

4-1913

Accounting of Interest and Discount on Notes

John Bauer

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



Part of the [Accounting Commons](#)

Recommended Citation

Bauer, John (1913) "Accounting of Interest and Discount on Notes," *Journal of Accountancy*. Vol. 15: Iss. 4, Article 3.

Available at: <https://egrove.olemiss.edu/jofa/vol15/iss4/3>

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.

The Accounting of Interest and Discount on Notes

BY JOHN BAUER

Assistant Professor of Economics, Cornell University

FIRST ARTICLE

The beginning student of accounting finds himself perhaps more perplexed with the theory and treatment of interest and discount on notes than with any other part of accountancy. Partly the difficulty is that the ideas involved are abstract and elusive. But the principal difficulty is that the facts are usually not clearly analyzed, separated and explained. With a few exceptions (perhaps two or three), the current texts on accounting and double-entry bookkeeping give rules, but they do not develop and explain *principles*, nor do they set forth in a clear-cut way, the nature of the items that enter the Interest account. The majority of instructors pursue the same course. The result is that the ordinary student eventually learns the rules and how to apply them; but he never really understands the fundamental facts with which he is dealing.

Courses in accounting, especially in the universities, should emphasize *principles* above everything else. It is *principles* that make accounting a science—and it is the lack that makes the usual high school bookkeeping a waste of time for the student. Clear-cut principles are especially important in the part of accounting dealing with interest and discount. Even if they are kept clear enough otherwise, here they invariably become murky.*

The avowed function of the Interest account (or Interest and Discount account) is to show the earnings of notes receivable and the costs of notes payable for a stated period of time—

* The principles of accounting are almost inseparably connected with those of economics. In the latter, the theory of interest is one of the fundamental considerations in the study of value. But just how interest affects value has been clearly understood and presented by very few writers. The great majority of well-known economists are all wrong or confused on the subject. If this is true, it is not surprising that practically all writers on accounting are likewise wrong or confused—since, if they have studied economics at all, it was under men who themselves did not understand the nature of interest. For a fundamental discussion of this subject see F. A. Fetter, *Principles of Economics*, and Irving Fisher, *The Rate of Interest*.

The Accounting of Interest and Discount on Notes

a week, month, or year, as the case may be. According to current teachings and practice, the account contains the following entries:

INTEREST AND DISCOUNT

I. At the beginning of the period

Dr.	Cr.
1. Interest accrued on notes receivable.	1. Interest accrued on notes payable.
2. Discount due on notes payable.	2. Discount due on notes receivable.

II. During the period

1. Interest payments made on notes payable.	1. Interest payments on notes receivable.
2. Discounts allowed on notes receivable when prepaid.	2. Discounts received on notes payable when prepaid.
3. (Usually neglected) Any interest accrued on new notes receivable acquired by the business.	3. (Usually neglected) Any interest accrued on new notes payable assumed by the business.
4. (Usually neglected) The discount due on new notes payable assumed by the business.	4. (Usually neglected) The discount due on new notes receivable acquired by the business.

III. At the close of the period (in red ink)

1. Interest accrued on notes payable.	1. Interest accrued on notes receivable.
2. Discount due on notes receivable.	2. Discount due on notes payable.

The debit side is supposed to show the interest costs for a period and the credit side the interest earnings—a debit balance showing the net costs above earnings, and a credit balance the net earnings above costs. The account is open to serious criticism, both from a theoretical and a practical standpoint. From the latter, it does not furnish the manager a sufficient number of facts about the business, and does not present them in a sufficiently clear manner. From the theoretical standpoint, it almost inevitably leads to confusion as to the nature of the entries involved; *i. e.*, whether they constitute fundamental increases or decreases in assets, increases or decreases in liabilities, or increases or decreases in proprietorship; more specifically whether they really represent costs and earnings or merely changes in assets or liabilities.

Let us take up the theoretical considerations first. To be sure, even as the account stands, every entry may be explained

by correct principles, but as a matter of fact, first-class accountants have gone wrong in their explanations, largely because the construction of the account leads to a wrong suggestion. How, then, are the various entries to be explained?

