Can Measures of the Consumer Debt Burden Reliably Predict An Economic Slowdown?

By C. Alan Garner

Some analysts and business executives are becoming concerned that recent increases in the consumer debt burden, defined as the level of consumer debt relative to ability to repay, may foreshadow an economic slowdown. Higher debt increases the risk that a household may experience financial distress in the event of an adverse economic shock, such as the loss of a job or large uninsured medical expenses. As the risk of financial distress rises, households may become less willing to spend on consumer goods, particularly big ticket items such as automobiles and home computers. Reduced consumer spending in turn would hurt economic growth as firms cut back on the production of consumer goods and laid off workers.

Different measures of the consumer debt burden are currently giving conflicting signals about the seriousness of the problem. It is not clear whether these measures have been useful indicators of consumer spending and economic growth in the past. Moreover, a measure of the debt burden that was useful in the past might be unreliable today if recent changes in the financial system, such as greater use of credit cards, are distorting the relationship between consumer debt and real economic variables.

This article examines whether various measures of the consumer debt burden can reliably predict a slowdown in economic growth. The first section explains why consumer debt may affect economic activity and describes alternative measures of the debt burden. The second section presents empirical evidence showing these measures have not been highly reliable for predicting economic growth in the past. The third section argues that recent changes in the financial system have added to the uncertainty about how to interpret a rising consumer debt burden. The article concludes that analysts should continue to monitor various measures of the consumer debt burden, but these measures are not highly reliable in predicting future economic slowdowns.

I. MEASURING THE CONSUMER DEBT BURDEN

The burden of consumer debt depends on the resources that a household has available to repay its debt. A given increase in debt may create few repayment problems for a household with large

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gains in income or assets, yet cause greater problems for a household without such gains. This section summarizes some of the theoretical links between the debt burden and consumer spending and then describes some commonly cited measures of the debt burden.

Theoretical background

Economic theory suggests there may be a link between the level of consumer debt and consumer purchases of such durable goods as automobiles and major home appliances. Consumer durable goods are assets that gradually yield a stream of services to the household over time, much as financial assets yield a stream of dollar returns. Consumers often borrow the funds for such purchases in order to spread the payments over time. By borrowing the funds, consumers can more closely match the payments for a durable good with the services received from the asset.

A key difference between consumer durable goods and financial assets is that durable goods are illiquid. A liquid asset can be converted into money quickly and with little loss of value. However, selling a used automobile, for example, often involves a substantial loss of value from the initial purchase price. This loss is partly due to depreciation, a natural loss of value that occurs as a car deteriorates over time. Sellers of a used automobile also may lose some of the good's value to high transactions costs, such as the costs of finding a buyer. Moreover, potential buyers may offer less than the true depreciated value because of their inability to accurately determine the car's condition and expected remaining life.

Consumers may limit their purchases of durable goods to avoid having to sell such illiquid assets at a substantial loss if the household experiences financial distress. In economic theory, consumption depends primarily on a household's permanent income, its average expected income. A household that is certain about its future income would feel comfortable either borrowing or reducing its liquid assets to purchase an illiquid durable good. However, households often face some chance of having to sell the durable good if their income drops because of an unforeseen economic shock, such as the loss of a job or an unexpected illness (Mishkin). As uncertainty about future income rises, many households will prefer to limit their debt and maintain a certain level of liquid financial assets to avoid the possibly large loss of value accompanying the distress sale of an illiquid durable good.

Rising consumer debt or declining financial assets may, therefore, signal a reduced willingness on the part of households to buy consumer durable goods. Holding permanent income and the household's uncertainty constant, a higher debt level would imply larger monthly debt repayments and a greater chance of default on these payments in case of an adverse economic shock. Reduced financial assets would also increase the chances of default because the household would be less able to tap such financial resources in case of economic distress.

A rising consumer debt burden also might predict future movements in broad measures of economic activity, such as real gross domestic product. A decline in consumer spending on durable goods would lower real GDP growth because such spending is a large component of real GDP.[1] In addition, fluctuations in durable goods purchases might explain an even larger fraction of the change in real GDP because such consumer spending is a volatile component, varying substantially more than consumption of nondurable goods and services. Decreased durable goods purchases would ripple through the economy, lowering payrolls, investment spending, and inventory investment in a broad set of

supporting industries. Such theoretical considerations explain why many economists monitor the consumer debt burden for possible information about future consumption and economic growth.

