

FEDERAL RESERVE BANK
OF NEW YORK

[Circular No. 8743]
January 24, 1980

ANNUAL PERCENTAGE RATE DISCLOSURES TO BORROWERS

Amendments to Regulation Z

*To All Member Banks, and Others Concerned,
in the Second Federal Reserve District:*

The Board of Governors of the Federal Reserve System has adopted amendments to its Regulation Z relating to the calculation, and disclosure to borrowers, of the annual percentage rate (APR) and other credit terms. (The APR expresses the cost to the consumer of borrowing money and paying for purchases on credit.) The following is quoted from the text of the Board's announcement:

The Board proposed these changes for public comment in August. They are designed to promote greater uniformity and accuracy in the calculation of the APR by creditors, and to simplify its use, in order to enhance the ability of consumers to shop for credit.

The amendments become mandatory October 1, 1980, but may be put in use at any time before then. The Board acted after consideration of numerous comments on its August proposal, mostly favorable.

The three most important changes adopted by the Board relate to (1) Tolerances permitted in disclosure of the annual percentage rate, (2) The special treatment accorded certain minor irregular payment schedules—generally entered into as a convenience for customers, such as a long first payment period to make payments coincide with the customer's payday, and (3) The protection provided creditors against liability for errors in annual percentage rates and finance charges resulting from the use in good faith of faulty calculation tools.

The amendments adopted include:

1. As a general rule, an annual percentage rate will be considered accurate if it is within $\frac{1}{8}$ of 1 percentage point above or below the correct annual percentage rate. The current rule permits only the precise rate or rounding to the nearest $\frac{1}{4}$ of 1 percentage point.

2. The minor irregularities provision provides essentially the same latitude as now available for computing an annual percentage rate, while making it easier to determine which irregularities fall within specified permissible ranges. A chart illustrating the provisions of the amended rule for tolerance of minor irregularities in computing the APR is attached. A parallel provision that relates to the computation of the finance charge and other terms has also been adopted, in order to make similar protection available to those creditors who would have difficulty taking account of payment schedule irregularities.

3. Regulation Z states that an error in the disclosed annual percentage rate due to a corresponding error in a chart or table used in good faith by a creditor is not a violation. The Board has extended this rule to errors resulting from malfunction of any calculation tools used by the creditor in good faith, without regard to type.

The Board also took action on several other special exceptions relating to the degree of accuracy in the annual percentage rate, certain common creditor practices, and revisions of Supplement I to Regulation Z.

The Board decided not to adopt certain changes it had proposed to make in Volume I of the Board's Annual Percentage Rate Tables, as well as several minor revisions relating to open end credit.

Enclosed is the text of the amendments to Regulation Z, as published in the *Federal Register*. In addition, printed on the reverse side hereof is the minor-irregularities chart referred to in the Board's announcement. Questions on these changes may be directed to our Consumer Affairs and Bank Regulations Department (Tel. No. 212-791-5921). Copies of the revised Supplement I to Regulation Z will be furnished upon request directed to that department.

THOMAS M. TIMLEN,
First Vice President.

(OVER)

FEDERAL RESERVE BANK OF NEW YORK

Check No. 8743
January 14, 1962

ANNUAL PERCENTAGE RATE DISCLOSURES TO BORROWERS

Amendments to Regulation Z

To All Member Banks and Other Concerns
in the Federal Reserve District

The Board of Governors of the Federal Reserve System has adopted amendments to its Regulation Z relating to the calculation and disclosure to borrowers of the annual percentage rate (APR) and other credit terms. (The APR expresses the cost to the consumer of borrowing money and paying for purchases on credit.) The following is quoted from the text of the Board's announcement:

The Board proposed these changes for public comment in August 1961. They are designed to promote greater uniformity and accuracy in the calculation of the APR by creditors and to simplify its use in order to enhance the ability of consumers to shop for credit.

MINOR IRREGULARITIES PROVISIONS FOR APR COMPUTATIONS

The amendments become effective January 1, 1962. The Board acted after consideration of numerous comments on its August proposal, mostly favorable.

No matter what the unit-period is			
For a term of the transaction of . . .	Up to 1 year	1-10 years	Over 10 years
The first period may be treated as regular even though it differs from regular by up to this many days:	6 shorter 13 longer	11 shorter 21 longer	any number shorter 32 longer

AND

Any payment irregularity that results from the first period irregularity may be disregarded

2. The minor irregularities provisions provide essentially the same latitude as now available for computing an annual percentage rate, while making it easier to determine which irregularities fall within specified provisos. A chart illustrating the provisions of the amended rule for treatment of minor irregularities in computing the APR is attached. A parallel provision that relates to the computation of the finance charge and other terms has also been adopted in order to make similar protection available to those creditors who would have difficulty taking account of payment schedule irregularities.

