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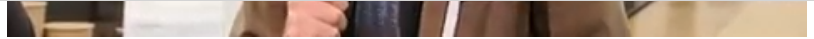
CORPORATE FINANCE **ACCOUNTING**

What Is an Amortization Schedule? How to Calculate With Formula

By AMY FONTINELLE Updated September 28, 2024

Reviewed by EBONY HOWARD

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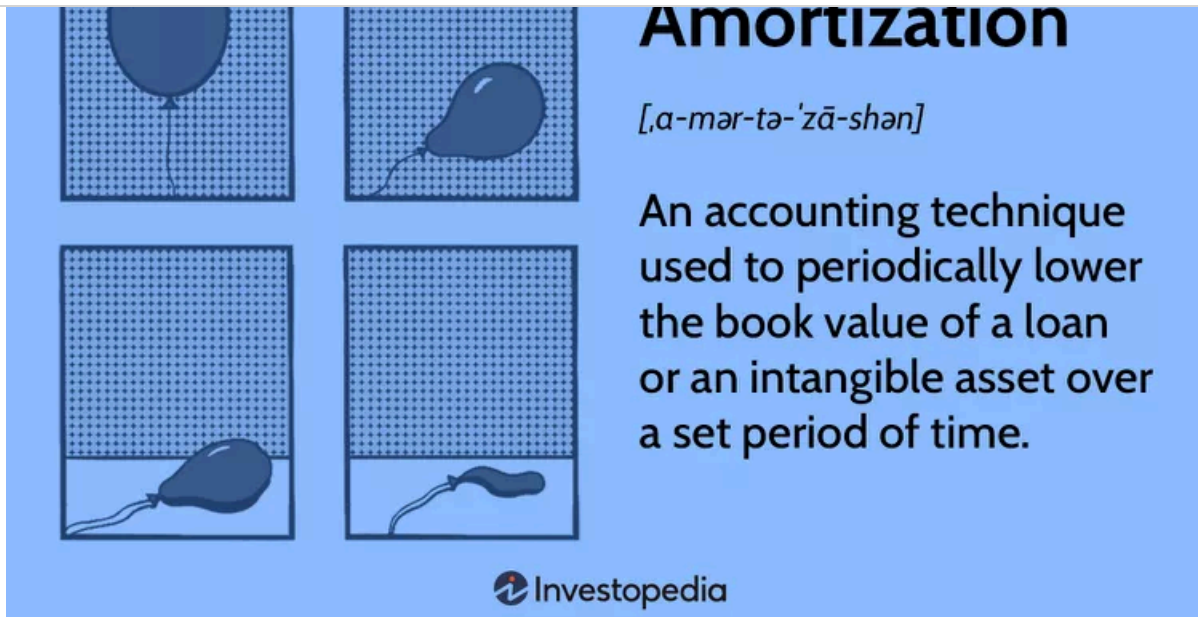
What Is Amortization?

Amortization is an accounting technique used to periodically lower the book value of a [loan](#) or an [intangible asset](#) over a set period of time. Concerning a loan, amortization focuses on spreading out loan payments over time. When applied to an asset, amortization is similar to [depreciation](#).

principle of generally accept

- Negative amortization may lower the accumulated value of an asset more money instead of less.
- Most accounting and spreadsheets calculate amortization automatically.

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Investopedia / Paige McLaughlin

Understanding Amortization

The term “amortization” refers to two situations. First, amortization is used in the process of paying off debt through regular [principal](#) and [interest](#) payments

installments of interest and principal over the [maturity date](#).

A loan amortization schedule represents [payments](#), showing the amount of each payment. A constant level payment until the loan is paid off at the end of its term. A higher percentage of the flat monthly payment goes toward interest early in the loan,

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Amortization can be calculated using spreadsheet software packages (see [calculators](#)). When entering into a loan in which payments must be made,

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[amortization](#). If, for example, you are expecting an inheritance or you get a set yearly bonus, you can use these tools to compare how applying that windfall to your debt can affect your loan's maturity date and your [interest cost](#) over the life of the loan.

FAST FACT

Accountants use amortization to spread out the costs of an asset over the useful lifetime of that asset.

How to Calculate Loan Amortization

The formula to calculate the monthly principal due on an amortized loan is as follows:

$$\text{Principal Payment} = \text{TMP} - \left(\text{OLB} \times \frac{\text{Interest Rate}}{12 \text{ Months}} \right)$$

may need to calculate the monthly
total monthly payment for any rea

n = Number of payments

Preparing Amortization Schedules

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the period. This amount is either the original amount of the loan or the amount carried over from the prior month (last month's ending loan balance equals this month's beginning loan balance).

