

Calculation example for treasury bills

The calculation example below shows how the settlement amount is calculated for a treasury bill. The example is based on the document "Calculation principles for the Swedish Money- and Bond market" from the Swedish Securities Dealers Association on April 2, 2001.

Calculation of the settlement amount

For a treasury bill, the only cash flow occurs on the loan maturity date. The settlement amount is calculated by discounting the face value with the yield. The settlement amount is rounded off to the nearest krona.

Example

Trade date: March 13, 2023

Settlement date*: March 15, 2023

Maturity date: March 20, 2024

Day-count convention: act/360

Number of days to maturity, $d = 371$

Yield, $y = 3.498\%$

Face value: SEK 100 M

$$\begin{aligned} \text{Settlement amount} &= \text{Round} \left[\frac{\text{Face value}}{\left(1 + y \times \frac{d}{360}\right)}; 0 \right] \\ &= \frac{\text{SEK } 100 \text{ M}}{\left(1 + 0,03498 \cdot \frac{371}{360}\right)} = 96\,520\,547 \end{aligned}$$

* Settlement occurs two business days after the trade date.