3. Regulation Z states that an error in the disclosed annual percentage rate due to a corresponding error in a chart or table used in good faith by a creditor is not a violation. The Board has extended this rule to errors resulting from misapplication of any calculation tools used by the creditor in good faith without regard to type.

The Board also took action on several other special exceptions relating to the degree of accuracy in the annual percentage rate, certain common credit practices, and revisions of Supplement 1 to Regulation Z.

The Board decided not to adopt certain changes it had proposed to make in Volume 1 of the Board's Annual Percentage Rate Tables, as well as several minor revisions relating to open end credit.

Enclosed is the text of the amendments to Regulation Z as published in the Federal Register. In addition, printed on the reverse side hereof is the minor-irregularities chart referred to in the Board's announcement. Questions on these changes may be directed to our Consumer Affairs and Bank Regulations Department (Tel. No. 212-531-5921). Copies of the revised Supplement 1 to Regulation Z will be furnished upon request directed to that department.

THOMAS M. TIERNEY
First Vice President

FEDERAL RESERVE SYSTEM

12 CFR Part 226

[Reg. Z; Docket No. R-0239]

Truth in Lending; Calculation and Disclosure of Annual Percentage Rates

AGENCY: Board of Governors of the Federal Reserve System.

ACTION: Final rule.

SUMMARY: The Board is adopting revisions in the requirements of Regulation Z, Truth in Lending, with regard to the calculation and disclosure of the annual percentage rate and other credit terms. The most important changes are: (1) adoption of a tolerance of $\frac{1}{8}$ of 1 percentage point in either direction from the exact annual percentage rate, in place of the existing rounding rule; (2) adoption of simplified rules for treating minor payment schedule variations; and (3) expansion of the protection available to creditors who have relied in good faith on faulty calculation tools. The revisions, which are set forth below, include amendments to §§ 226.5 and 226.8 of the regulation, deletion of several Board Interpretations, and expansion of Supplement I to Regulation Z. The issues addressed were the subject of a prior proposal published by the Board (44 FR 45141, August 1, 1979).

EFFECTIVE DATE: January 10, 1980, but compliance optional until October 1, 1980.

FOR FURTHER INFORMATION CONTACT: Regarding the regulation: Dolores S. Smith, Section Chief (202-452-2412), Ellen Maland, Attorney (202-452-3867), or Margaret Stewart, Attorney (202-452-2412), Division of Consumer and Community Affairs, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. Regarding the economic impact analysis: Thomas A. Durkin, Economist (202-452-2503), Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

SUPPLEMENTARY INFORMATION: (1) Introduction. In January 1979, the

Board's staff undertook an extensive review of the provisions of Regulation Z relating to calculation and disclosure of the annual percentage rate. This rate expresses in percentage terms the cost of a consumer credit transaction. Because of its usefulness as a tool for comparing various credit sources, this term is considered to be the most important disclosure required by the Truth in Lending Act. The Act directs the Board, as part of its rulemaking responsibilities, to prescribe rules for calculating and disclosing this rate.

The review focused primarily on the variety of special rules in the regulation regarding annual percentage rate determination and the absence of specific guidance in certain areas. The study was prompted by adoption in January 1979 of uniform guidelines for the enforcement of Regulation Z (44 FR 1222, January 4, 1979), efforts by Congress and the Board to simplify the requirements of the Act and Regulation Z, and the Board's Regulatory Improvement Project.

The proposal published by the Board last January (44 FR 1116, January 4, 1979) described five areas in which the Board believed clarification or further guidance was necessary, together with alternative ways of dealing with the issues raised. Based on the more than 300 comments received in response to this publication, the Board in August 1979 (44 FR 45141, August 1, 1979), published specific regulatory changes which it proposed to make regarding these issues. The August publication proposed amendments to §§ 226.5 and 226.8 of the regulation, revision of the Board's Supplement I (the rules for determination of the annual percentage rate), and revision of Volume I of the Board's Annual Percentage Rate Tables.

Approximately 235 commenters responded to the August proposal. The great majority of comments were from banks and other financial institutions. Based on these comments and the Board staff's analysis, the Board now adopts amendments to §§ 226.5 and 226.8, together with revisions to Supplement I to Regulation Z. These changes are discussed below. The Board has decided not to make the proposed changes to Volume I of the Board's Annual Percentage Rate Tables.

In order to assist creditors in adapting to the requirements of the regulation as amended, the Board will not require them to comply with the revised regulation until October 1, 1980. However, the Board notes that many of the revisions, such as the $\frac{1}{8}$ of 1 percentage point tolerance, provide creditors with greater protection than is available to them under the existing

regulation. Therefore, the Board has determined that the revised provisions should be effective concurrently with the existing regulation until October 1, 1980. Creditors who have the capability and who wish to comply with the revisions before that time may do so, while creditors who require a longer period of adjustment may continue to operate under the existing rules in the interim. After October 1, 1980, all creditors will be required to comply with the new rules.

