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The Strength of Consumer Balance Sheets

by K.J. Kowalewski

Since the end of 1979, U.S. consumers have strengthened their balance sheets considerably. The growth of outstanding household liabilities fell from 14.3 percent in 1979 to an annual rate of 7.7 percent over the period 1979:IVQ to 1981:IVQ. Consequently, debt repayments relative to disposable personal income and outstanding liabilities relative to assets have fallen substantially from their high 1979 values. In several respects the improvement in consumer balance sheets has been more dramatic since 1979 than improvements in past recessionary periods. Indeed, this improvement is a key factor underlying forecasts of a consumer-led economic recovery later this year. However, there have been some marked changes in the composition of consumer assets in recent years and in the values of these assets in the past year. These changes could affect consumer behavior over the next several quarters in ways that may moderate the recovery in consumer outlays. This *Economic Commentary* discusses the significance of the recent changes in the composition of consumer balance sheets and speculates on the possible impact of these changes on consumer spending in the next several quarters.

Balance-Sheet Constraints on Consumption

The composition of consumer balance sheets has a strong influence on consumer spending and saving decisions. There is a direct influence simply because spending depends on what is already owned. For example, the number of refrigerators that a consumer purchases depends on how many refrigerators the consumer currently owns. A corollary is that the size of a consumer's net worth influences his spending and saving decisions. There is another influence, arising from the fact that the composition of balance sheets affects the degree of success in meeting desired consumption plans. Not only the amount of debts relative to assets but also the types of assets owned by consumers influence their spending plans.

Debts. The amount of debt held by consumers is a very important constraint on subsequent spending and saving decisions. Debt represents an obligation to repay in the future. Installment and mortgage loans require periodic payments of fixed amounts for long periods of time into the future. The timing of the repayment of noninstallment loans is mostly at the discretion of the debtor, although the whole amount eventually must be repaid. Hence, current debt repayments leave less income available for other spending, saving, or servicing additional debt. This is not to say that debt necessarily constrains all spending plans. The convenience of debt undoubtedly shifts the time pattern of spending from the future to the present and may promote more spending over time than would be true in a world without available debt.

The real burden of debt repayments experienced by consumers depends on the inflation rate. If the inflation rate is greater

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Asset Characteristics[1]

The ***value*** of an asset at some point in time is the maximum amount of cash that would be realized by selling or otherwise liquidating the asset at that time under the most favorable conditions and with all useful prior preparation for its disposal. The value of an asset can vary considerably with its age or across the business cycle. For example, equity prices fall during recessions, and depreciation continuously lowers the value of tangible assets. In addition, the real values of tangible assets tend to remain unchanged with inflation, while those of financial assets tend to fall.

The ***liquidity*** of an asset is the ease and speed with which its value can be realized and depends on the market in which the asset is traded. Currency is the most liquid asset, since it is a medium of exchange. Consumer durables and pension funds are illiquid assets; resale markets for durables are imperfect, and it is difficult, if not impossible, to borrow against pension funds or liquidate them before retirement.

The ***predictability*** of the value of an asset refers to the certainty with which its value at various future dates can be anticipated by informed investors. Apart from numismatic considerations, currency has a perfectly predictable nominal value, since the value of one dollar is always one dollar. While insured deposits also have perfectly predictable nominal values, consumer durables do not, as they can break down without warning. The real values of financial assets are less predictable than their nominal values, because they depend on future inflation rates.

The ***reversibility*** of an asset refers to the discrepancy between the value an owner can realize and the contemporaneous cost of acquiring the asset. Perfect reversibility is impossible, as every asset exchange involves transactions costs. These costs include, for example, the time and trouble required for a trip to the bank, brokerage fees, or advertising in the classified ads. Some assets, such as nonmarketable U.S. government savings bonds and retirement and death benefits, are irreversible; once acquired, they cannot be sold to someone else.

The ***divisibility*** of an asset is the size of the smallest unit in which dealings in the asset can be made. Currency is highly divisible, since any denomination of a Federal Reserve note can be expressed in an equivalent number of pennies. An automobile is indivisible: a whole car must be owned to obtain its transportation services. Equities and bonds must be purchased in integer multiples of their unit prices, unless they are held in mutual funds.