Alternative measures of the debt burden

The task of monitoring consumer debt is complicated because there are several ways to measure the debt burden. For the economy as a whole, these measures are usually calculated as a ratio comparing the amount of consumer debt with a measure of a consumer's ability to repay, such as household income or assets. The most commonly used measures of ability to repay are disposable income, which is the after-tax spendable income of households, and household financial assets. The theoretical discussion suggests financial assets may be more informative than total household assets because holdings of illiquid assets, such as equity in a family home, cannot be adjusted readily in response to changing risk perceptions. The theoretical discussion also suggests that all of the alternative measures are likely to be imperfect because the best measure of ability to repay is permanent income, an unobservable variable. Because of such imperfections, many analysts may indeed prefer to examine several different measures of the consumer debt burden.

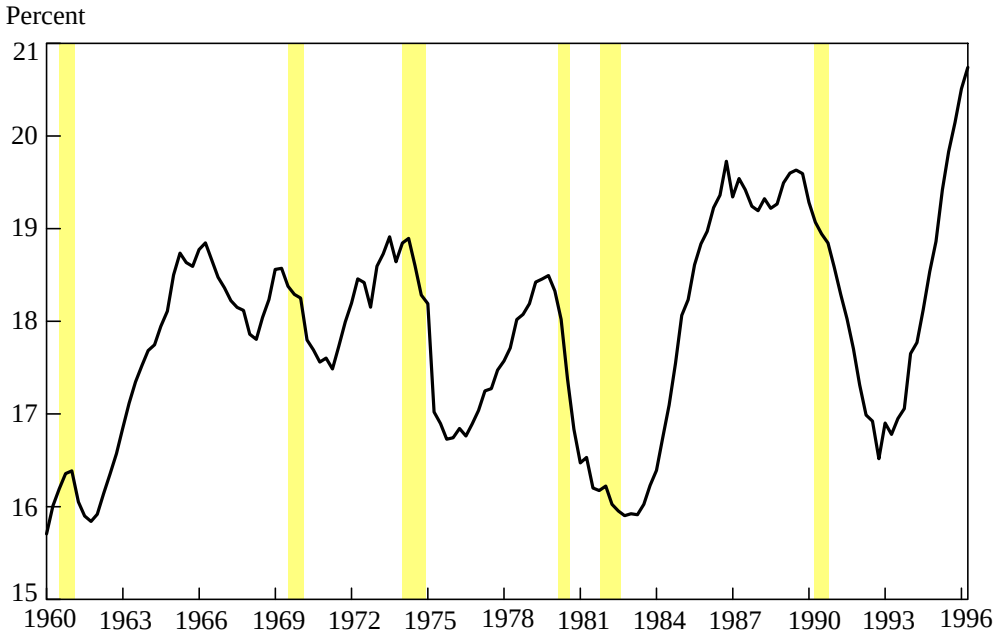
One of the most widely cited measures is the ratio of consumer debt to disposable income (Chart 1). The shaded areas represent past recessions. This measure of the debt burden has fluctuated with the business cycle, rising in expansions and falling in contractions. The measure has not been a perfect leading indicator of the business cycle, however, for the ratio sometimes reached its peak immediately before the recession began and, other times, peaked years before the onset of a recession. This measure of the debt burden rose to 20.7 percent in the second quarter of 1996, a new record. But it is difficult to know whether the sharp increase in this ratio means consumers are overextended, or whether it simply reflects a continuing upward trend in consumer credit use.

To measure the debt burden, some analysts prefer to focus on consumer debt service payments rather than the amount of debt outstanding. Debt service payments include the payments for both interest and principal on outstanding consumer debt. Consumer debt service payments as a fraction of disposable income rose to 11.1 percent in the second quarter of 1996 (Chart 2). This ratio has not always been a reliable leading indicator—for example, the measure did not reach a peak before the recessions in 1973-75 and 1981-82. The current increase does not appear unusual compared with earlier expansions, and the ratio remains well below peak levels in the late 1960s and early 1970s.

Other analysts prefer to measure the debt burden by dividing consumer debt by total financial assets. Cyclical peaks in the ratio of consumer debt to household financial assets do not always precede recessions (Chart 3). However, the ratio does show cyclical movements, tending to rise during expansions and fall during or immediately after recessions. This measure of the consumer debt burden stabilized at 5.4 percent in the first half of 1996 after rising in 1994 and 1995. Strong gains in stock prices in the current business expansion have helped keep the ratio of consumer debt to household financial assets below peak levels in earlier expansions.