Set forth below is a discussion of the changes to be made and the economic impact of the changes, followed by the text of the amendments to §§ 226.5 and 226.8, and the revised Supplement I to Regulation Z.

(2) Regulatory Provisions. *Tolerance.* Section 226.5(b)(1) sets forth the general standard of accuracy for calculation and disclosure of the annual percentage rate in closed end credit transactions. An annual percentage rate will be considered accurate, subject to the exceptions discussed below, if it is within $\frac{1}{8}$ of 1 percentage point above or below the exact annual percentage rate. Currently, the annual percentage rate must be disclosed either as an exact rate or rounded to the nearest $\frac{1}{4}$ of 1 percentage point.

The Board notes that the $\frac{1}{8}$ of 1 percentage point tolerance is in accord with the Truth in Lending amendments now being considered by Congress and that a large majority of the commenters addressing this issue supported such a tolerance. The comments indicated no basis for applying different tolerance rules depending on such factors as length of the transaction or type of credit extended. Therefore, the tolerance will be available, as a general rule, without regard to any distinguishing factors.

The regulation continues to recognize both the actuarial method and the United States Rule method in calculation of the annual percentage rate. Under the actuarial method, the unpaid balance of the obligation is increased by the finance charge earned during each unit-period (or fractional unit-period), and decreased by any payments made at the end of that period. Under the United States Rule method, which is used by many credit unions, any earned, unpaid finance charge is not added to the unpaid balance of the obligation, but is accumulated separately until such time as payments are sufficient to pay the earned unpaid finance charge. A second characteristic distinguishing this method from the actuarial method is that no interest calculation is made until a payment is received.

In application of the $\frac{1}{2}$ of 1 percentage point tolerance, the accuracy of the disclosed annual percentage rate will be judged in accordance with whichever of these two methods was used in calculating the disclosed rate. In transactions involving equal payments and equal periods, either method will produce the same annual percentage rate. In irregular transactions, however, there may be slight variations in the annual percentage rate.

Supplement I. Supplement I to Regulation Z, which was first adopted 10 years ago, sets forth equations and instructions for determining the exact annual percentage rate. This material, which is incorporated by reference in the regulation, is not intended for day-to-day use by creditors in their lending operations. Rather, it is used by manufacturers of calculation tools in producing and verifying their products. These products are in turn used by a great majority of creditors; in this sense, the supplement provides a standard of accuracy for the credit industry.

In its August proposal, the Board suggested revising Supplement I to expand the number and variety of examples, to include explanations and equations for determining the annual percentage rate in accordance with the United States Rule as well as the actuarial method, and to provide further guidance on determination of unit-periods and fractional unit-periods.

With the exception of the material relating to the United States Rule, the revisions proposed in Supplement I have been adopted by the Board. The material relating to the United States Rule has not been adopted because the comments and other information available to the Board indicated that there is no compelling need for this material. In view of the apparent lack of necessity for such an expansion, the Board has determined that Supplement I should continue to be based solely on the actuarial method. As indicated above, however, the supplement has been expanded to provide further examples and more specificity regarding the determination of unit-periods and fractional unit-periods. The existing Supplement I permits fractional unit-periods in the denominator for the actuarial method equation to be expressed in either a linear or an exponential form. In order to provide a more uniform standard, the new supplement requires the use of the linear form, which is widely used in the credit industry.

Board tables and other tools. Section 226.5(b)(2)(i) describes Volumes I and II of the Annual Percentage Rate Tables. This material provides creditors with a

readily-usable calculation tool applying the technical information contained in Supplement I. An annual percentage rate computed in accordance with the instructions in the tables is deemed to comply with the regulation, even in those cases where its use may produce an annual percentage rate that falls outside the general rule on accuracy. Volume I, the more commonly-used of the tables, applies to credit transactions involving equal payment amounts and periods, as well as to transactions with an odd first payment, odd first period, or odd final payment.

In its August proposal, the Board had suggested revising Volume I by expanding the explanatory material regarding its use, amending the adjustments needed to accommodate certain irregularities, and reprinting the factor tables in $\frac{1}{2}$ of 1 percentage point rather than $\frac{1}{4}$ of 1 percentage point increments. The Board has now determined that the proposed changes are not warranted. In making this decision, the Board was particularly mindful of the possible difficulties creditors would experience in adjusting to the new material, as compared to the relatively slight increase in accuracy produced by the revisions. The Board also notes that this volume has been widely distributed throughout the credit industry in the last 10 years, compounding the difficulty of disseminating new material.

Section 226.5(b)(2)(ii) authorizes the use of any other computation tool, including charts, tables, computers and calculators, which produces the same degree of accuracy as called for by § 226.5(b)(1).

