

FX Hedge Ratio

Description

*The **FX Hedge Ratio** report compares a company's cash flows from its active FX derivative hedges to an estimate of its future FX exposure.*

Settings

It is possible to specify the following settings in FX Hedge Ratio:

Date: Report date of the report (set to last business day as default)

Currency: Specifies the currency of the figures in the grid "Future hedge flow".

Hedge ratio currency: Shows all FX derivative hedges and estimated FX exposures that are in the same currency as the one selected in "Hedge ratio currency".

Advanced Settings

Report Settings: "Show hedges as line" changes "Hedged CCY lower" and "Hedge CCY upper" in the topmost graph from bars to lines.

"Flow from currency cross", the FX derivative hedges must match the currency cross of "Hedge ratio currency" – "Currency" or vice versa. This does not apply for the estimated FX exposure.

"Time bucket" defines whether the analysis will be displayed in "End of Month" or "End of Quarter" buckets. "End of Month" defines the first bucket as the period from the reporting date to the end of the month, and the following buckets running from month end to month end. "End of Quarter" is defined in the same way.

Option Scenarios: Inserting an FX rate into "Scenario rate #1" or "Scenario rate #2" will show the amount hedged at the given FX rate instead of assuming all options will be exercised.

If "Scenario rate #1" and "Scenario rate #2" are left blank, two data series will be shown in the graphs and grids, a lower and upper series. The first series displays the lowest amount that might be hedged. The second series displays the highest. These two series will be identical for a portfolio of FX forwards since the hedged amount is known with certainty. If the portfolio includes options then the series make the assumption that all options will be exercised.

Historic Flow: By default, the Cash tab on the left side of Analytics is checked. This will generate an estimate of the future FX exposure based on the company's historical international payments, see section "Underlying data for FX Hedge Ratio" below.

By checking "Include historic hedge flow", the estimate based on historical international payments will be ignored. The estimate will instead be generated based on the historical hedges of the company. If company ABC had a payment of +1M USD from an FX forward in May 2016, then the report assumes the forward was hedging a payment of -1M USD in the same month. The estimated exposure for May 2017 will then be -1M USD.

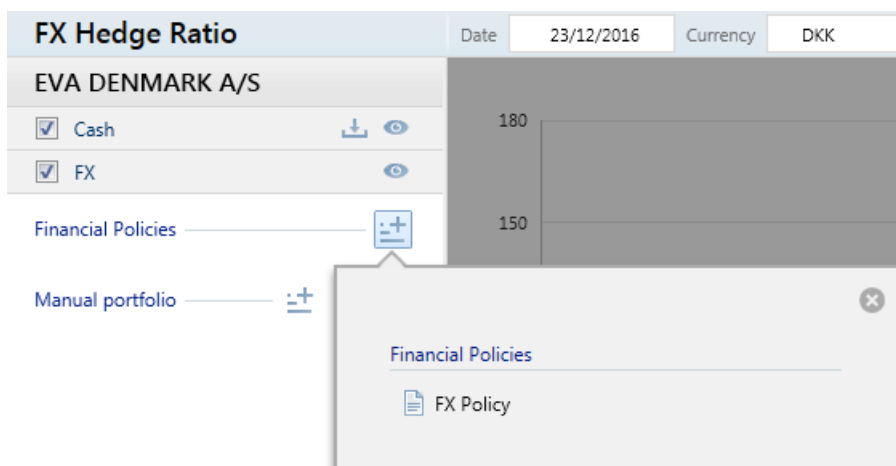
“Include also” has two options, “None” and “Past CN Flow”. With “None” the estimated FX exposure will only be based on historical hedges. With “Past CN Flow”, the past payments from Corporate Netbank are also included in the estimated FX exposure.

By default the “Start date” will be blank. The estimated FX exposure will then be based on all hedges that expired on the report date and the 365 previous days. By adding a “Start date” only hedges that matured after that date will be included.

