## 2. Notes Playable

Long-term notes will be considered in the next chapter. For the moment, let's focus on the appropriate accounting for a short-term note. A common scenario would entail the borrowing of money in exchange for the issuance of a promissory note payable. The note will look something like this:

FOR VALUE RECEIVED, the undersigned promises to pay to the order of BancZane, Inc. the sum of:
*****Sen-Thousand and na/100 Dallars ***** $\quad(\$ 10,000)$
With annual interest of $8 \%$ on any unpaid balance. This note shall mature and be payable, along with accrued interest, on:

June 30, 20x8
January 1,20x8
Issue Date
Oliva Zavala Maker Signature

Now, do not use my illustration above to construct a legal document for your own use; this is an abbreviated illustrative form to focus on the accounting issues. A correct legal form would typically be far more expansive and cover numerous things like what happens in the event of default, who pays legal fees if there is a dispute, requirements of demand and notice, and on and on. In the above note, Oliva has agreed to pay to Banc Zone $\$ 10,000$ plus interest of $\$ 400$ on June 30, 20X8. The interest represents $8 \%$ of $\$ 10,000$ for half of a year.


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The amount borrowed is entered in the accounting records by increasing Cash (debit) and Notes Payable (credit). When the note is repaid, the difference between the carrying amount of the note and the cash necessary to repay that note is reported as interest expense. Representative journal entries for the above note follow:

| $1-1-\mathrm{x} 8$ | Cash | 10,000 |  |
| :---: | :---: | :---: | :---: |
|  | Note Payable |  | 10,000 |
|  | To record note payable at $8 \%$ per annum; maturity date on 6-30-x8 |  |  |
| 6-30-x8 | Interest Expense | 400 |  |
|  | Note Payable | 10,000 |  |
|  | Cash |  | 10,400 |
|  | To record repayment of note and interest ( $\$ 10,000 \times 8 \% \times 6 / 12$ ) |  |  |

Had the above note been created on October 1, the entries would appear as follows:

| $10-1-\mathrm{X} 8$ | Cash | 10,000 |  |
| :---: | :---: | :---: | :---: |
|  | Note Payable |  | 10,000 |
|  | To record note payable at 8\% per annum; maturity date on 3-31-X9 |  |  |
| 12-31-X8 | Interest Expense | 200 |  |
|  | Interest Payable |  | 200 |
|  | To record accrued interest for 3 months ( $\$ 10,000 \times 8 \% \times 3 / 12$ ) |  |  |
| $3-31-\mathrm{x} 9$ | Interest Expense | 200 |  |
|  | Interest Payable | 200 |  |
|  | Note Payable | 10,000 |  |
|  | Cash |  | 10,400 |
|  | To record repayment of note and interest |  |  |

In the above entries, notice that interest for three months was accrued at December 31, representing accumulated interest that must be paid at maturity on March 31, 20X9. On March 31, another three months of interest was charged to expense. The cash payment included $\$ 400$ for interest, half relating to the amount previously accrued in 20X8 and half relating to 20X9.

Next, let's consider how the above amounts would appear in the current liability section of the December 31, 20X8 balance sheet. Observe the inclusion of two separate line items for the note and related interest:

|  |  |  |
| :--- | ---: | ---: |
| Current Liabilities |  |  |
| Accounts payable | 20,000 |  |
| Salaries payable | 2,000 |  |
| Taxes payable | 3,000 |  |
| Customer prepayments | 200 |  |
| Interest payable | 10,000 | $\$ 108,200$ |
| Note payable |  |  |

In noting this illustration, you may wonder about the order for listing specific current obligations. One scheme is to list them according to their due dates, from the earliest to the latest. Another acceptable alternative is to list them by maturity value, from the largest to the smallest.

### 2.1 A Few Words About Interest Calculations that May Save You Some Money

First, some short-term borrowing agreements may stipulate that a year is assumed to have 360 days, instead of the obvious 365 days. In the old days, before calculators, this could perhaps be justified to ease calculations. In modern days, the only explanation is that the lender is seeking to prey on unsuspecting borrowers. For example, interest on a $\$ 100,000,8 \%$ loan for 180 days would be $\$ 4,000$ assuming a 360 -day year ( $\$ 100,000 \times .08$ X 180/360), but only $\$ 3,945$ based on the more correct 365 -day year ( $\$ 100,000$ X . 08 X 180/365). It is obvious that you should be alert to the stated assumptions intrinsic to a loan agreement.