I. Entries at the beginning of the period. These are merely adjustments of notes receivable and notes payable. As a matter of bookkeeping convenience, the notes of others which a firm owns are carried in notes receivable at their *face*, not their real value. Likewise, a firm's notes outstanding are carried in notes payable at their face, not their real value. In case of interest bearing notes, obviously at any time after a note has been issued and before the interest accrued has been paid, the real value is larger than the face. On the other hand, with non-interest bearing notes, at any time before maturity the real value is less than the face. To show real value, therefore, adjustments must be made through some other accounts, and the entries in the Interest account at the beginning of the period constitute just such adjustments.*

On the debit side, interest accrued on notes receivable is value which fundamentally belongs to the notes, which are worth not only their face value, but also the interest that has been accrued and left unpaid up to date. The entry is therefore an asset item, in nature exactly like the Notes Receivable debits—in fact supplementing and completing them. Likewise on the credit side, interest accrued on notes payable attaches to the notes which the firm owes, and represents, therefore, a liability or a negative asset, in nature just like Notes Payable credits.

Turn now to the second debit at the beginning of the period, discount due on notes payable. This is fundamentally an offset against overstated values credited to Notes Payable. Remember that for convenience notes are always carried in the notes accounts at their face, not their real value. Non-interest bearing notes which a firm owes are therefore credited to Notes Payable at what may be called their *future*, not their *present* or *real* value. Their present or real value is theoretically a sum which with interest till maturity will equal the face. Now, the differ-

* To avoid needless repetition of the term "account" in this discussion when the title of an account is meant, the terms used will be especially capitalized. Thus, Interest, Notes Receivable, Notes Payable, Interest Accrued on Notes Receivable, Interest Accrued on Notes Payable, etc., each refers to an account; otherwise these terms will not be capitalized.

The Accounting of Interest and Discount on Notes

ence between the face and the real value is the discount due, the amount by which the real value is overstated in Notes Payable. Debiting this amount to the Interest account you counterbalance or offset the overstatement. Combining this debit with the credit of Notes Payable, you have the real or present value of the notes.

This entry may be conceived as an asset, but in the sense of merely counterbalancing an overstated liability or negative asset. If Notes Payable kept track of real instead of face values, this entry would not appear. Let us repeat that it is an offset to Notes Payable, marking the difference between the present and the maturing or future value of the non-interest bearing notes owed by the business.

Let us pass to the second credit at the beginning of the period, discount due on notes receivable. The explanation is exactly like that of the preceding paragraphs, except that we have to do with notes receivable instead of notes payable. Non-interest bearing notes owned by the business are debited to Notes Receivable at future value; the difference between that and the present is the discount due; this is credited to Interest and offsets the overstatement of real value. We may consider the item as a liability, or a negative asset in the sense of counterbalancing inflated positive assets.

Perhaps it is worth emphasizing that the items at the beginning of the period have nothing to do with interest earnings or costs. They are all subsidiary to the notes accounts, representing asset and not proprietorship values. The principles involved are simple enough and are usually clearly enough explained. It is with entries during and at the close of the period that explanations usually go wrong and students are left in confusion. As a matter of fact, not one of the regular entries in the Interest account represents costs or gains; all have to do merely with changing note values. All are fundamentally asset and not proprietorship entries. This proposition will be made clear in the following paragraphs:

II. Entries during the period. Interest payments made on notes which the firm owes are debited to Interest and credited to Cash, while payments received are credited to Interest and debited to Cash. Why the cash debits and credits is obvious, and we are not concerned with them. But why the interest

debits and credits is by no means clear, and deserves very careful consideration.

The usual explanation is that interest payment made on notes which a firm owes is a cost and is therefore a debit, *i. e.*, it is viewed as a decrease in proprietorship. And interest payment received on notes owned is viewed as gain or earnings and therefore a credit, *i. e.*, an increase in proprietorship. As suggested above, this view is fundamentally wrong: the debit is not an interest cost, nor the credit an interest gain; they are asset and not proprietorship items. The debit is a decrease in the interest accrued on notes payable, *i. e.*, a decrease in a liability or negative asset of the business. Likewise, the credit is a decrease in interest accrued on notes receivable, *i. e.*, a decrease in an asset value. In other words, the debit is a decrease in the value of notes owed, and the credit a decrease in value of the notes owned by the business.