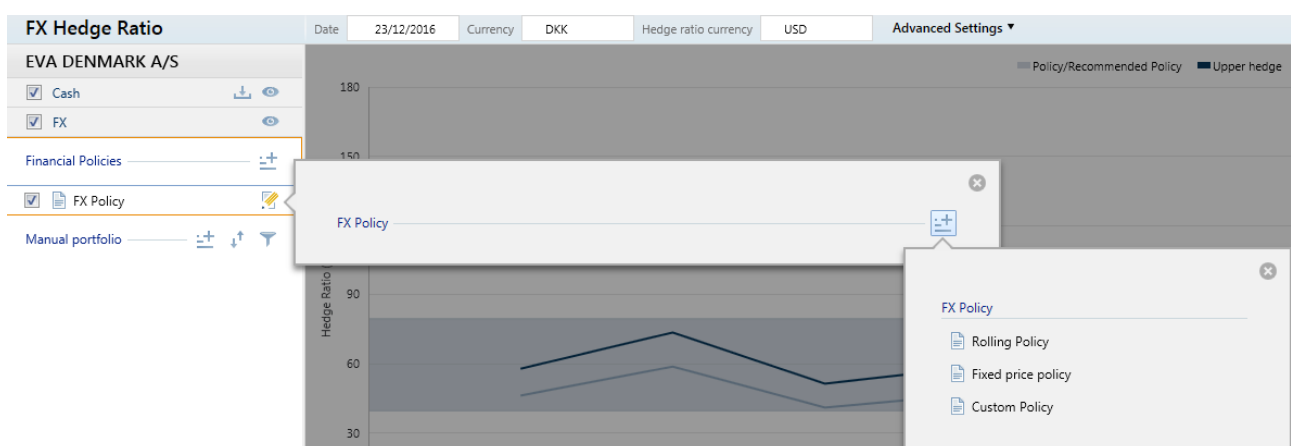
“Overwrite historic flow” allows the estimated FX exposure to be easily overwritten for a given month. Adding a Commercial Cashflow will replace the estimated FX exposure for that month with the Commercial Cashflow.

FX Policy

The user has the option to add an FX policy to the analysis. This can either be a policy recommendation or the company’s current policy. Adding an FX policy will be reflected in the graph and the grids of the report.



Adding an FX policy.



There are three ways of adding an FX policy. Using “Rolling Policy” or “Fixed Price Policy” will create a policy based on characteristics of the customer. “Custom Policy” enables the user to specify the policy manually.

Rolling Policy: Should be used when the customer’s prices are order based.

Nordea Analytics

Currency:

Ability to adjust prices based on FX movements:

Forecast accuracy:

Cyclical sensitivity:

Ability to compensate for currency movements through price changes

	Low	Medium	High
High Forecast accuracy	Non-Cyclical		
	Rolling 12 months 50-90%	Rolling 6-12 months 50-90%	0-24 months 0-75%*
	Rolling 13-24 months 50-75%	Rolling 13-24 months 50-75%*	
	Cyclical		
Rolling 12 months 50-90%	Rolling 6-12 months 50-90%	0-24 months 0-50%*	
Rolling 13-24 months 25-50%	Rolling 13-24 months 25-50%*		
Low forecast accuracy	Non-Cyclical		
	Rolling 12 months 40-75%	Rolling 6-12 months 40-75%	0-24 months 0-50%*
	Rolling 13-24 months 40-60%	Rolling 13-24 months 40-60%*	
	Cyclical		Unhedged exposure
Rolling 12 months 40-75%	Rolling 6-12 months 40-75%		
Rolling 13-24 months 20-40%	Rolling 13-24 months 20-40%*		

*Strategic hedging: Applied when a currency is considered advantageous from a business perspective

Add

“Currency” specifies whether all currencies or only a subset of them should be included in the policy.

The suggested policy depends on the following three factors. 1) How easily the customer can adjust prices based on movements in FX rates, 2) the accuracy of the forecasts and 3) cyclical sensitivity.

