

7-1927

Automobile Sales Financing

Robert C. Brown

Follow this and additional works at: <https://egrove.olemiss.edu/jofa>



Part of the [Accounting Commons](#)

Recommended Citation

Brown, Robert C. (1927) "Automobile Sales Financing," *Journal of Accountancy*. Vol. 44 : Iss. 1 , Article 2.
Available at: <https://egrove.olemiss.edu/jofa/vol44/iss1/2>

This Article is brought to you for free and open access by the Archival Digital Accounting Collection at eGrove. It has been accepted for inclusion in Journal of Accountancy by an authorized editor of eGrove. For more information, please contact egrove@olemiss.edu.

Automobile Sales Financing

BY ROBERT C. BROWN

Years ago it was considered unsound to buy a commodity other than for cash, the only exception being possibly one's own home. Today, however, there is quite a long list of articles sold on the instalment plan—mostly for domestic use—with down payments from zero to fifty per cent. of the purchase price and with monthly payments maturing in from four to five months to as many as thirty-six months.

It is not the purpose of this paper to discuss the desirability of the deferred payment plan—the fact is the plan is firmly established today in this country, and, while it is quite true that in many instances it leads to extravagances and often suggests the possession of articles that are not necessary or even desirable, the advantages of the deferred payment plan would undoubtedly appear to be greater than the disadvantages. Possibly the regulation of the plan as a whole is more important than anything else in order to restrict all unnecessary buying on the one hand and to lessen usurious and damaging practices on the other.

Melvin A. Traylor, president of the First National bank of Chicago, has suggested an hypothesis for instalment buying which should be of general interest. He says, "No person should buy on the instalment basis more than can be covered by a year's savings, less a reasonable cash reserve for a rainy day." As a banker, Mr. Traylor is doubtless expressing a wish that he and his brother bankers may some day see the realization of a reasonable and conservative limit of time in selling merchandise on the instalment plan.

Of the products sold today on the instalment plan, probably the one with the greatest aggregate value is the automobile. In this article, therefore, it is proposed to mention a number of features in the sale of the automobile, with particular reference to the financing of instalment sales.

According to statistics, there were substantially 23,000,000 automobiles in use during the year 1926, which, on an estimated population of 115,000,000, would average one car for every five persons. From a trustworthy source, it has been conservatively estimated that over 6,000,000 families in the United

States having an income of \$40 a week, or less, own their own automobiles. We also learn from statistics that approximately 70% of all automobiles sold and 90% of all trucks sold are paid for on some deferred payment plan. It can be seen, therefore, that many problems must necessarily present themselves in the financing of such a vast business.

In view of the rapid increase in the sales of automobiles, due in great measure to the facilities afforded by the use of the deferred payment plan, the reader may be interested in a discussion of some of the features peculiar to the selling and financing of automobiles. For convenience, therefore, the comments which follow are classified accordingly.

SELLING THE AUTOMOBILE

When a purchaser buys an automobile on the deferred payment plan, the automobile dealer explains the terms and conditions and endeavors to obtain the largest down payment with the minimum number of months in which to pay the balance. On account of keen competition, there is no standard method of paying for a car on the deferred payment plan. It is to the advantage of the dealer to receive as large a down payment as possible—conservative companies require down payments of from 30% to 40% of the delivered price of the car—but it is not uncommon for a down payment of as little as 25% to be made, and sometimes even less. The number of deferred payments is also one which varies considerably. In some instances, the car is paid for within a few months, while in a few instances full payment of the car is not made until the expiration of twenty-four months. In the majority of cases payments are in equal monthly amounts, but sometimes the last payment is of a much larger amount, the understanding being that when this note falls due, arrangements will be made for its extension. In the finance business, this note which is due at the end of the period is called a "balloon" note.