Besides measures of the debt burden, analysts sometimes look at more direct measures of household financial distress, such as delinquency rates or the number of personal bankruptcies. The delinquency rate on consumer loans has risen recently, reaching 2.2 percent in the second quarter of 1996 (Chart 4).[2] But the delinquency rate is

Chart 1
RATIO OF CONSUMER DEBT TO DISPOSABLE INCOME



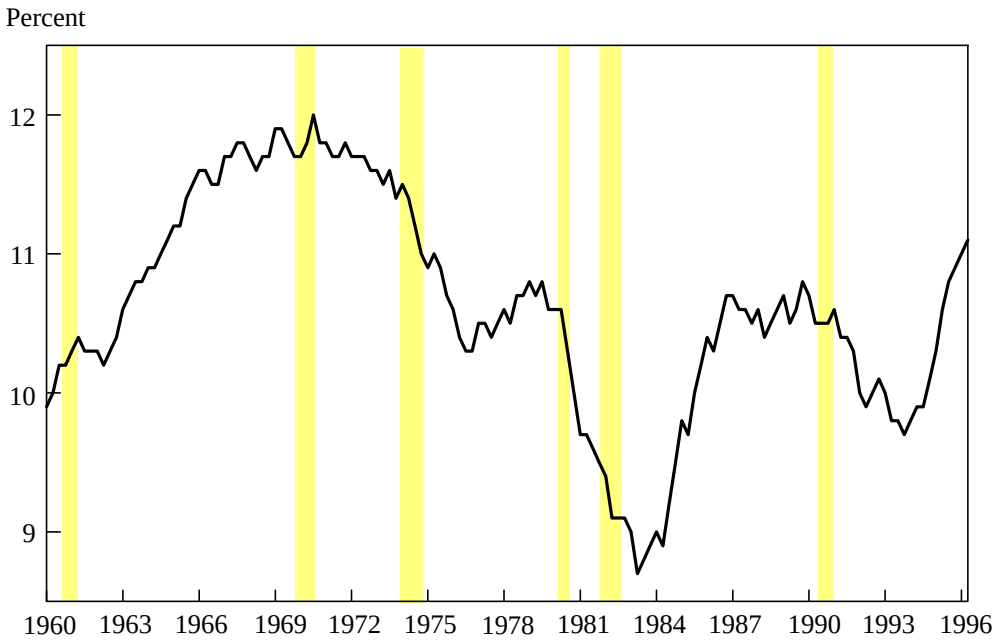
Source: Board of Governors of the Federal Reserve System.

still below previous peaks, such as the 2.8 percent rate in 1989. Moreover, the delinquency rate has generally turned up in past economic expansions, sometimes rising early in the expansion and, other times, rising immediately before a recession. In the current expansion, the protracted decline of the delinquency rate in the early 1990s is as noteworthy as the recent increase.

The rise in the number of personal bankruptcies presents a contrasting picture of consumer financial distress. Over 271,000 personal bankruptcy cases were filed in the second quarter of 1996, putting the annual rate of filings at over 1 million cases (Chart 5). An increase in the number of bankruptcies may be a poor indicator of economic weakness because most of the rise in bankruptcies over the last two decades occurred in expansions. The sharp upward trend in bankruptcies suggests that other factors, such as changing legal codes and a reduced social stigma accompanying bankruptcy, may have had a major influence on the number of filings (Ward). But the temporary decline in personal bankruptcies after the last recession is a reminder that bankruptcy filings probably still have some links to the business cycle. That decline from early 1992 to early 1995 likely reflected consumer restraint during the recession and improved income growth in the subsequent expansion.

The seriousness of the recent rise in the consumer debt burden remains difficult to judge because alternative measures give somewhat

Chart 2
RATIO OF CONSUMER DEBT SERVICE TO DISPOSABLE INCOME



Source: Board of Governors of the Federal Reserve System.

mixed signals about the financial health of consumers. Some measures of the debt burden have recently risen to record levels, while other measures remain below their previous peaks. Moreover, measures of the consumer debt burden have risen in past expansions without necessarily being followed by an economic slowdown.