FX Hedge Ratio Date: 23/12/2016 Currency: DKK Hedge ratio currency: USD Advanced Settings

EVA DENMARK A/S

Cash FX

Financial Policies

FX Policy

Manual portfolio

180

150

FX Policy

Hedge Horizon: All


Hedge Level: 50% to 90%

50% to 75%

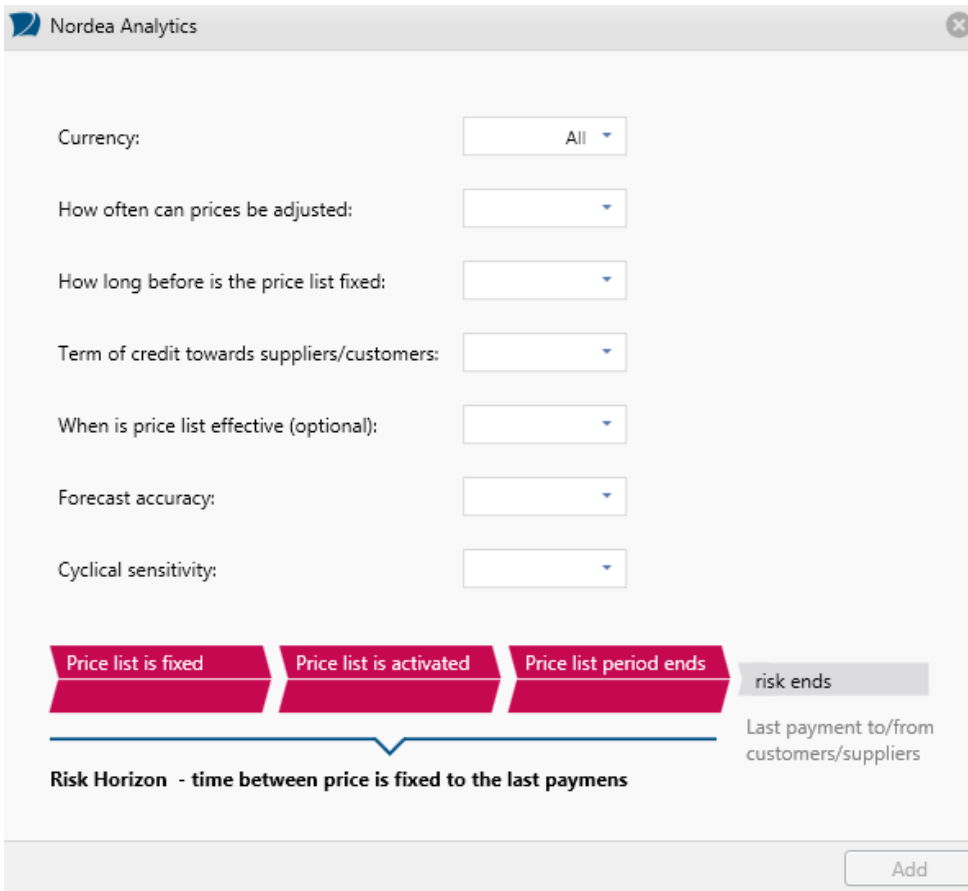
Info: Rolling policy, No fixed price list, Medium ability to compensate for currency movements

+Add Horizon

Change

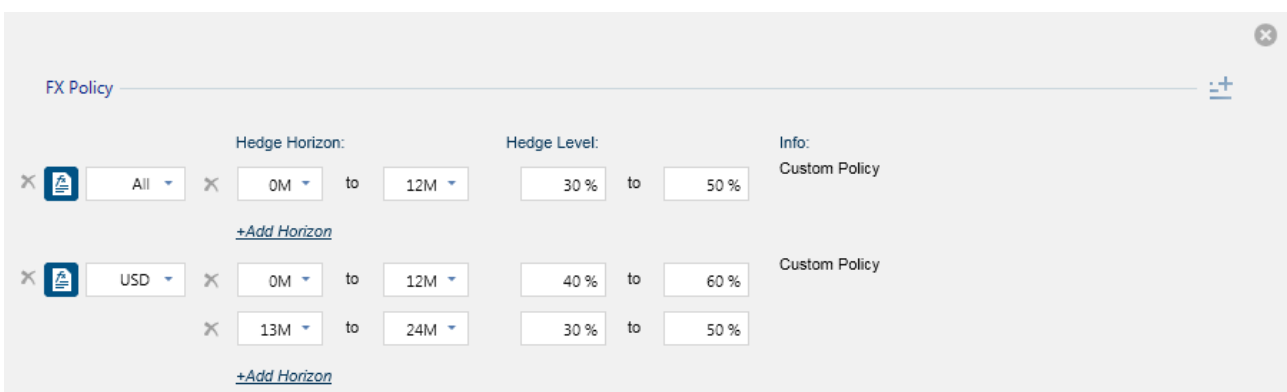
The details of the suggested policy can be seen and changed by pressing .

