

INTELLECT TREASURY MONEY MARKET MODULE FRONT OFFICE

USER MANUAL Version : 1.30

Document Classification: Internal

COPYRIGHT NOTICE

Copyright © 2015 Intellect Design Arena Limited
All rights reserved.

These materials are confidential and proprietary to Intellect Design Arena Limited and no part of these materials should be reproduced, published, transmitted or distributed in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or stored in any information storage or retrieval system of any nature nor should the materials be disclosed to third parties without the prior express written authorization of Intellect Design Arena Limited

| | |
|--|-----|
| 3.8.3 1.1 Product Features | 3 |
| 1.2 Acronyms/Abbreviations /Common Terminologies:..... | 4 |
| 1.3 Icons & Short Cuts | 5 |
| 1.4 Toolbar/Menu bar Management/Shortcuts..... | 12 |
| 2.1 Deal Capture..... | 16 |
| 2.2 Other Deal Entry Screen..... | 61 |
| 3.1 Common Blotter Features..... | 76 |
| 3.1.1 User Preferences in Blotters..... | 76 |
| 3.2 Deal Blotter..... | 79 |
| 3.3 Call Notice Blotter..... | 83 |
| 3.4 Risk Sheet..... | 84 |
| 3.5 Reval Page..... | 94 |
| 3.6 SALES DESK..... | 97 |
| 3.7 Counter-Party Limits..... | 102 |
| 3.8 Deal Query..... | 105 |
| 4.1 Interest Basis..... | 108 |
| 4.2 Holiday Logic..... | 108 |

1.0 Introduction

The document is intended to be used by the business team of MM Front Office to know the features available in the module and on how to navigate through them.

It can interface with multiple systems to book trades, send messages, aggregate treasury positions, post accounting entries, perform risk monitoring and provide MIS. It has Limits monitoring check that provides configurable override messages. Maker-checker control is provided for all changes to data.

2.2.5.2 This Application supports a comprehensive range of Money Market instruments:

~~2.2.5.3~~ 2.2.5.3

Deposits / Borrowings (Call, Notice, Term)

- ▮ Placement / Lending (Call, Notice, Term)
- ▮ Discounted Deposits
- ▮ Discounted Placements
- ▮ CBLO Transaction (Collateralized Borrowing Lending Obligation)
- ▮ LAF (Liquidity Adjustment Facility)
- ▮ Certificate of Deposit
- ▮ Funding Swap

~~3.8.3~~ 1.1 Product Features

Following are the features available

- ▮ Online interfaces with major Trading platforms/ Market data sources (Reuters, Bloomberg)
- ▮ Transaction processing done through STP
- ▮ Manual Deal capture
- ▮ Template based Deal Booking.
- ▮ Bulk trade Upload
- ▮ Pre-trade Analysis.
- ▮ Auto Squaring
- ▮ Cash Flow Adjustments
- ▮ Modifying, Cancelling, and Reversing the Deal.
- ▮ Configurable decision support Blotters
 - ▮ Deal Blotter

- ▮ Risk Sheet
 - ▮ Call Notice Blotter
 - ▮ CashFlow Query
 - ▮ Counter-Party Limits
 - ▮ Reval Page
 - ▮ Workflow
 - ▮ Sales workflow blotter
 - ▮ Online Limit Management
 - ▮ Audit Requirements and traceability
 - ▮ Concurrent Audit
 - ▮ Confirmation Matching
 - ▮ Deal Version compare
 - ▮ Positions and P/L management
 - ▮ Online & EOD Reports

1.2 Acronyms/Abbreviations /Common Terminologies:

| Acronym | Name |
|-------------------|---|
| MM | Money Market |
| FO | Front Office |
| BO | Back Office |
| FO NEW | Front office New deal(Saved) |
| FO AUTH | Front office Authorized deal |
| FO CANC | Front office cancelled deal |
| FO MOD | Front office Modified deal |
| FO SendBack | Front office Authorized deal sent back in Back office |
| Cust B2B | Customer back to back |
| Int Basis | Interest Basis |
| Total Intr Amount | Total interest amount |

| | |
|-------------------|---|
| Comp.Freq.Ind | Compound frequency indicator |
| Txn Dt | Transaction date |
| Amort Type | Amortization type |
| Amort Amount | Amortization amount |
| Amort Freq | Amortization frequency |
| Treas Sprd Ovr BM | Treasury Spread over bench mark |
| Cust Sprd Ovr BM | Customer Spread over bench mark |
| Cshflw | Cash flow |
| Trsy Rt | Treasury rate |
| Cust Rt | Customer Rate |
| Intr.P/R | Interest paid or received |
| Ext.Ref.No | External reference number |
| S&Release | Save and Release |
| FS | Factor of sensitivity |
| DF | Discount factor |
| PV | Present value |
| MTM | Mark to market |
| MTD | Month to date |
| CFWD.Cashflow | Carry forward cashflow |
| BV.Cashflow | Back valued cashflow |
| Liability No | List of customers are grouped into base number or liability number. |




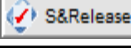
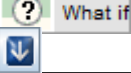
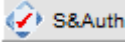











1.3 Icons & Short Cuts


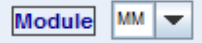
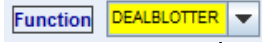
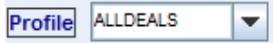

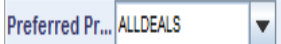






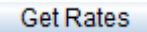
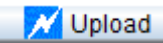

The Quick action tool bar is provided for the user to have an easy access of screens through keyboard.

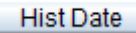
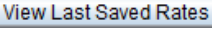

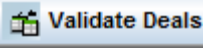
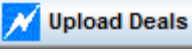
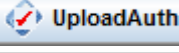
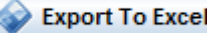
1.3.1 Key Deal Shortcuts

| Key | Operation | Description |
|----------------|--------------------------------------|---|
| SHIFT + INSERT | Paste a copied deal reference number | To paste a deal number on a Deal capture screen and retrieve the deal details on pressing <ENTER> |
| CTRL+INSERT | Copy and Insert | To copy and Insert a deal |

1.3.2 Key Icons

| Icons | Operation | Description |
|---|------------------|---|
|  | Clear | Clear the data from the user input fields in the Deal Capture window. |
|  | Save | To Save the Deal Details |
|  | Delete | To Delete an existing Deal |
|  | Save & Authorize | To Save and Authorize a transaction |
|  | What if | To view Pre-deal Analytics before booking the actual deal |
|  | Save & Authorize | To Save & Authorize a deal at one go |
|  | View Risk | To view the risk impact of the trade on the existing cashflows |
|  | Refresh | Manually refresh the data |
|  | Print | To print the blotter deals as displayed |
|  | Save | Spool the deals currently displayed in the blotter in an Excel sheet in the desired location |
|  | Preferences | Preference creation and settings |
|  | Copy | Copies the deal details from Blotter to the Deal Capture window |
|  | Exit | Exit the window |
|  | Help | Access the help page related to the window |
|  | Live | Indicates Auto Refresh is on |
|  | Frozen | Indicates Auto Refresh is off |
|  | Authorize | To Bulk Authorize trades in Deal Blotter |
| | Apply | Apply the current profile to the Blotter. This label enables User to check the Profile created even before it is saved. |

| | | |
|---|--------------------------------|--|
|  | Global | Enabling this check box makes the profile as Global Profile, enabling the Users across desk to view. If this box is unchecked it makes the Profile a Local profile . |
|  | Module | Display the current module. This is set to MM by default. |
|  | Function | Configuration for all the blotters can be done at one go through the same screen |
|  | Profile | Name of the profile to be created/Viewed is specified here |
|  | Fetch | Fetch the preferences for the selected profile. |
|  | Preferred Profile | Profile preferred would default the Blotters with the Preferred profile once they are fetched. |
| Show Deal Booked for last ___ Days | Show deals booked for ___ days | Historic deals can be viewed by entering the number of days User wants to see. |
|  | Add selected Item | Enables data to be filtered from one pane to another. |
|  | Remove selected Item | To remove the item from the selected list |
|  | Add all Items | To move all the items from the 'All Items' list pane to the 'Selected Items' list pane. |
|  | Remove all Items | To remove all items from one pane to another. |
|  | Move up by one Position | In order to move the required column up by one position |
|  | Move down by one Position | In order to move the required column down by one position |
|  | Get Rates | Gets the rates for selected currency |
|  | Upload | Uploading the rates |
|  | Apply | Applying the uploaded rates |

| | | |
|---|-----------------------|----------------------------------|
|  | History Date | Fetching rates from History date |
|  | View Last Saved Rates | Viewing the last saved rates |
|  | Paste Deals | To Paste bulk deals from excel |
|  | Validate Deals | To validate the deals pasted |
|  | Upload Deals | To upload the validated deals |
|  | Upload Auth | To Authorize the uploaded deals |
|  | Export to Excel | To export the trades to excel |

1.3.3 Key Operational Features

Key features provide quick navigation techniques for faster access through the application for various purposes. Following are some of the key operational features:

1.3.3.1 Date Shortcuts





Intellect System supports wide range of date formats such as DD-MON-YY, DD-MM-YY, and DDMMYYYY etc.

For example in Date field(s) in the application, user can input date (say June 1, 2015) like

010615,
01-06-15,
01JUN15,
01-JUN-15.
01062015,
01-06-2015,
01JUN2015,
01-JUN-2015

Any of the above date formats is acceptable. User can also click on date field to open up the calendar and select the date.

Date Selection:

- ▮ Apart from the various shortcuts available for the Manual entry of date, it can also be selected from the Calendar option available.
- ▮ The buttons  and  can be used to fetch the succeeding/preceding months.
- ▮ The buttons  and  can be used to fetch the succeeding/preceding years.

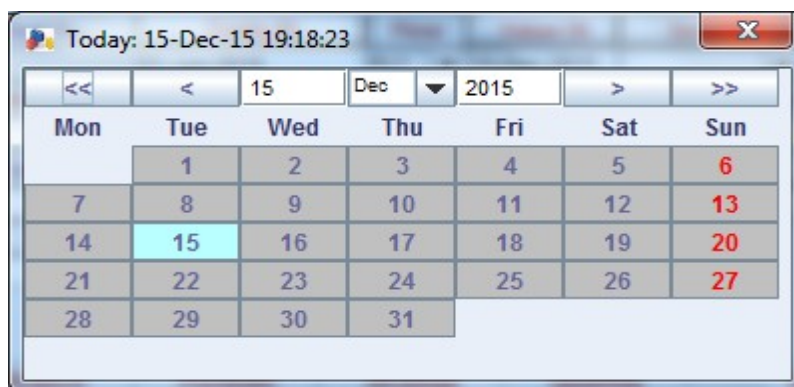


Figure 1-A: Date Selection

—User can enter the required date with inputs like 1D / 1W / 1M / 2Y etc. where D stands for Day, W for Week, M for Month and Y for Year. The system arrives at the date by adding / subtracting such an input to / from some other reference date like for a) Value Date, it is with reference to Transaction Date, b) Maturity Date with respect to Value Date and so on and so forth.

User can also input the Keywords like TOM, SPOT in the value date field which would default the value date to the T+1 or T+2 days from the application date.

1.3.3.2 Amount Shortcuts

Application supports shortcuts to enter the deal amount in quick time. Key shortcuts to enter the amount values are K, L, M, B and T.

| Symbol | Description |
|--------|----------------------------------|
| K | K Stands for Thousand (1000) |
| L | L stands for Lacks (100000) |
| M | M stands for Million (1000000) |
| B | B stands for Billion (10000000) |
| T | T stands for Trillion(100000000) |

1.3.3.3 Search Windows

Search option in the Deal capture enables the User to fetch records faster. This feature is available for the following:

1.3.3.3.1 Product Search

User can search list of products configured for MM by clicking over product label button.

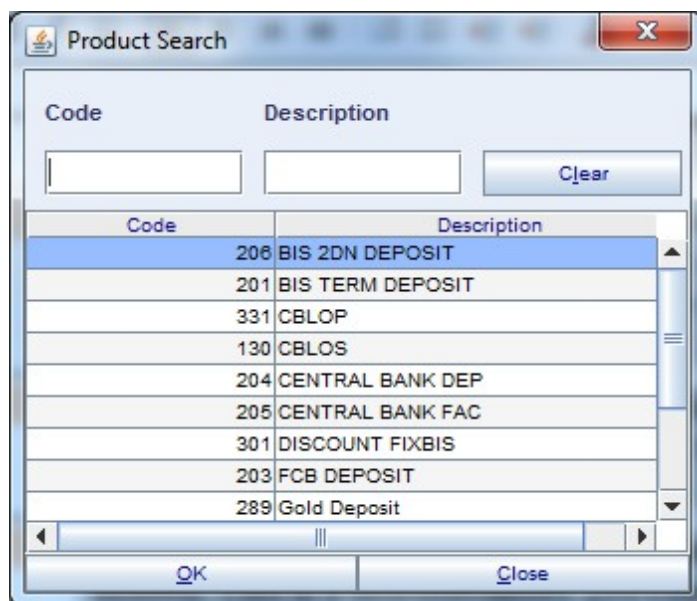


Fig.70 Product Search Screen

1.3.3.3.2 Counterparty Search

On clicking counter party label, the below screen will pop up



Fig.71 Customer Search Screen

User can Search to fetch all the counter parties available in the system. Further system provides user of filters like Cust Num / Short Name / Long Description etc.

1.3.3.3.3 Broker Search:

Clicking on the Broker field in the Deal capture enables the user to search the required Broker.

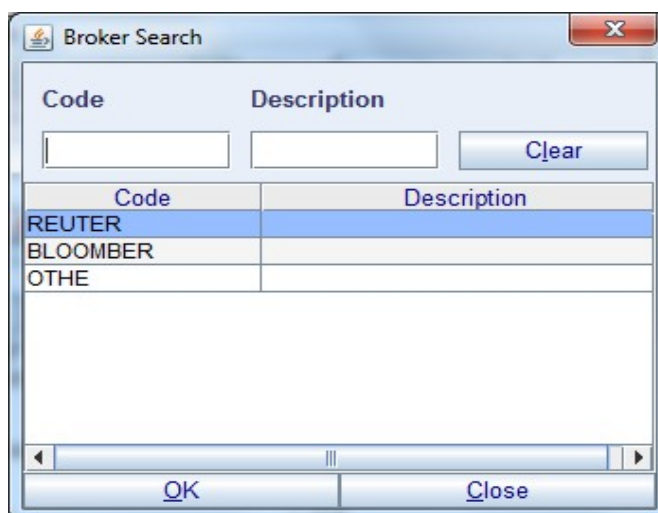


Fig.72 Broker Search Screen

1.3.3.3.4 Liability Search

List of customers grouped under the liability is displayed.