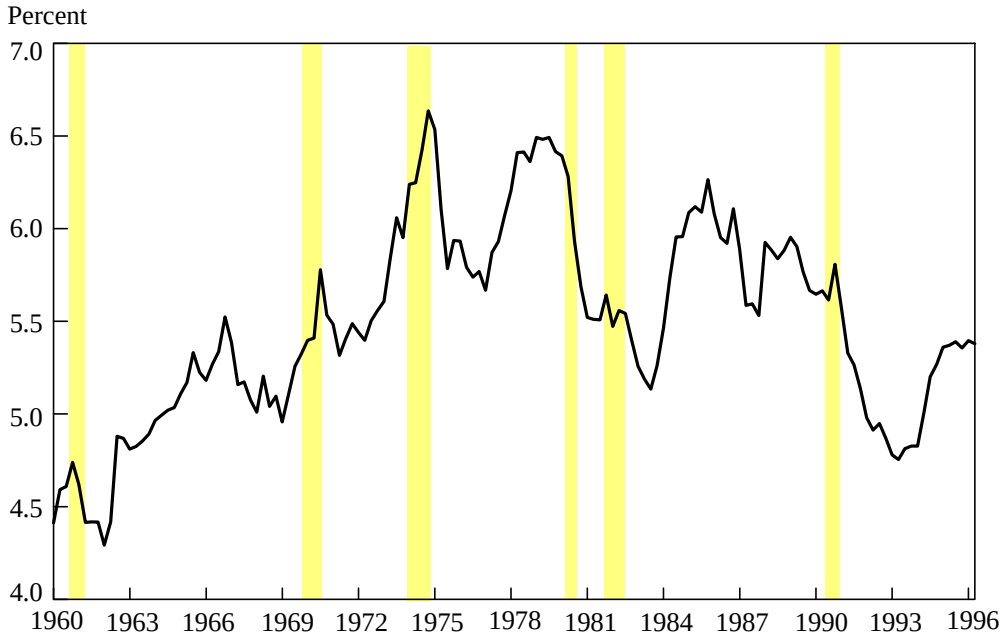
II. EMPIRICAL EVIDENCE

Few economists and business executives would trust a consumer debt measure to guide their current decisions if the measure were not reliable historically. The inspection of the charts in the previous section was a crude form of empirical analysis suggesting that debt burden measures have not reliably predicted real output growth. Further empirical evidence can be obtained by using regression methods and extending the analysis to consumer purchases of durable goods as well as real output.

Tests of predictive usefulness

Regression models were estimated to test whether changes in the consumer debt burden have helped predict subsequent changes in real consumer spending on durable goods and real GDP. For example, the change in real consumer spending on durable goods was regressed on six past values of this same variable and six past values of the change in a measure of the consumer debt burden. The regressions were estimated with quarterly data from around 1960 to the sec-

Chart 3
RATIO OF CONSUMER DEBT TO FINANCIAL ASSETS



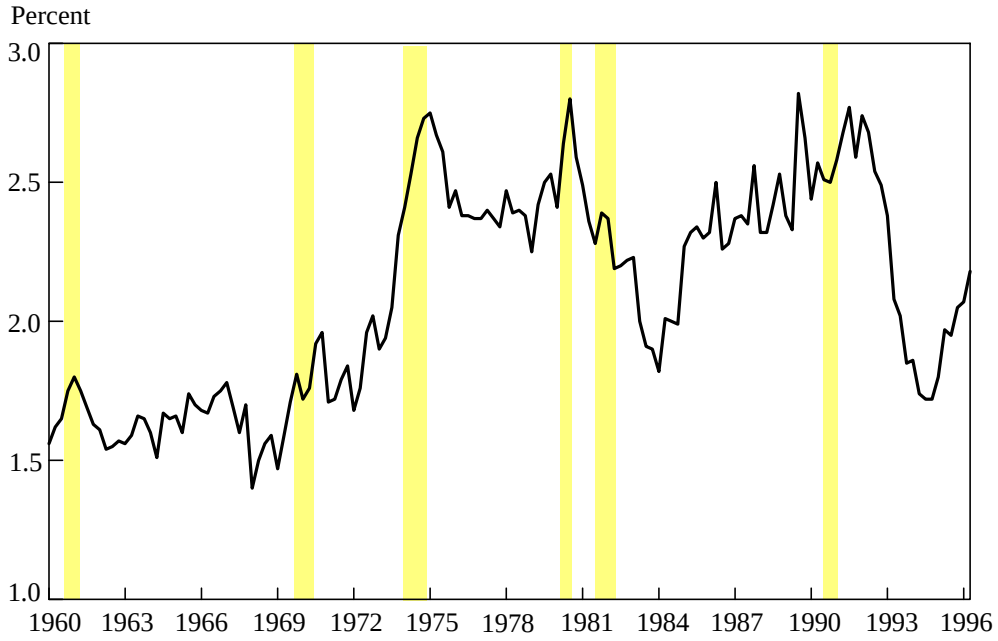
Source: Board of Governors of the Federal Reserve System.

ond quarter of 1996.[3] The debt burden measure was considered useful in predicting durable goods purchases if excluding the debt burden from the regression significantly reduced the ability to explain fluctuations in consumer spending on durable goods (Granger).