Fixed Price Policy: Should be used when a customer has a fixed price list for a period of time.



“Currency” specifies whether all currencies or only a subset of them should be included in the policy. The suggested policy depends on six factors. 1) How often can the price list be changed, 2) how long time before a new price list takes effect, 3) how long credit are suppliers/customers given before payments are due, 4) when the next price list will be take effect (optional), 5) the accuracy of the customer’s forecasts and 6) the customer’s cyclical sensitivity.

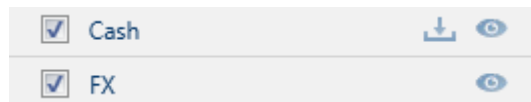
Custom Policy: Should be used when a specific policy is required or when the customer already has a policy in place.



The Custom Policy allows the user to specify the exact details of the policy. For example, the above policy specifies that cash flows should be hedged between 30% and 50% from now and 12 months forward. USD cash flows should follow a different policy. From now and 12 months forward they should be hedged between 40% and 60% and from 13 months out till 24 months they should be hedged between 30% and 50%. This can be extended to any number of currencies in order to better reflect each customer’s ability to react to FX movements.

Underlying data for FX Hedge Ratio


The underlying data for the CFaR Time Slicer report is described below

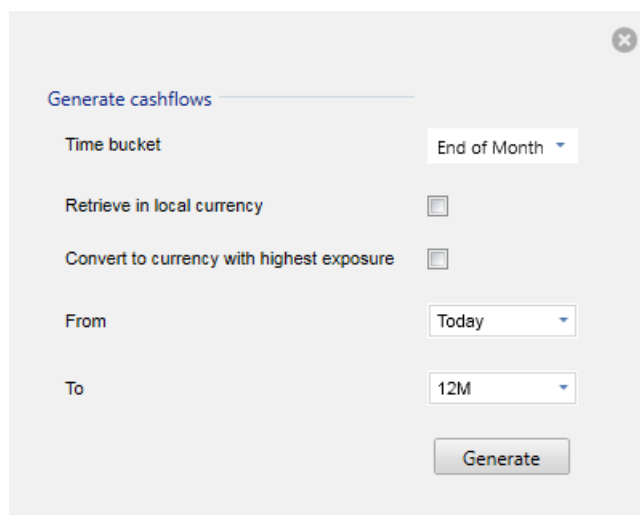



The “FX” tab contains the active FX derivative hedge of the company for the specified report date “Date”.

The “Cash” tab contains an estimate of the company’s future FX exposure. This estimate is generated based on the historical international payments of the company. A payment is an international payment if 1) it crosses the border between two countries or 2) it does not cross the border, but the sender/recipient uses a bank in a different country. For the estimate, the report date and the 365 previous days of international payments are used. These payments are aggregated per currency and month and then rolled one year forward.

Example, company ABC on reporting date 10/11/2016. ABC’s USD payments could show that ABC in May 2016 received 2.3M USD and paid 1.1M. The net amount, received 1.2M USD, is then rolled one year forward to May 2017. The estimated USD exposure for May 2017 is then +1.2M USD. This process is done for all currencies and each month.

Pressing  and “Generate” copies the estimate into a manual portfolio.



Pressing  opens the above window which enables the estimate to be adjusted to suit the analysis.