In the last two years, meetings of dealers and representatives of automobile finance companies have been held in Chicago for the discussion of certain standard methods of doing business. Nothing of a definite character has resulted from these meetings, but the discussions have brought out a number of serious problems encountered, not only by automobile dealers, but by the finance companies. Furthermore, while it does not seem prac-

Automobile Sales Financing

licable to establish a fixed down payment or a fixed maximum number of months in which payment for the car should be made, it would seem to be the consensus of opinion that every car sold should be considered a transaction by itself; that an individual should be made to pay as large a down payment as possible; that the number of monthly payments should be reduced to a minimum; and that the so-called "balloon" note should be eliminated.

When the car is delivered, the purchaser signs a promissory note for an amount equal to the balance due on the purchase price of the car, together with an additional sum to cover insurance, interest and service charges. To secure the payment of this note, the purchaser also signs a chattel mortgage or a conditional sales contract.

As further security, finance companies, in as many cases as possible, request the dealer to endorse the notes received from their customers. This is done in order to place a greater responsibility on the dealer and to make it necessary for him to take greater precautions in selling cars as far as possible only to responsible buyers. It is realized that the responsibility and financial resources of the majority of the dealers are somewhat limited, which makes it incumbent on the finance companies to assume the loss on the disposal of repossessed cars. The trouble and expense in looking after the affairs of the dealer and the repossession of cars has led a number of finance companies to accept all notes "without recourse," believing that in the end it is more advantageous to deal directly with the owner of the car.

There are many variations affecting the attitude taken by finance companies regarding notes with or without recourse. For example, on the west coast, finance companies have recourse against the dealer up to the time when 50% of the price of the car has been paid, after which there is no recourse.

As a rule, there is practically no delay in obtaining delivery of the car, the buyer's rating being obtainable in the ordinary course in from two to twenty-four hours. In some cases, it is believed that finance companies do not require the rating of the buyer to be obtained—it is thought that the profit on the increased volume of business will more than offset the increase in losses. For the benefit of credit generally, however, good business suggests the desirability of seeking the rating of every purchaser. On the conclusion of the purchase, the finance

company settles with the dealer for the balance due on the car and the transaction is then of a character which requires the buyer of the car to make monthly remittances direct to the finance company.

It can readily be understood that when the volume of business is very large, the number of repossessions must be considerable, especially when little attention is given to the rating of the customers on the original sale of the cars. All finance companies realize the importance of the duties and responsibilities of the credit department in this respect, as delay on the part of the purchaser in meeting the payments requires immediate investigation. Notwithstanding all safeguards, losses on repossessions are greater than some finance companies wish to admit; while on the other hand one of the largest finance companies in the country reported a short time ago that over a period of years losses were sustained of less than one-tenth of one per cent. per annum.

In disposing of used cars, finance companies require a larger down payment than is required on new cars and restrict the number of monthly payments, these requirements being found necessary on account of the greater risk in collecting the balance due. It is a common practice to require a down payment of 40% with ten equal monthly payments in which to satisfy the balance.

In addition to the purchasing of notes receivable from the buyers of individual cars, termed "retail business," the majority of finance companies advance to dealers funds in considerable volume to be used in paying for cars purchased from the factory. This service is termed "wholesale business."

Many automobile factories maintain a steady output of automobiles, making it necessary for their dealers to accept deliveries during the entire year. The factories require that the dealers pay cash on delivery of the cars and in order to enable the dealer to meet this requirement (his working capital being insufficient for this purpose) finance companies advance the necessary funds on the so-called "floor plan" system.

FINANCIAL AND ACCOUNTING

It may readily be seen from the foregoing that the success or failure of a finance company is due in no small degree to the activities of the collection and credit departments. To keep losses at a minimum, it is important that the accounting records be of a kind best suited to a finance company. They should

preferably be in loose-leaf form with sufficient elasticity to provide for as much detailed information as may be required. It is hardly necessary to add that the accounts should always be kept up to date, particularly the notes-receivable records, as otherwise information might not be made available until too late for the collection of a note or the saving of expense.

