How can I calculate the yield on a Treasury Bill in Excel?

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July 1, 2024

Calculating the yield on a Treasury Bill in Excel can be done by using the YIELD function. This function takes into account the bill's face value, purchase price, maturity date, and settlement date to determine the annualized yield. By inputting these values into the YIELD function, Excel will calculate the yield in decimal form. This can then be converted to a percentage to determine the exact yield on the Treasury Bill. This method provides a quick and accurate way to calculate the yield on a Treasury Bill, allowing for efficient financial analysis and decision making.

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

Description

Returns the yield for a Treasury bill.

Syntax

TBILLYIELD(settlement, maturity, pr)

Important: Dates should be entered by using the DATE function, or as results of other formulas or functions. For example, use DATE(2008,5,23) for the 23rd day of May, 2008. Problems can occur if dates are entered as text.

The TBILLYIELD function syntax has the following arguments:

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

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

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

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, 2008 is serial number 39448 because it is 39,448 days after January 1, 1900.

Settlement and maturity are truncated to integers.

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

If pr ≤ 0, TBILLYIELD returns the #NUM! error value.

If settlement ≥ maturity, or if maturity is more than one year after settlement, TBILLYIELD returns the #NUM! error value.

TBILLYIELD is calculated as follows:

$$TBILLYIELD = \frac{100 - pr.}{pr.} \times \frac{360}{DSM}$$

where:

DSM = number of days from settlement to maturity, excluding any maturity date that is more than one calendar year after the settlement date.