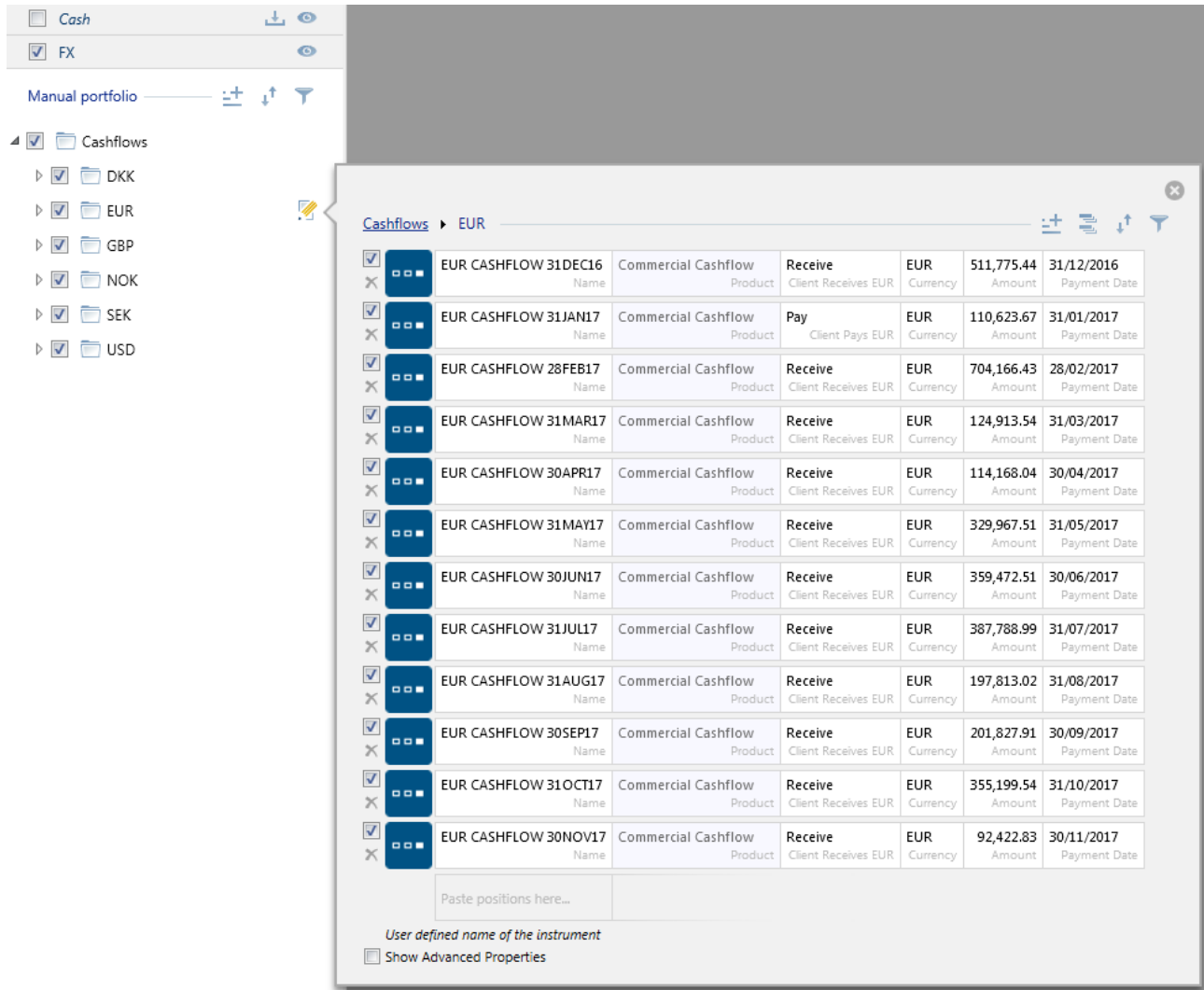
“Time bucket” defines whether the estimated FX exposure will be grouped in “End of Month” or “End of Quarter” buckets. “End of Month” defines the first bucket as the period from the reporting date to the end of the month, and the following buckets running from month end to month end.

“End of Month” is defined in the same way.

“Retrieve in local currency” specifies how the currency of the payment is determined. Unchecked results in the direct FX exposure. The currency of each payment is unchanged. Checked results in the indirect FX exposure. The currency of each payment is converted to the local currency of the country that the payment flows into or out of.

When “Convert to currency with highest exposure” is checked, all payments are converted into a single currency. This currency will be the currency contributing the most to the total exposure.

“From” and “To” define the period of the estimated FX exposure.



The screenshot displays the 'Manual portfolio' section for 'Cashflows' with a filter for 'EUR'. The main table lists 14 cashflow entries with the following columns: Name, Product, Client, Currency, Amount, and Payment Date.