Figure 1-G: Liability Search Window

1.3.3.3.5 Account Search

Settlement details are provided by account search window. Filter option available for quick look

| Customer Name | Account Type | Liability No. | Currency | Product Code | Account Desc |
|---------------|--------------|---------------|----------|--------------|--------------|
| | | | EUR | | BANK OF |

| Customer Name | Account No. | Account Description | Account Balance | Liability No. | Currency | |
|------------------------|-------------|------------------------------|-----------------|---------------|----------|---|
| BANK FOR INTERNATIO... | 1000000036 | BANK OF INTERNATIONAL SET... | 0 | 185 | EUR | N |
| CENTRAL BANK OF UAE... | 1000000020 | CENTRAL BANK OF UAE-EUR | 0 | 826 | EUR | N |

Figure 1-E: Account Search Window

1.3.3.6 Pay To Search

Payment to customer is selected via bic codes search.

☒ Counterparty ☐ BIC

| Customer | Cust Num | Swift Address | Location |
|----------|----------|---------------|----------|
| | | BIS | |

| Customer | Cust Num | Swift Address | Location |
|----------|----------|---------------|----------|
| | 185 | BISBCHBB | BASLE |
| | 0 | RBISINBB | |
| | 2 | RBISINBB | MUMBAI |

Figure 1-F: Counterparty Search Results Window

1.4 Toolbar/Menu bar Management/Shortcuts

1.4.1 Operations under File

| Key | Operation | Description |
|---------|-----------|-------------------|
| Ctrl-Y | Clear | To clear the data |
| Ctrl-F1 | Help | Opens help file |

| | | |
|--------|------|------------------------------------|
| Ctrl-X | Exit | Exit/Close the Deal Capture Screen |
|--------|------|------------------------------------|

1.4.2 Operations under Actions

| Key | Operation | Description |
|--------|---------------|------------------------------|
| Ctrl-V | Save | To Save the Deal |
| Ctrl-S | Save and Auth | To Save & Authorize the deal |
| Ctrl-D | Delete | To delete/cancel the deal |
| Ctrl-L | Recall | To recall the deal |
| Ctrl-C | Copy | To Copy the deal |
| Ctrl-A | Authorize | To Authorize the deal |

1.4.3 Operations under Actions

| Key | Operation | Description |
|-------|------------|--|
| Atl-P | Preterm | To Pre-terminate the deal |
| Atl-R | Rollover | To Rollover the deal |
| Atl-B | Branch B2B | To do a Branch Back to Back transaction |
| Atl-M | Mat-Cancel | To mark a deal as cancelled after its maturity |

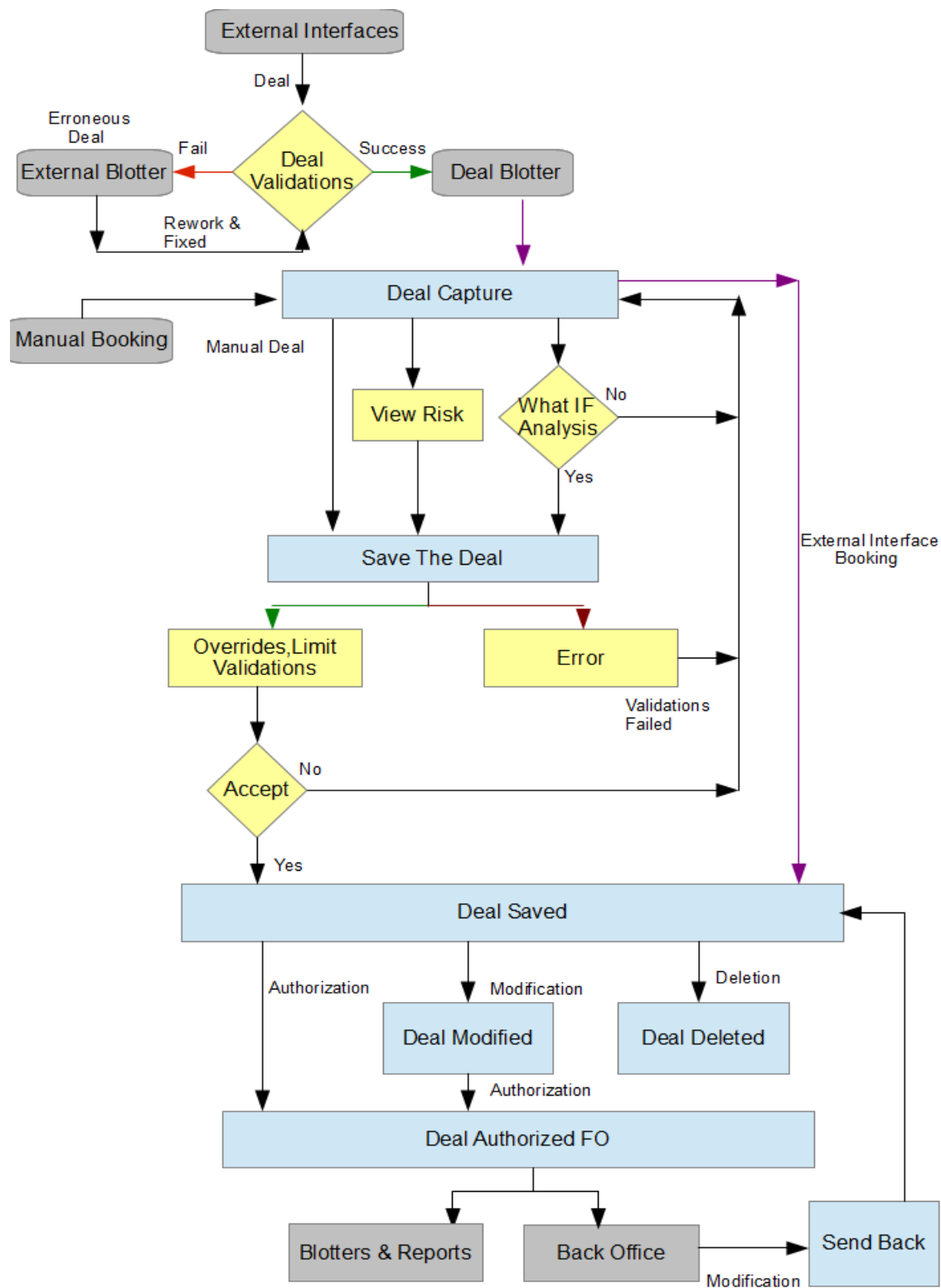
1.4.4 Operations under Tools

| Key | Operation | Description |
|--------|----------------------|--------------------------------------|
| Ctrl-R | View Risk | To view the Risk impact on Cashflows |
| Ctrl-M | Deal Compare | To compare versions of deal |
| Ctrl-P | Deal Slip | To generate/view the Deal ticket |
| Ctrl-D | Pre Trade Letter | To view the Pre trade letter |
| Ctrl-U | STD Receipt Upload | To upload the deal |
| Ctrl-D | STD Receipt Download | To Download the deal |
| Ctrl-S | STD Sanction Note | To view the Sanction note |
| Ctrl-Q | Concurrent Audit | To view the Concurrent Audit |

1.4.5 Operations under Template

| Key | Operation | Description |
|-------|------------------------|---|
| Alt-C | Create/Modify Template | Creation of new deal template |
| Alt-S | Save As Template | Saving the deal details entered in deal capture to template |

2.0 Deal Management Process



2.1 Deal Capture

Deal Capture screen is used to Create/View/Modify a deal. Name of the bank and default branch to which a logged in user is attached is seen at the top right along with the Trade Date.

To capture a new deal, dealer should specify the basic details. See below a Sample Screenshot for Deal Capture Screen.

Fig 2: Deal Capture

The fields inside the box highlighted can be expanded by clicking on show details or can be hidden by clicking on Hide details button .

The following are the Tab's in the Deal Capture screen:

1. **Deal Input:** Captures the basic deal details
2. **Schedules:** Captures the details of deals with schedules or interim payouts.
3. **Branch B2B:** Captures the deal details for doing a branch back to Back.
4. **Preterm:** Captures the breakage/pre-termination details of the deal.
5. **Rollover:** Captures the rollover deal details.

2.1.1 Deal Input tab

Deal Input tab captures the basic deal details of the money market deal.

Mandatory Inputs for a deal booking are marked with Red Labels while the fields with blue labels are conditional mandatory and black ones are optional (similar color coding at field labels is applicable all across the application on any input screen).

Listed below are the Mandatory fields in the deal input tab:

| Field | Description |
|------------------------|--|
| Product | This is a drop down list where a User can select the appropriate product. Required Products can be maintained through the Product Maintenance. |
| Counter Party | This field denotes the other party of the trade. |
| Currency | Currency in which the trade is booked can be selected from the drop down list. |
| Amount | This is text box field where User can enter the required amount. |
| Value Date | Value Date of the deal |
| Maturity Date | Maturity Date of the Deal |
| Treasury Rate % | Rate used for calculating the Risk/cost of funding |
| Customer Rate % | This field refers to the specific rate applied by the bank to a customer for booking a particular deal. i.e. Rate based on which interest will be calculated. |
| Portfolio | Logical grouping of deals/trades done under virtual warehouses as applicable. These codes are part of static data maintenance |
| Broker Name | Broker Associated with the Deal. |
| Purpose | Purpose of booking a deal to be selected from a dropdown list maintained. This is used for MIS purpose. |
| Interest Basis | Day Count convention used in the Interest calculation. |
| Holiday Logic | Holiday logic to derive the cashflow date movement on the marked holiday date. |
| Interest type | Interest to be paid as Simple Interest or compounding basis. |
| Comp Freq Ind | If the interest type is selected as Compound this field gets enabled for the user to enter frequency. <i>Conditional mandatory</i> : Frequency based on which Interest will be compounded. |
| Txn Date | Booking date and time of the deal in the system. |

Conditional mandatory fields are as follows:

| Field | Description |
|-----------------------------|---|
| Customer Spread | The customer spread is the added margin above cost of holding to derive at the customer rate. π For all deposit deal types $\text{Spread} = \text{Treasury Rate} - \text{Customer Rate}$ π For all placement deal types $\text{Spread} = (\text{Customer rate} - \text{Treasury rate})$ |
| Total Intr. Amount | Shows the total interest payable / receivable for the deal. |
| Benchmark | Shows the benchmark rate of the benchmark curve- currency combination maintained in the yield curve in setup. This is a read-only field displaying the last repriced rate of the Repricing Curve selected for floating rate deal |
| Brokerage | The brokerage is computed based on the maintenance, it can also be modified by the User |
| Remarks | Any comments that are applicable while booking a deal can be entered with maximum limit of 100 characters |
| Tax Code | It is the Tax code selected for the deal |
| Spcl Handling | This is to indicate the Back-office person to check the comments entered in the deal |
| Truncation | This is to truncate the decimals in the Interest rate and considers only the value prior to decimal for the computations. |
| ConstMaturity | Constant maturity flag is used to define the deal as auto-rollover deal and applicable for floating rate deal where the last repricing of the deal moves the Maturity date to the extent farther by the given repricing frequency |
| Original Mat. Date | Captures the initial maturity date of the deal. It's used for MIS purpose. |
| Narrative | This field is a free text field in which additional remarks can be entered. This is a non-mandatory 250 character text field |
| <u>Broker Amount</u> | <u>When Broker Amount is changed Brokerage should get recalculated.</u> |

Various Short cuts and computations available/used can be referred from the sections 1.3.3 Key Operational Features Error: Reference source not found and 4.0 References/Glossary for further details Error: Reference source not found

2.1.2 Cash Flows/Schedules

Deal cashflows can be viewed /modified/generated through this screen. Generated Cashflows can be modified by clicking on the individual record. The details will be populated in the grid highlighted in the screen shot. Clicking on Add will add/modify the record.

Cashflows of the deals can be modified before authorization, also cashflows of an Authorized

deal can be modified using the **Send back feature** available in the Product.
Clicking on the individual record and updating it through Add button will modify the record.

Note: Refer to the Send Back Functionality in the Money Market Back Office Manual.

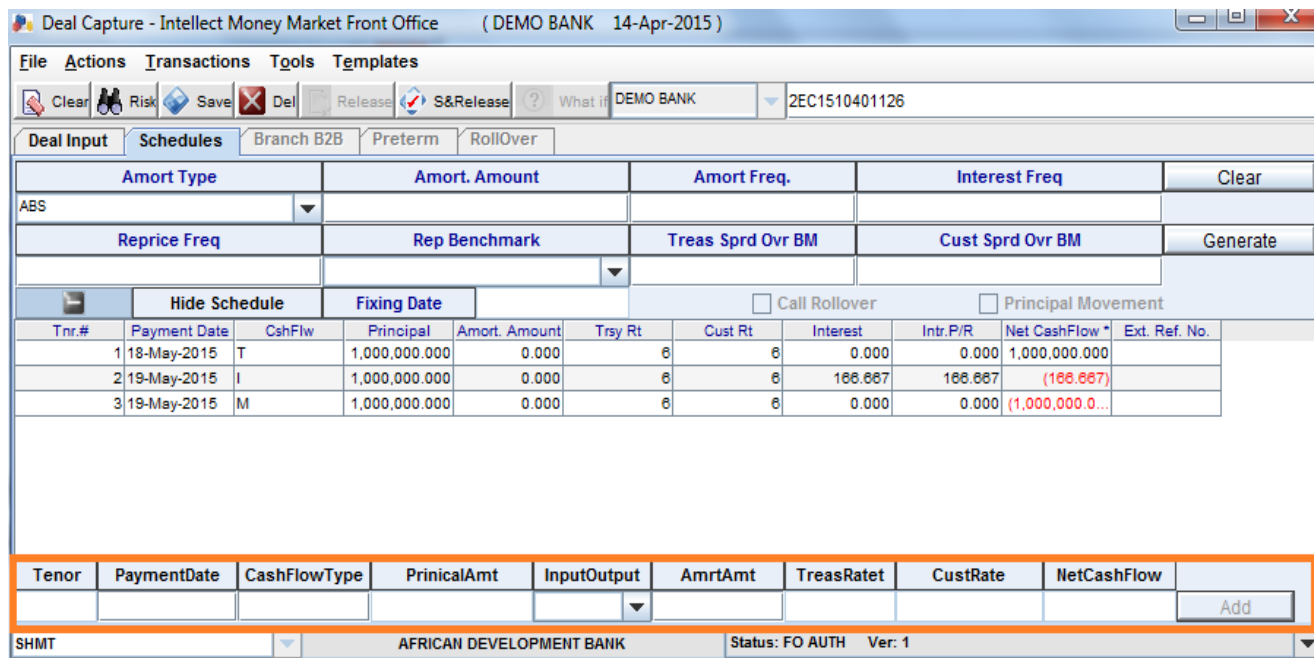


Fig. 3 Deal Capture - Schedules Tab

| Field | Description |
|-----------------------------|---|
| Amort type | Specifies type of the principal amortization <ul style="list-style-type: none"> ▮ ABS: This indicates that the amortization amount will be an absolute value ▮ Percentage: This indicates that the amortization amount will be a percentage of the principal amount |
| Amort amount | This is the amount to be amortized from the principal. If the amortization type is absolute, actual amount to be amortized is to be entered else the percentage of the deal amount |
| Amort Freq | Indicates the frequency at which amortization is done |
| Interest Freq | Indicates the frequency of the interest payment. |
| Repricing Freq | Indicates the frequency of the repricing |
| Rep Benchmark | Benchmark or Index based on which deal is booked and subsequent repricing is to be done |
| Treas Spread over BM | Displays the treasury spread added on top of the benchmark rate. Used for the Treasury rate calculation |

| | |
|----------------------------|--|
| Cust Spread over BM | Spread added on top of the benchmark rate for the given counter party. Used for the ultimate deal rate calculation by adding Trsy & Cust Spread to the Benchmark rate. |
| Clear | On clicking, all the fields in the schedules tab are reset along with cashflows, the schedules can be entered afresh |
| Generate | On clicking this button the schedules will be generated as per the information provided in the schedules tab |

Various Short cuts and computations available/used can be referred from the sections 1.3.3 Key Operational Features Error: Reference source not found and 4.0 References/Glossary for further details Error: Reference source not found

2.1.2.1 CashFlow types

The following are the Cashflow types supported. Fig number can be referred to view the Cashflow types.

