Amortization Expense, Schedules, and Tables

How Amortization Turns Asset Costs Into Expenses Or Pays Off Debt

Business Encyclopedia ISBN 978-1929500109

Amortization has two similar but different meanings in business.

The term amortization is best known in reference to paying off bank loans or other debt with a series of regular payments. The term also applies, however, to reducing the book value of intangible assets with a series of regular non-cash expenses

What is Amortization?

The term **amortization** has at least two meanings in business. Both refer to making regular payments over time. Amortization may refer to a stream of payments that accomplish either of the following:

- Reduce the book value of intangible assets.
- pay off loans or other debt.

It is interesting that the English word amortization has etymological roots in Middle English, Old French, and Latin words for "to kill" or "death" (*mortem* is Latin for *death*). It is not inappropriate to say that amortization "kills off" the loan or the asset value.

Explaining Amortization in Context

This article further defines and illustrates **amortization** and related terms as they appear in financial accounting and business generally. Terns such as the following have to do especially with the value of assets:

Amortization Expense	Depreciation Expense	Amortization Schedule
Intangible Assets	Tangible Assets	Indefinite Intangible Assets
Definite Tangible Assets	Debt Retirement	Amortization Table
Loan pay off Table	Income Statement	Balance Sheet

Contents

Related Topics

- For coverage of the similar accounting practice, depreciation, see the article Depreciation Expense.
- For more on the nature of expenses of various kinds, see Expense.

What is the Meaning of Amortization referring to Intangible Assets

How is Value Assigned to Intangible Assets?

Amortization refers to the accounting procedure that gradually reduces the **book value(carrying value**) of an intangible asset, over time, just as **depreciation expenses** reduce the book value of tangible assets. Asset amortization—like depreciation—is a non-cash expense that reduces reported income and thus creates tax savings for owners.

What Are the Major Intangible Asset Categories?

Accounting practice recognizes intangible assets as physical assets, with an expected useful life of a year or more. Different kinds of intangible assets may be named generally as **goodwill** or **intellectual property**, or more specifically such as the value of a brand name, artistic assets, franchise holdings, good customer relationships, a customer list, purchased use of patent rights, or the company's proprietary technology. Intangible assets, moreover, are either *indefinite* or *definite*:

- For **Indefinite intangible assets**, owners expect to own them as long as the company is in business. For indefinite intangibles, there is no "end of life" in view. Generally, owners cannot amortize intangible assets, although regulators encourage accountants to re-evaluate the asset's indefinite nature from time to time.
- **For definite intangle assets**, however, owners expect to hold them for a limited time, or else they have a service life or economic life with a definite end in view. Definite intangible assets are eligible for amortization.

How is Value Assigned to Intangible Assets?

The value of intangible assets in private industry can be genuine and large (see the article Branding, for instance). The company's accountants may be challenged, however, when trying to set the initial book value and amortizable life of intangible assets. The US Financial Accounting Standards Board (FASB) and comparable authorities in other countries provide detailed and specific guidance in this regard (e.g., FASB 141), which may refer to factors such as the recorded cost of purchased intangibles, expected impact on income, or the likely cost of creating another intangible asset of equal value today. Ultimately, however, these value judgments inevitably include a subjective component.

How are Intangible Assets Amortized in Accounting?

Amortization of (definite) assets in this sense in this sense is almost always applied using the straight-line method. For a definite asset with a 10-year life, for instance, the amortization expense each year would be one-tenth of its initial amortizable value. The timing and rates of amortization expenses charged are called the **amortization schedule** (rather than depreciation schedule).

Amortization expenses appear on financial statements like that used for depreciation expenses.

- Amortization appears on the **Income Statement** as an expense, like depreciation expense, usually under Operating Expenses, (or "Selling, General and Administrative Expenses).
- Amortization appears on the **Balance sheet**, accumulating from year to year to reduce asset book value, just as accumulated depreciation reduces the book value of tangible assets.
- Amortization is a non-cash expense, but it nevertheless impacts the **Statement of changes in financial position SCFP** (**Cash flow statement**).

  Under SCFP "Sources of Cash-Operating Activities," non-cash expenses including amortization and depreciation are "added back," (i.e., subtracted), so that the remaining total for Operating Activities represents only real cash inflow.

for tangible assets, the depreciable value is usually the recorded cost less residual value. Definite intangible assets, however, are usually regarded as having no residual value, and so depreciable value is normally the full book value. When firms purchase certain definite intangibles for use over a limited time (e.g., usage of patent rights), the useful life is the amortizable life. For other definite intangibles, however, amortizable life may be the asset's expected service life or economic life.