Single add-on rate. Section 226.5(b)(3) permits creditors assessing finance charges in a certain manner to disclose an annual percentage rate which may not meet the general accuracy requirements of the regulation. Where a single add-on rate is applied to all transactions up to 60 months in length, the creditor may disclose for all those transactions the single highest annual percentage rate. For example, an add-on rate of \$10 per \$100 per year would produce the following annual percentage rates at various maturities: at 3 months, 14.9%; at 21 months, 18.18%; and at 60 months, 17.27%. Under this provision, the creditor may disclose for all transactions up to 60 months an annual percentage rate of 18.18% (the highest annual percentage rate). This provision reflects the current Board Interpretation § 226.502. In its August proposal, the Board had suggested limiting this special rule to transactions with maturities greater than 9 months since short-term

transactions produce the greatest degree of overstatement. As an alternative, the Board also requested comment on whether the rule could be eliminated entirely.

The available evidence indicates that the present rule may still be necessary for certain creditors, for short-term transactions as well as those over 9 months in length. Therefore, the Board is retaining the current rule enunciated in Interpretation § 226.502. For organizational purposes, however, the Board is eliminating the interpretation and placing this special rule in the body of the regulation itself, as reflected in § 226.5(b)(3). The Board emphasizes that this provision continues to be available only in transactions which are payable in equal installments at equal intervals.

Range of balances. Section 226.5(b)(4), like the preceding paragraph, represents an exception to the general rule on accuracy of disclosed rates, for creditors assessing finance charges by a certain method. This special rule is currently reflected in § 226.5(c)(2)(iv). Under this rule, creditors applying a single finance charge to all balances within a specified range may understate the annual percentage rate by up to 8% of the actual rate for the lowest balance, by disclosing for all balances within that range the annual percentage rate computed on the median balance. That is, if a finance charge of \$9 applies to all balances between \$91 and \$100, an annual percentage rate of 10% (the rate on the median balance) may be disclosed as the annual percentage rate for all balances, even though a \$9 finance charge applied to the lowest balance (\$91) would actually produce an annual percentage rate of 10.7%.

In its August publication, the Board had proposed two alternatives: (1) limit the special rule to transactions involving orders by mail or telephone, or (2) eliminate the special provision entirely. The available evidence indicates that a need may continue to exist for this provision, but only with respect to the preliminary disclosures made on series of sales agreements and orders by mail or telephone. Therefore, the Board is limiting § 226.5(b)(4) to annual percentage rates disclosed pursuant to §§ 226.8(g) (1) and (2) and 226.8(h)(1).

Minor irregularities—annual percentage rate.—The Board is adopting two provisions, §§ 226.5(b)(5) and 226.8(r), that deal with the impact of minor payment schedule irregularities on the annual percentage rate, finance charge and other disclosures. A common irregularity is an initial payment period that is longer or shorter than the other periods; another involves one payment

that differs in amount from the other payments.

The new § 226.5(b)(5) states that, for purposes of computing an annual percentage rate, the irregularity of an initial payment period may be disregarded if it is within a specified number of days longer or shorter than a regular period. Since first period irregularities have a greater impact on the rate in short-term than in long-term transactions, the provision makes distinctions based on the length of the term. The degree of first period irregularity that may be ignored under the new provision is shown in the following table:

For a term of the transaction of:	Up to 1 yr.....	At least 1 yr. Less than 10 yrs.	10 yrs. and over.
The first period may be treated as regular if it differs from regular by up to this many days.	6 shorter, 13 longer.	11 shorter, 21 longer.	Any number shorter, 32 longer.

In addition, any payment irregularity that results from an irregularity in the first period within these specified ranges could also be disregarded.

This new provision replaces the minor irregularities provisions in the existing § 226.5(d) of the regulation and Board Interpretation § 226.503. It provides a similar approach in defining which irregularities in the first period may be disregarded by comparing the number of days in the irregular period to the number of days in a regular period. The new rules are simpler to apply, however, since they make no distinctions based on the length of the unit-period. Elimination of that distinction appears justified since the effect of first period variations on the annual percentage rate is more closely related to the term of the transaction than to the unit-period's length; furthermore, dropping the distinction permits a simpler and more understandable rule for determining which irregularities may be disregarded. The ranges of irregularities specified are basically those that have been applicable to transactions payable monthly under the existing rules. This choice was made because a month is the most common unit-period and because those ranges are the most generous.

The new provision also differs from the existing version in its treatment of variations in payment amounts. The existing rule requires that the irregular payment be measured against the regular payment to see if it falls within 25% or 50% (depending on the transaction's term) of the regular payment. If it met that test, it could be disregarded. The new rule simply states

that any payment irregularity that results from a first period irregularity within the specified ranges may be ignored. By describing the variation in payment amount in terms of its cause, the most common minor irregularity will be taken care of, while the need to independently measure the irregular payment is eliminated.