Changes in the variables were used instead of the levels to reduce the chances of spurious test results. Research has shown that trends in economic variables can cause statistical tests to give spurious indications of a relationship between two variables (Granger and Newbold). Real GDP and real consumer spending on durable goods have grown over time as supplies of labor and capital have grown and technology has advanced. Many measures of the consumer debt burden also have upward trends, reflecting the growing reliance on credit in the U.S. economy. Researchers can often achieve more reliable results in the presence of such trends by performing their statistical procedures on the changes rather than the levels of the economic variables.[4]

Only one measure of the debt burden, the ratio of consumer debt to financial assets, was useful in predicting consumer spending on durable goods and real GDP. Table 1 shows marginal significance levels from the regression tests for predictive usefulness. In this article, a measure of the debt burden is said to have predictive value if the marginal significance level is less than 0.05, meaning there is less than a 5 percent chance of concluding the debt measure adds useful information when it really does not. The

Chart 4
DELINQUENCY RATE ON CONSUMER INSTALLMENT CREDIT



Source: American Bankers Association.

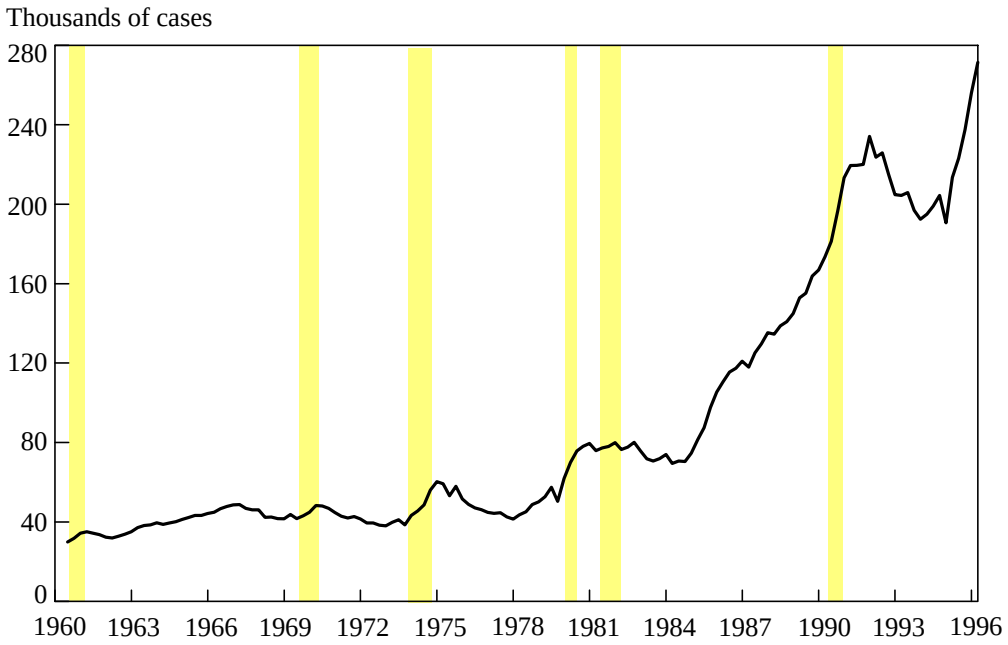
choice of this number is somewhat arbitrary, however, and other studies may use a slightly larger or smaller number. Only the ratio of consumer debt to financial assets had marginal significance levels less than 0.05.[5]

Further evidence

Why is the ratio of consumer debt to financial assets useful when the other measures are not? A possible explanation is that this measure of the debt burden may reflect changes in common stock prices. The stock market is often viewed as a leading indicator of economic activity, tending to decline before recessions and rise before expansions. Stock prices might decline before a recession, for example, because of tighter credit conditions in the late stages of a business expansion, or because investors expect weakening corporate profits. Although stock prices are an imperfect indicator of the business cycle, the relationship has been dependable enough that stock prices are included in the index of leading indicators for the U.S. economy.

Taking stock market fluctuations into account substantially weakens the evidence that the consumer debt to financial assets ratio is useful in predicting real variables. Additional regressions were estimated relating the changes in real economic variables to their own past values, past changes in the ratio of consumer debt to household financial assets, and past changes in stock prices.[6] The marginal significance level of the debt burden measure was 0.72 with durable goods purchases in the regression, and 0.83 with

Chart 5
PERSONAL BANKRUPTCIES



Source: United States Courts.

real GDP. The ratio of consumer debt to household financial assets, thus, did not help predict real economic variables after fluctuations in stock prices were separately taken into account.

