? How can I use the DISC function in Excel?

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The DISC function in Excel is a financial function that calculates the discount rate for a security based on its price, maturity date, and redemption value. It is often used to evaluate bond investments and determine the rate of return. To use the DISC function, simply input the necessary parameters and the function will provide the discount rate. This function can be useful for financial analysis and decision making. By utilizing the DISC function in Excel, users can efficiently and accurately evaluate potential investments.

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

Description

Returns the discount rate for a security.

Syntax

DISC(settlement, maturity, pr, redemption,)

Important: Dates should be entered by using the DATE function, or as results of other formulas or functions. For example, use DATE(2018,5,23) for the 23rd day of May, 2018. Problems can occur if dates are entered as text.

The DISC function syntax has the following arguments:

Settlement Required. The security's settlement date. The security settlement date is the date after the issue date when the security is traded to the buyer.

Maturity Required. The security's maturity date. The maturity date is the date when the security expires.

Pr Required. The security's price per $100 face value.

Redemption Required. The security's redemption value per $100 face value.

Basis Optional. The type of day count basis to use.

Basis	Day count basis
0 or omitted	US (NASD) 30/360
1	Actual/actual
2	Actual/360
3	Actual/365

Basis	Day count basis
4	European 30/360

Remarks

Microsoft Excel stores dates as sequential serial numbers so they can be used in calculations. By default, January 1, 1900 is serial number 1, and January 1, 2018 is serial number 43101 because it is 43,101 days after January 1, 1900.

The settlement date is the date a buyer purchases a coupon, such as a bond. The maturity date is the date when a coupon expires. For example, suppose a 30-year bond is issued on January 1, 2018, and is purchased by a buyer six months later. The issue date would be January 1, 2018, the settlement date would be July 1, 2018, and the maturity date would be January 1, 2048, 30 years after the January 1, 2018, issue date.

Settlement, maturity, and basis are truncated to integers.

If settlement or maturity is not a valid serial date number, DISC returns the #VALUE! error value.

If pr ≤ 0 or if redemption ≤ 0, DISC returns the #NUM! error value.

If basis < 0 or if basis > 4, DISC returns the #NUM! error value.

If settlement ≥ maturity, DISC returns the #NUM! error value.

DISC is calculated as follows:

$$DISC = \frac{redemption - par}{redemption} \times \frac{B}{DSM}$$

where:

B = number of days in a year, depending on the year basis.

DSM = number of days between settlement and maturity.