How can I use the EFFECT function in Excel to calculate the effective annual interest rate for a given nominal interest rate and number of compounding periods?

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The EFFECT function in Excel is a useful tool for calculating the effective annual interest rate based on a given nominal interest rate and number of compounding periods. This function takes into account the compounding frequency and accurately calculates the annual interest rate that would yield the same result as the given nominal rate compounded over the specified periods. By utilizing the EFFECT function, users can easily determine the actual annual interest rate they will receive on their investment or loan, taking into consideration the compounding effect. This allows for more accurate financial planning and decision making.

This article describes the formula syntax and usage of the **EFFECT** function in Microsoft Excel.

Description

Returns the effective annual interest rate, given the nominal annual interest rate and the number of compounding periods per year.

Syntax

EFFECT(nominal_rate, npery)

The EFFECT function syntax has the following arguments:

Nominal_rate Required. The nominal interest rate.

Npery Required. The number of compounding periods per year.

Remarks

Npery is truncated to an integer.

If either argument is nonnumeric, EFFECT returns the #VALUE! error value.

If nominal_rate ≤ 0 or if npery < 1, EFFECT returns the #NUM! error value.

EFFECT is calculated as follows:

$$EFFECT = \left(1 + \frac{Nominal\_rate}{Npery}\right)^{Npery} - 1$$

EFFECT (nominal_rate,npery) is related to NOMINAL(effect_rate,npery) through effective_rate=(1+(nominal_rate/npery))*npery -1.