and whether the household head is a homeowner or renter. The 1970 and 1977 Consumer Credit Surveys obtained information on purchases of household durable goods by duration of occupancy for owners and renters.5 These survey data showed significantly higher spending levels on household durables—especially big-ticket items—for households that had changed their place of occupancy. Furthermore, the surveys suggest that the impact on spending is probably distributed over several quarters after the move is made.

Data on moving activity from the Interstate Commerce Commission show that tonnage hauled by major household goods carriers was growing at an extremely rapid rate through the first half of 1984. Given the apparent distributed lag relationship between change of housing unit and purchases of household durables, these moving data not only help explain the spending growth during 1983 and the first half of 1984, but they also suggest continued support for spending on furniture, appliances, and other household equipment during the remainder of 1984 and into 1985.

Finally, it should be noted that just as the electronic “chip” has caused a technological revolution in business equipment and stimulated upturn spending, there also has been a technological revolution in household durable goods. This no doubt has been an important stimulant to spending for high-tech consumer goods (many of which are included in the “furniture and appliances” component of consumption expenditures) as households attempt to incorporate the latest technology into their stock of durable goods.

**Conclusion**

The surge in spending for postponable, high-durability goods during 1983 and the first half of 1984 reflected a combination of several factors: very favorable income and balance sheet trends; an improvement in many of the determinants of demand specific to various goods; and the effects of rapid technological change. While we can only guess at the extent to which these spending gains have closed the gap between the actual and desired stock of high-durability goods, the magnitude of these outlays suggests that it has been narrowed a fair amount. Consequently, growth in the demand for high-durability goods is likely to begin to slow during the second half of 1984 and into 1985. Nonetheless, the underlying determinants of consumer spending tendencies to expand at a healthy pace as the economy moves into the second year of expansion. As shown in chart 1, the cyclical rise in total consumption spending during the first year and a half of the recovery was well within the range of previous postwar experience, rising a total of 8.7 percent. What was unusual, however, was the strength of demand for postponable, relatively durable consumer goods—especially spending for household equipment such as furniture, kitchen appliances, and electronic goods, as well as additions to clothing stock.

Spending for these goods had suffered considerably during the stagflation of the late 1970s and early 1980s. This extended period of sluggish household investment undoubtedly left a sizable pent-up demand. With the cyclical rebound in income growth that began in early 1983, the improvement in household financial positions, and the drop in consumer borrowing rates from their 1982 highs, household attempts to satisfy this pent-up demand and narrow the gap between actual and desired stocks. As a result, real expenditures for high-durability goods—line 2 of table 1—rose by nearly 20 percent during the first 6 quarters of the current recovery, more than a third faster than the average performance. At the same time, the cyclical expansion in low-durability goods and services—line 7—was slower than average.

**The Recovery of Durable Goods: What Exhilarated the Consumer?**

by Lawrence Slifman

Much of the strength in domestic demand during the first half of 1984 was in the consumption sector. This is not unusual for a recovery. Consumption spending typically rises rapidly in the first four quarters of a recovery and often continues to expand at a healthy pace as the economy moves into the second year of expansion. As shown in chart 1, the cyclical rise in total consumption spending during the first year and a half of the recovery was well within the range of previous postwar experience, rising a total of 8.7 percent. What was unusual, however, was the strength of demand for postponable, relatively durable consumer goods—especially spending for household equipment such as furniture, kitchen appliances, and electronic goods, as well as additions to clothing stock.

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**Table 1: Cyclical Comparison of Consumer Spending**

<table>
<thead>
<tr>
<th></th>
<th>Trough to t = 0</th>
<th>Trough to t = 4</th>
<th>Trough to t = 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average recovery</td>
<td>6.1</td>
<td>6.7</td>
<td>5.8</td>
</tr>
<tr>
<td>Average Current</td>
<td>5.7</td>
<td>5.7</td>
<td>2.3</td>
</tr>
<tr>
<td>Current</td>
<td>3.0</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>5.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Total PCE</td>
<td>14.5</td>
<td>19.9</td>
<td>12.4</td>
</tr>
<tr>
<td>2. High-durability goods</td>
<td>14.5</td>
<td>19.9</td>
<td>12.4</td>
</tr>
<tr>
<td>3. Cars and trucks</td>
<td>34.0</td>
<td>34.1</td>
<td>24.6</td>
</tr>
<tr>
<td>4. Household equipment</td>
<td>12.1</td>
<td>19.4</td>
<td>9.0</td>
</tr>
<tr>
<td>5. Other consumer durables</td>
<td>15.3</td>
<td>15.8</td>
<td>9.7</td>
</tr>
<tr>
<td>6. Clothing and shoes</td>
<td>7.9</td>
<td>16.1</td>
<td>6.3</td>
</tr>
<tr>
<td>7. Low-durability goods</td>
<td>6.3</td>
<td>6.3</td>
<td>3.9</td>
</tr>
</tbody>
</table>

*Table 1* provides a summary of the cyclical recovery for major types of consumer spending. The data are presented as a ratio of actual spending to trend spending, with a ratio of 1 indicating no expenditure growth. The table shows that the recovery was widespread, with most categories of consumer spending growing at a faster rate than the trend during the first 6 quarters of the recovery. The only category that did not show significant growth was low-durability goods, which remained relatively flat during the recovery.