Suppose that during the period (say, January 12) you pay \$50 interest due on a note payable. Interest is debited with \$50 and Cash is credited with the same amount. Why the interest debit? The proposition is that the \$50 is not a cost of the period. On the first of the month the Interest account contained a credit balance of (say) \$48 interest accrued up to that time on the note in question—then the total amount owed is (say) \$1,000 on the face of the note, plus the interest accrued, \$48. When the payment took place on the 12th, the interest accrued amounted to \$50—an increase of \$2.

Now this \$2 increase had not been recorded, but it would have been in a system of complete accounting, so that the interest accrued on the note would have appeared at \$50 as a liability of the business. But, whether recorded or not (this depends upon accounting convenience), the increase has nevertheless taken place and the liability is \$50, and is a credit on the ledger.

When, therefore, the \$50 interest on the note is paid, in reality a debt of that amount is expunged. With complete accounting, just before the payment the books would have shown this liability; immediately after the payment the books would have shown the liability to be zero. The \$50 liability was a credit; the cancelling item must be a debit. Thus it appears

The Accounting of Interest and Discount on Notes

that the debit to interest is fundamentally a decrease in liability and not a cost or decrease in proprietorship.

Now, take the other way around. Suppose on January 12 \$50 interest is received. Cash is debited and Interest credited. Why the credit? Again, the usual explanation makes it a gain, viewing it as an increase in proprietorship. But, in line with the explanations of the preceding paragraphs, the \$50 just before payment was a debt due, an asset of the business, and, with complete accounting, would have appeared as a debit. The moment after payment the debt due had disappeared, and there was in its place cash \$50. The interest credit, therefore, is fundamentally a decrease in assets, just as the cash debit is an increase in assets. Obviously, there is no gain involved in the transaction. This has to do with *asset* and not *proprietorship* items.

Turn to the second class of entries during the period, *i. e.*, discounts allowed or received on the prepayment of non-interest bearing notes. You hold Henry Jones' note, face value \$1,000, with 30 days till maturity. He pays \$995 cash now, and cancels his indebtedness. Notes Receivable is credited \$1,000, Cash is debited \$995, and Interest debited \$5. Why the interest debit? We are told that it is an *interest cost*; that you held a note of \$1,000 and it was cancelled for \$995, sacrificing \$5; this sacrifice is a cost, a premium paid for getting cash *now* instead of waiting till the note is due.

This reasoning is wrong. If it costs \$5 to transform one form of asset into another, why transform it? If \$5 is lost in selling a note (or any other form of goods), why sell? If the note is worth \$1,000, why give it up for \$995? If such an exchange is made, the \$5 should be charged to charity or folly, not to interest. As a matter of fact, Jones' note is not worth \$1,000; that is its *future*, not its *present* value. The present value is \$995; and that is what is received in cash for it. If you wait 30 days you will get \$1,000; but, taking payment now, you get only the present equivalent of the \$1,000, *i. e.*, you forego \$5 interest earnings for the next 30 days, but you do not lose \$5 as for the present month. You get simply what is due now, so there can be no loss.

The \$5 interest debit, therefore, cannot be regarded as a cost. What, then, is it? When Jones' note was first acquired

it was debited at face value (\$1,000) to Notes Receivable. But it was not worth \$1,000; consequently a credit offset should have been provided, equal to the amount of the overstatement. This sum is the *discount due* on the note and was credited to Interest. Now, as time went on, the value of the note became larger and larger, and the discount due correspondingly smaller and smaller. Thus, with complete accounting, just before payment, Notes Receivable contained a \$1,000 debit and Interest a \$5 credit, so that the combination of the two should give the real value of the note. Just after payment, all the values in reference to the note disappear off the books, including both the \$1,000 notes receivable debit and the \$5 offsetting interest credit.