In its August proposal, the Board had offered three alternative ways of dealing with the effect on the annual percentage rate of payment schedule irregularities. The most stringent of the alternatives was to eliminate the minor irregularities provisions and require all creditors to disclose a rate meeting the general standard of accuracy of $\frac{1}{8}$ of 1 percentage point. There was relatively little support for this approach among the commenters. The second alternative suggested was to continue the approach currently taken and simply improve the regulatory language. This alternative received the greatest support from the commenters. The third option was to replace the existing provision with one permitting a larger degree of overstatement (but a smaller degree of understatement) where an initial payment or payment period is irregular.

The board has chosen the second of the three alternatives by adopting a provision that provides essentially the same protections now available to creditors computing an annual percentage rate, while simplifying the determination of which irregularities fall within the specified ranges.

Minor irregularities—finance charge. The new § 226.8(r) provides a similar minor irregularities provision for purposes of computing and disclosing the finance charge and the schedule of payments. It is parallel to the annual percentage rate provision discussed above, new § 226.5(b)(5), in that it defines in the same way the first period irregularities that may be disregarded. It differs from both Board Interpretation § 226.505 (which it replaces) and the new § 226.5(b)(5), however, in that it permits disregarding only variations in the final payment that result from first period irregularities. The Board believes that this limitation is warranted, on the grounds that adjustments made in other ways do not require this special treatment. If an adjustment is made to the first payment to account for an irregular first period (for example, where a first payment due January 1 on a mortgage loan made on November 20 is increased to pay the extra 10 days' interest) or where the charge for the odd first period is spread out among all the payments, it is a simple matter to reflect the adjustments when disclosing the

finance charge and the payment schedule.

The minor irregularities protection is needed, however, when the adjustment for an irregular first period is made at the end of the transaction. For example, a credit union making a loan on November 20 with the first payment due January 1 will frequently collect payments that are determined as if there were a regular first period, but will accrue interest based on the actual time the principal is outstanding and will adjust the final payment to account for the effect of the long first period. The new § 226.8(r) permits the credit union to disregard the effect of such a practice in disclosing the finance charge and payment schedule.

This provision differs from the one proposed in August in several ways. Its applicability is not limited to certain so-called simple interest obligations. Furthermore, it permits less overstatement (resulting from long first periods), while countenancing some degree of understatement (resulting from short first periods). The comments suggested that long first periods are far more common than short ones and that the minor irregularities provision should be expanded to cover them. In addition, the provision adopted has the advantage of providing parallel rules for defining period irregularities for purposes of both annual percentage rate and finance charge computation.

It should be noted in connection with both of the minor irregularities provisions that creditors are always free to arrange payment schedules with irregularities that fall outside the categories defined in those provisions. In such cases, a creditor has two choices: it can take specific account of the effect such irregularities have on the disclosures; alternatively, in the case of the annual percentage rate, it can ignore the irregularity provided the disclosed rate is not more than $\frac{1}{8}$ of 1 percentage point from the true rate.

Certain creditor practices. The new § 226.8(s) states that, when making calculations and disclosures, creditors may ignore the effect of certain facts or practices, namely, collecting of payments in whole cents, changing dates of payments and advances when the scheduled date falls on a weekend or holiday, and the fact that months have different numbers of days. These things have very slight effects on disclosures and the Board believes the negligible benefit to consumers of taking account of such matters does not justify the burden of doing so.

This provision differs from the August proposal in that the authorization to treat all months as equal is not

restricted to simple interest creditors, and the requirement to mark as an estimate the finance charge disclosed in reliance on such a provision has been deleted.

Faulty calculation tools. Section 226.5(c) represents an extension of the existing § 226.5(c)(3). Under the latter provision, an annual percentage rate or finance charge error that results from an error in the chart or table used by the creditor does not violate Regulation Z. The Board proposed in its August publication to extend this provision to errors resulting from the use of faulty calculators and computers, or, in the alternative, to eliminate the provision entirely. The first alternative—extension of the protection to all types of calculation tools—would not have extended to the software or programming elements of electronic calculation tools. This proposal was suggested in an effort to limit the protection of the rule to errors beyond the creditor's control and to alleviate possible enforcement difficulties in confirming errors in software.

The comments received by the Board on this issue clearly supported the extension of the provision to all calculation tools, including software elements of calculators and computers. The Board believes that this protection should be made available for all calculation tools, without regard to type, and new § 226.5(c), set forth below, reflects this decision. In the Board's view, the vast majority of creditors do not possess the specialized technical knowledge necessary to evaluate calculation tools internally and must continue to rely on the producers of those tools to provide that knowledge.

The inaccuracies which may be countenanced by this provision will, in the Board's view, be offset by the restrictions imposed on the availability of the protection. First, the creditor's reliance on the tool must be in good faith. This imposes on the creditor a reasonable degree of responsibility for assuring that the tool in question provides the degree of accuracy required by the regulation. For example, the creditor might verify the results obtained by use of the tool by comparing those results to the figures obtained by use of another calculation tool. The creditor might also reasonably rely on the expertise of the enforcement agency in making such a determination.