1. **Deal Inception (T):** A cash flow generated for the Value date would display cashflow type as 'T' i.e. the Take down entry.
2. **Interest payment (I):** The cash flows generated towards Interest payment would display cash flow type as 'I'.
3. **Repricing (R):** The cash flows generated on account of deal getting reprised would display cash flow type as 'R'.
4. **Amortization (A):** The cash flows generated on account of Amortization would display cash flow type as 'A'.
5. **Maturity (M):** The cash flow generated for the Maturity payment would display cash flow type as 'M'.

2.1.3 Back to Back

Back-to-Back deals will be required by Sales Traders or Traders to transfer their Risk to other Trader's portfolio (within or across branches). This will enable the dealers to book the deals in their portfolio and further transfer/ back the deals to other applicable portfolio. The product needs to have a related back-to-back deal mapped with it

2.1.3.1 Branch Back to Back

Back-to-Back deals for Branch B2B can be booked through this screen. This is applicable only if an implementation has a multi-branch setup.

For a B2B deal, most of the fields are the same as defined in the Deal Input tab. The fields specific to Branch B2B deal are explained below

| Field | Description |
|--------------|---|
| B2BBranch | The branch with which Branch Back to Back deal is done is specified. Required branch can be selected from the drop-down list |
| B2BPortfolio | The portfolio under which Branch Back to Back deal is done is specified. Required portfolio can be selected from the drop-down list |

2.1.3.2 Customer Back to Back

Back-to-Back deals for Customer B2B can be booked through this screen. By selecting the CustB2B check box in Deal Input tab this screen will be enabled for the User.

For a B2B deal, most of the fields are the same as defined in the Deal Input tab. The fields specific to Branch B2B deal are explained below

| Field | Description |
|--------------|--|
| B2BBranch | The branch with which Customer Back to Back deal is done is specified. Required branch can be selected from the drop-down list |
| B2BPortfolio | The portfolio with which Customer Back to Back deal is done is specified. Required portfolio can be selected from the drop-down list |

Deal Capture - Intellect Money Market Front Office (Demo Bank 05-Sep-2014)

File Actions Transactions Tools Templates

Clear Risk Save Delete Release S&Release What if Demo Bank

Deal Input Schedules Branch B2B Preterm RollOver

| Product | Counterparty | Currency | Amount | Value Date | Maturity Date |
|--------------------|----------------------|-----------------|--------------------------------|-------------------------------------|--|
| BIS TERM DEPOSIT | ABBLINBB | EUR | 1,000,000.00 | 05-Sep-2014 | 05-Dec-2014 |
| Treasury Rate % | Cust Rate % | Portfolio | Broker Name | Remarks | <input type="checkbox"/> Cust B2B |
| 5.00000000 | 5.00000000 | CORE | OTHER[3] | | |
| Purpose | | | | | |
| Exercise | | | | | |
| Hide Details | | | | | |
| Int. Basis | Interest Type | Comp. Freq. Ind | Holiday Logic | Customer Spread | |
| Actual/360 | Simple Int. | | Mod Following | 0.000000 | |
| Total Intr. Amount | Txn Dt | Benchmark | Brokerage | RA Cost % | Tax Code |
| 12,638.89 | 05-Sep-2014 16:44:49 | | | 0 | |
| Our Pay | Our Receive | We pay to | Late Trade | OA | Show Conversation |
| | | | <input type="checkbox"/> Order | | <input type="checkbox"/> Spcl Handling |
| Source | Source Ref | Ext Ref No | Delivery | <input type="checkbox"/> Truncation | |
| POL05460 | AB BANK LTD-MUMBAI | | | | |

2.1.4 Pre-termination of Deposit/Placement

An existing deal can be discontinued on any given date prior to its original maturity date by using this Pre-termination option.

Preterm option would be enabled for an authorized deal under Transaction Menu tab. This captures the breakage or pre-termination details of the deal.

Deal Capture - Intellect Money Market Front Office (Demo Bank 29-May-2014)

File Actions **Transactions** Tools Templates

Clear **Preterm** Alt-P Release S&Release What if Demo Bank 2EC1414901116

Deal Input Rollover Alt-R B2B Preterm RollOver

Product Branch B2B Alt-B Interparty Currency Amount Value Date Maturity Date

Placmnts BANK OF CANADA GBP 1,000,000.00 30-Jun-2014 31-Oct-2014

Treasury Rate % Cust Rate % Portfolio Broker Name Remarks Cust B2B

2.00000000 2.00000000 LQDY Anu[52]

Purpose

LOANS OVERDRAFTS TAKEN BY ADS ON THEIR OWN A/C

Hide Details

| Int. Basis | Interest Type | Comp. Freq. Ind | Holiday Logic | Customer Spread |
|------------|---------------|-----------------|---------------|-----------------|
| Actual/365 | Simple Int. | | Mod Following | 0 |

| Total Intr. Amount | Txn Dt | Benchmark | Brokerage | RA Cost % | Tax Code |
|--------------------|----------------------|-----------|-----------|-----------|----------|
| 6,739.73 | 29-May-2014 11:07:51 | | | 0 | |

| Our Pay | Our Receive | We pay to | Late Trade | OA | Show Conversation |
|---------|-------------|-----------|--------------------------------|----|-------------------|
| | | | <input type="checkbox"/> Order | | |

| Source | Source Ref | Ext. Ref. No. | Delivery |
|--------|------------|---------------|----------|
| TRSY | | | |

Narrative

SHMT BANK OF CANADA Status: FO AUTH Ver: 1

Fig. 12 Preterm Option

Once the preterm option is selected system takes the user to the following screen where the necessary details for pre-termination can be given

Deal Capture - Intellect Money Market Front Office (Demo Bank 29-May-2014)

File Actions Transactions Tools Templates

Clear Risk Save Del Release S&Release What if Demo Bank 2EC1414901116

Deal Input Schedules Branch B2B **Preterm** RollOver

☒ Full ☐ Partial

| Break Date | Break Amount | Preterm Details | |
|----------------|--------------|-----------------|---------------------------|
| 18-Sep-2014 | 1,000,000 | | |
| Penalty Rate % | Int.Cost | Admin Fees | Total Cost |
| 9.99999900 | -9,365.96 | 0 | -9,365.96 |
| Narrative | | | Accr Interest 4,383.56 |
| Preterm Risk | | | Tot Settlement 995,017.60 |

SHMT BANK OF CANADA Status: FO AUTH Ver: 1

Fig.13 Preterm Screen

| Field | Description |
|-------------------------|--|
| Break Date | Break date of the deal is to be specified, where the pre-termination date should be less than the original Maturity Date but greater than or equal to the original Value Date |
| Break Amount | Break amount of the deal is to be specified, <ul style="list-style-type: none"> Full pre-termination: this is defaulted to the original principal. Partially pre-termination: the amount to be pre-terminated can be entered |
| Penalty Rate % | Penalty Rate charged for Pre-terminating the deal is to be specified |
| Interest Cost | Indicates the interest cost for the pre-terminated deal. This can be calculated by clicking on the Interest cost field by using the penalty rate % entered or it can be entered directly |
| Admin Fees | Administration Fees charged if any, for the pre-termination of the deal is to be entered |
| Total Cost | Is the (Interest @ penalty rate + Admin fees) for the pre-terminated deal |
| Narrative | Remarks for the pre-termination can be entered |
| Accrued Interest | The Interest Accrued till the pre-termination of the deal is displayed |
| Total Settlement | The total settlement amount related to the pre-terminated deal is computed taking into account the Pre-term amount, Total Cost and Accrued Interest. |

Various Short cuts and computations available/used can be referred from the sections 1.3.3 Key Operational Features Error: Reference source not found and 4.0 References/Glossary for further details Error: Reference source not found

2.1.5 Rollover of Deposit/Placement

An existing deal can be extended further beyond its original maturity through the Rollover feature. Once rolled over a fresh deal gets booked for that amount for the period specified at the time of rollover

The screenshot shows the 'Deal Capture - Intellect Money Market Front Office' window. The 'Transactions' menu is open, and the 'Rollover' option is highlighted with a red circle. The main form displays details for a deal with 'Amount' 100,000,000,000, 'Value Date' 02-Dec-2014, and 'Maturity Date' 09-Dec-2014. The 'Purpose' field is empty, and the 'Exercise' dropdown is set to 'Hide Details'. The 'Int. Basis' is 'Actual/360', 'Interest Type' is 'Simple Int.', and 'Comp. Freq. Ind' is 'Mod Following'. The 'Total Intr. Amount' is 77,776,000. The 'Our Pay' field is empty, and the 'Our Receive' field is empty. The 'We pay to' field is empty, and the 'Late Trade' field is empty. The 'Source' field is 'TRSY', and the 'Source Ref' field is empty. The 'Ext. Ref. No.' field is empty, and the 'Delivery' field is empty. The 'Status' is 'BO AUTH' and 'Ver' is '2'.

Fig.14 Rollover Option

When User clicks on the rollover option, System asks to select the type of rollover as shown below

The 'Rollover Confirmation' dialog box asks 'Do you want to Rollover the Deal ?'. It has two columns: 'Rollover' and 'Funds Movement'. Under 'Rollover', there are three radio buttons: 'Principal' (selected), 'Full maturing amount.', and 'Others'. Under 'Funds Movement', there are three radio buttons: 'Full movement of funds(P+I)' (selected), 'Movement of Interest(I)', and 'Others'. There are 'OK' and 'Cancel' buttons at the bottom.

Fig.15 Rollover Confirmation

2.1.5.1 Types of Rollover

| Field | Description |
|-----------------------------|--|
| Principal | When a user selects the Principal, deal input screen defaults the principal amount in Amount field |
| Full Maturing Amount | When a user selects the Full maturing amount deal input screen |

| | |
|---------------|--|
| | defaults the principal + Interest accumulated i.e. P+I |
| Others | When user selects other, system will default amount as blank and dealer has to input the deal amount. It can be any amount, which can be even greater than Maturity (P+I). This will impact Risk Sheet and cash flows accordingly. |

2.1.5.2 Types of Funds Movement

| Field | Description |
|-------------------------------|---|
| Full Movement of Funds | Full movement of funds indicates, on the maturity date of old deal complete exchange of funds will be done. |
| Movement of Interest | Movement of Interest, where only interest is exchanged |
| Others | When user selects Others, system will default amount as blank and dealer has to input the deal amount. It can be any amount, which can be even greater than Maturity (P+I). This will impact Risk Sheet and cash flows accordingly. |

2.1.6 Deal Settlement

Intellect Treasury gives the User a flexibility to View/Modify the Settlement details in front office as well through the Settlement screen.

The Settlement details in this screen can be fetched through the Get SSI button for the counterparty. Product and Currency combination in the deal. ~~The User can also modify the populated details by clicking on the individual record.~~

Settlement details can be captured in two ways as described below:

- 1. Settlement details are captured before Fo Save as well. When we enter all the mandatory details and go to Settlement tab and click on “Get SSI” button we are able to see all the Settlement details.
- 2. Settlement details can be maintained in Setup and on saving a deal in FO, the settlement instructions maintained also get saved.

~~The details will be populated in the grid as highlighted in the screen shot.~~

Path: MM Main Menu >Deal Capture> Settlement

Deal Capture with Settlement - Intellect Money Market Front Office (SEYLAN BANK DBU 28-May-2015)

File Actions Transactions Tools Templates

Clear Risk Save Del Release S&Release What if SEYLAN BANK ...

Deal Input Schedules Branch B2B Preterm RollOver Settlement

| Product | Counterparty | Currency | Amount | Value Date | Maturity Date |
|----------------------|--------------|----------|----------|-------------|---------------|
| Call Money Borrowing | DFCC BANK | USD | 1,000.00 | 28-May-2015 | 29-May-2015 |

| Treasury Rate % | Cust Rate % | Portfolio | Broker Name | <input type="checkbox"/> Cust B2B |
|-----------------|-------------|-----------|---------------|-----------------------------------|
| 7.00000000 | 7.00000000 | DBU | No Broker[99] | |

Purpose Portfolio Description Remarks

LOANS OVERDRAFTS TAKEN BY ADS ON THEIR OWN A/C

Show Details

HGEETH DFCC BANK

Deal Capture with Settlement - Intellect Money Market Front Office (SEYLAN BANK DBU 28-May-2015)

File Actions Transactions Tools Templates

Clear Risk Save Del Release S&Release What if SEYLAN BANK ...

