Repo Calculator

Description

*The **Repo Calculator** report calculates fair value repos based on either repo rate, spot or forward prices. The report will calculate the trade for each valid bond in the portfolio used.*

Settings

It is possible to specify the following settings in Repo Calculator

Settlement Date: Defines the date for when the first transaction occurs.

Maturity Date: The date for the maturity of the repo trade.

Calculation parameter: Specifies whether the fair value repo should calculate repo rate, spot or forward price.

Nominal: The nominal of the trade.

Spot price: Spot price of the underlying bond. Not used if spot price is the calculation parameter.

Forward price: Forward price of the underlying bond. Not used if forward price is the calculation parameter.

Repo rate (pct.): The trade’s repo rate. Not used if repo rate is the calculation parameter.

More settings

Basis: The trade’s basis. Default is Act360.

Report elements

The Repo Calculator report elements are described below.

Results: For each underlying bond the results are given in a row with 5 separate tables with the calculated parameter, the spot and forward price, nominal amounts at spot and maturity, and overall calculations.
Forward Price Adjusted is expressed relative to a nominal of 100 on the forward date whereas Forward price value is not.

NDA 1.5 01OCT40 (2)

RESULT

Output	
Forward_Price	98,2039
Forward_Price_Adjusted	98,2039

SPOT

Spot	
Spot price	99,0000
Accrued interest	0,1071
Dirty Price	99,1071

FORWARD

Forward	
Forward price	98,2039
Accrued interest	0,1000
Forward dirty price	98,3039

NOMINAL AMOUNTS

Nominal Amounts	
Spot	150,0000
Maturity	150,0000

CALCULATIONS

Calculations	
Spot provenu	148,6607
+repo interest	1,0522
-FV of payments	2,2570
- accrued interest	0,1500
= forward price value	147,3059

Payment schedules: Schedule with the payment dates including spot and maturity and in-between bond payments, both in nominal 100 and chosen nominal.

PAYMENT SCHEDULES

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27-01-2020	Nom.100	Value
Spot price	99,00	148,50
Accrued interest	0,11	0,16
Total spot price	99,11	148,66

01-04-2020	Nom.100	Value
Coupon Payment	0,38	0,56
Principal Payment	0,00	0,00

01-07-2020	Nom.100	Value
Coupon Payment	0,38	0,56
Principal Payment	0,00	0,00

01-10-2020	Nom.100	Value
Coupon Payment	0,38	0,56
Principal Payment	0,00	0,00

04-01-2021	Nom.100	Value
Coupon Payment	0,38	0,56
Principal Payment	0,00	0,00

25-01-2021	Nom.100	Value
Forward sale	98,20	147,31
Accrued interest	0,10	0,15

Input Data

The input are shown below for each bond to customise:

INPUT DATA

PAYMENTS

	2020_04_01	2020_07_01	2020_10_01	2021_01_04
NDA 1.5 01Oct40 (2)	0,0000	0,0000	0,0000	0,0000

INPUTS

	Spot_Price	Repo_Rate	Forward_Price	Forward_Price_Adjusted
NDA 1.5 01Oct40 (2)	99,0000	0,0070	98,2039	98,2039