There are three items in the accounts of a finance company that need be mentioned which are, in a measure, peculiar to this type of business, viz., notes receivable, notes payable, and deferred income.

Notes Receivable:

Inasmuch as the notes receivable are what might be called the "stock in trade" of a finance company, the records relative thereto should be simplified as much as possible so that account of all purchases and collections may be readily and easily kept.

As the notes are purchased from dealers, daily entries are made in a record in which

- (a) the face value of the note,
- (b) the amount due the dealer,
- (c) the discount and service charges,
- (d) the insurance,
- (e) the insurance commissions, and
- (f) other factors entering into the deals

are set apart in their respective columns from which postings to the general ledger are made monthly. For each contract at least two bookkeeping cards are used, which are quite frequently made out by machine and contain all facts concerning the deal as well as the programme of payment. One card becomes an accounting record and is filed in the regular course for control purposes among other accounting cards. The second card is used by the collection department and is usually filed by due date to facilitate the preparation of collection notices, etc.

Because of the multitude of transactions affecting the notes handled daily by the larger companies, it has become the general practice to post collections and other items on the bookkeeping cards by use of machine. It has been found particularly advantageous to use machines by which postings can be made to both bookkeeping and collection cards simultaneously, thus keeping the collection department constantly apprised of the accurate collection conditions.

Controlling accounts are kept on the general ledger for the several kinds of notes purchased, viz., retail notes (which may be again separated into recourse and non-recourse), wholesale notes and other notes. As repossessions are made, the notes are again segregated into a repossessed control, which may be in two sections—one for recourse, when payment is expected from the dealer, and non-recourse, when the car belongs to the finance company. Other segregations are necessary in the event of occurrences which make recovery possible under an insurance contract, or in any case where the security ceases to exist through litigation, etc. Should interest-bearing notes receivable be purchased, a still further separation should be made on account of the accrued interest factor.

Some of the valuation features peculiar to the notes receivable of a finance company may be found of interest. The matter of providing for losses on contracts presents no new problem, as experience governs the rates and bases to be used, just as in other companies. The repossessed car feature is peculiar to automobile finance companies and is worthy of note. When the car on a non-recourse deal is repossessed, it becomes the property of the finance company and inasmuch as the nature of the asset has changed, the unpaid balance is immediately transferred from the active note file to a repossessed file. Since the balance due on a repossessed car is usually in excess of its realizable value (as determined from the *Automobile Blue Book*), conservatism requires that such a condition be considered in the reserve for losses carried in the accounts. When the car is sold and the proceeds applied to the unpaid balance, the question arises as to whether or not all or part of the excess should be considered as a loss. It is contended by many that inasmuch as the deal was closed before it should normally have been paid out, some of the service charges should be reversed before ascertaining the net loss on the repossession.

It occurs to the writer that such a procedure understates the loss for several reasons. It is sometimes claimed that because of the allowance of a rebate in case of prepayment by the purchaser, a like amount should be reversed to unearned charges in the case of repossession and sale of the car prior to full maturity. In such instances, however, no consideration is given to the fact that the repossession method of collection and the additional expense incurred by reason of repossession were not contemplated when the

Automobile Sales Financing

deal was made, whereas in the case of normal prepayment there are no incidental expenses. In view of the foregoing, it is believed that any balance remaining uncollectible, due to other than normal collection of the note, should be considered as the loss, regardless of the date when such balance was due. It might be added that in the case of the bad debts of trading companies, it is not the practice to reverse a portion of the profit on the original sale when the bad debt is ascertained, but to make provision for the entire amount.

There is a special feature affecting the provision for losses in the case of notes coming under repurchase agreement. Under this agreement the dealer promises to buy the car from the finance company at the unpaid book value on condition that the finance company delivers the car to the dealer in good merchantable condition. In such instances, the provision for losses must take into consideration the necessary expense in reconditioning the car.

