PORTMAN
Nordic bond pricing - integration

How to get started

Vitec Aloc
Version 1.0
This document is based on the underlying system PORTMAN 7.27

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Contents

1. Background

This module enables you to import prices and key figures from Nordic Bond Pricing/NBP.
They can deliver files with various prices and key figures and these will be imported into
PORTMAN in a fully automated process.
With this module you can control what to import i.e. which key figures and which type of price
(bid/mid) and even import to a specific price set.
The import is based on PORTMAN's xml file import, which through the Import manager gives
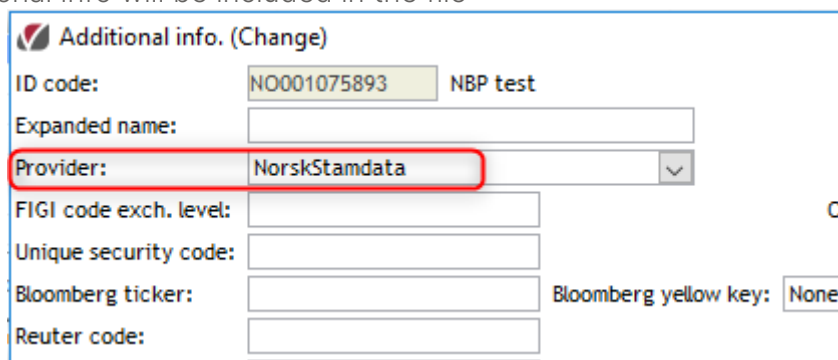you a great overview of the imports and the opportunity to handle errors.

2. Flow

2.1. Request file to NBP

The id codes for which bond data from NBP should be received is specified in a request file
uploaded to FTP at NBP. There are two ways of extracting these id codes from PORTMAN
depending on configuration:

1) **Use provider**
   With this configuration all bond id codes in PORTMAN marked with NorskStamdata
   under additional info will be included in the file

2) **Open positions**
   With this configuration the request file will contain all bond id codes for which a
   portfolio has an open position

The request file is generated at a time specified in configuration and afterwards uploaded
with a scheduled task.

The index file with benchmark index from NBP is not based on a request file but contains
information on indexes according to what has been agreed between the PORTMAN Client
and NBP.

2.2. Receiving and importing data

The files Prices.xml and NBPIndex.xml are delivered to FTP. On the PORTMAN server a
scheduled job or a batch job downloads the files from the FTP site, saves a copy (default
placement is "%ALOCSTI%\DOWNLOAD\HANDLED\), and places the files in a folder specified
in configuration.

PORTMAN then converts the files into xml files in a format supported by the PORTMAN xml import and the files are validated and, if possible, imported. The status of the import can be seen in the PORTMAN Import manager. For further description of Import manager and the possibilities there, have a look at the How to guide on this topic, the PORTMAN documentation or contact PORTMAN Support.

3. Prices

3.1. Import from NBP Price file

The price file contains different prices and the following can be imported into PORTMAN depending on configuration:
- Price Bid – bid price for the bond
- Price Eval – mid price for the bond

It is also specified which price set the file should be imported to (for further information on price sets and price hierarchies consult PORTMAN documentation or contact PORTMAN Support).

3.2. Import from NBP Index file

For benchmark indexes to be imported, basic data with the same ID code should be created in PORTMAN with type 'Benchmark index' prior to import. The index values for each benchmark are stored in the same way and same place as bond prices – and again the use of different price sets is available.

4. Key figures

4.1. Import from NBP Price file

The price file contains different key figures on bonds and they can be imported into PORTMAN depending on configuration:
- Yield – imported to key figures as type Yield 1 or type Yield to maturity (configuration). The yield value is multiplied by 100 before import to ensure correct scaling in PORTMAN
- Spread – imported to key figures as type Credit spread. The spread value is divided by 100 before import to ensure correct scaling in PORTMAN
- Duration – imported to key figures as type Duration 4
- Modified duration – imported to key figures as type Duration 3
- Credit duration – imported to key figures as type Duration 2

Example:

```
<table_PricingNordicBondPricingLatest>
<PricingNordicBondPricingLatest isin="NO0010758931">
<ISIN>NO0010758931</ISIN>
<PriceDate>2021-07-04</PriceDate>
<PriceBid>101.17709</PriceBid>
<PriceEval>101.19186</PriceEval>
<PriceAsk>101.20662</PriceAsk>
<Yield>0.00574</Yield>
<Spread>-2.88425</Spread>
<Duration>0.97808</Duration>
<ModifiedDuration>0.9800</ModifiedDuration>
<CreditDuration>0.9725</CreditDuration>
```

Key figures

Type	ID code	Security name	Date	Value
Duration 4	NO001075893	NBP test	04/07/2021	0,97808
Yield 1	NO001075893	NBP test	04/07/2021	0,57400
Duration 3	NO001075893	NBP test	04/07/2021	0,98000
Duration 2	NO001075893	NBP test	04/07/2021	0,97250
Credit spread	NO001075893	NBP test	04/07/2021	-0,02884