There is at the moment a \$5 decrease in the discount due on notes receivable. The discount was in the form of a liability or negative asset and was a credit; the decrease, therefore, is a debit. This is not a loss, but merely a change in asset values. So far as the ledger is concerned this is what happened: a \$1,000 positive asset value (the face of the note) linked with a \$5 negative asset (the offsetting discount) value, was replaced by \$995 direct cash value. Then, where is there any loss in the transaction?

Suppose a case the other way about. You have given a non-interest bearing note, face value \$1,000, with 30 days to maturity. If the note is paid now, Notes Payable is debited \$1,000, Cash is credited \$995, and Interest credited \$5. Why the interest credit? Is it a gain that is made by prepaying the note? Again, the \$1,000 is future value and the present indebtedness on the note is only \$995. Just before payment, with complete accounting in reference to the note, the ledger would have shown Notes Payable credited \$1,000 and Interest debited \$5—the two linked together giving the real value of the liability. Just after payment, the above debit and credit disappear and are replaced by a \$995 cash debit. Where is there a gain? The \$5 interest credit records a decrease in discount on notes payable. Before payment there was a \$5 discount due; after payment this had disappeared, *i. e.*, a \$5 debit was cancelled by a \$5 credit. This has to do with asset, not proprietorship values.

Take next the third class of entries during the period, *i. e.*, any interest accrued on new notes receivable acquired or new

The Accounting of Interest and Discount on Notes

notes payable assumed by the business. Suppose F. Noyes endorses to you on account E. Robertson's note for \$1,000, with interest accrued, \$10; you credit Noyes with \$1,010, debit Notes Receivable \$1,000, and debit Interest \$10. Now, suppose you assume W. Brook's note in favor of G. Canfield, the face value of the note, \$500, with interest accrued, \$5; debit Brooks \$505, credit Notes Payable \$500, and credit Interest \$5. Why the interest debit and the interest credit? The debit is an increase in interest accrued on notes receivable and the credit an increase in interest accrued on notes payable. The one is an increase in positive assets, the other an increase in liability or negative assets.*

Then consider the fourth class of entries during the period, *i. e.*, discount due on new notes payable assumed or new notes receivable acquired by the business. Suppose a firm gives to T. Barnes its note on account for \$1,000 at 60 days, without interest; Notes Payable is credited 1,000, T. Barnes debited \$990, and Interest debited \$10. The other way about: suppose W. Todd gives his note on account for \$1,000, at 60 days, without interest; Notes Receivable is debited \$1,000, W. Todd credited \$990, and Interest credited \$10. The interest debit serves to offset an overstated notes payable credit, the real value of the note owed is only \$990, not \$1,000. Likewise, the interest credit is an offset to an excessive notes receivable debit. They are subsidiary note entries, having nothing to do with interest costs or earnings.

The third and fourth groups of entries just discussed are usually neglected by text-book writers and in practice. If, however, the accounts are to record business facts as they are, these entries should appear as indicated. If they are neglected, the final results of the Interest account is vitiated. The balance, supposedly showing net costs or gains for the period will be unduly inflated or diminished. How and why this vitiation takes place will appear in subsequent paragraphs.

III. We now come to the adjustment entries at the close of the period. They should appear in red ink, since they serve merely for the calculation of the results of the period and do not represent current transactions or events. Fundamentally, as

* Remember that interest accrued is a value that belongs fundamentally to the notes; it is a mere bookkeeping convenience to record at face rather than real value.

will appear, they are items which in nature belong each on the opposite side of where they now stand. And at the beginning of the following period they are transposed where they naturally belong, and then appear in regular black ink.

Take the first debit, all interest accrued on notes payable at the close of the period. Observe the interest accrued at the beginning of the period had been credited, also any that had accrued on new notes payable assumed during the period; and all interest payments made during the period had been debited. The credits were (1) liability at the beginning of the period, and (2) increase in liability due to new notes assumed; the debits were (1) decreases in liability due to payment, and (2) the liability at the close of the period. There ought to be a third credit, an increase in liability resulting from the interest accrued from day to day while the notes were in possession; then the debit and credit items would balance. The amount of the third credit must therefore be the difference between the two credits and the two debits.*

Now, if this amount were inserted as a credit, it would measure the increase of liability during the period due to the passage of time while the notes were in possession. The corresponding debit would be a decrease in proprietorship, measuring the real interest cost of the notes held during the period, and it might be charged directly to Loss and Gain.