The notes receivable themselves are preserved in locations dependent on the financial requirements of the company. Where a company secures funds by issue of notes payable under a trust indenture calling for hypothecation of notes receivable, the notes must be placed in the custody of the trustee. Under this arrangement, the trustee is supplied at frequent intervals with collateral reports showing the movements of and collections on the pledged notes. Many of the larger companies secure funds on unsecured notes payable and hold the notes receivable in their own possession. In either case, the note is returned to the purchaser upon full payment, after waiting long enough to assure the clearance of the last remittance.

Notes Receivable, Wholesale:

In the case of dealers' notes financed by the finance company, the bill of sale is usually made to the finance company and the title to the car when delivered to the dealer remains in the name of the finance company until the money advanced has been repaid. The automobile is stored in the dealers' salesrooms or in a warehouse and is not subject to removal for any purpose until the money due the finance company is paid. These loans are usually of short duration—from 30 to 90 days—dependent upon the season of the year, the advances representing from 80 to 90 per cent. of the price of the car to the dealer.

Notes Payable:

In order to extend the scope of their operations, finance companies generally seek financial assistance from banks in addition to the cash capital provided by their stockholders. In some instances banks extend credit on unsecured notes but in the majority of cases evidence of indebtedness is required in the form of collateral trust notes, the collateral being the notes given by the purchasers of the cars. These notes are signed by an officer of the company and certified by the trustee.

It is estimated that the amounts lent by banks at the present time to automobile finance companies is in excess of two billions, the greater part of which is evidenced by collateral trust notes with maturity dates extending from six to twenty-four months.

So far as the security for collateral trust notes is concerned, the following excerpt is taken from a trust deed which is considered standard in this respect:

“The trustee shall not certify and deliver any notes hereunder, unless at the time of such certification and delivery the trust property subject to this indenture shall consist of, or include, unmatured purchase money obligations for the payment of principal amounting in the aggregate to 110% of the aggregate principal amount of all the notes outstanding (including those of the time so to be certified and delivered) and remaining after deducting from the aggregate principal amount of all notes the amount of any moneys then included in the trust property.”

In other words, for every \$100 of money borrowed, a finance company is required to deposit as collateral with the trustee, notes from the buyers of cars for at least \$110. In a number of instances, the trust agreement calls for collateral equal to 115 per cent., or even more, of the amount borrowed, the collateral in every instance being irrespective of the amount of cash on deposit with the bankers. If it should develop that by reason of the withdrawal of notes there is insufficient collateral, the difference must be made good either by the placing of additional notes or by the deposit of cash. In the ordinary course of business, finance companies find it necessary to withdraw notes deposited as collateral for the purpose of collection, and the trust deed generally provides that a specifically limited amount of notes may be withdrawn on a trust certificate. In such instances, however, the finance company acts as the agent of the trustee and is accountable for all money so collected. In general, therefore, the limit to which a finance company may borrow is its ability to contribute \$100 working capital for every \$1,000 borrowed, and to have

Automobile Sales Financing

on deposit with the banker from whom credit is obtained approximately 20 per cent. of the amount of credit to be extended, or in other words, for every \$1,000 borrowed the company must be in a position to provide not less than \$300 working capital.

From this, however, the impression should not be formed that the stockholders' investment in the above ratio should be uniform in all companies, for it can readily be seen that in the case of a small company there is a greater risk that the stockholders' future equity will be eliminated on account of losses than there is in a large company. The following excerpt is taken from an address delivered by A. E. Duncan, chairman of the board of the Commercial Credit Company of Baltimore, before the Association of Reserve City Bankers at Louisville, Kentucky, on May 6, 1925, which has reference to this matter:

"From my knowledge of the business of finance companies, and I have had occasion closely to investigate a lot of them, I should say that a fair schedule of such total maximum liabilities in proportion to net investment by stockholders would be about as follows:

\$100,000 to \$500,000—from one to two times
\$500,000 to \$1,500,000—from two to three times
\$1,500,000 to \$2,500,000—from three to four times
\$2,500,000 and over—from four to five times

The very nature of the business is such that a finance company with, say \$5,000,000 invested capital, is much safer with liabilities aggregating \$20,000,000 than a company with \$100,000 capital and liabilities of \$400,000. It is difficult, even on the larger volume, to lose \$5,000,000 before the officers, directors and bankers become aware of such losses, but not so difficult to lose only \$100,000."

