b. Retailers also offer a grace period, and it is usually longer than that for bank cards ( 30 days versus 21 days for typical cards). If a partial payment is $50 \%$ or more of the outstanding balance, retailers calculate interest charges on the remaining balance; if the payment is less than $50 \%$, interest is calculated on the previous outstanding balance.
c. Because interest charges are calculated on a monthly basis, it is fairly easy to figure out the dollar amount of charges. (This is true even after a partial payment has been made.) It is, however, extraordinarily complicated to figure out the effective rate of interest on a retail card.
d. It is reasonable to say that the range for the effective rate on a retail card is about $6 \%$ to $28.8 \%$ (assumed here to be the nominal or posted rate). If the consumer pays a purchase off in three or four months with roughly equal payments, the effective rate is around $20 \%$, which is about what bank cards charge. The longer it takes to pay off a purchase, the closer is the effective rate to the nominal rate. It is theoretically possible to have the effective rate exceed the nominal rate, but the assumptions needed for this to be true are decidedly unrealistic.

The two most important findings in the paper are:
a. In no case examined was the effective rate on a bank card above the posted rate. Some observers have said otherwise and have suggested that the effective rate might be very high-even 1000 per cent. This is a mistake, probably one based on a faulty calculation.
(An example may clear up some confusion. Suppose you make a purchase for $\$ 1000$ on July 10th. The next statement, assumed to fall on the 25 th of each month, shows a balance of $\$ 1000$. You make a partial payment of $\$ 975$ on August 5th, so the remaining balance is $\$ 25$. With no new transactions, the statement on August 25 h will show a new balance of $\$ 39.54$, which is the sum of the previous remaining balance of $\$ 25$ and interest charges of $\$ 14.54$ based on a posted rate of 20 per cent per year.

There are two incorrect calculations that would produce large ostensible rates of interest. The first simply divides total interest charges ( $\$ 14.54$ ) by the remaining balance ( $\$ 25$ ): this gives an apparent rate of interest of 58.2 per cent. The other, more sophisticated, calculation adjusts for the length of the loan- $\$ 25$ for 21 days. This calculation takes the previously calculated rate of interest ( 58.2 per cent) and multiplies by 17.38 (which