Deal Input Schedules Branch B2B Preterm RollOver Settlement

| Account Desc | Acc Flag | Amount | Account | RCN | Pay To | Intermediary | Recv. Corr... | Acc. Benef | Pay At | + | - | Modify |
|--------------|----------|----------|-----------|--------------------|--------|---------------|---------------|------------|--------|---|---|----------|
| Acc Fl... | | | | | | | | | | | | |
| Nostro | | 1,000.00 | 799052171 | SS1 Popagate Ch... | 9983 | A:MSHQUS33XXX | | | | | | Maturity |
| Nostro | | 1,000.00 | 799052171 | SS1 Popagate Ch... | 9983 | A:MSHQUS33XXX | | | | | | Value |
| Nostro | | | 799052171 | SS1 Popagate Ch... | 9983 | A:MSHQUS33XXX | | | | | | Interest |

HGEETH DFCC BANK

Fig.10 Settlement Tab

The fields are defined below:

| Field | Description |
|-------------------------|---|
| Account Desc | Indicates the Description of the account. |
| Acc Flag | Specifies the type of Account Nostro: Nostro account GL: Mirror account |
| Amount | It is the total/part amount of the deal to be settled |
| Account | The account to which the settlement is to be processed. |
| RCN | Responsibility Center Number, is for the account in Settlement tab (This may not be too relevant functionally and may be filled with some dummy value maintained) |
| Pay To | Indicates the BICCODE of the counter party to whom the payment is to be made |
| Pay At | Indicates whether the payment is to be made at value or maturity or at interest |
| Intermediary | Is the bank which acts as a mediator between the Sender and the Receiver |
| Rec. Corresp | Is the bank which acts as an intermediary on behalf of the Receiver. Sender sends the payment to Rec. Corresp. |
| Acc. Beneficiary | Is the one who is final beneficiary of the transaction |
| Modify | Modification of the existing records can be done through this button. |
| + | New records can be inserted. |
| - | Existing records can be deleted. |
| Get SSI | This button would fetch the SSI details of the counterparty maintained in the Setup |

~~Once the user enter all the above details, then a deal can be saved by clicking on the save button available on the screen or by Actions → Save.~~

User can also modify the populated details by clicking on the individual record.

The details will be populated in the grid as highlighted in the screen shot.

Path: MM Main Menu > Deal Capture > Settlement

Deal Capture - Intellect Money Market Front Office (DEMO BANK 25-May-2015)

File Actions Transactions Tools Templates

Clear Risk Save Del Release S&Release What if DEMO BANK 2EC1514500528

Deal Input Schedules Branch B2B Preterm RollOver Settlement

| Account Desc | Acc Flag | Amount | Account | RCN | Pay To | Intermediary | Recv. Corresp. | Acc. Benef | Pay At | + | - | Modify |
|--------------|---------------|---------------|--------------|------|--------|--------------|----------------|------------|--------|---|---|----------|
| CBSL A/C | Nostro | 10,000,000.00 | 1000102300 | 4544 | | | | | Value | | | Get SSI |
| Acc Flag | Amount | Account | Account Desc | RCN | Pay To | Intermediary | Recv. Corresp. | Acc. Benef | Pay At | | | |
| Nostro | 10,000,000.00 | 1000102300 | CBSL A/C | 4544 | | | | | | | | Maturity |
| Nostro | 10,000,000.00 | 1000102300 | CBSL A/C | 4544 | | | | | | | | Value |
| Nostro | | 1000102300 | CBSL A/C | 4544 | | | | | | | | Interest |

MAKER ALBILAD BANK - RIYADH Status: FO AUTH Ver: 1

Fig.10 Settlement Tab

|

|

|

|

|

|

|

|

|

|

|

|

|

|

2.1.6.1 Split Settlement

The User can also opt for the Split Settlement feature, by splitting the amount through the Modify, + and – buttons.

The User can also opt to route the Swift messages by selecting the Swift Address through the counterparty details or fetching it through the BIC by choosing the required radio button.

To choose a different settlement account and Pay To swift address, refer to the Account and Pay To screens in section 1.3.3.3 Search Windows

2.1.7 Key Input & Deal Validations

System validates the deal based on the deal inputs given by User. So it does the basic field validations which are filled during deal booking.

1. User has to input all the mandatory fields listed in above tables, else field would give an error highlighting in red.
2. While entering rates error would raise if a numeric value containing more than 8 digits after the decimals given. Error if a non-numeric value is entered.
3. Amount field would give an error if a numeric value containing more than 17 digits before the decimal has been entered. If a Non-numeric value is entered it must be entered as in the following format- *T, *M, *B where * can be a number indicating the number of Thousands, Millions, or Billions in currency selected.
4. The number of digits after the decimal point is truncated depending on the currency selected. Ex. USD = 2 decimals, KWD = 3 Decimals.

5. Date should be entered in proper date format as specified in the section 1.3.3 Key operational features.

2.1.8 Risk Viewer or View Risk

Deal Capture - Intellect Money Market Front Office (DEMO BANK 14-Apr-2015)

File Actions Transactions Tools Templates

Cles Risk Save Del Release S&Release What if DEMO BANK

Deal Input Schedules Branch B2B Preterm RollOver

| Product | Counterparty | Currency | Amount | Value Date | Maturity Date |
|---------|---------------|----------|---------------|-------------|---------------|
| Deposit | BARCLAYS BANK | EUR | 1,000,000.000 | 14-Apr-2015 | 14-Oct-2015 |

| Treasury Rate % | Cust Rate % | Portfolio | Broker Name | Remarks | <input type="checkbox"/> Cust B2B |
|-----------------|-------------|-----------|-------------|---------|-----------------------------------|
| 5.00000000 | 5.00000000 | FCBU | Anu[52] | | |

Purpose

LOANS OVERDRAFTS TAKEN BY ADS ON THEIR OWN A/C

Show Details

POL05460 BARCLAYS BANK

Fig.33 Risk View

Path: Tools -> View Risk it can also be accessed through the button click

The Risk impact on the existing Cashflows can be viewed at several levels of the deal.

1. For a Newly entered deal
2. For a Deal that is being Partially Pre-terminated
3. For a Deal that is being Fully Pre-terminated

| Field | Description |
|-------------------------------|---|
| Today's Date | Current business date on which the risk |
| Last Interest Date | Date on which the last interest payment is done |
| Next Interest Date | Date on which the next interest payment is due |
| Current Period Accrual | The accrual passed in the current tenor/schedule if there is any interest payment. This value is in the currency of the deal |
| All Time Accrual | Total accrual passed to date. This value is in the currency of the deal |
| PV of Deal (CCY) | Sum of PV of all cash flows using reval rates/ live rates selected in drop down. The values are shown in the currency in which the deals are booked |

| | |
|--------------------------|--|
| PV of Deal (USD) | Sum of PV of all cash flows using reval rates/ live rates selected in drop down shown are in USD equivalent |
| CTC of deal (CCY) | MTM of the deal in the currency of the deal |
| CTC of deal (USD) | MTM of the deal in USD Equivalent |
| Buckets | Duration between two time intervals. These buckets are displayed based on the break date entered by the user. |
| Tenor End | Last date of the bucket. |
| FS(USD) | Measure of risk on the net cash flow due to a movement of 1 basis point on the interest rate expressed in USD. This is calculated as $FS (USD) = FS (Local Currency) * Current exchange rate vis a vis USD$ |
| PV USD | Present Value of the bucket expressed in USD. This is calculated as $PV (USD) = PV (Local Currency) * Current exchange rate vis a vis USD$ |
| PV | Present Value of the bucket. $PV = Net\ cash\ flow * Discount\ Factor$ |
| DF | Discount Factor for the bucket. Formula: DFs for the standard tenors up to 12M: where k = Reval rate for that particular points Dt = No. of days between the last date of tenor for the points and today. Basis = No. of days in year depending on the interest basis used i.e.360, 365, actual for the currency. |
| Reval rate | Forward rate picked up from the Reuters screen for standard buckets. For nonstandard buckets, it is calculated using the exponential interpolation method. |
| Net Cash Flow | Actual cash inflow or outflow occurring in the bucket, including the cash flow adjustments. |

$$DF = \frac{1}{\left(1 + \frac{k * D_t}{Basis * 100}\right)}$$

| | |
|---------------------------------|--|
| | Formula: Net Cashflow = Inflow- Outflow |
| Cumulative(Act) | Cumulative total of the net cash flow. |
| Agreed Breakage Fee(CCY) | Agreed breakage fee for Pre-Terminating the Deal is displayed in the currency through which the trade has been booked. |
| Agreed Breakage Fee(USD) | Agreed breakage fee for Pre-Terminating the Deal is displayed in USD equivalent. |

2.1.8.1 Risk View for a Newly Booked Trade

1. Gives the Impact of a newly booked trade on the existing Cashflows.
2. This is a Pre trade analytics which enables the User to take a call accordingly.
3. This screen is a nodal window to deal capture that means that till the view risk screen is closed the deal capture screen cannot be accessed

2.1.8.2 Risk View for Partial Pre-Termination

1. This View gives the Risk impact on the Cashflows on Partially Pre-Terminating the Deal.

2.1.8.3 Risk View for Fully Pre-Termination

1. This View gives the Risk impact on the Cashflows on Fully Pre-Terminating the Deal.
2. Depending upon the radio button chosen the Preterm Risk can be viewed accordingly.
3. The below Fig. can be viewed for Preterm Risk.

Deal Capture - Intellect Money Market Front Office (DEMO BANK 14-Apr-2015)

File Actions Transactions Tools Templates

Clear Risk Save Del Release S&Release What if DEMO BANK 2EC1510400956

Deal Input Schedules Branch B2B Preterm RollOver

☒ Full ☐ Partial

| | | | | |
|----------------|------------|--------------|----------------|-----------------|
| Break Date | | Break Amount | 100,000 | Preterm Details |
| Penalty Rate % | 0.00000000 | Int. Cost | | Total Cost |
| | | Admin Fees | 0 | |
| Narrative | | | Accr Interest | |
| Preterm Risk | | | Tot Settlement | |

SHMT BANK OF CANADA Status: FO AUTH Ver: 1

Fig.34 Preterm Risk

Intellect - MM - Risk Viewer

Reval Rates EOD EUR/USD 1.38670

Today's Date 14-Apr-2015 Break Date 23-Apr-2015 Last Interest ... Next Interest ... 23-Apr-2015

| | | | | | |
|------------------------------|-----|------------------|------|-------------------|------|
| Current Period Accrual (CCY) | 0 | PV of Deal (CCY) | (44) | CTC of Deal (C... | (44) |
| All Time Accrual (CCY) | 0 | PV of Deal (USD) | (61) | CTC of Deal (U... | (61) |
| Agreed Breakage Fee** (CCY) | 367 | | | | |
| Agreed Breakage Fee** (USD) | 508 | | | | |

Risk Viewer Cashflow Details

| +/- | Bucket | Tenor End | FS (USD) | PV (USD) | PV | DF | Reval Rate * | Net CashFlow | Cumulative (Act)* |
|-----|--------|-------------|----------|-----------|----------|--------------|--------------|--------------|-------------------|
| | 0D-7D | | | | | | | | |
| | 0D | 14-Apr-2015 | 0 | 0 | 0 | 1 | 8.000000 | 0 | 0 |
| | 1D | 15-Apr-2015 | 0 | (138,639) | (99,978) | 0.9997785642 | 8.000000 | (100,000) | (100,000) |
| | 2D | 16-Apr-2015 | 0 | 0 | 0 | 0.9995571775 | 8.000000 | 0 | (100,000) |
| | 3D | 17-Apr-2015 | 0 | 0 | 0 | 0.9993358398 | 8.000000 | 0 | (100,000) |
| | 4D | 18-Apr-2015 | 0 | 0 | 0 | 0.9991145511 | 8.000000 | 0 | (100,000) |
| | 5D | 19-Apr-2015 | 0 | 0 | 0 | 0.9988933114 | 8.000000 | 0 | (100,000) |
| | 6D | 20-Apr-2015 | 0 | 0 | 0 | 0.9986721207 | 8.000000 | 0 | (100,000) |
| | 7D | 21-Apr-2015 | 0 | 0 | 0 | 0.998450979 | 8.000000 | 0 | (100,000) |
| | 8D-1M | 15-May-2015 | (0) | 138,578 | 99,934 | 0.9931582432 | 8.000000 | 100,133 | 133 |
| | Total | | (0) | (61) | (44) | | | | |

Fig 35 Preterm Risk View

| CashFlow Date | CashFlow | Interest Rate | PV | DF |
|---------------|-----------|---------------|----------|--------------|
| 15-Apr-2015 | (100,000) | 8.000000 | (99,978) | 0.9997785642 |
| 23-Apr-2015 | 133 | 8.000000 | 133 | 0.9980088424 |
| 23-Apr-2015 | 100,000 | 8.000000 | 99,801 | 0.9980088424 |

Fig.36 Preterm CashFlow Details

2.1.9 Deal Actions

2.1.9.1 Steps to book a Bullet Deal

1. Select the Product from the Drop down list
2. Select the customer from the counterparty drop down
3. Select the currency through which the deal is made
4. Enter the amount of the deal
5. The value date is auto populated based on the spot days maintained for the Ccy. It can also be modified.
6. Enter the maturity date of the deal
7. Enter the Treasury rate, Customer rate and select the Portfolio, broker and purpose of the deal
8. Select the required Interest basis from the Drop down and the Interest type
9. Select the Holiday logic for the Cashflows computation
10. Once all the mandatory fields are filled, Click on Save or S&Release.
11. An Optional Pop-up screen with the warning/overrides messages or missing mandatory details with regards to deal and limits validations is displayed.
12. If the check is defined as an Override(soft check) then the User can accept it and proceed further but if the same is defined as an error(Hard check) then the system will not allow the user to proceed further until the necessary modification is made. Accept the Overrides if any.
13. Deal will be booked and an unique Deal number will get generated,
14. Message will be audited in the User Console for the reference purpose.

Note: Refer to the Deal Overrides/Error Window in section

2.1.10 Usability Features

2.1.9.2 Steps to book a Scheduled Deal

1. To book a deal, repeat the steps from 1 to 9 from section **Error: Reference source not found**
2. Click on the Schedule Tab.
3. For Amort Schedules:
 - ▮ Choose the Amortization type as Absolute or percentage.
 - ▮ Enter amortization amount and frequency
4. For Interest Schedules:
 - ▮ Enter the Interest Frequency
5. For Reprice Schedules:
 - ▮ Enter the Reprice Frequency and select the required Benchmark
6. **Schedules can be as follows:**
 - ▮ **Regular Amortization/Interest/Reprice Schedule:** Click on the generate button to generate a Regular Schedule.
 - ▮ **Irregular Amortization/Interest/Reprice Schedule:** Irregular Cashflows can be inserted through the fields which are highlighted in the screen shot . Select the required cashflow to be modified, field Payment date would be enabled for modification.
 - **Add button:** can be used for Adding the required Cashflow.
7. Once the Schedules are entered refer steps from 10 to 14 in section **Error: Reference source not found**

2.1.9.3 Steps to book a Branch B2B Deal

1. To book a deal, repeat the steps from 1 to 9 from section **Error: Reference source not found**
2. Click on, Path: Deal capture → Transactions → Branch B2B
 - a. B2B tab is enabled.
3. Choose the product from the drop-down for which Back to Back trading is allowed
4. Repeat the steps from 3 to 9 in the BranchB2B tab as well.
5. Select the B2B Branch and B2B Portfolio from the drop-down. For which B2B configuration has been maintained.
6. Refer steps from 10 to 14 in section **Error: Reference source not found**
7. Two Deal numbers would be generated and are audited in the user console.