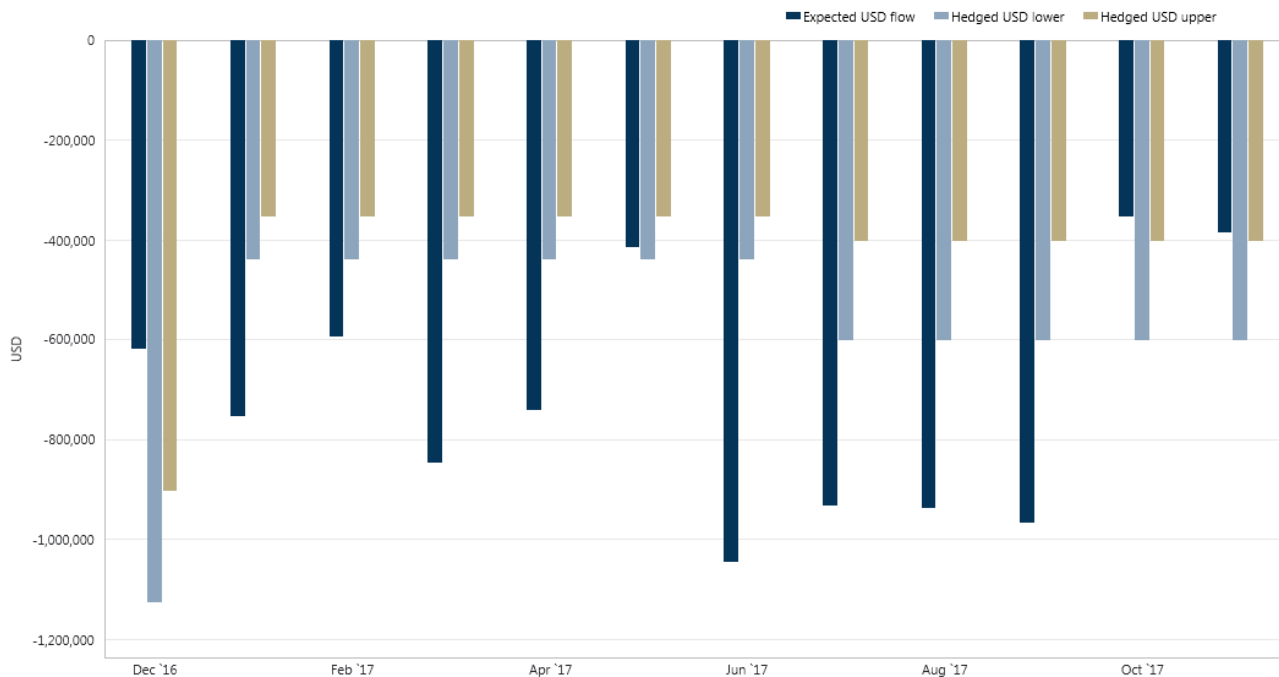
Name	Product	Client	Currency	Amount	Payment Date
EUR CASHFLOW 31DEC16	Commercial Cashflow	Receive Client Receives EUR	EUR	511,775.44	31/12/2016
EUR CASHFLOW 31JAN17	Commercial Cashflow	Pay Client Pays EUR	EUR	110,623.67	31/01/2017
EUR CASHFLOW 28FEB17	Commercial Cashflow	Receive Client Receives EUR	EUR	704,166.43	28/02/2017
EUR CASHFLOW 31MAR17	Commercial Cashflow	Receive Client Receives EUR	EUR	124,913.54	31/03/2017
EUR CASHFLOW 30APR17	Commercial Cashflow	Receive Client Receives EUR	EUR	114,168.04	30/04/2017
EUR CASHFLOW 31MAY17	Commercial Cashflow	Receive Client Receives EUR	EUR	329,967.51	31/05/2017
EUR CASHFLOW 30JUN17	Commercial Cashflow	Receive Client Receives EUR	EUR	359,472.51	30/06/2017
EUR CASHFLOW 31JUL17	Commercial Cashflow	Receive Client Receives EUR	EUR	387,788.99	31/07/2017
EUR CASHFLOW 31AUG17	Commercial Cashflow	Receive Client Receives EUR	EUR	197,813.02	31/08/2017
EUR CASHFLOW 30SEP17	Commercial Cashflow	Receive Client Receives EUR	EUR	201,827.91	30/09/2017
EUR CASHFLOW 31OCT17	Commercial Cashflow	Receive Client Receives EUR	EUR	355,199.54	31/10/2017
EUR CASHFLOW 30NOV17	Commercial Cashflow	Receive Client Receives EUR	EUR	92,422.83	30/11/2017

Below the table, there is a 'Paste positions here...' input field and a checkbox for 'Show Advanced Properties'.