Contents | Page Top

What is the Meaning of Amortization as Debt Retirement?

What is an Amortization (Loan pay off) Table?

The term amortization is best known as a reference to paying off a debt with regular payments (as in "amortizing" a mortgage, or "loan amortization"). In such cases, the debt pay off schedule is rightly called the ***amortization schedule***.

What is the Nature of Amortization Payments?

Amortization payments for loan pay off, or debt retirement have two characteristics:

1. Payments are regular, i.e., borrowers pay at regular intervals, and all payments are the same (except sometimes for the final payment, which may differ from the other payments, to make the payment series total exactly cover what is due for interest and principal).
2. Each payment covers interest due on the outstanding balance since the previous payment and then retires a component of the outstanding balance.

How Do Lenders and Borrowers Calculate Amortization Payments?

Lenders and borrowers are interested, firstly, in calculating the periodic payment amount that will meet the above two characteristics.Lender and borrower approach this calculation already knowing the following:

P = principal, or the amount borrowed.
i = interest rate per period. For instance, when the annual interest rate is 8% and the number of periods per year is 12, then i = 6% / 12 = 0.5%.
n = the number of periods, or the total number of periodic payments to be made.

For instance, an individual might approach the bank asking for a 5-year $25,000 loan to purchase an automobile, when the annual interest rate for borrowing is 6.0%. If the loan is to to be set up with monthly payments, P, i, and n are as follows:

P = $25,000
i = 6% per yr / 12 payments per yr = 0.5% per payment period (month).
n = 5 Years * 12 payments per annum = 60

By convention, the symbol A stands for the monthly payment amount. The letter A is appropriate because the payment stream is—to the lender—an annuity. Using the symbols above, the formula for payment amount (A) is easy to implement in this form:

$A= (P * i) / (1 - (1+ i)^{-n}$

The borrower or lender wishing to find A from given starting values for P, i, and n, can turn to any of the many free "Loan Calculators" or "Amortization calculators" to be found on the internet. For the individual wishing to try out many different possible data sets, however, or to produce a loan pay off table (such as the example in the next section), it may be preferable to implement the formula in a spreadsheet of your own. When implementing this formula in an MS Excel spreadsheet, for example, it is helpful to set up first a small table in the spreadsheet, putting the values for i, P, and n in the rightmost column:

Symbol	Value Cell Name	Value
P	Principal	25,000
i	interest	0.50%
n	number	60

A small table created to facilitate calculation of A, the periodic amortization payment. Value cells in the right column have their names in the center column.

Then, assign names to the right-column value cells, using labels such as those shown in the center column (Value Cell Name). Then the Payment formula for A, above, can be written in Excel, as:

= (principal * interest) / (1 - (1 + interest)^-number)

Using the given example values, the monthly payment A is $483.32.

How is Loan pay off Summarized in an Amortization Table (Loan pay off Table)?

During the life of an amortized loan, borrowers may refer to a **loan pay off table** (**loan amortization table**), such as the following:

Pmt	Amt	Interest	Principal	Balance
0	0.00			25,000
1	483.32	125.00	358.32	24,642
2	483.32	123.21	360.11	24,282
3	483.32	121.41	361.91	23,920
4	483.32	119.60	363.72	23,556
5	483.32	117.78	365.54	23,190
⋮	⋮	⋮	⋮	⋮
58	483.32	7.18	476.14	959
59	483.32	4.80	478.52	481
60	483.32	2.40	480.92	0

Beginning and ending rows of a loan pay off table for the 60-month loan example above. The full table includes 60 rows, one for each payment.

The pay off table shows the progress of loan repayment after each periodic payment. Specifically, the table shows

- How much of each payment pays for the period's interest.
- How much of each payment pays for reducing the balance due on the principal.
- The remaining principal balance due after each periodic payment.

Such a table is of high interest to borrowers who may wish to pay off the loan completely at some point before the final period.

Contents | Page Top

By Marty Schmidt

Published by Solution Matrix Ltd, 292 Newbury St, Boston MA 02115 USA
Ph +1.347.748.1253 • About Us • Contact • Customer Satisfaction Guarantee • Your Privacy