

# In Brief

## Economic Capsules

### Credit Card Balances— Debt or Convenience Use?

Over the past several years, consumer installment debt outstanding has risen very rapidly relative to disposable personal income, causing the ratio of the two to reach an all-time high of 0.188 in November 1985 (Table 1). Revolving debt, which includes outstanding balances on credit card and check credit accounts, constituted 21.5 percent of consumer installment debt in November 1985, and has been the fastest growing component of consumer installment debt over the past several years. However, some of the debt included in revolving debt actually reflects the "convenience use" of credit cards. That is, some individuals use credit cards as a convenient means of making transactions and pay all charges in one billing cycle. Although an increase in the convenience use of credit cards does not represent an increase in debt in the ordinary sense, the outstanding balances of convenience users are included in the measure of consumer installment debt outstanding. Therefore, this measure overstates the "true" level of consumer debt.

Various analysts have attributed approximately 40 to 50 percent of the growth in revolving debt to the convenience use of credit cards, based on industry and household survey data that indicate that 40 to 50 percent of credit card users pay their bills in full within the billing period.<sup>1</sup> However, such analyses overestimate the degree to which growth in the convenience use of credit cards accounts for growth in revolving debt outstanding. Although 40 to 50 percent of *extensions* of revolving credit may reflect the convenience use of credit cards, the percent of revolving credit *outstanding* that reflects such use may be much smaller. Available data indicate that the amounts charged in any given month,

whether for convenience purposes or otherwise, account for only a small portion of revolving debt outstanding in that month. Much of the debt reflects charges that were incurred by non-convenience users in previous months. Therefore, to estimate the proportion of revolving debt outstanding, as opposed to the proportion of monthly charges, that reflect the convenience use of credit cards, one must first estimate the proportion of debt that has been outstanding for less than one month, or more accurately, less than one billing cycle.

Suppose that, in any given month, on average half of the charges in that month occur before that month's billing date, and half occur after. Then the amount outstanding at the end of a given month that has been outstanding for less than one billing cycle equals, at most, the amount extended during that month plus one-half of the amount extended during the previous month. That is, the time between the date on which a charge is made and the date on which the first payment is due ranges from one to two months, depending on how close the former date is to the next billing date, and averages one and one-half months.

Data from the years 1977 to 1982 indicate that, on average, extensions of revolving credit during a given month, plus one-half of extensions during the previous month, account for roughly 30 percent of revolving credit outstanding at the end of the month.<sup>2</sup> If one assumes that 50 percent of cardholders pay their bills in full in one billing cycle, and roughly 30 percent of revolving debt outstanding has been outstanding for less than one billing cycle, then roughly 15 percent of revolving debt outstanding reflects charges that will be paid in full within one billing cycle.

<sup>1</sup> See Charles A. Luckett and James D. August, "The Growth of Consumer Debt", *Federal Reserve Bulletin* (June 1985) and Goldman Sachs Economics, *Pocket Chartroom* (November 1985)

<sup>2</sup> The Federal Reserve Board published estimates of monthly extensions of revolving debt, as well as revolving debt outstanding, for the 1977-82 period (*Statistical Release G 19*). Data on extensions were not collected after 1982

The estimate derived above is an approximation that does not take into account a number of factors. First, the proportion of monthly charges that are paid in full within one billing cycle may be less than or greater than the proportion of cardholders (taken to equal 50 percent) that pay in full within one billing cycle. That is, charges incurred each month by persons who then pay these charges in full may be smaller or larger, on average, than the charges incurred by those who do not. A person may be more likely to pay a small monthly bill (i.e., \$200) in full in one billing cycle than a large monthly bill (i.e., \$2,000). In this case, the proportion of revolving debt outstanding that reflects the convenience use of credit cards is less than 15 percent. On the

other hand, one might argue that wealthy persons tend to incur large charges and then pay them in full while poorer persons incur smaller charges and do not. Or one could argue that persons who maintain outstanding credit balances are more likely to be restricted in the amount of additional monthly charges they can incur, due to credit limits, than persons who pay their monthly bills in full. In these latter cases, the convenience-use portion of revolving credit outstanding would exceed 15 percent.