Next, be aware of the "rule of 78s." Some loan agreements stipulate that prepayments will be based on this tricky technique. A year has 12 months, and $12+11+10+9+\ldots+1=78$; somehow giving rise to the "rule of 78 s ." Assume that $\$ 100,000$ is borrowed for 12 months at $8 \%$ interest. The annual interest is $\$ 8,000$, but, if the interest attribution method is based on the "rule of 78 s ," it is assumed that $12 / 78$ of the total interest is attributable to the first month, $11 / 78$ to the next, and so forth. If the borrower desired to prepay the loan after just two months, that borrower would be very disappointed to learn that 23/78 $(12+11=23)$ of the total interest was due $(23 / 78 \mathrm{X} \$ 8,000=$ $\$ 2,359$ ). If the interest had been based simply on 2 of 12 months, the amount of interest would come to only $\$ 1,333(2 / 12 \mathrm{X} \$ 8,000=\$ 1,333)$.

Compounding is another concept that should be understood. So far in this text, I have assumed simple interest in the illustrated calculations. This merely means that Interest = Loan X Interest Rate X Time. But, at some point, it is fair to assume that the accumulated interest will also start to accrue interest -- some people call this "interest on the interest." In the next chapter, this will be examined in much more detail. For the moment, just take note that a loan agreement will address this by stating the frequency of compounding -- annually, quarterly, monthly, daily, and even continuously (which requires a bit of calculus to deduce). The narrower the frequency, the greater the amount of total interest that will be calculated.

One last trick is for the lender to take their interest up front. That is, the note may be issued with interest included in the face value. For example, $\$ 9,000$ may be borrowed, but a $\$ 10,000$ note is established (interest is not separately stated). At maturity, $\$ 10,000$ is repaid, representing a $\$ 9,000$ repayment of borrowed amounts and $\$ 1,000$ interest. Note that the lender may state that the interest rate is $10 \%(\$ 1,000$ out of $\$ 10,000)$, but the effective rate is much higher $(\$ 1,000$ for $\$ 9,000=$ $11.11 \%$ actual rate).


The journal entries for a note with interest included in face value (also known as a note issued at discount), are as follows:

| 1-1-X8 | Cash | 9,000 |  |
| :---: | :---: | :---: | :---: |
|  | Discount on Note Payable | 1,000 |  |
|  | Note Payable |  | 10,000 |
|  | To record note payable, issued at a discount |  |  |
| 12-31-x8 | Interest Expense | 1,000 |  |
|  | Discount on Note Payable |  | 1,000 |
|  | To record discount amortization |  |  |
|  |  |  |  |
|  | Note Payable | 10,000 |  |
|  | Cash |  | 10,000 |
|  | To record repayment of note |  |  |

As you examine the above journal entries, note that the $\$ 1,000$ difference is initially recorded as a discount on notes payable (on a balance sheet, this would be reported as contra liability; i.e., a $\$ 10,000$ notes payable minus a $\$ 1,000$ discount, for a net liability equal to the $\$ 9,000$ borrowed). Discount amortization transfers the discount to interest expense over the life of the loan. This means that the $\$ 1,000$ discount should be recorded as interest expense by debiting Interest Expense and crediting Discount on Notes Payable. In this way, the $\$ 10,000$ paid at maturity (credit to Cash) can be offset with an $\$ 10,000$ reduction in the Notes Payable account (debit).

Be aware that discount amortization occurs not only at the date of repayment, but also at the end of an accounting period (to record interest expense for the amount attributable to the period). If the preceding example had a maturity date at other than the December 31 year-end, the $\$ 1,000$ of interest expense would need to be recorded partially in one period and partially in another.

Now, each of the above points about unique interest calculations is to alert you to devices that lenders can use to tilt the benefit of the bargain to their advantage. As a result, statutes have increasingly required fuller disclosure ("truth in lending") and, in some cases, outright limited certain practices. The best I can tell you is to be careful, and understand the full economics of any borrowing you do. And, if you are lending, be sure to understand the laws that define fair practices and disclosures; a lender who overcharges interest or violates laws (applicable to the particular jurisdiction of the loan) can find themselves legally losing the right to collect amounts loaned. Both borrowers and lenders should be careful -- remember there is an old adage that goes "neither a borrower or lender be." Of course, there are plenty of loans, and you will likely be a party to one someday, so be careful.

