

### Special Requirements for Calculating the Finance Charge and APR

Proper calculation of the finance charge and APR are of primary importance. The regulation requires that the terms “finance charge” and “annual percentage rate” be disclosed more conspicuously than any other required disclosure. The finance charge and APR, more than any other disclosures, enable consumers to understand the cost of the credit and to comparison shop for credit. A creditor’s failure to disclose those values accurately can result in significant monetary damages to the creditor, either from a class action lawsuit or from a regulatory agency’s order to reimburse consumers for violations of law.

*NOTE: If an annual percentage rate or finance charge is disclosed incorrectly, the error is not, in itself, a violation of the regulation if:*

- *The error resulted from a corresponding error in a calculation tool used in good faith by the financial institution.*
- *Upon discovery of the error, the financial institution promptly discontinues use of that calculation tool for disclosure purposes.*
- *The financial institution notifies the Federal Reserve Board in writing of the error in the calculation tool.*

When a financial institution claims a calculation tool was used in good faith, the financial institution assumes a reasonable degree of responsibility for ensuring that the tool in question provides the accuracy required by the regulation. For example, the financial institution might verify the results obtained using the tool by comparing those results to the figures obtained by using another calculation tool. The financial institution might also verify that the tool, if it is designed to operate under the actuarial method, produces figures similar to those provided by the examples in appendix J to the regulation. The calculation tool should be checked for accuracy before it is first used and periodically thereafter.

### Subpart B—Open-End Credit

The following is not a complete discussion of the open-end credit requirements in the Truth in Lending Act. Instead, the information provided below is offered to clarify otherwise confusing terms and requirements. Refer to §226.5 through §226.16 and related commentary for a more thorough understanding of the Act.

#### Finance Charge (Open-End Credit) §226.6(a)

Each finance charge imposed must be individually itemized. The aggregate total amount of the finance charge need not be disclosed.

### Determining the Balance and Computing the Finance Charge

The examiner must know how to compute the balance to which the periodic rate is applied. Common methods used are the previous balance method, the daily balance method, and the average daily balance method, which are described as follows:

- **Previous balance method.** The balance on which the periodic finance charge is computed is based on the balance outstanding at the start of the billing cycle. The periodic rate is multiplied by this balance to compute the finance charge.
- **Daily balance method.** A daily periodic rate is applied to either the balance on each day in the cycle or the sum of the balances on each of the days in the cycle. If a daily periodic rate is multiplied by the balance on each day in the billing cycle, the finance charge is the sum of the products. If the daily periodic rate is multiplied by the sum of all the daily balances, the result is the finance charge.
- **Average daily balance method.** The average daily balance is the sum of the daily balances (either including or excluding current transactions) divided by the number of days in the billing cycle. A periodic rate is then multiplied by the average daily balance to determine the finance charge. If the periodic rate is a daily one, the product of the rate multiplied by the average balance is multiplied by the number of days in the cycle.

In addition to those common methods, financial institutions have other ways of calculating the balance to which the periodic rate is applied. By reading the financial institution’s explanation, the examiner should be able to calculate the balance to which the periodic rate was applied. In some cases, the examiner may need to obtain additional information from the financial institution to verify the explanation disclosed. Any inability to understand the disclosed explanation should be discussed with management, who should be reminded of Regulation Z’s requirement that disclosures be clear and conspicuous.

When a balance is determined without first deducting all credits and payments made during the billing cycle, that fact and the amount of the credits and payments must be disclosed.

If the financial institution uses the daily balance method and applies a single daily periodic rate, disclosure of the balance to which the rate was applied may be stated as any of the following:

- A balance for each day in the billing cycle. The daily periodic rate is multiplied by the balance on each day and the sum of the products is the finance charge.

- A balance for each day in the billing cycle on which the balance in the account changes. The finance charge is figured by the same method as discussed previously, but the statement shows the balance only for those days on which the balance changed.
- The sum of the daily balances during the billing cycle. The balance on which the finance charge is computed is the sum of all the daily balances in the billing cycle. The daily periodic rate is multiplied by that balance to determine the finance charge.
- The average daily balance during the billing cycle. If this is stated, however, the financial institution must explain somewhere on the periodic statement or in an accompanying document that the finance charge is or may be determined by multiplying the average daily balance by the number of days in the billing cycle, rather than by multiplying the product by the daily periodic rate.

If the financial institution uses the daily balance method, but applies two or more daily periodic rates, the sum of the daily balances may not be used. Acceptable ways of disclosing the balances include:

- A balance for each day in the billing cycle;
- A balance for each day in the billing cycle on which the balance in the account changes; or
- Two or more average daily balances. If the average daily balances are stated, the financial institution shall indicate on the periodic statement or in an accompanying document that the finance charge is or may be determined by multiplying each of the average daily balances by the number of days in the billing cycle (or if the daily rate varies, by multiplying the number of days that the applicable rate was in effect), multiplying each of the results by the applicable daily periodic rate, and adding the products together.

In explaining the method used to find the balance on which the finance charge is computed, the financial institution need not reveal how it allocates payments or credits. That information may be disclosed as additional information, but all required information must be clear and conspicuous.

#### **Finance Charge Resulting from Two or More Periodic Rates**

Some financial institutions use more than one periodic rate in computing the finance charge. For example, one rate may apply to balances up to a certain amount and another rate to balances more than that amount. If two or more periodic rates apply, the financial institution must disclose all rates and conditions. The range of balances to which each rate applies also must be disclosed. It is not necessary, however, to break the finance charge into separate components based on the different rates.

### **Annual Percentage Rate (Open-End Credit)**

#### **Accuracy Tolerance §226.14**

The disclosed annual percentage rate (APR) on an open-end credit account is accurate if it is within one-eighth of 1 percentage point of the APR calculated under Regulation Z.

#### **Determination of APR**

The regulation states two basic methods for determining the APR in open-end credit transactions. The first involves multiplying each periodic rate by the number of periods in a year. This method is used for disclosing:

- The corresponding APR in the initial disclosures;
- The corresponding APR on periodic statements;
- The APR in early disclosures for credit card accounts;
- The APR in early disclosures for home-equity plans;
- The APR in advertising; and
- The APR in oral disclosures.

The corresponding APR is prospective. In other words, it does not involve any particular finance charge or periodic balance.

The second method is the quotient method, used in computing the APR for periodic statements. The quotient method reflects the annualized equivalent of the rate that was actually applied during a cycle. This rate, also known as the historical rate, will differ from the corresponding APR if the creditor applies minimum, fixed, or transaction charges to the account during the cycle.

If the finance charge is determined by applying one or more periodic rates to a balance, and does not include any of the charges just mentioned, the financial institution may compute the historical rate using the quotient method. In that method, the financial institution divides the total finance charge for the cycle by the sum of the balances to which the periodic rates were applied and multiplies the quotient (expressed as a percentage) by the number of cycles in a year.

Alternatively, the financial institution may use the method for computing the corresponding APR. In that method, the financial institution multiplies each periodic rate by the number of periods in one year. If the finance charge includes a minimum, fixed, or transaction charge, the financial institution must use the appropriate variation of the quotient method.

The regulation also contains a computation rule for small finance charges. If the finance charge includes a minimum, fixed, or transaction charge, and the total finance charge for the cycle does not exceed 50 cents, the financial institution may multiply each applicable periodic rate by the number of periods in a year to compute the APR.