The ***yield*** of an asset over an interval of time consists of all receipts and costs entailed by ownership over the interval. The yield of a money market mutual fund (MMMF) during a given time period equals the interest receipts minus the fund's management fees and other transactions costs and any taxes on the income receipts. The yield of a refrigerator over some time period equals the value of its services (the refrigeration of food) minus the electricity and repair costs that it requires.

Finally, the ***return*** of an asset over some time interval equals the increment in value of the asset plus the value of its yield. The return on an equity over a certain interval, for example, equals the after-tax capital gain or loss on the price of the equity plus its yield. The variance of the return is one measure of an asset's riskiness.

1. These characteristics are discussed in an unpublished manuscript by James Tobin of Yale University.

than that expected when the debt was acquired, the real burden on consumers tends to fall, since nominal income generally rises with inflation. When the inflation rate is less than that expected, the real burden tends to increase, since income is not increasing as fast as expected. Hence, changes in real debt burdens tend to change the amount of discretionary funds available for spending.

The amount of debt currently held affects not only the demand for additional debt and spending but also the supply and cost of debt. Creditors are concerned about the riskiness of their loans and usually attempt to minimize this risk for a given return on their loans. Creditors may be unwilling to lend additional amounts to consumers who already own many debts relative to their assets, or they may be willing to do so but only by charging higher loan interest rates. Creditors may also restrict the availability of debt to consumers who currently are making large debt repayments relative to their incomes. If the consumers' incomes should fall, then the consumers may have difficulty making payments and may default on their loans, possibly leading to losses for the creditors.

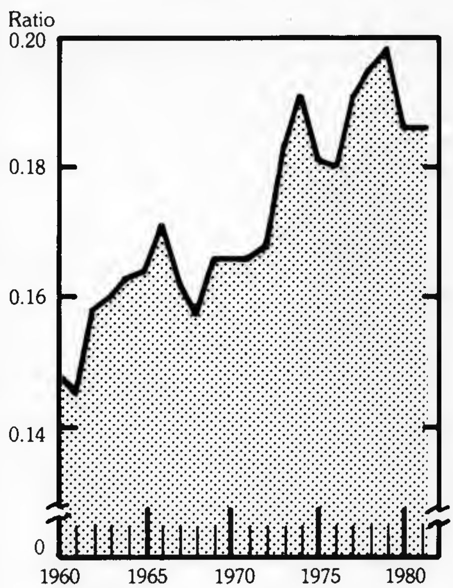
Assets. The amount and composition of assets owned by consumers may also influence subsequent consumer spending and saving decisions, not only because spending depends on what is already owned but also because the characteristics of assets may affect the ability to shift consumption across time (see box).[1] Generally speaking, ***tangible assets,*** such as consumer durables, houses, and land, tend to be less liquid, less reversible, and less divisible than many ***financial assets,*** such as currency and saving and checking accounts. Because future inflation rates are unknown, all assets have unpredictable real values; tangible assets and certain financial assets, such as equities and corporate bonds, also have unpredictable nominal values. Thus, it is generally difficult to liquidate tangible assets quickly at their current values, although they may serve very well as collateral for loans against future income. There is the possibility that the current values of these assets and those of equities and bonds may differ significantly from their expected values at a time when these assets need to be sold. Consequently, consumers whose assets are primarily tangible or risky may find their spending plans limited at certain times by a fall in their asset values.

This is especially true during recessionary periods of sluggish or negative real income growth and high real interest rates. During such periods, the demand for most tangible assets and risky financial assets falls, making quick sales of these assets particularly difficult without lowering their prices, sometimes significantly. In turn, these assets may have lower collateral values for loans. Thus, when a consumer's assets are concentrated in tangible or risky financial assets, he/she may have considerable trouble weathering income declines. Instead of

1. This is apart from the fact that total net worth acts as a constraint on spending. Without sufficient net worth, for example, a consumer cannot make a down payment on a house.