Why do so many economic observers believe, then, that the consumer debt burden and real variables are closely associated? A possible reason is that changes in real economic variables may help predict future movements of the consumer debt burden. This relationship, the opposite of that tested in Table 1, would explain why changes in consumer debt and real variables appear to be closely associated.[7] For example, if a more rapid rate of technological advance were to raise the permanent income of U.S. households, consumers might boost their spending on durable goods in line with their higher expected incomes, with real GDP growth rising as a result. Because much of the growth in household income would occur in the future, households might borrow more to increase their durable goods holdings. But with possible delays in the credit approval process and some ability for households to draw down their financial assets, consumer spending might increase before consumer debt, with the result that real economic variables might predict future debt burdens.

The empirical results in Table 2 are consistent with this possible explanation. The table summarizes tests of whether changes in real economic variables helped predict changes in the alternative measures of the consumer debt

Table 1

DOES THE DEBT BURDEN PREDICT REAL VARIABLES?

(Marginal significance levels)

Measure of debt burden	Consumer spending on durable goods	Real GDP
Consumer debt to disposable income	.94	.49
Consumer debt service to disposable income	.53	.37
Consumer debt to financial assets	.00	.02
Consumer delinquency rate	.29	.25
Personal bankruptcies	.88	.82

Note: The tests were based on regressions of the real variable on six past values of the same real variable and six past values of the debt burden measure. The sample period was 1961:Q2 to 1996:Q2 for regressions with consumer debt to disposable income, consumer debt to assets, or the consumer delinquency rate; 1961: Q4 to 1996:Q2 for regressions with consumer debt service to disposable income; and 1962:Q2 to 1996:Q2 for regressions with personal bankruptcies.

burden. The marginal significance levels were obtained from regressions of the change in a debt burden measure on six past values of the change in the same debt measure and six past values of the change in the real economic variable. Using the 0.05 criterion, real economic variables were generally useful in predicting changes in the consumer debt burden. However, neither real consumer spending nor real GDP helped predict changes in the number of personal bankruptcies.

Although these results do not give much support for using consumer debt measures in economic forecasting, it is probably premature to conclude that such measures had no value in the past. Several other empirical issues should be considered in future research before concluding that measures of the consumer debt burden were not useful historically.[8] Yet even if further research finds situations where the debt burden has been reliable, future usefulness of these measures is not guaranteed because the role of consumer debt is changing rapidly.

III. RECENT STRUCTURAL CHANGES

Recent changes in the financial system have made it more difficult to interpret the rise in consumer debt over the last few years. Some of the structural changes in consumer lending and the payments system may further reduce the reliability of consumer debt measures as macroeconomic indicators. However, other changes may create a closer link between consumer debt and spending, making the debt burden a more reliable indicator of future economic activity. Analysts should continue monitoring various measures of the consumer debt burden to assess the importance of the latter set of structural changes.

Table 2

DO REAL VARIABLES PREDICT THE DEBT BURDEN?

(Marginal significance levels)

Measure of debt burden	Consumer spending on durable goods	Real GDP
Consumer debt to disposable income	.00	.00
Consumer debt service to disposable income	.01	.04
Consumer debt to financial assets	.00	.00
Consumer delinquency rate	.00	.01
Personal bankruptcies	.16	.42

Note: The tests were based on regressions of the debt burden measure on six past values of the same debt burden measure and six past values of the real variable. See notes to Table 1 for sample periods.

Changes reducing reliability

Some of the recent structural changes may have increased the amount of outstanding consumer debt without necessarily implying that household balance sheets have weakened. For example, the use of credit cards has grown dramatically at grocery stores and movie theaters, where credit was rarely extended in the past. Credit cards are also widely used in telemarketing and catalog sales, two rapidly expanding retail areas. And some companies now encourage consumers to pay recurring bills, such as insurance premiums and utility charges, by credit card (Meece).

Such growth of consumer debt would probably not be a reliable indicator of an economic slowdown. Shifting routine bills to a credit card poses little risk to the financial system or macroeconomic growth as long as households pay off their credit card balances on a regular basis, just as grocery and utility bills are paid. Convenience use of credit cards does not, however, explain most of the recent rise in consumer debt measures. Lindsey (1996) noted that the convenience share of outstanding credit card debt "has not risen markedly in recent years, and still accounts only for one dollar in seven of aggregate credit card debt."