2.1.9.4 Steps to book a Customer B2B Deal

1. Choose the Product from the drop down for which Back to Back is enabled. repeat the steps from 1 to 9 from section **Error: Reference source not found**
2. Select the Cust B2B check box in deal input tab, the Customer B2B tab gets enabled.
3. Choose the B2B Branch and B2B Portfolio from the drop-down for which B2B configuration has been maintained.
4. Refer steps from 10 to 14 in section **Error: Reference source not found**
5. Three Deal numbers would be generated and are audited in the user console.

2.1.9.5 Steps to do a Rollover of Deal

Pre-conditions for Rollover:

- ⌘ If the rollover is created prior to the value date of the deal, authorization of the deal is not mandatory and will not create an exception.
- ⌘ On the value date of the deal or later, (in case of rollover during grace period), authorization of the rolled over deal is mandatory prior to EOD.
- ⌘ All future modifications to the rollover take place on the newly created deal.
- ⌘ The deal appears on the Deal Blotter like any other deal. The source of the deal is shown as ROLL with the original deal number as the reference.
- ⌘ The cash flows of the Rolled Over deal impact the Risk Sheet like any other deal.
- ⌘ If the original deal has been backed out, the rolled over deal would be backed out as well. All backed out deals would be unauthorized till the original rolled over deal is authorized.
- ⌘ Modification / Deletions of backed out deals would take place in the same manner as any other customer back to back deal.

Listed below are steps to Rollover a deal:

1. Fetch the booked deal to be rolled over, through deal capture.
Click on path: Transactions → Rollover
2. A screen shown in fig. would pop up. Dealer chooses the required Rollover type
3. The deal input screen shows all the details of the original deal with the value date defaulted to the maturity date of the original deal and the maturity date is to be inputted accordingly.
4. Roll over tab would be enabled where the user can choose the mode of funds payment, and enters the narrative description
5. Funds movement field displays the amount according to the radio button selected.
6. Refer steps from 10 to 14 in section Error: Reference source not found
7. Once the deal is authorized, message saying that the deal is rolled over will be displayed in the user console.

2.1.9.6 Steps to do a Pre-termination of Deal

Pre-conditions for Pre-termination:

- ⌘ Pre-termination can be done for any date between the value date & the maturity date of the original deposit, irrespective of the system date. A deal can be pre-terminated to the system date, future date or a back date.
- ⌘ A future value date deal (a deal which would start in the future) can also be pre-terminated. The system captures the penalty rates for the same.
- ⌘ The details entered in the pre-termination tab can be modified till the pre-termination deal has not been authorized.

- π If a deal that was originally backed out is being pre-terminated, then the corresponding B2B deals also get pre-terminated. The application generates a message to confirm the same.
- π If a deal being pre-terminated involves multiple liquidation, amortization and re-pricing – the schedules would be re-generated at the time of pre-termination.
- π The cash flow gets updated to reflect the change in value dates as compared to original deal. In order to pre terminate a deal, a User has to select the preterm option as shown in the below screen shot.

Listed below are steps to pre-terminate a deal:

1. Fetching the deal to be Pre-Terminated through Deal capture,
Click on Path: Transactions → Preterm
2. **Full Pre-termination:**
 - π The radio button has to be chosen as full, the entire break amount would be defaulted and wouldn't be allowed for modifying.
 - π Click on the break date field. Enter the new maturity date refer **1.3.3.1 Date Shortcuts**
3. **Partial Pre-termination:**
 - π The radio button has to be chosen as partial, and modify the Amount accordingly.
 - π There is a check which ensures that the break amount is not greater than the original amount.
 - π On partial pre-termination, system shall pre-terminate the existing deal on the break date and create a new deal with the reduced amount with all other details remaining the same as original deal.
4. Enter the penalty rate for the deal.
5. Fields Int. Cost, Total Cost, Accr Interest, Tot Settlement are computed and displayed automatically by the system based on the penalty rate entered.
6. Enter the administration fees if any.
7. Refer steps from 10 to 14 in section Error: Reference source not found
8. Once Deal authorized, message saying that the deal is pre-terminated will be displayed in the user console.

2.1.9.7 Steps to Modify a Deal

User can modified the deal that is Saved/Authorized through this feature.

The following are the fields that can be modified: **Amount, Currency, Value Date and Treasury Rate**

1. Fetch the deal through deal capture screen either by entering the deal reference number or by selecting the deal from the deal blotter.
2. Modify the required field details and click on S&Release button.
3. A pop-up asking if the dealer is sure to modify the deal and the reason for modification.
4. Refer steps from 11 to 14 in section Error: Reference source not found

5. Each time a deal is modified a new version of the deal is created as explained in section Deal Compare

Note: The status of the Deal to be modified should be as FOSendBack. The deal can be send back through the send back button in Deal Enrichment screen in Back-office. Refer to the Send-Back feature in MM Back-office User Manual.

2.1.9.8 Steps to Delete a Deal


6. Once the Front office Authorized deal is fetched through Deal capture
7. Click on the  Del button on the toolbar or by using the **Delete/Cancel** option in the **Actions** menu.
8. A pop up asking if the User wishes to cancel the deal is displayed. Also giving an option to view the risk upon deleting the deal through View risk button. Refer 2.1.8 Risk Viewer or View Risk for further details.



Fig.9 Approval for Cancellation

9. Once the dealer is sure to delete the deal, click on Yes and enter the remarks for deleting the deal.
10. A pop up displaying the deal is cancelled successfully, and asking if the User wishes to Authorize?
 - π Clicking on YES, would authorize the Cancelled deal successfully.
 - π Clicking on No, the deal is canceled and will await authorization by another dealer.
11. Message saying that the deal is canceled and authorized will be displayed in the user console.

Note: The status of the Deal to be deleted should be as FOSendBack. The deal can be send back through the send back button in Deal Enrichment screen in Back-office. Refer to the Send-Back feature in MM Back-office User Manual.

2.1.9.9 Steps to Reverse a Deal

1. Fetch the Back office Authorized deal through Deal capture in front office.
2. Refer steps from 2 to 6 from section 2.1.9.7 for reversing the deal.

| Deal Status | Action Performed | Revised Status |
|---|-----------------------|---|
| FONEW(Entered & Not Authorized) | Deletion | Deal is completely deleted from the system. |
| FOAUTH(BOSEENDBACK) (This Action can be performed only if the deal is sent back by BO) | Deletion | Deal is completely deleted from the system. |
| BO AUTH | Cancellation/reversal | Deal would be completely reversed authorized. |

Once the deal is deleted, system cannot restore the deal and User has to manually book the deal again.

2.1.10 Usability Features

2.1.10.1 Pre Trade Analytics

2.1.10.1.1 What-If Analysis

What- IF is used to see the effect of booking an intended deal without actually booking it in the system.

Once the user inputs all the data in Deal capture screen and clicks on 'What-If' button, all the resultant Errors/Overrides in terms of applicable limit breaches will be displayed. It further indicates if any of the mandatory fields does not have a value.

It further carries out 'common checks' like value date validity / non-maintenance of certain applicable limits etc. The limits which would get breached due to the deal would be highlighted in red color while 'green' would suggest it to be within limit.

This feature also gives alert if any data is missed during deal details capture. What if would be enabled for the manually input deal.

Deal Capture - Intellect Money Market Front Office (Demo Bank 29-May-2014)

File Actions Transactions Tools Templates

Clear Risk Save Del Release S&Release ? What if Demo Bank

Deal Input Schedules Branch B2B Preterm RollOver

| Product | Counterparty | Currency | Amount | Value Date | Maturity Date |
|----------|--------------------------|----------|---------------|-------------|---------------|
| Placmnts | AFRICAN DEVELOPMENT BANK | EUR | 1,000,000.000 | 29-May-2014 | 30-Jun-2014 |

| Treasury Rate % | Cust Rate % | Portfolio | Broker Name | Remarks | <input type="checkbox"/> Cust B2B |
|-----------------|-------------|-----------|-------------|---------|-----------------------------------|
| 6.00000000 | 6.00000000 | LQDY | Anu[52] | | |

Purpose
LOANS OVERDRAFTS TAKEN BY ADS ON THEIR OWN A/C

Hide Details

| Int. Basis | Interest Type | Comp. Freq. Ind | Holiday Logic | Customer Spread |
|------------|---------------|-----------------|---------------|-----------------|
| Actual/360 | Simple Int. | | Mod Following | 0.000000 |

| Total Intr. Amount | Txn Dt | Benchmark | Brokerage | RA Cost % | Tax Code |
|--------------------|----------------------|-----------|-----------|-----------|----------|
| 5,333.333 | 29-May-2014 16:29:53 | | | 0 | |

| Our Pay | Our Receive | We pay to | Late Trade | OA | Show Conversation |
|---------|-------------|-----------|--------------------------------|----|--|
| | | | <input type="checkbox"/> Order | | <input type="checkbox"/> Spcl Handling |

| Source | Source Ref | Ext. Ref. No. | Delivery |
|--------|------------|---------------|----------|
| | | | |

Narrative

Original Mat. Date

MAKER AFRICAN DEVELOPMENT BANK

Fig.31 What-If

Steps to do What-If:

1. Click on the Deal Capture screen on the launch bar.
2. Input a Deal in deal capture
3. Click on the What-If button on the Deal Capture
4. To close the screen click **X** on the screen.

Below what-if screen shows when data has been entered in the deal capture screen

| Description | Message | Limit |
|-----------------------|--|----------|
| InterestRate | Interest Rate exceeded the maximum Basis Point Limit of 20 with respect to Reuters rate 8 | LIMIT |
| DEALER LIMIT | Deal Amount (1,630,650.00) is between Maximum Deal Amount (10,000,000.00 and Minimum Deal Amount () (USD Equivalents) | IN LIMIT |
| CPCConcentrationLimit | Total Portfolio Module Concentration 100.00 percent is higher than Global Portfolio Module Concentration Limit Value 25.00percent. | LIMIT |

Fig.32 What-If

***Note:** Also view risk feature supports Pre-Trade Analytics, as it shows the impact on the existing cashflows with the deal being inputted in the system. Refer the section 2.1.8 Risk Viewer or View Risk*

2.1.10.1.2 Deal Overrides/Error Window

During the time of saving/ authorizing a deal, the system would verify the similar checks shown in what if. But As this is a separate configuration at product level by maintaining as error/override to give a provision to the user for a flexible change.

If such violations are set as Overrides (i.e. which can be overruled to go forward), the following message pop-up would open up. On accepting such overrides (as per applicable business rule), the user can move forward to book a deal.

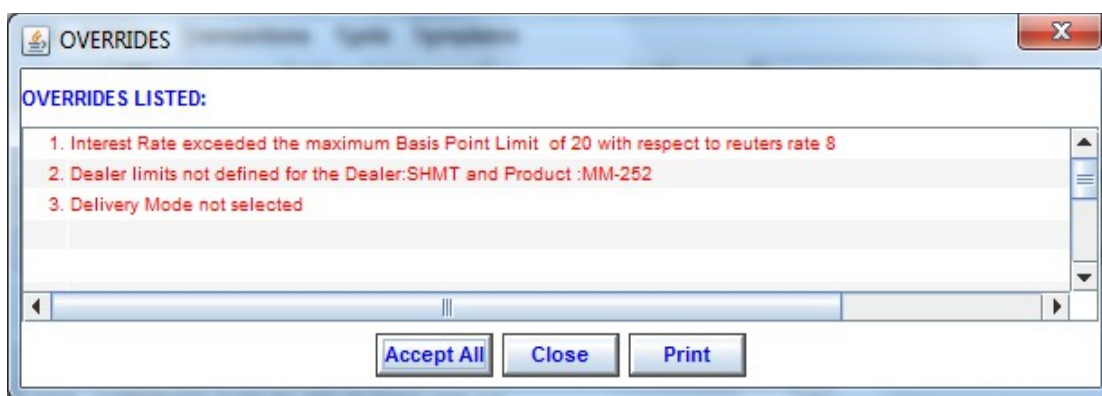
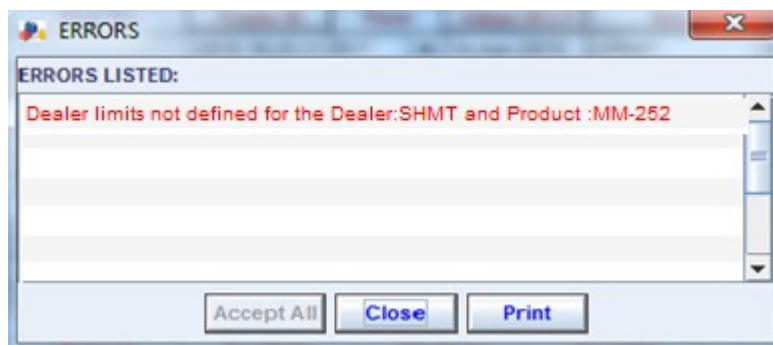


Fig.29 Overrides Screen

If the above exceptions are defined as 'Errors', a pop-up would open up restricting the user from going forward. The user can go back, change the deal values suitably if one wants to book the deal as per the limits set.



2.1.10.1.3 Limit/Compliance & Regulatory Checks

Limit monitoring consists of Limit definition, online limit checking, update utilization and risk authorization. Using the Maintenance available in setup (*Refer Setup Document for more information*), different limits are maintained in the system.

System performs online Limit checks on following transactions:

- ▮ New Deal Entry
- ▮ Deal Modification
- ▮ Deal Deletion
- ▮ Deal Reversals
- ▮ Deal Amendments
- ▮ Preterm
- ▮ Rollover

Based on the limit amount and the computed risk utilization, limit Checking would be done in the system.

Following are some of the applicable limits and their associated functionality for MM Asset class:

2.1.10.1.3.1 Deal Size Limit

Minimum and maximum deal size limits are set for a dealer through the Dealer maintenance in the setup. If the dealer books a deal for an amount below the minimum deal size limit or above the maximum deal size limit, the limit bursts.

Minimum and maximum deal size limits are set at an Instrument level and are validated at a deal level.

1.9.1.3.2 Pre-Settlement Risk(PSR)

Pre-Settlement is computed by the System during Deal Entry (Including all the events that modify the deal) before Settlement. System identifies all the applicable PSR limits based on the other criteria in Limit definition.

For example if PSR is defined for a particular counterparty, then system checks if the Deal's counterparty matches with the definition before applying the check.

For all the applicable deals, the calculated PSR is saved along with deal details.

Based on the PSR Limit details, system aggregates the deals and computes the total PSR which is checked against the Limit amount maintained at the Limit Definition. If the PSR exceeds the Limit amount user gets an override/warning/error with the information about the excess, and the PSR computed.

System updates the PSR utilization if no errors are generated or override is accepted.