Chart 1 Consumer Debt/Asset Ratio

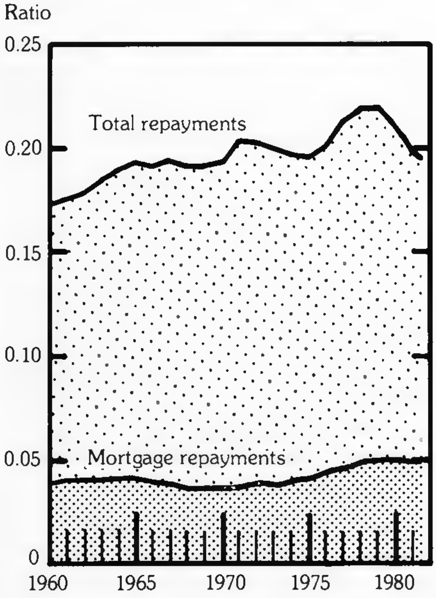
Year-end data; 1982 data through 1st qtr



SOURCE: *Balance Sheets for the U.S. Economy,* Flow of Funds Section, Board of Governors, Federal Reserve System.

Chart 2 Mortgage Loan and Consumer Installment Debt Repayments

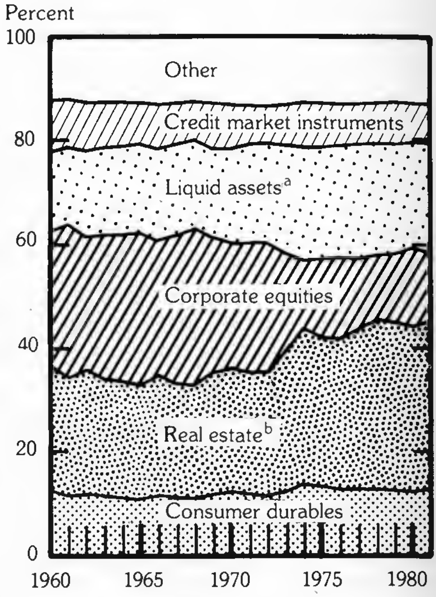
Relative to disposable personal income; year-end data; 1982 data through 2nd qtr



SOURCE: Board of Governors, Federal Reserve System.

Chart 3 Composition of Consumer Assets

Year-end data



a. *Liquid assets* include currency, checkable deposits, MMMFs, and all savings and time deposits.

b. *Real estate* includes houses and land.

SOURCE: *Balance Sheets for the U.S. Economy*, Flow of Funds Section, Board of Governors, Federal Reserve System.

drawing down assets or acquiring additional debt, the consumer may have to reduce his/her current spending. If assets are drawn down, any capital losses from their sales act to reduce future spending further.

Trend Changes in Consumer Balance Sheets

Over at least the past 20 years, the composition of consumer balance sheets has changed significantly. First, outstanding debt has been rising faster than assets. The debt/asset ratio peaked at about 0.20 by the end of 1979 (see chart 1); since then, the ratio has fallen to about 0.19. Second, the increase in outstanding debt implied increasing amounts of debt repayments. Consumer installment and mortgage debt repayments relative to disposable personal income also increased to high levels by the end of 1979 (see chart 2). Since then, mortgage repayments have remained at a relatively high level, while the installment debt repayments have fallen sharply through 1982:IIQ. Third, the composition of consumer assets has shifted sharply toward tangible assets (see chart 3). From a low of about 22 percent at year-end 1965, the value of houses plus land grew to about 30 percent of the value of consumer assets by year-end 1974 and 33 percent by year-end 1981. Including consumer durables, tangible assets accounted for about 46 percent of the value of consumer assets by year-end 1981, up from 33 percent in 1965. Partly offsetting this shift toward less liquid, less reversible, and less divisible assets was a shift in the composition of consumer financial assets away from equities and toward currency, deposits, and MMMFs—assets of greater liquidity, reversibility, divisibility, and predictability. From about 43 percent in 1965, equities shrank to 23 percent of the value of consumer financial assets by 1974 and 22 percent by 1981, while currency, deposits, and MMMFs grew from 25 percent by 1965 to 38 percent by 1974 and 39 percent by 1981.[2]

There are several reasons for these trends. First, consumer loan markets have improved and grown in the postwar period, permitting more consumers to finance a greater percentage of *all* purchases with debt, including nondurables and service purchases. Second, the percentage of consumers aged 25 years to 44 years has risen over this period from 24 percent of the population in 1965 to 28 percent in 1980. These younger consumers generally have a greater propensity to spend and acquire debts, real estate, and consumer durables than older consumers. Third, the inflation of the 1970s lifted the prices and real returns of tangible assets relative to those of most financial assets. The median sales price of new single-family homes, for example, rose at an annual rate of about 8 percent between 1965 and 1981, faster than the 6 percent annual growth rate of the GNP implicit price deflator over the same period; real, after-tax mortgage loan interest rates are also thought to have been low in the 1970s. Consumers rationally adjusted their balance-sheet composition from financial to tangible assets in response to these higher real returns; consumers also acquired more debt, whose real repayment burden was falling with inflation. The shift in the financial assets also resulted from a change in relative returns of equities and instruments paying money market rates. The large capital losses in equity prices that occurred by the end of 1970 and especially by year-end 1974 helped promote the shift into tangible and other financial assets.