Second, the estimate presented above is based implicitly on the assumption that convenience users of credit cards pay their charges one month after they are billed. To the extent that some persons pay their credit charges in less

Table 1

**Growth of Consumer Installment Debt, Revolving Debt, and Disposable Personal Income, 1978-85**

In percent, seasonally adjusted

Year	Annual growth rates of:				Revolving debt as a percent of consumer installment debt <sup>§</sup>
	Consumer installment debt <sup>*</sup>	Revolving debt <sup>*</sup>	Disposable personal income <sup>†</sup>	Installment debt as a percent of income <sup>‡</sup>	
1978	18.9	23.5	12.5	16.6	16.7
1979	14.0	18.2	11.5	17.1	17.3
1980	-3.5	3.2	10.9	14.7	18.5
1981	5.6	9.9	10.9	14.3	19.3
1982	4.9	7.8	6.3	14.2	19.8
1983	14.5	17.6	7.2	14.9	20.3
1984	20.3	24.2	10.1	16.6	21.0
1985	20.3	23.5	4.9	18.8	21.5

\* Growth rates are from December to December. For 1985, growth rate is from December to November, annualized.

† Growth rates of annual income.

‡ Debt is as of the end of the year. Income is fourth quarter disposable personal income on an annualized basis. For 1985, debt is as of the end of November.

§ Percents are as of the end of the year. For 1985, the percent is as of the end of November.

Sources: Federal Reserve Board, *Statistical Release G-19* and Citibase.

Table 2

**Growth of Consumer Installment Debt, With and Without an Adjustment for the Convenience Use of Credit Cards, 1978-85**

In percent, seasonally adjusted

Year	Annual rate of growth of consumer installment debt <sup>*</sup>		Debt as a percent of disposable personal income <sup>†</sup>	
	Actual	Adjusted for the convenience use of credit cards	Actual	Adjusted for the convenience use of credit cards
1978	18.9	18.7	16.6	16.2
1979	14.0	13.9	17.1	16.7
1980	-3.5	-3.7	14.7	14.3
1981	5.6	5.5	14.3	13.9
1982	4.9	4.8	14.2	13.7
1983	14.5	14.4	14.9	14.5
1984	20.3	20.2	16.6	16.1
1985	20.3	20.2	18.8	18.2

\* Rates of growth are from December to December. For 1985, rate of growth is from December to November, on an annualized basis.

† Debt is as of the end of the year, as a percent of fourth-quarter annualized disposable personal income. For 1985, debt is as of the end of November.

Source: Federal Reserve Board, *Statistical Release G-19*, Citibase, and author's calculations.

than one month, the estimate presented above overstates the proportion of revolving debt that is paid in full in one billing cycle.

Because of the simplifying assumptions made, including the ones described above, the methodology used in this capsule may slightly overstate or understate the importance of the convenience use of credit cards. In any case, the available evidence indicates that on the order of 15 percent, rather than 40 to 50 percent, of revolving debt outstanding reflects this convenience use. Unfortunately, very little data are available on the degree to which the convenience-use proportion of revolving debt may have changed over time.<sup>3</sup> To the extent that the convenience use of credit cards has been a roughly constant proportion of revolving debt over time, taking into account this convenience use does not significantly affect recent growth rates in consumer installment debt, or the current level of consumer installment debt relative to income (Table 2)

<sup>3</sup> The ratios of extensions of revolving debt to revolving debt outstanding exhibited only a very slight downward trend over the 1977-82 period. According to Lueckett and August, *op cit*, approximately the same proportion of cardholders report "almost always" paying credit card bills in full in the 1983 Consumer Credit Survey as in the 1977 survey. However, it is not known whether the monthly charges incurred by such persons have grown more or less quickly over time than have average monthly charges.