Although in PSR maintenance screen tenor is mandatory, while doing calculations tenor part is not considered.

1.4.1.3.3 Product Limit

The Product limits can be set through the Limits definition, where the limits are validated at an Instrument level.

1.4.1.3.4 Product Group Limit

Instruments of money market can be grouped and a limit can be set. Instruments under that particular group cannot be traded beyond the specified limit.

1.4.1.3.5 CP Concentration Limit

Counterparty concentration limit is set at three levels: Global, Portfolio and Product. This limit is set to restrict exposure to any counterparty. It is calculated as the percentage of exposure of counterparty to the total counterparty exposure.

Whenever a deal is booked / modified for the set level, counterparty concentration limits are shown to the user only after a certain date which is configurable in the system.

1.4.1.3.6 Broker

The Broker limits can be defined through limits definition and the values for the limit can be specified through limit values maintenance. The Broker limits are validated at a deal level, the Utilization Amount is calculated based on number deal.

1.4.1.3.7 Rate Reasonability Check

It is the variation or difference that is acceptable in the rate. It is a check done during deal entry to ensure the treasury rate entered is within a specified change as compared to the rate maintained in the system. This is also called Rate Reasonability Check. The minimum and maximum rate is maintained in terms of absolute or percentage at time of currency creation

***Note:** What-if shows in limit if the maintained values are within the range and limit burst if the values are out of range. If the limit is burst, the system shows an override/error to the user based on configuration and the required criteria can be set as a hard check or soft check.*

2.1.10.2 Business Validations

Business validations are done and the results are displayed based on the override/error configuration done at the product level. Some of regulatory checks and limits configured explained.

2.1.10.3 Regulatory Checks

| Regulatory | Description |
|------------------------------|---|
| Transaction Date Holiday | If the transaction date happens to be a on the traded currency then this check is done |
| Back Valued Transaction date | If the trade is being booked as back valued ie (trade date of the deal is less than the application date) |

| | |
|---------------------------|---|
| Back Valued Maturity Date | This check is if the maturity date is being entered as back valued i.e. (Maturity date of the deal is less than the application date) |
| Maturity Date Holiday | If Maturity date happens to be a holiday on the traded currency then this check is done |
| New Interest Rate | When a new interest rate has been flown into the system and trade is being booked user is alerted through this check |
| Rate reasonability check | This check is to ensure the rate entered is within a valid limit |

2.1.10.4 Deal Template

The deal template feature is introduced to facilitate faster Deal Entry enabling traders to book trades in just two clicks. There are two ways in which the deal template can be saved, either by creating a new template in the deal template screen or saving the deal details captured in the deal capture screen as a template.

The dealer assigns a shortcut key for the deal template and the shortcut can be used to invoke the deal template or this template can be chosen from the deal template option available in deal capture screen. All the templates created can be viewed under the template menu in the deal capture screen.

Fig.68 Deal Capture Template

path: Deal capture → Template → Create/Modify Template

Fig.69 Deal Capture Template

The common fields from deal capture used in deal template can be viewed from the table in section 2.1.1 Deal Input tab . The description of other fields is given below.

| Field | Description |
|---------------------|---|
| Shortcut Key | Unique shortcuts for the template being created can be specified through this field. This is Ctrl+Alt+<Alphanumeric character>. Dealer can invoke this template by entering this shortcut key once the deal input tab is opened |
| Description | Specifies the Description of the template that the dealer has created. |

Note: The remaining fields can be referred from the tables in the section 2.1 Deal Capture

2.1.10.4.1 Create a new Deal Template

1. Go to Deal Capture Screen and click on Template Menu.
2. Select sub menu option as Create New Template. A deal template screen will be opened
3. Enter the shortcut key and description fields.

4. Fill in the required deal details in the template, once all the details are entered, then click on Save button
5. There will be a pop-up screen saying, “Deal Template created successfully”

2.1.10.4.2 Steps to create a template while Deal Booking:

1. Go to Deal Capture Screen
2. Enter the deal details in deal capture screen.
3. Click on the Template menu and select sub menu Save as Template. Enter the unique short cut key and the Description.
4. Once all the details have been verified .click on save button.
5. There will be a pop-up screen saying, “Deal Template created successfully”.

2.1.10.4.3 Modifying and Deleting a Deal Template

1. Go to Deal capture screen and click on the Template menu->Create New Template
2. Select the shortcut key for the template that needs to be deleted / modified, and Tab out.
3. All the fields in the deal template are filled based on created template.
4. **Modifying a Deal Template:** To modify the field that needs to be modified and click on the SAVE button below to save the Template with changed values.
5. **Deleting a Deal Template:** To Delete the template, directly click on the Delete button below .There is a confirmation pop up asking, “Are you sure you want to delete the template”. Click on Yes button.
6. There will be a pop-up screen saying, “Deal Template deleted successfully”.

2.1.10.4.4 Invoking a Deal Template

The dealer can invoke the template in the Deal capture by either the shortcut key assigned to it or through the templates menu and then choosing the appropriate template from the sub-menu.

2.1.11 Deal Compare

This option is used to compare the deal with its previous version(s). This feature helps in identifying the deal modification history acting as audit log along the deal lifecycle.

Deal Capture - Intellect Money Market Front Office (DEMO BANK 14-Apr-2015)

File Actions Transactions Tools Templates

Clear Risk Save Del Release S&Release What if DEMO BANK 2EC1510401029

Deal Input Schedules Branch B2B Preterm RollOver

| Product | Counterparty | Currency | Amount | Value Date | Maturity Date |
|-----------|--------------------|----------|---------------|-------------|---------------|
| Placement | BANK OF CEYLON LON | EUR | 2,000,000.000 | 14-Apr-2015 | 14-Oct-2015 |

| Treasury Rate % | Cust Rate % | Portfolio | Broker Name | Remarks |
|-----------------|-------------|-----------|-------------|--------------------------|
| 4.00000000 | 4.00000000 | FCBU | Anu[52] | BO SendBack Remarks : ok |

Purpose

LOANS OVERDRAFTS TAKEN BY ADS ON THEIR OWN A/C

Show Details

SHMT BANK OF CEYLON LONDON

Status: FO AUTH Ver: 3

Status: FO AUTH Ver: 3

FO MKR : POL05460 14-Apr-2015 15:46:06

FO CHK : SYSTEM 14-Apr-2015 15:46:06

BO MKR :

BO CHK :

Fig.25 Deal Version

Path: Deal capture → Tools → Deal Compare.

Below is the snapshot of the deal compare screen.

| Deal Compare Ref. No: 2EC1510401029 | | | |
|-------------------------------------|----------------|----------------|----------------|
| | Version - 3 | Version - 2 | Version - 1 |
| Deal No | 2EC1510401029 | 2EC1510401029 | 2EC1510401029 |
| Deal Date | 14-Apr-2015 | 14-Apr-2015 | 14-Apr-2015 |
| Dealer Id | SHMT | SHMT | SHMT |
| Branch Name | DEMO BANK | DEMO BANK | DEMO BANK |
| Product Name | Placement | Placement | Placement |
| Currency | EUR | EUR | EUR |
| Customer Name | BANK OF CEY... | BANK OF CEY... | BANK OF CEY... |
| Portfolio Code | FCBU | FCBU | FCBU |
| Deal Amount | 2,000,000 | 1,000,000 | 50,000 |
| Rate Type | FIXED | FIXED | FIXED |
| Customer Rate | 4 | 4 | 4 |
| Treasury Rate | 4 | 4 | 4 |
| Trans Date | 14-Apr-2015 | 14-Apr-2015 | 14-Apr-2015 |
| Value Date | 14-Apr-2015 | 14-Apr-2015 | 14-Apr-2015 |
| Maturity date | 14-Oct-2015 | 14-Oct-2015 | 14-Oct-2015 |
| Spread | 0 | 0 | 0 |
| Broker Name | Anu | Anu | Anu |
| Purpose | FO AUTH | FO SENDBACK | FO SENDBACK |
| FOMaker Id | POL05460 | POL05460 | MAKER |
| FOMake Date | 14-Apr-2015 | 14-Apr-2015 | 14-Apr-2015 |
| FOChecker Id | SYSTEM | SYSTEM | SYSTEM |
| FOCheck Date | 14-Apr-2015 | 14-Apr-2015 | 14-Apr-2015 |
| BOMaker Id | | | |
| BOMake Date | | | |
| BOChecker Id | | | |
| BOCheck Date | | | |
| Deal State | MMAuth | HISTORY | HISTORY |
| Ext Ref No | | | |

Fig.26 Deal Compare

2.1.12 On Behalf Of Functionality

The On-Behalf of Functionality gives a user privilege to book a deal on behalf of another Dealer in the system. Once the dealer is selected the default portfolio of the dealer is auto populated in the deal capture screen.

Steps to book a deal On-Behalf:

1. Select the User from the drop down in the left corner of the Deal capture screen as shown in the fig. [Portfolios related to that dealer get listed.](#)

- To book a Deal, refer Steps to Book a Deal in section **2.1.3 Deal ActionsError: Reference source not found**

Fig.5 Deal capture- On behalf of

2.1.13 Concurrent Audit

The Concurrent audit shows the Reuters conversation, the deal ticket and the counter-party confirmation message in parallel. It also highlights the unmatched data in the deal ticket and the Counter-party confirmation message. This screen would be enabled once the deal has been authorized in the front office.

Once the deal has been authorized, fetch it through the deal capture screen. Go to the below mentioned path

Path: Deal capture → Tools → Concurrent Audit

Below the Deal ticket and Counter party confirmation message the Audit Info is shown for a particular reference number.

The screenshot displays the 'Deal Capture - Intellect Money Market Front Office' window for a demo bank on May 29, 2014. The 'Tools' menu is open, showing options like 'View Risk', 'Deal Compare', 'Save ReuterId', 'Show Conversation', 'Deal Slip', 'Pre Trade Letter', 'STD Receipt Upload', 'STD Receipt Download', 'STD Sanction Note', and 'Concurrent Audit' (which is circled in orange). The main form contains fields for 'Product' (FDR Deposit), 'Counter' (CITYBANK NY), 'Treasury Rate %' (1.00000000), 'Amount' (100.00), 'Value Date' (23-May-2014), 'Maturity Date' (26-May-2014), 'Broker Name', 'Remarks', and 'Cust B2B'. At the bottom, there are sections for 'Int. Basis', 'Interest Type', 'Comp. Freq. Ind', 'Holiday Logic', 'Customer Spread', 'Total Intr. Amount', 'Txn Dt', 'Benchmark', 'Brokerage', 'RA Cost %', 'Tax Code', 'Our Pay', 'Our Receive', 'We pay to', 'Late Trade', 'OA', 'Show Conversation', 'Order', 'Spcl Handling', 'SHMT', 'CITYBANK NY', 'Status: FO AUTH', and 'Ver: 1'.

Fig.27 Concurrent Audit

Audit Info:

1. **Audit Status:** The Audit status of the deal is shown. The Audit Status can be selected from the drop down.
2. **Auditor:** The Auditors info is given in this field
3. **Audit Date:** The time and Date of when the Audit has been done is displayed here.

Concurrent Audit
2EC1429000033
Status: Matched

FROM BOEL BANK OF ENGLAND *
0840GMT 171014 */9280 CNV Our
terminal : RBIB Our user : RBIMUM RE GBP
DEPO# HI FRND# PLS GA HI FRDS, I CAN GET
TO 0.50 AT THE MOMENT FOR 1-YEAR, WOULD
T HAT WORK?# OK FRND# CAN DO# RTO
CONFIRM WE PLACE GBP 100 MIO IN DEPO#
FOR 1 YR# AT 0.50 PCT# FROM 21 OCT 2014
TO 21 OCT 2015# PLS CONFIRM I TAKE GBP
100 MN AT 0.50 PCT VAL 21OCT2014 AND
21OCT2015 MY GBP TO BOE (FTD), LONDON
THANKS A LOT FOR DEALS FRDS AND HAVE A
GOOD DAY ANDREW# THANKS ANDREW#
THANKU VM FRD....HAVE A NICE DAY ... BIBI
FN# # #END LOCAL## ^ ## TKT EDIT OF CNV
9280 BY RBIS 0844GMT 17OCT2014^ OUR GBP
TO ??^ THEIR GBP TO ??^ DEALER IS RBSP^
COMMENT - 8^ COMMENT - CENB^ STATUS
CONFIRMED^ ##ENDED AT 08:44 GMT##(474
CHARS)

| | | |
|------------------------|---------------|-------------------|
| Senders RefNo | 2EC1429000033 | OL-1410170000018 |
| Related Ref | 2EC1429000033 | NEW |
| PARTY A | BKENG2L | BKENG2L |
| PARTY B | RBISINBBXXX | RBISINBB |
| Type of Operation | AMND | NEWT |
| Scope Of Operation | | NA |
| Trade Date | 17-Oct-2014 | 17-Oct-2014 |
| Value Date | 21-Oct-2014 | 21-Oct-2014 |
| Maturity Date | 21-Oct-2015 | 21-Oct-2015 |
| PartyA Role | L | B |
| Currency | GBP | GBP |
| Principal | 100000000 | 100000000 |
| Interest Rate | 0.5 | 0.5 |
| Interest Basis | Actual/365 | AFI/365 |
| Interest Amount | 500000 | 500000 |
| Interest Currenct | GBP | GBP |
| Broker | | NA |
| Broker Commision | | NA |
| Party A Receiving A... | RBISINBBXXX | /41310004 BKEN... |
| Party B Receiving A... | BKENG2L | /50002953 BKEN... |
| Party A Intermediary | NA | NA |
| Party B Intermediary | NA | NA |
| Terms and Condition | | BANK OF ENGLA... |
| Status | PMAT | PMAT |
| Status Original | OPEN | OPEN |
| | SYSTEM | SYSTEM |

Audit Info

| | | | |
|--------------|---------------|--------------|---|
| Ref Num | 2EC1429000033 | Deal Version | 2 |
| Audit Status | UNAUDIT | Auditor | |
| Audit Date | | | |
| Remarks | | | |

AUDIT

Fig.28 Concurrent audit

2.1.14 Deal Slip

Deal Slip can be generated once the deal is saved. This screen shows the information on the deal that is booked.