**The views stated herein are those of the author and not necessarily those of the Federal Reserve Bank of Cleveland or the Board of Governors of the Federal Reserve System.**

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5. See, for example, the Wharton model as reported in Michael D. McCarthy, Wharton Quarterly Econometric Forecasting Model, Mark III, University of Pennsylvania, 1972.

6. See, for example, 1977 Consumer Credit Survey, Federal Reserve Board, December 1978, p. 77 (table 17-7). Analogous data from the 1983 survey are not available. This hypothesis and supporting data were suggested to me by Susan Burch.
Cyclical Determinants of Durable-Goods Purchases

Income trends. As shown in chart 2, the growth of real disposable income has been extremely strong since the late 1981 recession—now well above its long-run trend during the 1981-82 recession—which has now climbed well above its trend line. One of the well-established link between longer-run income trends and consumption spending, cyclical movements in income—such as the recent surge—also affect the timing of consumer purchases of high durable goods, such as automobiles. This is reflected, for example, in surveys of consumer attitudes, which show that periods of rapid real income growth are well correlated with high levels of consumer confidence and buying intentions for autos and other big-ticket items. One reason that rising real incomes tend to raise borrowing constraints in unemployment that typically is associated with cyclical income growth is that capital gains reduce borrowing constraints for households and improves perceptions of longer-run income prospects. As such, when financial distress lower, consumers are more willing to shift the composition of their portfolios away from liquid financial assets and toward illiquid consumer goods; thus, other things being equal, they will tend to increase their purchases of relatively high-quality consumer goods when income is rapidly rising.

If capital markets were perfect—in the sense that households always could borrow as much as they wished at the future labor income without penalty—there would be no cash-flow constraints: the consumption plans of households would be constrained only by their expected lifetime resources. Capital gains are not perfect, however, and cash-flow difficulties can affect the timing of household consumption decisions. In particular, rapid cyclical gains in income increase the availability of borrowed payments, thus increasing the ability of households to meet existing debt repayment obligations. In doing so, households provide funds to service additional installment credit.

Borrowing costs. The effect of strong growth in income on consumer spending was augmented in 1983 and in the first half of 1984 by relatively low credit costs. The average rate on consumer credit peaked in late 1981 and early 1982—with rates on auto loans around 17 percent to 18 percent. But these rates began to fall in mid-1982, and by the spring of 1983, had declined to around 13 percent to 14 percent. Borrowing costs for new autos generally have remained in this range since. This decline in rates lowered the total interest payment on a 48-month new-car loan by as much as 20 percent, producing a notable reduction in total financing charges.

Balance sheets. Bank balances and borrowing costs are not the only factors affecting household consumption decisions. Households balance sheet trends—shown in table 2—are also a role and have been a positive influence on the strength of spending. As shown on line 2, during 1981 and 1982, households had an unusually large share of their income to the acquisition of financial assets, helping to shore up liquidity positions—line 5. Although the rate of financial saving has come down somewhat over the past year, the current level is still above the average of the late 1970s, and the liquid assets component remains high. On balance, even though households have been borrowing at a very rapid clip, the growth of real disposable income (line 6), liquid net worth positions (line 7) remain quite strong. Thus, consumers find themselves holding a relatively large buffer against hard times, thereby reducing the risk of financial distress and increasing the willingness of households to purchase illiquid durable goods.

Determinants of Auto Demand

Growth in consumer auto and truck sales depends on three major factors: the strength of overall economic activity; the strength of the auto market; and the availability of financing. For example, while auto sales were driven toward the 1979 pattern—the last time the recovery was strong—the growth of real disposable income in the 1981-82 pace, it is still above the average of the late 1970s, and the liquid assets component remains high. On balance, even though households have been borrowing at a very rapid clip, the growth of real disposable income (line 6), liquid net worth positions (line 7) remain quite strong. Thus, consumers find themselves holding a relatively large buffer against hard times, thereby reducing the risk of financial distress and increasing the willingness of households to purchase illiquid durable goods.

As shown in chart 4, the cost per mile of operating a car has dropped nearly 5 percent since 1981, reversing the upward trend evident during the 1970s. The decline in operating costs primarily is a result of the softness in gasoline prices associated with the world oil glut. Reflecting the drop in the cost of operating a car, as well as the strength of overall economic activity, Americans have been driving much more during the past two years. According to data compiled by the Department of Transportation, for the United States is up about 9 percent since the first half of 1982, after showing nearly 1 million car sales, a rise in vehicle miles—a measure of the total demand for automobile services—can be satisfied in two ways: a rise in the intensity of use, which is the current stock of cars is used (which can increase replacement demand), and net additions to the stock of cars. The current stock of cars has risen considerably since 1981, returning to 9,400 miles—about the level of 1979. But the present use that is due to the 1979 pattern—the last time the recovery was strong—the growth of real disposable income (line 6), liquid net worth positions (line 7) remain quite strong. Thus, consumers find themselves holding a relatively large buffer against hard times, thereby reducing the risk of financial distress and increasing the willingness of households to purchase illiquid durable goods.

The Demand for Household Equipment

Another important contributor to GNP growth during the first half of 1984 was the demand for consumer equipment. The expansion of consumer auto and truck sales got off to a comparatively slow start during the first year of the recovery—a 10 percent rise versus an average gain of nearly 40 percent. However, demand