Treasury Bills

Since September 9, 2006, results in Treasury Bill auctions are presented as simple interest based on the Actual/360 rule for counting days. This is done to simplify comparison with the REIBOR inter-bank market. Below is an example of price calculation from simple interest to price and from price back to simple interest. For comparison there is also an example showing calculation from price to yield using compounded interest.

Simple interest to price

$$P = \left[\frac{N}{1 + \left(r * \dfrac{d}{360} \right)} \right]$$

Where

	P	=	Price per 100 krona
	N	=	Nominal value = 100
	r	=	Simple interest
	d	=	Days to maturity, Act/360

Calculated example

Name: RIKV 07 0103
Settlement date: 3. October 2006

Parameters:

N = 100 (Price at maturity)
 r = 10.00%
d = 92

$$P = \left[\frac{100}{1 + \left(0.1 * \dfrac{92}{360} \right)} \right]$$

Result:

P = 97.508

Price to simple interest

$$r = \left(\frac{N}{P} - 1 \right) * \left(\frac{360}{d} \right)$$

$$r = \left(\frac{100}{97.508} - 1 \right) * \left(\frac{360}{92} \right)$$

$$r = 10.00\%$$

Price to yield using compounded interest

$$r^* = \left(\left(P^{\frac{1}{d/360}} \right) - 1 \right)$$

Where   P   =   Price/100
                r*   =   Yield, using compounded interest
                d   =   Days to maturity, Act/360

$$r^* = \left(\left(0{,}97508^{\frac{1}{92/360}} \right) - 1 \right)$$

$$r^* = 10{,}38\%$$