The path to generate a Deal Slip

Deal Capture → Tools → Deal Slip

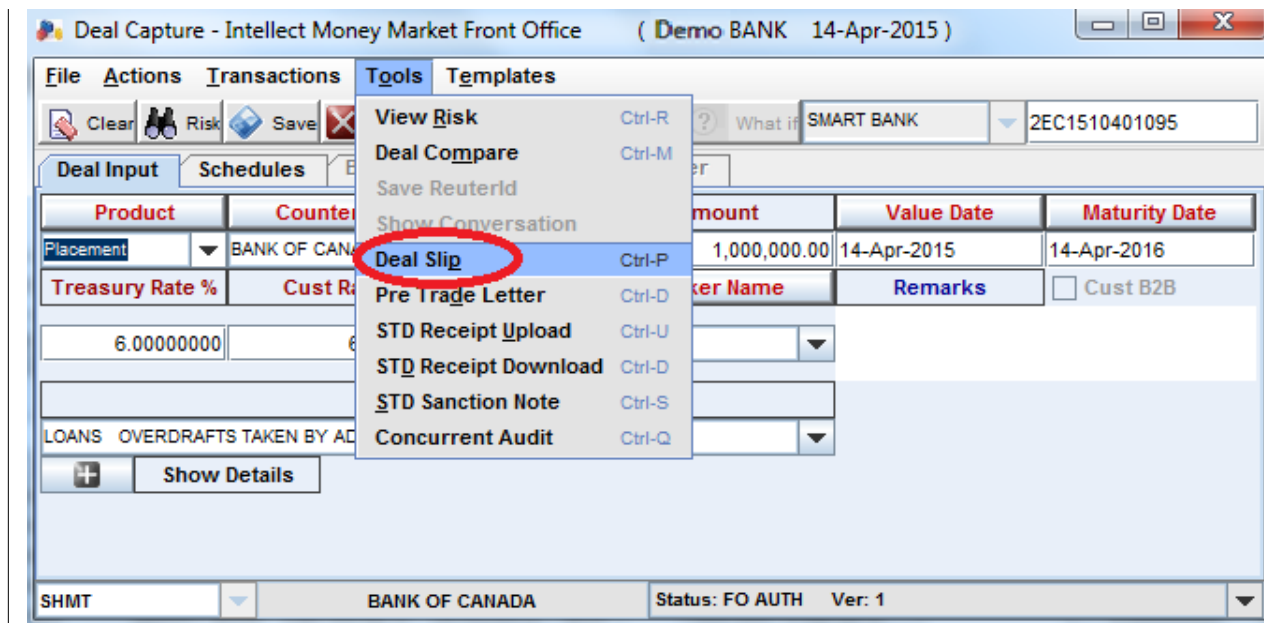


Fig.54 Deal Slip

Below is the format for Deal Slip generated from above



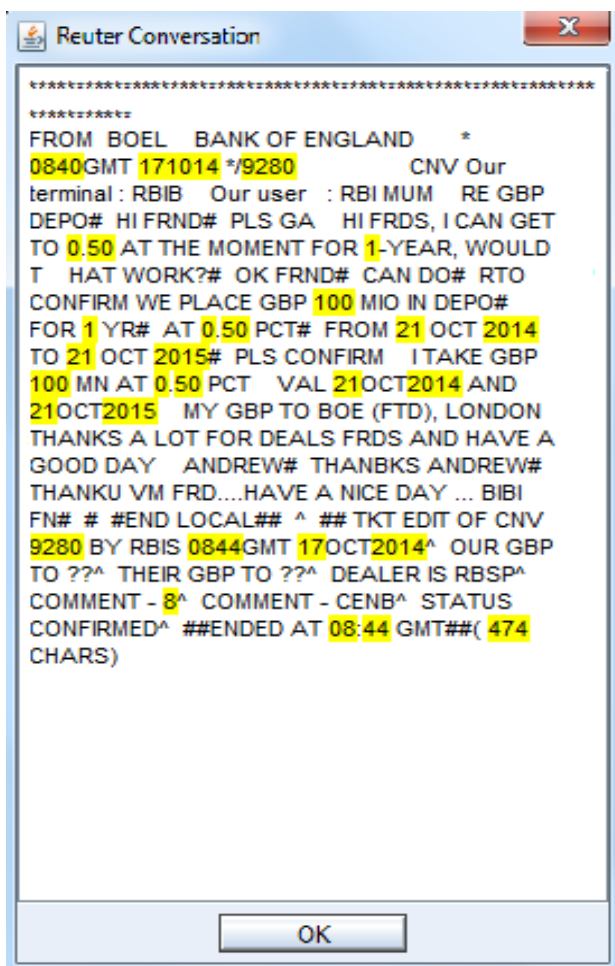
Acrobat
Document

2.1.15 Reuters Conversation

Reuter's conversation can be shown from the show conversation available in tools bar of deal capture.

This will be enabled in FO/BO when the deal retrieved from Reuters interface is authorized in back office.

Go to Deal Capture->Tools->Show Conversation



2.2 Other Deal Entry Screen

2.2.1 Import Deals

This screen provides the user to import bulk deals from an excel sheets. Deals can be imported into System from an Excel file. Dealers will copy and paste the deal details from Excel into an intermediate Screen called 'Import Deals'.

The list of products supported can be referred from MM Products Supported in section 1.0 Introduction

Import Deals - Intellect Money Market Front Office

| Seq | Status | Branch | Product | Counterparty | Currency | Amount | Value Dt | Maturity Dt | Treasury Rate | Cust Rate | Portfolio | Broker | Benchmark | Remarks |
|-----|--------|------------|---------------|--------------|----------|-------------|-------------|--------------|---------------|-----------|-----------|--------|-----------|------------|
| 1 | | SMART BANK | Treasury L... | BANK OF C... | USD | (50,000) | 14-Apr-2015 | 15-Apr-2015 | 6.00000000 | 6.000000 | FCBU | Arnu | | BO Send... |
| 2 | | SMART BANK | Call Money... | BANK OF C... | INR | (2,000) | 14-Apr-2015 | 15-Apr-2015 | 1.00000000 | 1.000000 | FCBU | Arnu | | |
| 3 | | SMART BANK | Deposit | AFRICAN D... | GBP | 100 | 14-Apr-2015 | 21-Apr-2015 | 10.000000... | 9.000000 | FCBU | Arnu | | |
| 4 | | SMART BANK | Call Money... | BARCLAYS ... | JPY | (1,000,000) | 14-Apr-2015 | 15-Apr-2015 | 6.00000000 | 8.000000 | FCBU | Arnu | CASH-JPY | |
| 5 | | SMART BANK | Call Money... | AFRICAN D... | EUR | 1,000,000 | 14-Apr-2015 | | 6.00000000 | 5.000000 | FCBU | Arnu | | |
| 6 | | SMART BANK | Call Money... | BANK OF C... | USD | 15,000,000 | 15-Apr-2015 | 16-Apr-2015 | 1.00000000 | 1.000000 | FCBU | Arnu | | |
| 7 | | SMART BANK | Deposit | BARCLAYS ... | USD | 1,000,000 | 16-Apr-2015 | 18-Apr-2010 | 2.00000000 | 2.000000 | FCBU | Arnu | | |
| 8 | | SMART BANK | SAARCSW... | BANK OF C... | EUR | 300,000 | 14-Apr-2015 | 14-Jul-2015 | 2.00000000 | 2.000000 | FCBU | Arnu | | |
| 9 | | SMART BANK | Placement | BANK OF C... | GBP | (200,000) | 16-Apr-2015 | 15-Oct-2015 | 2.00000000 | 2.000000 | FCBU | Arnu | | |
| 10 | | SMART BANK | Deposit | BANK OF C... | USD | 1,000,000 | 14-Apr-2015 | 14-Apr-2016 | 2.00000000 | 2.000000 | FCBU | Arnu | | |
| 11 | | SMART BANK | SAARCSW... | BANK OF C... | EUR | 300,000 | 14-Apr-2015 | 14-Aug-20... | 1.00000000 | 1.000000 | FCBU | Arnu | | |
| 12 | | SMART BANK | Placement | BANK OF C... | CAD | (1,000,000) | 14-Apr-2015 | 14-Apr-2016 | 6.00000000 | 6.000000 | FCBU | Arnu | | |
| 13 | | SMART BANK | Call Money... | BANK OF C... | GBP | 1,000,000 | 14-Apr-2015 | 14-Apr-2016 | 2.00000000 | 2.000000 | FCBU | Arnu | | |








Fig.7 Import Deal Screen

To get the Data template just click on Save Button blank template will get generated.

The various field details of this screen are shown in Table:

| Field | Description |
|-----------------|---|
| Clear | Indicates the branch at which the user books the deals .To clear the screen |
| Paste deals | To paste the details from an excel sheet to the screen |
| Validate Deals | It validates the business data for correct format and completeness of details required |
| Upload Deals | To save the deals on the system. This effectively uploads the validated data as deals into the system |
| Upload Auth | Authorizes the trades uploaded into the system |
| View Type | The deals to upload can be chosen depending on New Deal or Preterm Deal |
| Export to Excel | Provision to export the deals to excel for further reference |
| Help | Online help button |
| Exit | To exit the screen |

2.2.1.1 Steps to Import the Deals

-  Click on the Import Deals on the launch bar.
-  Import the deals in bulk by copying the deals from excel to the Import Deal Screen and click on Paste Deals.
-  Deals uploaded can be validated using “**Validate Button**”.
-  Trades that are valid are saved. Click on “**Upload Deals**”.
-  Once uploaded successfully a valid reference number is assigned to each deal. The deal will be shown with status as FO NEW in the Deal Blotter. Dealer can further analyze the trade and authorize or bulk-authorize through the Deal blotter.
-  The Deals can also be directly authorized from this screen by clicking on the “**Upload Auth**”, the deal will be shown with status as FO AUTH in the Deal Blotter. Users would need to ensure that any codes entered in the Excel should be corresponding to the static data that is maintained in the Setup.
-  Also pre-termination of deals can be done by selecting View type from New Deals to Preterm as highlighted in the figure.

2.2.2 FUNDING SWAPS

Intellect Treasury provides Funding Swap feature to handle scenarios where a trader in a particular currency may require funds for a fixed period.

In the external market, the funds are procured by executing an FX swap for the period the funds are required. However, since FX swaps reflect the interest rate difference between currencies, they are treated as notional placement and deposit transactions between the two currencies.

Hence such swaps, which are executed for the purposes of funding a currency is known as funding swaps.

2.2.2.1 Types of funding swaps

Internal Funding Swap

In an internal funding swap the transactions are done between the desks FX and MM using an internal counterparty which is defined in the system.

External Funding Swaps

In an external funding swap, the transactions done between the desks FX and MM are carried out through an external counterparty.

The snapshot of the funding swap screen is displayed in the below figure.

Funding Swap - Intellect Money Market Front Office(Demo bank 07-Nov-2014)

File Actions Tools Templates

Clear Save Delete Release S&Release What if Demo bank

Internal Funding Swap

☒ INTERNAL
☐ EXTERNAL
☐ MISMATCH

| | Counterparty | Buy | Sell | Spot Rate | Spot Date | |
|-----------|-----------------|-----------------|---------------|-----------|--------------|--------------------------------|
| | RBI DEIO-MUMBAI | EUR | USD | 1.5000 | 10-Nov-2014 | View All Deals |
| | Buy Amount | Sell USD | Value Date | PIPS | Near FX Rate | FX Port |
| NEAR LEG | 1,000,000.00 | 1,500,000.00 | 09-Nov-2014 | 0.0000 | 1.50000000 | CORE |
| | Sell Amount | Buy USD | Maturity Date | PIPS | Far FX Rate | FX Port |
| FAR LEG | 1,000,000.00 | 1,500,000.00 | 09-Feb-2015 | 0.0000 | 1.50000000 | CORE |
| TIME DEPO | Buy Int. Rate | Place. USD Rate | MM Buy PF | MM USD PF | Broker | Remarks |
| LEGS | 3.00000000 | 4.00000000 | CORE | CORE | REUTERS[1] | |

☐ Spcl Handling ☐ Mirror Trade Narrative

POL05460

Fig.21 Funding Swap Deal Capture

NEAR LEG

| Field | Description |
|---------------------------------|--|
| Buy/Sell Currency Amount | The commodity currency deal amount for the near leg of the deal is entered in this field. |
| Sell/Buy Currency Amount | The term currency deal amount for the near leg of the deal is displayed in this field. This field is non-editable. The value is auto populated based on near FX rate of the deal and the commodity currency deal amount. |
| Value Date | Value Date of the transaction |
| PIPS | The spread over the near leg FX rate is defined in the near leg PIPS. The value entered in this field is the basis points of spread over the FX rate. |
| Near FX Rate | The exchange rate for the near leg of the deal is displayed in this |

| | |
|----------------------|---|
| | field. This is a non-editable field and the value is auto populated based on the calculation: Near FX Rate = Deal Spot Rate + near leg PIPS |
| FX Port | The FX portfolio for the FX near leg of the deal is entered in this field. |
| Spcl Handling | If the user wants to signal that if there is been any special handling for a Deal then he can check the check box in Screen. There is a provision to include a Narrative field, which will contain the details of the special handling. |

FAR LEG

| Field | Description |
|---------------------------------|--|
| Buy/Sell Currency Amount | The commodity currency deal amount for the far leg of the deal is entered in this field. This is a non-editable field and becomes editable only when the option mismatched is chosen. By default the Far Leg Amount is the same as the near leg amount. However for the mismatched funding swap deal a different amount can be entered |
| Sell/Buy Currency Amount | The term currency deal amount for the far leg of the deal is displayed in this field. This field is non-editable. The value is auto populated based on far FX rate of the deal and the far leg commodity currency deal amount. |
| Maturity Date | The maturity date for the transaction is entered in this field |
| PIPS | The spread for the far FX rate defined in PIPS is entered in this field. The value entered in this field is treated as a basis point. This is a text box where any value can be entered in a numeric format. Far FX Rate = Deal Spot Rate + Far leg PIPS |
| Far FX Rate | The exchange rate for the far leg of the deal is displayed in this field. This is a non-editable field and the value is auto populated based on the calculation: Far FX Rate = Deal Spot Rate + Far leg PIPS |
| FX Port | The FX portfolio for the FX far leg of the deal is entered in this field |

MONEY MARKET LEGS

| Field | Description |
|---------------------------|---|
| Buy currency Rate | The deposit (buy) currency rate for the MM deal is entered in this field. If this value is entered then the sell interest rate can be calculated by clicking on the sell interest rate button. |
| Sell Currency Rate | The placement (sell) currency rate for the MM deal is entered in this field. If this value is entered then the buy interest rate can be calculated by clicking on the buy interest rate button. |

| | |
|---------------------------|---|
| MM Buy Portfolio | The portfolio for the deposit MM deal is entered in this field. |
| MM Sell Portfolio | The portfolio for the placement MM deal is entered in this field. |
| Broker Name | This field captures the broker of the deal |
| Remarks | This field captures the remarks if any while booking a deal. |
| Branch | Name of the branch in which the deal is being booked. |
| Internal/ External | This radio button is used to choose whether to make an internal or an external funding swap. |
| Counter party | Short name of the counter party for an external funding swap. For an internal funding swap this field is disabled and the counterparty is the internal funding account counterparty. |
| Mismatched | A mismatch funding swap trade can be booked by selecting this feature for the External Funding Swap, where the currencies Buy and Sell amount may vary unlike a normal external funding swap. |
| Buy/Sell | This field is used to choose the commodity currency for the deal. |
| Sell/Buy | This field is used to choose the term currency for the deal |
| Spot Rate | This field is used to enter the spot rate for the commodity and term currency combination. It is auto populated as maintained in the setup for the currency pair and tenor. |
| Spot Date | The spot date for the commodity and term currency combination. It is auto populated as maintained in the setup for the currency pair. It is a non-editable field. |

Various Short cuts available/used can be referred from the section Error: Reference source not found1.3.3 Key Operational Features

2.2.2.2 Pre-conditions for booking deals in Funding Swap

When the deal details are entered, the process is as follows:

1. System does a check with the Global Open FX regarding the customer limit. If the customer is clear then the system does further checks as listed below.
2. System does mandatory input checking i.e. if the mandatory fields have been entered or not.
3. The tenor is calculated depending on the Value & Maturity Dates and the Interest Method. Interest Calculation is another computation performed by system.
4. Business validations such as the currency holiday check, dealer limit check etc. are also performed refer 4.0 References/Glossary. If there are any exceptions/overrides then it prompts the dealer with all the overrides occurred, when the overrides are accepted then the deal is booked and a Deal Reference will be generated. Alternatively, if the exception parameter is set to an 'error', the transaction is not processed. A message indicating the error is displayed. Maker information with date and time is updated by the system.