From this it will be noted that Mr. Duncan believes that a finance company should not have aggregate liabilities (including loans, acceptances, guarantees, etc.) of more than five times its own cash capital, surplus and undivided profits after deducting investments in other companies which are also borrowers.

Deferred Income:

As has been said, the notes receivable in hands of finance companies cover the cash advanced to the dealer to satisfy the balance of the purchase price of the car, as well as the charge for financing the loan. This additional charge to the car owner is taken up on the books of finance companies as deferred income, to be transferred to the revenue account on some systematic basis.

Inasmuch as the method of determining the amount of deferred income has an important bearing, not only on the financial position of the company, but also on its earnings, it is well to consider several methods employed by finance companies.

Some companies take up as a profit—doubtless for convenience—the entire income in the month in which the notes are purchased, as all expenses incidental to the obtaining of that business are charged in that month. No allowance is made for the expenses connected with the collection of notes in subsequent months, nor for interest payable and other charges incidental to the operation of the business, as the proponents of this method feel that it is proper to allow the profits resulting from future business to take care of this expense. Such an argument, of course, is quite unsound and the objections to it are so apparent that further comment is unnecessary.

On the assumption that a series of notes is to be satisfied in ten monthly payments, the suggestion is made sometimes that the income should be credited to earnings in ten equal monthly proportions, without considering that the investment in these notes is greatest in the first month and diminishes month by month. The unsoundness of this method is also apparent and, therefore, requires no further comment.

A third method has been adopted by many companies, viz., to spread the income in conformity with the maturities of the notes. In support of this method, the following illustration is submitted:

A \$1,000 note payable in ten equal monthly instalments of \$100 each would have, in the first month, a balance of \$1,000, but in the tenth month only \$100. If the amount of this note were converted into month-dollars, its amount would be \$5,500 and the earnings on the \$1,000 note would be the same as that of a \$5,500 note payable in one month.

The ratio of earnings in the first month to the entire discount charge would, therefore, be the same as the ratio of total month-dollars maturing in that month to the total month-dollars of the note. The earnings in the first month would, therefore, be $1000/5500$ or $10/55$ ths of the total charges; the second month $9/55$ ths of the total charges, or $900/4500$ of the balance of the unearned charges at that time; in the third month $8/55$ ths of the total charges, or $800/3600$ of the balance of the unearned charges, and so on. It follows that if the total amount of unearned charges is divided by the amount of notes receivable expressed in month-dollars, the quotient is the service charge per month-dollar. The rates charged are usually uniform and it is, therefore, safe to use the month-dollar as the unit for spreading the charges.

Automobile Sales Financing

In practice, the month-dollar method may be applied in several ways, the plans in common use being the monthly spread and the cumulative spread, which should be further described:

Monthly Spread.—A register is maintained by which the notes purchased during the current month are spread or grouped by months in which they mature. At the close of the months, a recapitulation is made of this monthly spread for the purpose of calculating and spreading the charges on the notes purchased during the month.

For the purpose of illustration, it is assumed that \$700,000 of notes are purchased in January, maturing over a period of ten months, bearing service charges aggregating \$76,741.89, and that notes of like amount and maturity with the same amount of service charges are purchased in February. It is obvious, of course, that such a condition would not exist, but the illustration is presented in order to set forth more clearly the method of calculating the spread of each month's service charges. It is further assumed, in preparing the following tables, that before the first of January there had been similar monthly purchases bearing the same service charges.