- The **payment** is the monthly obligation calculated above. This will often remain constant over the term of the loan. Though you usually calculate the payment amount before calculating interest and principal, payment is equal to the sum of principal and interest.
- The **interest** portion is the amount of the payment that gets applied as interest expense. This is often calculated as the outstanding loan balance multiplied by the interest rate attributable to this period's portion of the rate. For example, if a payment is owed monthly, this interest rate may be calculated as 1/12 of the interest rate multiplied by the beginning balance. Always be mindful of how a lender calculates, applies, and compounds your [annual percentage rate](#) as this impacts your schedule. As the outstanding loan balance decreases over time, less interest should be charged each period.
- The **principal** portion is simply the left over amount of the payment. This is

Amortized loans feature a level payment. This makes them easy for individuals to budget their cash flow. They are also beneficial in that there is always a decreasing balance that the outstanding balance of the

The main drawback of amortized loans is that in the early stages of the loan, with most of each payment going toward

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Amortization of Intangible Assets

Amortization can also refer to the [amortization of intangibles](#). In this case, amortization is the process of expensing the cost of an intangible asset over the projected life of the asset. It measures the consumption of the [value of an intangible asset](#), such as goodwill, a patent, a trademark, or copyright.

Amortization is calculated [in a similar manner to depreciation](#)—which is used for tangible assets, such as equipment, buildings, vehicles, and other assets subject to physical wear and tear—and [depletion](#), which is used for natural resources.

When businesses amortize expenses over time, they help tie the cost of using an asset to the revenues that it generates in the same [accounting period](#), in accordance with [generally accepted accounting principles \(GAAP\)](#). For example, a company benefits from the use of a long-term asset over a number of years. Thus, it writes off the expense incrementally over the useful life of that asset.

Important: The IRS has schedules for the number of years in which to expense tangible assets for tax purposes.

Why Is Amortization Important?

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payment that consists of interest versus the portion that is principal. This can be useful for purposes such as deducting interest payments on income tax forms. It is also useful for planning to understand what a company's future debt balance will be after a series of payments have already been made.

Amortizing intangible assets is important because it can reduce a business's taxable income, and therefore its tax liability, while giving investors a better understanding of the company's true earnings. Intangible assets also have a finite useful life; over time, trademarks or patents may lose their value due to obsolescence. Amortizing intangible assets is also a reflection of how a company has "used up" the benefit of these assets.

Amortization vs. Depreciation

Amortization and depreciation are similar concepts, in that both attempt to capture the cost of holding an asset over time. The main difference between them, however, is that amortization refers to intangible assets, whereas depreciation refers to tangible assets. Examples of intangible assets include

amount as a net reduced book value

Finally, the calculation of each car comparing depreciation to the amortization is often amortized over their useful life. Tangible assets often use a much more broad set of calculation methods (i.e., [declining](#)

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Example of Amortization

Let's look at a four-year, \$30,000 auto loan at 3% interest. The monthly payment is going to be \$664.03. That is arrived at as follows:

$$\$30,000 \times \frac{0.0025 \times 1.0025^{48}}{(1.0025 \times 1.0025^{48}) - 1}$$

In the first month, \$75 of the \$664.03 monthly payment goes to interest.

$$\$30,000 \text{ loan balance} \times 3\% \text{ interest rate} \div 12 \text{ months}$$

The remaining \$589.03 goes toward the principal.

$$\$664.03 \text{ total monthly payment} - \$75 \text{ interest payment}$$

Period	Total Payment Due	Compi Due		
1	\$664.03	\$75		
2	\$664.03	\$73.53	\$590.50	\$28,820.47

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3	\$664.03	\$72.05	\$591.98	\$28,228.49
4	\$664.03	\$70.57	\$593.46	\$27,635.03
5	\$664.03	\$69.09	\$594.94	\$27,040.09
6	\$664.03	\$67.60	\$596.43	\$26,443.66
7	\$664.03	\$66.11	\$597.92	\$25,845.74
8	\$664.03	\$64.61	\$599.42	\$25,246.32
9	\$664.03	\$63.12	\$600.91	\$24,645.41
10	\$664.03	\$61.61	\$602.42	\$24,042.99
11	\$664.03	\$60.11	\$603.92	\$23,439.07
12	\$664.03	\$58.60	\$605.43	\$22,833.64
13	\$664.03	\$57.10	\$606.93	\$22,228.64
14	\$664.03	\$55.60	\$608.43	\$21,624.14
15	\$664.03	\$54.10	\$609.93	\$21,020.14
16	\$664.03	\$52.60	\$611.43	\$20,416.64
17	\$664.03	\$51.10	\$612.93	\$19,813.64
18	\$664.03	\$49.60	\$614.43	\$19,211.14
19	\$664.03	\$47.92	\$615.93	\$18,609.14
20	\$664.03	\$46.38	\$617.43	\$18,007.64
21	\$664.03	\$44.84	\$618.93	\$17,406.64
22	\$664.03	\$43.29	\$620.43	\$16,806.14