Pressing “Generate” will create a manual portfolio with the estimated future exposure. Opening the manual portfolio enables the estimated cash flows to be adjusted based on company-specific knowledge.

Report elements

The FX Hedge Ratio report elements are described below.



All figures in the bar graph above are for the currency defined in “Hedge ratio currency” and the graph displays three series. 1) “Expected CCY flow” is the estimated FX exposure. 2) “Hedged CCY lower” is the hedged amount from FX forwards and put options. 3) “Hedged CCY upper” is the hedged amount from FX forwards and call options.

The “Hedged CCY lower” and “Hedged CCY upper” series will be identical for a portfolio of FX forwards since the hedged amount is known with certainty. If the portfolio includes FX options, then the “Hedged CCY lower” assumes all put options will be exercised and “Hedged CCY upper” assumes all call options will be exercised.

Hedge Ratio (USD)

	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Total
Upper hedge ratio (%)	146.2	46.6	59.2	41.4	47.3	84.9	33.5	43.0	42.7	41.5	113.8	104.6	91.1
Lower hedge ratio (%)	182.7	58.3	74.0	51.8	59.1	106.1	41.9	64.5	64.1	62.2	170.7	157.0	127.9

For each time bucket, the grid above displays the ratio between the estimated FX exposure and the “Hedged CCY upper” and “Hedged CCY lower” respectively.

Future flow (USD)

	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17
Upper hedge	900,000	350,000	350,000	350,000	350,000	350,000	350,000	400,000	400,000	400,000	400,000
Lower hedge	1,125,000	437,500	437,500	437,500	437,500	437,500	437,500	600,000	600,000	600,000	600,000
Expected cash flow	-660,137	-750,737	-591,366	-844,716	-739,646	-412,176	-1,043,758	-930,591	-936,495	-964,738	-351,509

For each time bucket, the grid above displays the cash flow received from FX forwards and call options (Upper hedge), the cash flows from FX forwards and put options (Lower hedge) and the estimated FX exposure (Expected cash flow). It is assumed all options will be exercised.

Future hedge flow

	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17
DKK (Upper hedge)	-6,002,650	-2,268,125	-2,268,125	-2,268,125	-2,268,125	-2,268,125	-2,268,125	-2,720,000	-2,720,000	-2,720,000
DKK (Lower hedge)	-7,503,313	-2,835,156	-2,835,156	-2,835,156	-2,835,156	-2,835,156	-2,835,156	-4,080,000	-4,080,000	-4,080,000

The grid above displays the hedge data from grid "Future flow (USD)". The only difference is the values have been converted to the currency specified in "Currency".

Past flow in monthly buckets

	31-12-2015	31-01-2016	29-02-2016	31-03-2016	30-04-2016	31-05-2016	30-06-2016	31-07-2016	31-08-2016	30-09-2016	31-10-2016	30-11-2016	Total
AED	0	0	0	0	0	0	31,033	0	0	0	4,929	0	35,962
CHF	0	0	0	0	0	0	4,765	0	0	0	0	0	4,765
DKK	-332,985	-306,457	-188,925	-92,054	-185,175	-217,029	-74,737	-38,858	-82,475	-203,681	-844,551	-245,696	-2,812,623
EUR	498,717	-110,624	704,166	124,914	114,168	329,968	359,473	387,789	197,813	201,828	355,200	92,423	3,255,834
GBP	0	0	49,312	25,000	0	0	41,000	647	17,000	21,000	0	-156	153,804
NOK	5,000,000	1,998,507	10,499,344	4,000,000	7,299,842	-250	5,999,411	2,499,624	2,999,680	2,599,474	2,592,056	1,999,756	47,487,444
SEK	7,977,223	4,981,770	4,997,348	1,977,172	5,977,375	-602,077	4,000,602	4,032,064	993,684	2,699,190	3,196,608	2,486,348	42,717,306
USD	-660,137	-750,737	-591,366	-844,716	-739,646	-412,176	-1,043,758	-930,591	-936,495	-964,738	-351,509	-382,254	-8,608,121

The grid above displays the data used to generate the estimated FX exposure, after it has been grouped by currency and month.