Studies in Household Economic Behavior, Yale Studies in Economics, Vol. 9, Yale University Press, 1958.

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Those in the low income class may have been able to fulfill a latent need for more security in the form of liquid balances during the prosperous periods of World War II and the following years. Their IA ratios in 1947 could not be considered abnormal relative to comparable IA ratios in 1953. This finding is reinforced by the data for 1953 for low income, single-person spending units. As income increases among these spending units the IA ratio declines but then rises in the higher range of income decile. This behavior suggests a general need for the security provided by liquid balances among low income spending units, a need which is partially fulfilled only when the income earner has no dependents and when his income rises beyond the fourth income decile.

APPENDIX

Income deciles are observed for individual spending units in each Survey of Consumer Finances. The income deciles are established by arraying absolute incomes and dividing the array into tenths. The income deciles range from 1 for the lowest 10 per cent of incomes to 10 for the highest 10 per cent of incomes. Tables 1A through 1C show the weighted means of income deciles for groups of spending units classified by race, region, occupation, education, and age.

Data for four years, viz. 1947, 1948, 1952, and 1953, have been combined in constructing these tables. Tests performed by Robert Summers indicate that differences between group means for individual years are not statistically significant.



APPENDIX

Table 1A  
 Mean Values of Income Decile Position for  
 Selected Spending Units  
 1947-48 and 1952-53\*

<u>Education</u> Grade-School or less: Age	<u>Professional, Managerial, Business, Clerical</u>	<u>White, South, Non-Farm</u>			
		<u>Skilled</u>	<u>Unskilled</u>	<u>Other</u>	<u>Retired</u>
18-24	↓	4.5-.3	↓	↓	↓
		.6/74			
25-34		5.3-.2			
		.8/95			
35-44		5.1-.2			
		1.0/109			
45-54		5.3-.2			
	.7/71				
55-64	} ↓	5.4-.3	↓	↓	↓
65+		.5/66			
					2.3-.2
					1.1/30

High-School: Age

18-24	3.5-.2	4.7-.3	3.1-.3	4.1-.5
	.6/72	.5/61	.2/23	.2/20
25-34	6.6-.2	6.4-.2	3.7-.3	4.7-.4
	1.2/145	.9/112	.5/56	.4/45

(Continued)

Table 1A (continued)

Mean Values of Income Decile Position for  
Selected Spending Units,  
1947-48 and 1952-53\*

<u>Education</u> <u>High-School: Age</u>	Professional, Managerial, <u>Business, Clerical</u>	<u>White, South, Non-Farm</u>			
		<u>Skilled</u>	<u>Unskilled</u>	<u>Other</u>	<u>Retired</u>
35-44	6.6-.2 1.2/162	6.5-.2 .7/87	3.7-.2 .6/62	5.1-.5 .4/38	
45-54	6.9-.2 .9/137	7.0-.4 .4/49	3.6-.3 .4/42	3.5-.4 .4/49	
55-64	6.3-.2 1.1/148	5.8-.5	2.4-.3 .2/20	2.8-.3 .4/49	
65+	5.2-.5 .3/42		.3/32	1.7-.2 .2/19	2.3-.2 .6/72
<hr/>					
<u>College: Age</u>					
18-24	3.8-.3 .3/38	↑	↑	↑	
25-34	7.4-.2 .9/128	↑	↑	↑	
35-44	7.9-.2 .8/127	↑	↑	↑	
45-54	8.4-.2 .4/79	↑	↑	↑	
55-64	7.2-.4 .4/66	↑	↑	↑	
65+					3.7-.5 .2/22

\* Entries in Table 1 consist of A-B, C/D, where A=mean value of income decile; B=standard error of mean income decile; C=proportion of sample represented in the cell; D=number of cases.

Table 1B

Mean Values of Income Decile Position for  
Selected Spending Units,  
1947-48 and 1952-53<sup>1</sup>

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<u>Education</u> <u>Grade-School</u> <u>or less: Age</u>	<u>White, Non-South, Non-Farm</u>							
	<u>Professional</u>	<u>Business</u> <u>Owners</u>	<u>Managers,</u> <u>Officials</u>	<u>Clerical</u> <u>and Sales</u>	<u>Skilled</u>	<u>Unskilled</u>	<u>Other</u>	<u>Retired</u>
18-24					4.2-.4 .3/28	3.8-.5 .2/24		
25-34					6.3-.2 1.4/159	4.9-.3 .4/47		
35-44					6.8-.1 2.0/258	5.1-.2 .7/80		
45-54					6.9-.1 2.3/286	4.9-.2 .9/112		
55-64					6.3-.1 1.9/242	4.0-.2 1.0/124		
65+					5.7-.3 .5/59	3.3-.2 .6/70		2.7-.1 2.7/326

(Continued)

Table 1B (continued)

Mean Values of Income Decile Position  
for Selected Spending Units,  
1947-48 and 1952-53<sup>1</sup>