Second, any creditor with reason to believe that the tool is in fact inaccurate must promptly discontinue use of that tool and notify the Federal Reserve Board of the error. That is, a creditor who was aware of the error and continued to use the tool for disclosure

purposes would no longer have the protection of § 226.5(c) as to inaccurate disclosures made after that time. The Board imposes no specific requirement on creditors with regard to the information contained in the notification to the Board. However, the description of the tool in question must be specific enough to identify the tool. The Board envisions that the notification would normally include the name of the manufacturer or producer of the tool, a trade name, or a model name or number. In describing the error, the creditor need not identify the specific source of the error, as for example by determining the steps in a calculator program which produced the inaccurate results. While the creditor is encouraged to include its opinion regarding the source of the error, a description of the erroneous results and the transactions to which they relate would be sufficient for purposes of this requirement.

Open end credit. Section 226.5(a), relating to the determination of the annual percentage rate in open end credit, has been retained in its present form except for the addition of the $\frac{1}{2}$ of 1 percentage point tolerance. Thus, an annual percentage rate calculated and disclosed pursuant to § 226.5(a) would be subject to the same standard of accuracy as that set forth for closed end credit transactions. The Board staff's analysis, together with the comments, indicates no basis for making any other changes in the provisions of § 226.5(a) at this time.

Effective date. In accordance with 5 U.S.C. 553(d)(1) and (3), the Board has determined that the effective date of these amendments need not be delayed 30 days, but may be issued effective immediately since these amendments for the most part are less restrictive than the provisions that they replace. In addition, compliance with the amendments is not required until 9 months have elapsed, thus providing persons subject to these provisions sufficient time to analyze their procedures and tools in light of the changes made and adjust to the new requirements. Although mandatory compliance is not immediately required, the Board has determined that both the new and existing provisions shall be in effect concurrently during the 9-month interim period so that creditors wishing and able to take advantage of the new provisions at this time may do so.

(3) Economic Impact Analysis. According to § 102 of the Act, Truth in Lending was intended "to assure a meaningful disclosure of credit terms so that the consumer will be able to compare more readily the various credit

terms available to him and avoid the uninformed use of credit. . . ." However, in the 10 years since the effective date of the Act, the complexity of the Act and its implementing regulation has presented serious compliance difficulties. Despite indications that most financial institutions have made good-faith attempts to comply with Regulation Z, technical violations are common. In its *Annual Report on Truth in Lending for the Year 1978*, the Board reported that more than four-fifths of the banks and almost three-fifths of the credit unions examined that year by the Federal regulatory agencies were found not to be in complete compliance with Regulation Z. This *Annual Report* indicated, though, that "for both kinds of institutions most violations were nonsubstantive." (See p. 11, *Annual Report for 1978*.) Nonsubstantive violations include such things as errors that might arise on account of misunderstanding the regulation, clerical errors, carelessness, and oversights that do not materially affect the accuracy of the most important disclosures. The difficulties of complying in good faith with a complex law and regulation, along with indications that not all current provisions of Truth in Lending are helpful to consumers in shopping for credit, have prompted Congressional calls for Truth in Lending simplification.

Earlier this year, as part of its own efforts to simplify its regulations, the Board requested public comment on certain relatively technical issues concerning methods of calculating and disclosing annual percentage rates and finance charges under Regulation Z (44 FR 1116, January 4, 1979, and 44 FR 45141, August 1, 1979). Each of the changes resulting from this review appears to be consistent with the goal of simplifying the regulation. In general, the amendments should increase somewhat the levels of technical compliance with the regulation without requiring creditors to make costly adjustments in their operations. Also, although technical compliance is made somewhat easier, it is done without sacrificing important consumer protections.

The first major amendment concerns the degree of tolerance allowed in disclosures of annual percentage rates which would comply with Regulation Z. Existing § 226.5(b) of Regulation Z requires, as a general rule, that the annual percentage rate disclosed be either the precise rate or the precise rate rounded to the nearest $\frac{1}{4}$ of 1 percentage point. Apparently some creditors have interpreted this provision to be a true tolerance, which it is not.

The amendment will permit a fixed tolerance of $\pm \frac{1}{2}$ of 1 percentage point on all transactions, which is the tolerance proposed in the Truth in Lending Simplification Act that has passed the Senate. The amendment will have the effect of bringing into compliance some transactions which are, technically, not in compliance because of misconceptions about or errors in using the rounding rule. Consumer protections should not be sacrificed because the tolerance allowed to aid compliance is relatively narrow. At present, there is no available evidence that consumers make credit decisions on the basis of variations in annual percentage rates as small as $\frac{1}{2}$ of 1 percentage point. In terms of dollars and cents, a tolerance of $\frac{1}{2}$ of 1 percentage point is about 7 cents per \$100 financed on 12-month loans and about 22 cents per \$100 on 36-month loans. On larger, longer-term loans like mortgages where $\frac{1}{2}$ of 1 percentage point may be more significant in absolute dollar terms, it is still a small proportion of the annual percentage rate at current market levels.