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23	\$664.03	\$41.74	\$622.29	\$16,073.15
24	\$664.03	\$40.18	\$623.85	\$15,449.30
25	\$664.03	\$38.62	\$625.41	\$14,823.89
26	\$664.03	\$37.06	\$626.97	\$14,196.92
27	\$664.03	\$35.49	\$628.54	\$13,568.38
28	\$664.03	\$33.92	\$630.11	\$12,938.28
29	\$664.03	\$32.35	\$631.68	\$12,306.59
30	\$664.03	\$30.77	\$633.26	\$11,673.33
31	\$664.03	\$29.18	\$634.85	\$11,038.48
32	\$664.03	\$27.60	\$636.43	\$10,402.05
33	\$664.03	\$26.02	\$638.01	\$9,767.88
34	\$664.03	\$24.44	\$639.59	\$9,133.71
35	\$664.03	\$22.86	\$641.17	\$8,499.54
36	\$664.03	\$21.28	\$642.75	\$7,865.37
37	\$664.03	\$19.70	\$644.33	\$7,231.20
38	\$664.03	\$18.12	\$645.91	\$6,597.03
39	\$664.03	\$16.37	\$647.49	\$5,962.86
40	\$664.03	\$14.76	\$649.07	\$5,328.69
41	\$664.03	\$13.13	\$650.65	\$4,694.52
42	\$664.03	\$11.51	\$652.23	\$4,060.35

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43	\$664.03	\$9.87	\$654.16	\$3,295.38
44	\$664.03	\$8.24	\$655.79	\$2,639.59
45	\$664.03	\$6.60	\$657.43	\$1,982.16
46	\$664.03	\$4.96	\$659.07	\$1,323.09
47	\$664.03	\$3.31	\$660.72	\$662.36
48	\$664.03	\$1.66	\$662.36	\$0.00

What Is Negative Amortization?

[Negative amortization](#) is when the size of a debt increases with each payment, even if you pay on time. This happens because the interest on the loan is greater than the amount of each payment. Negative amortization is particularly dangerous with credit cards, whose interest rates can be as high as 20% or even

and deduct the costs over the lifet

Why Is Amortization Impor

Amortization helps businesses and
costs over time. In the context of l
provide clarity into what portion of a loan payment consists of interest versus

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investors a better understanding of the company's true earnings.

How Do You Amortize a Loan?

A loan is amortized by determining the monthly payment due over the term of the loan. Next, you prepare an amortization schedule that clearly identifies what portion of each month's payment is attributable towards interest and what portion of each month's payment is attributable towards principal.

Since part of the payment will theoretically be applied to the outstanding principal balance, the amount of interest paid each month will decrease. Your payment should theoretically remain the same each month, which means more of your monthly payment will apply to principal, thereby paying down over time the amount you borrowed.

What Is a 30-Year Amortization Schedule?

A 30-year amortization schedule breaks down how much of a level payment on a loan goes toward either principal or interest over the course of 360 months

amortization is similar to depreciation
book value is reduced each month
benefit of an asset is received by a

Correction—July 17, 2024: This article
for the example when the final numbers were derived using the principal
payment formula. The article has been corrected to show the right formula.

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today.

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statements. [more](#)

Unit Cost: What It Is, 2 Typ

A unit cost is the total expenditure inci
unit of a particular product or service.

Accrued Liabilities: Overv

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Average revenue per unit (ARPU) measures the amount of money that a company earns for each customer. Learn how telecoms and media companies use ARPU. [more](#)


What Is a Bottom Line in Accounting, and Why Does It Matter?

The bottom line refers to a company's net income after all expenses are deducted from revenue. The figure appears at the bottom of an income statement. [more](#)

Earnings Management: Definition, Examples, and Types


Earnings management is the use of accounting techniques to make a company's financial reports look better. [more](#)

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 **Business**
manager using
laptop in a
warehouse with


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 **two people's
arms and hands
holding a tablet
and a table with a**

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 **What is a Good
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Modified Internal Rate of Return (MIRR) vs. Regular
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