<u>Education</u> <u>High-School: Age</u>	<u>White, Non-South, Non-Farm</u>							
	<u>Professional</u>	<u>Business Owners</u>	<u>Managers, Officials</u>	<u>Clerical and Sales</u>	<u>Skilled</u>	<u>Unskilled</u>	<u>Other</u>	<u>Retired</u>
18-24	3.3-.6	6.3-.9	3.9-.5	3.6-.1	5.0-.2	4.1-.3	3.8-.3	
	.4/7	.1/9	.1/8	1.4/202	1.2/146	.5/63	.3/32	
25-34	6.9-.3	7.1-.2	7.7-.3	6.3-.1	6.8-.1	5.3-.2	5.1-.3	
	.3/39	.7/98	.3/43	1.8/239	3.7/451	.7/80	.5/63	
35-44	7.4-.3	7.7-.2	7.8-.3	6.7-.1	7.3-.1	5.6-.3	5.2-.3	
	.4/50	1.1/165	.4/58	1.4/209	3.0/382	.5/56	.5/68	
45-54	7.2-.5	7.5-.2	7.4-.3	6.9-.2	7.4-.1	4.9-.3	4.2-.3	
	.2/37	.9/143	.5/75	1.3/183	1.5/200	.4/47	.8/98	
55-64		6.5-.3	6.9-.4	6.3-.2	7.4-.2	4.7-.3	3.2-.2	
	7.1-.5	.7/106	.3/46	.8/120	.7/93	.3/40	1.3/161	
65+	.2/27	5.3-.4	5.3-.7	5.4-.5	5.5-.5	3.1-.4	2.2-.1	3.4-.2
		.3/47	.1/20	.2/27	.1/13	.2/21	1.6/197	.7/95

(Continued)

Table 1B (continued)

Mean Values of Income Decile Position  
for Selected Spending Units,  
1947-48 and 1952-53<sup>1</sup>

<u>Education</u> <u>College:Age</u>	<u>White, Non-South, Non-Farm</u>							<u>Retired</u>
	<u>Professional</u>	<u>Business Owners</u>	<u>Managers, Officials</u>	<u>Clerical and Sales</u>	<u>Skilled</u>	<u>Unskilled</u>	<u>Other</u>	
18-24	5.0-.3		7.8-1.1	4.2-.3	5.6-.6	↑	3.4-.3	
	.4/53	**	*/5	.3/52	.2/20		.4/61	
25-34	7.8-.1	9.0-.1	8.3-.2	6.6-.2	7.8-.2		5.3-.5	
	1.3/188	.3/51	.4/63	.8/120	.4/57		.2/24	
35-44	8.9-.1	8.9-.2	9.0-.2	7.6-.2	7.6-.3		7.1-.7	
	1.1/203	.4/73	.4/73	.5/79	.3/47		.1/16	
45-54	8.2-.2	9.1-.3	9.2-.2	6.9-.3	7.6-.5	6.5-.8		
	.9/166	.3/58	.4/64	.6/94	.2/27	.1/20		
55-64	8.3-.3	} 8.9-.3	} 9.0-.3	} 7.4-.3	7.2-.3	}		
	.4/74				.1/17			
65+	7.3-.4				.3/48		.3/50	.3/41
	.2/39					.2/33	.4/74	

\* Less than one-half of one per cent.

\*\* No observations.

1. Entries in Table 1 consist of A-B C/D, where A = mean value of income decile; B = standard error of mean income decile; C = proportion of sample represented in the cell; D = number of cases.

Table 1C

Mean Values of Income Decile Position for  
Selected Spending Units  
1947-48 and 1952-53<sup>1</sup>

Age	Not White					
	South		Not South		Farmers	
	Grade School or less	High School or more	Grade School or less	High School or more	Grade School or less	High School or more
18-24	2.2-.2 .3/26	2.9-.4 .3/27	4.1-.9 .1/9	3.5-.3 .4/40	2.7-.5 .2/26	4.0-.5 .2/28
25-34	3.3-.2 .5/48	4.0-.3 .5/51	4.4-.3 .4/35	5.3-.2 .7/76	3.7-.3 .7/109	4.4-.3 .6/94
35-44	3.3-.2 .7/70	4.5-.6 .2/21	4.4-.3 .6/57	5.6-.4 .4/51	4.0-.2 1.3/205	4.8-.3 .8/113
45-54	3.0-.2 .6/58	3.6-.6 .1/16	3.9-.3 .6/58	5.4-.4 .4/42	3.8-.2 1.4/204	5.7-.4 .5/74
55-64	2.5-.3 .4/40		4.2-.5 .3/28		3.5-.2 1.3/213	5.2-.5 .3/49
65+	1.6-.2 .6/55		1.9-.3 .2/24		2.9-.2 .9/149	3.9-.6 .2/29

1. Entries in Table 1 consist of A-B C/D, where A = mean value of income decile; B = standard error of mean income decile; C = proportion of sample represented in the cell; D = number of cases.