Table 1 shows the spread of the January service charges:

Table 1	Principal by maturities	Monthly balances	Percentage of monthly balances to aggregate month- dollars	Proportion of charges earned each month
January .....	.....	\$700,000.00	\$20.5339	\$15,758.08
February	\$84,000.00	616,000.00	18.0698	13,867.12
March	84,000.00	532,000.00	15.6057	11,976.15
April	84,000.00	448,000.00	13.1417	10,085.18
May	84,000.00	364,000.00	10.6776	8,194.20
June	77,000.00	287,000.00	8.4189	6,460.82
July	77,000.00	210,000.00	6.1602	4,727.43
August	70,000.00	140,000.00	4.1068	3,151.62
September	63,000.00	77,000.00	2.2587	1,733.39
October	42,000.00	35,000.00	1.0267	787.90
November	35,000.00	.....	.....	.....
	<u>\$700,000.00</u>	<u>\$3,409,000.00</u>	<u>\$100.0000</u>	<u>\$76,741.89</u>

Column three of the table shows the percentages of monthly balances to the aggregate month-dollars as computed from the figures in column two. In the table it is assumed that the total charges to be spread amount to \$76,741.89. The percentages in column three are applied to that amount, thus producing the proportion earned in each month on the notes purchased during the current month.

The Journal of Accountancy

For the purpose of assembling the totals of each month's earnings, the figures in table 1 are transferred to column two in table 2:

Table 2	Unearned charges Dec. 31 by maturities	January charges by maturities	Unearned charges Jan. 31 by maturities	February charges by maturities	Unearned charges Feb. 28 by maturities
January	\$60,983.81	\$15,758.08	\$76,741.89*		
February	47,116.69	13,867.12	60,983.81	\$15,758.08	\$76,741.89*
March	35,140.54	11,976.15	47,116.69	13,867.12	60,983.81
April	25,055.36	10,085.18	35,140.54	11,976.15	47,116.69
May	16,861.16	8,194.20	25,055.36	10,085.18	35,140.54
June	10,400.34	6,460.82	16,861.16	8,194.20	25,055.36
July	5,672.91	4,727.43	10,400.34	6,460.82	16,861.16
August	2,521.29	3,151.62	5,672.91	4,727.43	10,400.34
September	787.90	1,733.39	2,521.29	3,151.62	5,672.91
October		787.90	787.90	1,733.39	2,521.29
November				787.90	787.90
	<u>\$204,540.00</u>	<u>\$76,741.89</u>	<u>\$281,281.89</u>	<u>\$76,741.89</u>	<u>\$281,281.89</u>

Deduct:

Earned as above*—

January		76,741.89	
February .....		.....	76,741.89
		<u>\$204,540.00</u>	<u>\$204,540.00</u>

It will be noted from table 2 that, after including January unearned charges carried forward from the business of prior months (\$60,983.81), the total earnings for January amount to \$76,741.89. After this amount is deducted from the total of the unearned charges by maturities at the close of the month, the remainder, \$204,540.00, will represent the unearned charges on notes receivable at that date.

Cumulative Spread.—The following table is presented for the purpose of illustrating the cumulative spread:

Table 3	Notes receivable December 31 by maturities	Purchases and payments in January by maturities	Notes receivable January 31 by maturities	Month- dollars in thousands maturing each month
January	\$700,000.00	\$700,000.00		....
February	616,000.00	84,000.00	\$700,000.00	\$3,409
March	532,000.00	84,000.00	616,000.00	2,709
April	448,000.00	84,000.00	532,000.00	2,093
May	364,000.00	84,000.00	448,000.00	1,561
June	287,000.00	77,000.00	364,000.00	1,113
July	210,000.00	77,000.00	287,000.00	749
August	140,000.00	70,000.00	210,000.00	462
September	77,000.00	63,000.00	140,000.00	252
October	35,000.00	42,000.00	77,000.00	112
November		35,000.00	35,000.00	35
	<u>\$3,409,000.00</u>	.....	<u>\$3,409,000.00</u>	<u>\$12,495</u>

Automobile Sales Financing

A register is maintained in which the principal of notes purchased, payments made thereon, and cancellations are spread by maturities. The totals in this register are shown in column three of table 3 and are converted into month-dollars as shown in column four. It will be noticed in this table that the month-dollars maturing in January amount to \$3,409,000 and that the month-dollars of all notes total \$12,495,000. The unearned charges before the January charge-off aggregate \$281,281.89 (table 2) and when spread in the ratio for the month of January, viz.: 3409/12,495, amount to \$76,741.89, which is the same sum as that obtained by the monthly-spread method.