4.2. Import from NBP Index file

The NBPIndex file contains different key figures and the following can be imported into PORTMAN depending on configuration:

- AverageYield – imported to key figures as type Yield 1. The yield value is multiplied by 100 before import to ensure correct scaling in PORTMAN
- AverageSpread – imported to key figures as type Credit spread. The spread value is divided by 100 before import to ensure correct scaling in PORTMAN

Example:

```
<table_Index>
<Index indexid="4">
<Description>NBP Norwegian RM1 Floating Rate Index NOK</Description>
<LastUpdated>2017-12-06</LastUpdated>
<Name>NORM1FRN</Name>
<ProviderID>NBP</ProviderID>
<IndexID>4</IndexID>
<BaseCurrency>NOK</BaseCurrency>
<Hedged>False</Hedged>
<table_IndexValue>
<IndexValue date="2021-07-06" indexid="4">
<Date>2021-07-06</Date>
<IndexID>4</IndexID>
<AverageCreditDuration>2.4223797936</AverageCreditDuration>
<AverageModifiedDuration>0.1934756548</AverageModifiedDuration>
<AverageSpread>12.1201691705</AverageSpread>
<AverageYield>0.0031826448</AverageYield>
<DailyIndexReturn>0.0000572966</DailyIndexReturn>
<LastUpdated>2021-07-06</LastUpdated>
<MtdIndexReturn>0.0000830015</MtdIndexReturn>
<Value>110.0969284251</Value>
<YtdIndexReturn>0.0040106833</YtdIndexReturn>
```

Type	ID code	Security name	Date	Value
Yield 1	NORM1FRN	tst af NBP-integr	06/07/2021	0,31826
Credit spread	NORM1FRN	tst af NBP-integr	06/07/2021	0,12120

5. Configurations

There are several configurations regarding this functionality. They are described below. Contact PORTMAN Support for changes to your current setup.

Config	Description
bonddatafile_searchtext	Search pattern for the name on the import file with bond prices, wild cards allowed, i.e. price*.xml
benchmarkdatafile_searchtext	Search pattern for the name of the import file with benchmark data, wild cards allowed, i.e. NBPindex.xml
orderfilepath	Destination path and file name for the request file to NBP, i.e. C:\ALOC\DATA\FROMPORTMAN\isin_orderfile.txt
scanforimportfileminutes	How often the import folder is checked for files to import. Number in minutes, minimum 1, default is 5
importpath	Destination path for the import files, i.e. C:\ALOC\DATA\TOPORTMAN\
batchtime	Timestamp for generating request file, i.e. 18:15:00
useprovider	Related to the request/order file • If set to 1 (true) request will be made for all id codes for which Provider is set to NorskStamdata in additional basic data • If set to 0 (false) request will be made for all id codes for which a portfolio has an open position
bonddataimportprices	• If set to 1 (true) bond prices will be imported • If set to 0 (false) bond prices will not be imported

bonddataimportkeyfigures	- If set to 1 (true) key figures for bonds will be imported - If set to 0 (false) key figures for bonds will not be imported
bonddatapriceset	Determines which price set the prices are imported to. Can be Default or a number (0-9)
bonddatapricetype	- If set to Bid the PriceBid value from the bond data file is used - If set to Mid the PriceEval value from the bond data file is used
bonddatakeyfiguresspread	- If set to 1 (true) the Spread value will be imported from the bond data file - If set to 0 (false) the Spread value will not be imported from the bond data file
bonddatakeyfigureyield	- If set to 1 (true) the Yield value will be imported from the bond data file - If set to 0 (false) the Yield value will not be imported from the bond data file
bonddatakeyfigureyieldtype	- If set to YI1 the value is imported as type Yield 1 from the bond data file - If set to YM1 the value is imported as type Yield to maturities from the bond data file
bonddatakeyfigureduration	- If set to 1 (true) the Duration value will be imported from the bond data file - If set to 0 (false) the Duration value will not be imported from the bond data file
bonddatakeyfiguremodifiedduration	- If set to 1 (true) the ModifiedDuration value will be imported from the bond data file - If set to 0 (false) the ModifiedDuration value will not be imported from the bond data file

bonddatakeyfigurecreditduration	• If set to 1 (true) the CreditDuration value will be imported from the bond data file • If set to 0 (false) the CreditDuration value will not be imported from the bond data file
benchmarkdataimportprices	• If set to 1 (true) benchmark data will be imported from the benchmark/index file • If set to 0 (false) benchmark data will not be imported from the benchmark/index file
benchmarkdataimportkeyfigures	• If set to 1 (true) key figures will be imported from the benchmark/index file • If set to 0 (false) key figures will not be imported from the benchmark/index file
benchmarkdatapriceset	• Determines which price set the index values are imported to. Can be Default or a number (0-9)
benchmarkdatakeyfigureaveragespread	• If set to 1 (true) the AverageSpread value will be imported from the benchmark file • If set to 0 (false) AverageSpread will not be imported from the benchmark file
benchmarkdatakeyfigureaverageyield	• If set to 1 (true) the AverageYield value will be imported from the benchmark file • If set to 0 (false) AverageYield will not be imported from the benchmark file