Another factor that may reduce the reliability of consumer debt measures is the use of personal credit cards by home-based businesses. In recent years, some people have chosen to operate businesses out of their home—for example, consultants for multilevel marketing companies selling household products or cosmetics. Such consultants may use a personal credit card to buy products that are sold, in turn, to the home-based business' customers. These transactions could increase the reported amount of consumer debt outstanding, but such credit card debt is really a business debt that may be paid off quickly by collecting sales proceeds from the home-based business' customers.

The consumer debt statistics may also have become less reliable indicators of the household balance sheet because these measures of the debt burden do not include some increasingly important substitutes for traditional consumer loans. Home equity loans are frequently made for consumer purchases, such as a boat or a car, even though these loans are counted as mortgage debt rather than consumer debt. Moreover, automobile leasing is a substitute for traditional automobile loans that does not appear in the consumer debt statistics. Such leases increase the chances for financial distress because the household is committed to making a long series of monthly payments, just as with traditional consumer debt.

Structural changes also may be making the number of personal bankruptcies an even less reliable indicator of macroeconomic conditions. As mentioned previously, the rise in bankruptcies in the 1980s may have reflected, in part, more liberal bankruptcy laws enacted in 1978 and changes in consumer attitudes toward bankruptcy (Luckett). Further revisions to the bankruptcy laws in 1994 and increased marketing by bankruptcy attorneys may be contributing to the recent surge in bankruptcies.[9] Just as structural changes in the 1980s may have contributed to low predictive usefulness in the empirical tests, the structural changes that are occurring now may further reduce the reliability of debt burden measures for predicting future economic growth.

Changes increasing reliability

Other structural changes might make the rapid growth of consumer debt a more reliable indicator of an impending economic slowdown. For example, a worrisome aspect of the recent growth in credit card use is the aggressive promotion of credit cards by some lenders. Many households have received a large number of unsolicited credit card offers in the mail. Sometimes, such offers are pre-approved and initially offer low fees or interest rates to encourage the household to accept a credit card. Lenders have adopted this practice partly because of the high profitability of credit card lending in the past and partly because of increased competition for more traditional customers, such as large businesses.

Rapid growth of credit card debt caused by such aggressive promotion might foreshadow an economic slowdown if households become overextended. The theoretical analysis assumed that consumers adjust their spending and debt in response to information about their permanent income and associated economic risks. If many consumers lack the willpower and foresight assumed by economic theory, such aggressive promotional practices may have induced a large number of consumers to take on more debt than they can reasonably service. However, there is little firm evidence that such promotional practices have tempted consumers to become overextended on a scale that would cause an economic downturn.

Another recent structural change that might make rising consumer debt a more reliable indicator of an economic slowdown is the greater availability of consumer debt to lower income households. The proportion of households earning under $10,000 with credit card debt outstanding rose from 11 percent in 1983 to about 24 percent in 1992 (Lindsey 1995). In some respects, this development is positive because greater access to credit relaxes liquidity constraints on lower income families and potentially gives them a greater financial capacity with which to respond to emergencies. But such households may be less prepared in terms of financial assets and job security to continue servicing their debts in the event of financial distress. Also, lower income households might be more likely to become

overextended because such households have less experience in managing consumer debt.

Lower income consumers who become overextended are also unlikely to benefit from the recent gains in stock market wealth. Most lower income families do not have large holdings of liquid assets with which to meet financial emergencies. Thus, the recent gains in household wealth do not reduce the debt burden of those households that are most vulnerable to job loss in the event of an economic downturn and that may lack experience in managing household debt.[10]

Such structural changes are another reason why analysts and business executives should continue to monitor measures of the consumer debt burden even though such measures have not predicted economic growth reliably in the past. The rapid pace of structural change makes the current situation different enough that historical results provide an imperfect guide. Some of the changes may have increased the reliability of consumer debt measures as an indicator of cyclical conditions, while other changes have probably reduced the reliability of consumer debt measures. In interpreting the recent higher levels of consumer debt, analysts will need to dig more deeply into the determinants of consumer spending and into the distribution of household debt and assets across various income groups.

Some recent evidence suggests that the rise in the consumer debt burden probably does not foreshadow an imminent slowdown. Based partly on recent survey data, Lindsey (1996) reported that "the main reason for the household debt expansion of recent years is not so much an extension of debt to new households, but an increase in the debt levels taken on by fairly well-to-do segments of the population."[11] Much of the growth in consumer debt has thus occurred among households that are experienced in managing debt and have some financial assets with which to make debt payments in times of financial distress. This evidence helps to reduce concern about the structural changes that might link the consumer debt burden more closely with future economic growth.