The following explanations are made regarding the two methods shown:

(a) In the monthly spread, no consideration is given to changes in the accounts brought about by prepayments or cancellations. In the ordinary course of business numerous items are cancelled and others are paid in full before final maturity. To remain strictly scientific, the spread of the service charges of the month affected should be adjusted for each cancellation and prepayment, but such a procedure is not practicable as the expense involved is not commensurate with the benefit derived.

(b) In using the cumulative spread, allowances made to debtors on account of prepayments or cancellations are charged to unearned discount as the notes receivable are reduced. The amount of unearned charges to be spread, as well as the fraction of the spread, are thus reduced and a correct result is obtained. If, however, no allowance or an amount less than that actually unearned is made to the debtor, there will remain as unearned an amount which, technically, has been earned, but, for practical purposes, is ignored as the amount is small and will ultimately be absorbed.

In spreading the income as suggested under tables 2 and 3, the following points should first be decided:

Shall the entire service charge be spread?

Shall so-called selling expense, i. e., expenses of obtaining the business, first be deducted?

Shall the amount provided against losses be deducted from the service charges before spreading?

Shall the amount of rebates allowed for prepayment be deducted from the service charge before spreading?

The Journal of Accountancy

It appears to be the better practice to deduct selling expenses and provision for losses before spreading the remainder of the service and discount charges. The following formula will illustrate the method of calculating earned and unearned service charges for each period as shown in table 3.

(a)	Total discount charges for the month (from deferred income account)	\$94,741.89
	Deduct:	
(b)	Provision for loss during the month (from that account)	\$3,000.00
(c)	Selling expenses during the month (from those accounts).....	15,000.00
(d)	Together	18,000.00
(e)	Balance	\$76,741.89
(f)	Add deferred income at beginning of the month (from that account).....	204,540.00
(g)	Together	\$281,281.89
(h)	Ratio of month-dollars maturing in current month to total month-dollars (from the spread of notes as to maturities) results in fraction $\frac{3409}{12495}$	
(i)	This fraction applied on amount in line (g) equals	76,741.89
(j)	Add deductions as shown in line (d).....	18,000.00
(k)	Together, being the monthly amount which is to be debited to deferred income account and credited to earned discount.....	\$94,741.89

This calculation is proved by the following agreement with the ledger accounts:

Deferred income being amount of	
Line (a)	\$94,741.89
Line (f)	204,540.00
Together	\$299,281.89
Deduct line (k)	94,741.89
Balance, which must agree with that in the deferred income account.....	\$204,540.00

Some companies, doubtless as a result of previous experience, have decided to retain in the deferred income account at all times a percentage of the notes receivable outstanding at the close of each month. It has been found from the examination of a number

of balance-sheets that the deferred income varies between four and seven per cent. of all notes receivable outstanding, the average in a selected number of statements being approximately five per cent. On this basis, therefore, many finance companies make an adjustment of the deferred income account at the close of each month in order to show in that account a balance equal to, say, 5 or 5½ per cent. of the notes receivable outstanding at that time. This method of calculating the deferred income at the close of any period is, however, not considered sound, unless—

- (a) The service and discount charges are relatively the same on all notes purchased.
- (b) The notes purchased mature in a uniform number of monthly instalments.
- (c) The amount of notes purchased is the same every month.

It is possible, however, that the application of the percentage method will meet the company's requirements provided that the percentage is adjusted to the existing conditions at the date of the balance-sheet.