The second major amendment concerns the part of Regulation Z known as the minor irregularities rule. A relatively narrow tolerance, such as the tolerance resulting from either the $\frac{1}{2}$ of 1 percentage point rule or the rule of rounding to the nearest $\frac{1}{4}$ of 1 percentage point, may not be sufficient to ease certain compliance problems in cases involving irregular payments. Creditors often arrange, mostly for the convenience of their customers, payment patterns which allow minor irregularities in the schedule of payments. A common example is an abnormally long first period so that monthly payments can be due on the customer's payday. The problem is that on loans with relatively short maturities a long (or short) first payment or other irregularity may cause the true annual percentage rate to deviate from the disclosed rate by more than the allowed tolerance. The result is an added burden for creditors attempting to comply with the regulation in good faith but also trying to satisfy the payment period desires of their customers. For this reason Regulation Z allows, in effect, wider tolerances for certain variations in payment amounts and patterns that fall within the minor irregularities provisions.

The existing minor irregularities rule is complex. It allows a payment to be classified as regular for purposes of computing an annual percentage rate if it varies in size from regular payments by no more than a certain percentage. It

also permits a first payment period to be treated as regular if it varies from the other periods by no more than a certain number of days. The number of days in first periods that may be counted as regular depends upon the frequency of payment and upon the original maturity of the loan contract. All other payments must be equal in size and be scheduled at equal intervals.

The new minor irregularities provisions appear to be a useful simplification because they achieve the basic purpose of the minor irregularities rule—reducing the compliance burden for creditors attempting to accommodate customers—and it makes the present rule clearer and easier to understand. This approach, together with the tolerance rule, should aid good-faith compliance efforts somewhat, especially for newer or smaller creditors not as familiar with the technicalities of Regulation Z but attempting to comply without the aid of expensive legal advice or calculating equipment. For two reasons it does not seem that understatement or overstatement of the annual percentage rate disclosed as a result of the minor irregularities rule is harmful to consumers. First, if a long first period or a smaller first payment is counted as regular under the minor irregularities rule, to the extent that the disclosed rate varies from the exact annual percentage rate, the exact rate will be lower. Since a long first period is probably the most frequent minor irregularity, consumers generally will not be burdened with annual percentage rates higher than those disclosed. Second, minor irregularities in the first period are often arranged for the convenience of consumers *after* the essentials of the credit offer are accepted. As a result, variations in annual percentage rates resulting from minor irregularities in such cases are not likely to be very useful in credit shopping.

The third major provision concerns extending to users of calculating equipment the existing protection from liability provided to creditors relying in good faith on faulty charts or tables. In many cases the sophistication of the technical skills needed to evaluate the performance of these tools requires creditors to rely on the assurances of manufacturers. On occasion, minor errors beyond their control could subject creditors to major litigation costs and civil penalties. Although the $\frac{1}{2}$ of 1 percentage point tolerance may obviate the need for protection from some minor errors, protection for a creditor using calculating devices and computers in good faith appears reasonable.

Consumer's interests should be protected by the fact that conscious errors or continued use of devices known to produce erroneous results would subject creditors to the penalties of Truth in Lending, as with any other violation. Furthermore, protection for creditors using calculating devices and computers in good faith should facilitate the adoption of improved calculating equipment.

(4) Text of Amendments. In consideration of the foregoing and pursuant to the authority granted in § 105 of the Truth in Lending Act (15 U.S.C. 1604 (1970)), the Board amends Regulation Z (12 C.F.R. Part 226) as follows:

§ 226.5. [Amended]

1. Effective October 1, 1980, existing § 226.5(a) is amended by deleting both the title "General rule—open end credit accounts" and the first sentence beginning "The annual percentage rates for open end credit" and ending "nearest quarter of 1 percent."; §§ 226.5 (b) through (e), Interpretations §§ 226.500, 226.503, and 226.505, and Supplement I to Regulation Z are rescinded.

2. Effective January 10, 1980 § 226.5 is amended by amending paragraph (a) and revising paragraphs (b) and (c) in their entirety. Section 226.8 is amended by adding paragraphs (r) and (s) and Supplement I to Regulation Z, to read as follows:

§ 226.5. Determination of annual percentage rate.

(a) *Open end credit—general rule.* The annual percentage rate is a measure of the cost of credit, expressed as a yearly rate. An annual percentage rate shall be considered accurate if it is not more than $\frac{1}{2}$ of 1 percentage point above or below the annual percentage rate determined in accordance with this section.