Recent Changes in Consumer Balance Sheets

In the past two years, slow real personal income growth and high real interest rates have reduced consumer spending and the associated demand for consumer credit. As shown in charts 1 and 2, the consumer debt/asset ratio has remained at 0.19 for the past two years, and debt repayments have fallen to about 20 percent of disposable personal income. At the same time, however, there has been a marked deterioration in markets for housing, equities, and previously purchased bonds; coupled with the significantly larger portion of total assets held in these forms, this deterioration has offset some of the improvement on the liabilities side.[3] Although the current strength on the liability side of consumer balance sheets suggests recovery in consumer spending later this year, the weakness on the asset side seems likely to restrain that growth.

The current weakness in the housing market may be an important constraint for many consumers. Unit sales of new and existing single-family homes are very weak; such sales in June 1982 were just over one-half of their 1979 rate. This weak demand has lowered selling prices and, consequently, housing values. For example, after increasing at an annual rate of 11.9 percent from 1974 through 1979, the median sales price of new single-family homes grew only 4.8 percent from 1979 through 1981, to $69,100. During the first six months of 1982, the median sales price actually fell to an average of $68,600. The median sales price of existing single-family homes grew only at about a 3.0 percent annual rate during the first five months of 1982, after growing at an annual rate of 11.7 percent from 1974 to 1979 and 9.2 percent from 1979 to 1981. The fall in realized home values appears to understate the actual declines when concessions in creative financing are included. In addition to price cuts, some home sellers also may have offered financing at below-market interest rates to encourage sales of houses. Thus, many homeowners may find their spending plans constrained by their inability to sell their homes without significant price

2. Because the data in the charts aggregate all consumers, individual consumer balance sheets may differ from the average.

3. The collapse in values of tangible assets and credit market instruments is understated in chart 3; tangible assets are valued at replacement cost, and credit market instruments are valued at par.

concessions. Other homeowners may cut back their spending plans simply because their home values are not appreciating as fast as they expected. The deterioration in the housing market may prompt many homeowners to turn to financial assets to meet their saving goals.

The currently high mortgage interest rates—for example, 16.2 percent for the secondary market FHA mortgage rate in June 1982—may deter homeowners from obtaining second mortgages to finance current spending, a popular source of funds in the 1970s. Moreover, these rates may confound the refinancing of maturing creative financing arrangements. Consumers who cannot obtain or meet the payments of new financing may be forced to lose the home equity they had accumulated; the original sellers then may find themselves with a home they did not expect to have, putting pressure on their spending plans as well. Evidence of illiquidity in the housing market is seen in the mortgage loan delinquency rates reported by the Federal Home Loan Bank Board. Having increased since late 1979, these rates are now above those of the 1973-75 recession. Continued financing problems may constrain the spending plans of many consumers who have used creative financing arrangements to purchase homes in the past few years.

High interest rates and weak corporate profits also have depressed equity prices in the past year. Standard & Poor's 500 Common Stock Price Index fell to about 108 by the end of July 1982, from a high of 136 in November 1980. Lower equity prices, as with lower housing prices, may force some consumers to curtail their spending.

Finally, the high interest rates of the past two years have depressed the values of many consumer bond portfolios. Bond prices are inversely related to interest rates. When interest rates rise, outstanding bond prices fall. This is not a problem if consumers plan to hold the bonds to maturity; they merely earn below-market rates of interest. However, if consumers need to sell all or part of their bond portfolios, then they may experience large capital losses, which in turn may curtail their spending.

High real interest rates for the remainder of 1982, foreseen by many analysts, seem likely to continue to dampen the housing and equity and bond markets. Moreover, these high rates may convince many consumers to save instead of spend. Both of these prospects may indicate a less vigorous recovery than anticipated this year.

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