IV. CONCLUSION

Most measures of the consumer debt burden have been rising recently, with alternative measures giving somewhat different impressions about the current situation. Such measures have not been reliable in predicting the growth of consumer durables purchases or real GDP in the past. Moreover, structural changes in the financial system have increased the uncertainty about how to interpret the rise in measures of the consumer debt burden. Nevertheless, analysts should continue to monitor consumer debt measures in case recent structural changes, such as aggressive promotion of credit cards and greater access to credit by lower income households, have strengthened the relationship between debt and real economic variables.

The current increase in the consumer debt burden must also be interpreted in the context of a generally healthy economic situation for U.S. households. Employment and disposable income have grown solidly over the past year, and the saving rate has recently been at a relatively high level, suggesting consumers could temporarily increase spending even faster than household income. In addition, household wealth has been rising because of higher stock prices, and consumer confidence has remained at high levels. Viewed in this generally favorable context, the rise in the consumer debt burden does not appear alarming.

ENDNOTES

[1] Consumer spending on durable goods was about 9 percent of real GDP in 1995. Residential investment is another channel by which rising household debt might lower real GDP growth. Kearl and Mishkin (1977) presented evidence that the demand for housing may depend on household debt and financial assets. Residential investment was about 4 percent of real GDP in 1995 and, like spending on consumer durable goods, fluctuates substantially over the business cycle.

[2] The delinquency rate is the number of delinquent loans as a percentage of the number of loans outstanding, as reported by the American Bankers Association. For consumer debt, delinquency is defined as being past due 30 days or more. This measure includes delinquencies on bank credit cards but also includes delinquencies on other kinds of consumer debt, such as automobile loans and personal loans. The delinquency rate on bank credit card accounts has increased more rapidly than the overall consumer delinquency rate, reaching 3.66 percent in the second quarter of 1996.

[3] The exact periods varied slightly with the measure of the consumer debt burden and are reported in the note to Table 1. Similar results were obtained when the tests were conducted over shorter periods from about 1960 to 1990.

[4] The debt burden variables were expressed as first-differences, while real consumer spending on durable goods and real GDP were expressed as annual percentage growth rates. Dickey-Fuller tests suggested that differencing the variables once achieved stationarity (Dickey and Fuller).

[5] Table 1 reports marginal significance levels to test the hypothesis that the coefficients of the debt burden measure are zero. With 0.01 as the criterion for significance, the ratio of consumer debt to household financial assets was useful in predicting consumer spending on durable goods, but was not useful in predicting real GDP growth. Similar conclusions about predictive usefulness were obtained from alternative regressions using four or eight past values of the variables.

[6] The sample period for these regressions was 1961:Q2 to 1996:Q2. Stock prices were measured by the Standard & Poor's 500 common stock price index.

[7] Some economists are well aware of this possible relationship. For example, Silvia wrote, "Credit is a lagging not leading indicator of sales. Current credit growth reflects past spending not current spending."

[8] These tests focused only on whether consumer debt helps predict durable goods purchases and real GDP. Measures of the consumer debt burden might give more reliable forecasts of other variables, such as automobile sales or bank loan losses. Also, this article has not examined the potential advantages from using more timely monthly data. For example, the growth of consumer debt in January 1997 might predict real GDP growth for the first quarter of 1997 even if growth in consumer debt for the fourth quarter of 1996 is not useful. Moreover, some approaches to economic forecasting assign special importance to turning points in the business cycle. Measures of the debt burden might help predict cyclical peaks or troughs even if these variables are not useful in regression-based tests that give no special weight to turning points. Still another issue is whether to use revised or unrevised data to evaluate the predictive usefulness of debt burden measures. This article has followed the common practice of using revised statistics on consumer debt and real variables. However, Koenig advocated analyzing the unrevised statistics that were available to economists in real-time forecasting situations.

[9] Another factor suggesting possible structural change is the growing number of surprise bankruptcies, in which consumers declare bankruptcy without ever missing a loan payment (Frank). In the past, households have usually become delinquent in their payments before declaring bankruptcy.

[10] Middle-income households experiencing gains in stock market wealth also may find it difficult to tap these additional resources in the event of financial distress. Many middle-income households have a large part of their financial assets in tax-advantaged retirement accounts that cannot be accessed easily in case of an unforeseen misfortune.

[11] For households in the $50,000 to $100,000 income group, the proportion reporting credit card debt rose 13 percentage points between 1992 and 1995, compared with only a four-percentage-point increase for the population as a whole. The proportion of households in this income group reporting installment debt, such as auto loans, increased seven percentage points, compared with no change for the whole population (Lindsey 1996).

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