Turn now to the first credit at the close of the period, all interest accrued at that time on notes receivable. The reasoning is just the same as that in the previous paragraph, except that the items appear reversed, debits where before we had credits, and *vice versa*. Now, the interest accrued from day to day due to the passage of time should appear as a debit, being an increase in note values or assets owned. The corresponding credit would measure the real interest earnings of the notes held during the period, and again, it might be recorded directly in Loss and Gain.

* The calculation amounts to this, obviously: (1) The balance interest accrued at the beginning of the period + (2) increases due to new notes assumed during the period + (3) increases due to the passage of time (accrued from day to day) + (4) decreases due to interest payments = (5) the balance interest accrued at the close of the period (which is found from the note records). All the values in this equation are known except (3), which, then, may be derived. We may restate the equation thus: (1) the balance interest accrued at the beginning of the period + (2) increases due to new notes assumed during the period + (3) increases due to passage of time = (4) decrease due to interest payments + (5) balance interest accrued at the close of the period. If this grouping is reversed, we have the items exactly as they appear, or should appear, in the interest account.

The Accounting of Interest and Discount on Notes

The second debit at the close of the period is discount due at that time on notes receivable. Observe: (1) The discount due at the beginning of the period was credited (as an offset to overstated note values); and (2) the increase in discount due on new notes acquired during the period was credited; (3) the discount due on notes prepaid during the period was debited; and, finally, (4) the discount due at the close of the period (which may be calculated from your note records) was debited. There should be a third debit, decrease in discount due to the passage of time as the notes approach their face value. This may be derived and inserted.*

Obviously, this decrease in discount is in reality an increase in note value, so that fundamentally this debit represents an increase in assets. The corresponding entry would be an increase in proprietorship, showing the earnings of the non-interest bearing notes held during the period, and might be recorded directly in Loss and Gain.†

Finally, consider the second credit at the close of the period, discount due at the time on notes payable. Again, the reasoning is the same as in the previous paragraph, but the items are reversed. The decrease in discount due to the passage of time should appear as a credit, being fundamentally an increase in liability, *i. e.*, in the note value owed. The corresponding debit would record the interest cost of the non-interest bearing notes held during the period, and might appear directly in Loss and Gain.

The individual calculations made in the last four paragraphs are in fact omitted in practice: indeed they could not well be made individually through the Interest account as it has been presented. However, all the facts that have entered into the calculations appear in the account, so that by properly separating the items the results could be obtained as indicated. What in reality is done, after all the entries have been made as indicated on page 249 is this: the sum of the debits is taken likewise of the credits, and the difference between the two is inserted on the smaller side; then, the corresponding debit or credit is placed in Loss and Gain or some other proprietorship account.

* The calculation is similar to that presented in the previous footnote.

† Contrary to the views at least tacitly assumed by most writers, all notes receivable earn interest whether on the face they appear as interest or non-interest bearing. Likewise, of course, all notes payable cost interest whether they are on the face interest bearing or not.

The Journal of Accountancy

In this procedure we essentially balance the items that determine increased assets values due to the passage of time against the items that indicate increased liabilities due to the passage of time, and we record only the difference in the account. The corresponding entry in Loss and Gain then indicates the net interest earnings above costs, or the net costs above earnings.*

The Interest account has now been completely balanced and closed up for the period, and the red ink balances entered at the close of the period become the opening items at the beginning of the succeeding period, each being transferred in black opposite where it has just appeared in red. The procedure then continues as explained for the preceding period.

* Thus, if the increased asset values due to the passage of time are greater than the increased liability values, the difference is debited to Interest (a net increase in assets), and is credited to Loss and Gain (a net gain above costs). If the other way around, the difference is credited to Interest (a net increase in liability), and is debited to Loss and Gain (a net cost above earnings).