* * * * *

(b) *Credit other than open end.* (1) *General rule.* The annual percentage rate is a measure of the cost of credit, expressed as a yearly rate, which relates the amount and timing of value received by the consumer to the amount and timing of payments made. The annual percentage rate shall be determined in accordance with either the actuarial method or the United States Rule method and shall be considered accurate if it is not more than $\frac{1}{2}$ of 1 percentage point above or below the annual percentage rate determined in accordance with whichever method is used. Explanations, equations and instructions for determining the annual

percentage rate is accordance with the actuarial method are set forth in Supplement I, which is incorporated in this Part by reference.

(2) *Computation tools.* (i) The Regulation Z Annual Percentage Rate Tables produced by the Board may be used to determine the annual percentage rate, and any such rate determined from these tables in accordance with the instructions contained therein will comply with the requirements of this section. Volume I of the tables applies to single advance transactions involving up to 480 monthly payments or 104 weekly payments. It may be used for regular transactions, and for transactions with any of the following irregularities: an odd first period, an odd first payment, and an odd final payment. Volume II applies to transactions involving multiple advances and any type of payment or period irregularity.

(ii) Creditors may use any other computation tool in determining the annual percentage rate so long as the annual percentage rate so determined equals the annual percentage rate determined in accordance with Supplemental I, within the degree of accuracy set forth in paragraph (b)(1) of this section.

(iii) Supplement I and Volumes I and II may be obtained from any Federal Reserve Bank or from the Board in Washington, D.C. 20551.

(3) *Single add-on rate transactions.* If a single add-on rate is applied to all transactions with maturities up to 60 months and if all payments are equal in amount and period, a single annual percentage rate may be disclosed for all such transactions, provided that it is the highest annual percentage rate for any such transaction.

(4) *Certain transactions involving ranges of balances.* For purposes of disclosing the annual percentage rate referred to in §§ 226.8(g) (1) and (2) (Orders by mail or telephone) and 226.8(h)(1) (Series of sales), if the same finance charge is imposed on all balances within a specified range of balances, the annual percentage rate computed for the median balance may be disclosed for all of the balances. However, if the annual percentage rate computed for the median balance understates the annual percentage rate computed for the lowest balance by more than 8% of the latter rate, the annual percentage rate shall be computed on whatever lower balance will produce an annual percentage rate which does not result in an understatement of more than 8% of the rate determined on the lowest balance.

(5) *Payment schedule irregularities.* In determining and disclosing the annual

percentage rate, a creditor may disregard an irregularity in the first period ^{5c} that falls within the limits described below and any payment schedule irregularity that results from the irregular first period:

(i) For transactions in which the term ^{5c} is less than 1 year: a first period not more than 6 days shorter or 13 days longer than a regular period;

(ii) For transactions in which the term is at least 1 year and less than 10 years: a first period not more than 11 days shorter or 21 days longer than a regular period; or

(iii) For transactions in which the term is at least 10 years: a first period shorter than or not more than 32 days longer than a regular period.

(c) *Errors in calculation tools.* An error in disclosure of the annual percentage rate or finance charge shall not, in itself, be considered a violation of this Part if:

(1) The error resulted from a corresponding error in any calculation tool, such as a chart, table, calculator or computer, used in good faith by the creditor, and

(2) Upon discovery of the error, the creditor promptly

(i) Discontinues use of that calculation tool for disclosure purposes, and

(ii) Notifies the Board in writing of the error in the calculation tool. The notification shall include an identification of the tool and a description of the error, and shall be addressed to the Division of Consumer and Community Affairs, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

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§ 226.8 Credit other than open end—specific disclosure.

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(r) *Payment schedule irregularities.* In determining and disclosing the finance charge and the payment schedule under paragraph (b)(3) of this section, a creditor may disregard an irregular final payment or portion of a final payment that results from an irregular first period ^{13c} within the limits described below and may treat the irregular first period as if it were regular:

^{5c} For purposes of this paragraph, the "first period" is the period from the date on which the finance charge begins to be earned to the date of the first payment, and the "term" is the period from the date on which the finance charge begins to be earned to the date of the final payment.

^{13c} For purposes of this paragraph, the "first period" is the period from the date on which the finance charge begins to be earned to the date of the first payment, and the "term" is the period from the date on which the finance charge begins to be earned to the date of the final payment.

(i) For transactions in which the term ^{13c} is less than 1 year: a first period not more than 6 days shorter or 13 days longer than a regular period;

(ii) For transactions in which the term is at least 1 year and less than 10 years: a first period not more than 11 days shorter or 21 days longer than a regular period; or

(iii) For transactions in which the term is at least 10 years: a first period shorter than or not more than 32 days longer than a regular period.

(s) *Disregarding certain practices.* In making calculations and disclosures, a creditor need not take into account the effects of the following:

(1) The fact that payments are collected in whole cents;

(2) The fact that the dates of payments and advances are changed because the scheduled date falls on a Saturday, Sunday, or holiday; and

(3) The fact that months have different numbers of days.

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