2.2.2.3 Steps to Book Internal Funding Swap deal

1. Click on the funding swap in the launch bar.
2. Select the deal type using the **Internal** radio button.
3. Enter the Funding Swap deal Details
 - ⌘ For an internal deal, the counterparty is a non-editable field and is defaulted to the internal counterparty defined for that branch.
 - ⌘ Select the type of the swap i.e. buy/sell or vice versa and enter commodity and term currencies. The spot date for this currency combination as maintained in the setup is auto populated. Spot date is an editable field and you can change it.
 - ⌘ Enter the commodity currency amount and the maturity date of the deal.
 - ⌘ Click the commodity currency amount field for the first leg. The FX rates as maintained in the setup for the selected currency combination and the tenor are auto populated. To change these rates, enter the spread in the pips field and click the commodity currency field again to get the new values in the amount fields.
 - ⌘ Enter the FX portfolios for both the near and far legs of the deal.
 - ⌘ Enter the deposit and placement currency rates and the portfolios for the same.
4. Click **View All Deals**. The details for both the FX and MM deals generated are displayed.
5. Click on Save. The overrides or errors, if any, are displayed.
6. On changing any of the attributes for forward points or currency interest rates, the resulting fields to be re-calculated turn red. If user proceeds to save the deal without recalculating, an error pop-up displaying 'Please re-calculate the swap points/ interest'.
7. A confirmation message with the deal reference numbers displayed in the user console.

5 trades are generated for the Internal Funding swap:

 - ⌘ 2 legs of FX swap
 - ⌘ 1 Interest Stub and
 - ⌘ 2 MM legs

2.2.2.4 Steps to Book External Funding Swap deal

1. The steps would be similar to that of Internal Funding swap, Here the deal type is to be selected as External by selecting the External radio button.
2. The Mismatched check box is enabled only when the deal selected is of type 'External'.
3. Select the counterparty of the deal.

4. Refer the above section to further proceed with deal booking.
5. For the External Funding Swap there are 7 trades generated:
 - ⌘ 2 legs of External FX swap
 - ⌘ 2 Reversal legs of FX Swap
 - ⌘ 1 Interest Stub
 - ⌘ 2 MM legs

2.2.2.5 Additional Actions on Funding Swap deals

The following actions can also be done on the funding swap deals

- ⌘ Authorizing the deal through S&Release button
- ⌘ Modifying the deal
- ⌘ Deleting the deal

2.2.2.6 Funding swap template

This template is similar to that of a Money market template, but it has the privilege of capturing the details for both External and Internal deals along with other details. Refer Deal template for further details in section 2.1.10.4 Deal Template. The dealer can invoke the template in the Deal capture by either the shortcut key assigned to it or through the templates menu and then choosing the appropriate template from the sub-menu.

2.2.3 Cash Flow Adjustments

At the end of the day, bank branches transfers position arising out of change in the total deposits in current/savings accounts. This is a daily process arising out of normal branch operations of the bank. Since this is a daily procedure, typically the adjustment would have to be reversed on a daily basis. However, this is not ideal because Treasury only receives a net flow rather than transaction-by-transaction information. Moreover since branch cash flows tend to deal more with demand money rather than time money, it is not possible to assign a maturity date to the cash flow. Therefore system provides a feature of entering a cash flow adjustment (CADJ) with 'infinite' maturity i.e. there is only 1 cash flow associated with it on the value date.

The CADJ deal can be of three types and can be selected from appropriate radio button:

- ⌘ **Customer pool:** Selecting the source type as Cust Pool, records the deals from Customer pool i.e. tracking the customer accounts.
- ⌘ **Treasury pool:** Selecting the source type as Tres Pool, records the deals from Treasury pool.
- ⌘ **Call account:** Selecting the source type as Call Acc, records the deals from Call accounts.

Attached below is the screen shot of the cash flow adjustment screen.

Fig.22 Cashflow Adjustment Screen

When clicked on “Show Details” button, fields like narrative and account number fields become visible.

When dealer selects Call Account option in the deal input screen then counter-party and Account fields gets enabled.

When user moves to either customer pool or Treasury pool adjustment screens both fields counter-party and Account gets cleared and disabled.

Since the CADJ deals are not modified; if there is any mistake dealer has to book a new adjustment or reverse the old adjustment, hence all the deals booked will have a version as 1.

| Field | Description |
|--------------------|--|
| Source Type | Indicates if the adjustment to be booked is a treasury pool, customer pool or Call Account. This is a radio button from which the dealer has to choose one option. By default the Cust Pool option is chosen |
| Flow Type | Indicates if the adjustment is an inflow or outflow of cash |
| Currency | Currency in which the adjustment is to be made. |
| Value date | Captures the date of the adjustment. |
| Amount | Captures the amount of the adjustment. |
| Rate | Rate at which the interest of the transaction is to be calculated. |

| | |
|-----------------------|---|
| | |
| Portfolio | Logical grouping of deals/trades done under virtual warehouses as applicable. These codes are part of static data maintenance |
| counter-party | Field is used only for the Call Account adjustments. Once the dealer chooses call account in the source type this field becomes enabled. This field is then used to capture the customer with whom the call account/NFM adjustment is to be made. |
| Remarks | Remarks of the deal, can be entered up to 20 characters |
| Interest Basis | The interest basis of the deal to be made. This value is defaulted based on the currency of the adjustment. However the interest basis can be changed at a deal level |
| Narrative | Additional remarks can be entered. This is a non-mandatory 230-character text field. |
| Account | Enter the Account Id of the customer in case of NFM/Call Acc adjustments. This field is enabled only when the source type is chosen as Call Acc. |

Various Short cuts Available/Used can be referred from the section
4.0 References/Glossary1.3.3 Key Operational Features

2.2.3.1 Steps to Book a C/F Adjust deal

1. Click on the C/F Adjust screen on the launch bar.
2. Select the appropriate radio button from Cust/Tres/Call pools.
3. The flow type is either Inflow or Outflow.
4. Enter the remaining trade details and click on S&Auth.

2.2.3.2 Deletion of C/F Adjust deal

1. System has the option to cancel the CADJ entered earlier by using option of “Reverse”. If dealer wants to cancel the deal, he will click on Reverse button, which would generate a new CADJ deal on equal amount by opposite Flow.

2.2.4 Deal Capture for CBLO/LAF

“Collateralized Borrowing and Lending Obligation” as the name implies is a collateralized and secured instrument for borrowing / lending money. CBLO aims to benefit those who have been phased out of Call/ Notice money market and / or those restricted in the borrowing / lending in call / notice money market. This is a discounted instrument with a maturity of maximum 1 year.

“Liquidity Adjustment Facility” is used to aid banks in adjusting the day to day mismatches in liquidity by allowing the dealers to borrow money.

Intellect Treasury supports these deals to be booked through the CBLO/LAF Deal capture screen.

Deal Capture screen for CBLO/LAF deals is same as money market Deal capture.

Instruments supported are:

- ▮ CBLO Put
- ▮ CBLO Call
- ▮ LAF

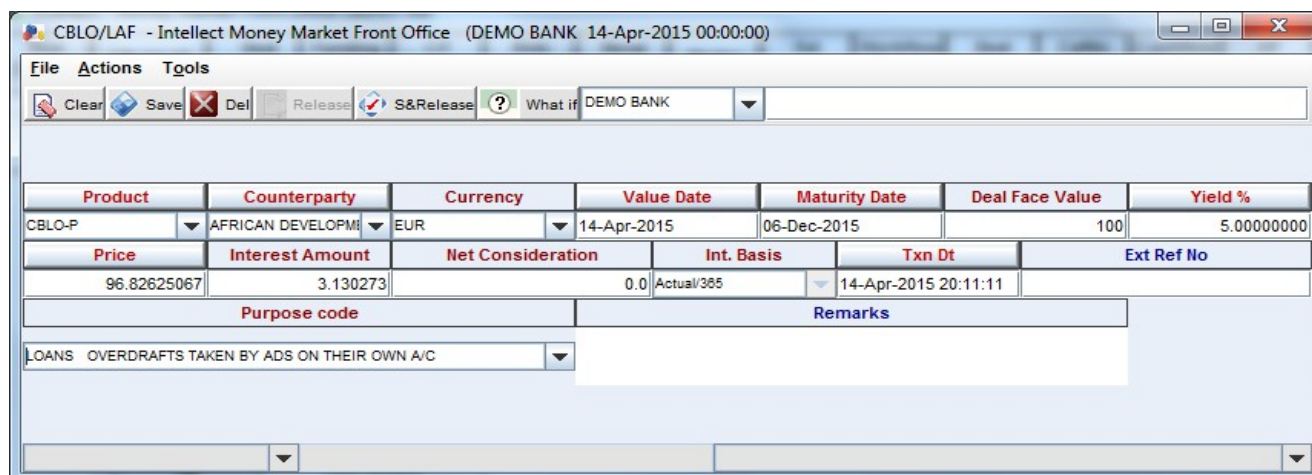


Fig.20 CBLO/LAF Deal Capture

| Field | Description |
|--------------------------|---|
| Product | Required Product can be selected from the drop down. CBLO/LAF products can also be maintained from the Product Maintenance. The Liquidity Injector flag in this maintenance is to be selected as CBLO/LAF accordingly to configure these Instruments. |
| Counter Party | This fields denotes the other party of the trade. |
| Currency | Currency in which the trade is booked can be selected from the drop down list. |
| Value Date | Is the Value Date of the deal |
| Maturity Date | Is the Maturity Date of the deal |
| Deal Face Value | This field shows the actual face/par value at the time of issue |
| Yield% | This is a system updated field, which calculates the gained/loss in buying or selling the security. Yield is automatically computed if Price is given. |
| Price | This field indicates the price at which the security is bought / sold. Price is automatically computed if Yield is given. |
| Interest Amount | The interest amount computed for the deal is displayed. |
| Net Consideration | It shows the total amount after deducting all the interest and brokerage from the original Deal face value applicable in |

| | |
|-------------------|---|
| | buying/selling the security |
| Int. Basis | Is the interest basis of the deal |
| Purpose | This field is drop down list where the actual purpose of booking a deal can be selected from the list |

Various Short cuts available/used can be referred from the sections Error: Reference source not foundSearch/Short cut features. Error: Reference source not found

2.2.4.1 Steps to Book a CBLO/LAF Deal

1. Click on the CBLO/LAF on the launch bar
2. Once the User enters the deal details,
Enter Yield and the fields Price, Interest Amount and Net Consideration are automatically computed by the system.
3. The Interest basis is defaulted depending on the currency chosen.
8. Refer Procedure to Book a Deal in section Deal Input.**Error: Reference source not foundError: Reference source not found**

2.2.5 CASH FLOW QUERY

Position square off from multiple Branches/Portfolios to one target Branch/Portfolio can be done using the Intellect Cashflow Query screen. This screen is an Enhanced version of Auto squaring functionality which supports querying of cashflows for the branches based on the currency, date range, portfolio and squaring off the position at Dealer-Wise, Portfolio-Wise and Entity-Wise.

The Cash flows can be viewed at across various portfolios and predefined tenor period the maximum number of days that can be viewed is **fixed to 30 days**.

A dealer can own one or more portfolios, however more than one dealer cannot own a portfolio. The dealer with access to more than one branch can own portfolios across branches and the Cash portfolio for a dealer would be unique for each branch.

The tenor dates shown are the actual dates and are serially numbered to display the no. of days from the start date. Even the tenor with cash flow as 0, is displayed. The weekends & holidays are marked as "H". Each tenor shows the cumulative cash flow balances for that day.

***Note:** In case the user wants to see a cash flow query for more than a month that can be viewed through an online report.*

Below are the list of Fields and options available:

| Field | Description |
|-----------------|--|
| Branch | Selection of the branch where auto squaring has to be done to/from |
| Currency | The required currency can be selected from the drop down |

| | |
|----------------------|---|
| Method | <p>This specifies the criteria to fetch the cashflows. The following are the options available:</p> <ul style="list-style-type: none"> ▮ Portfolio-Wise: Enables user to fetch cashflows across portfolios, based on the branches chosen all the portfolios that the dealer has access to will be shown. The name of the dealer who owns the portfolio will be displayed under the Portfolio-Wise cashflow query results. ▮ Dealer-Wise: Enables user to fetch cashflows across portfolios of all the dealers for the selected branches. The owner of the portfolio will be displayed under the Portfolio-Wise cashflow query results. This provision is provided for dealers who are able to view and book deals for all portfolios which they have access to. ▮ Entity-Wise: Enables users to fetch cashflows across branches. |
| From Date | This field indicates the tenor start date from which the cashflow will be displayed. |
| To Date | This field indicates the tenor end date up to which the cashflow will be displayed. The maximum date limit is only one month (i.e. the start and end date should fall between 0D to 29D). |
| Get Cashflows | Clicking on get cashflows would fetch the cashflows for the selected branch, currency, from date, to date and method. |
| Dom Portfolio | This field is used to select the cash portfolio in which all the risk has to be squared off. This dropdown shows the cash portfolio of not only the dealer but also cash portfolios of other dealers as well. |
| View Type | <p>This field is enabled when the method is chosen as Dealer-Wise.</p> <p>The following are the options available:</p> <ul style="list-style-type: none"> ▮ Unconsolidated: This is used when multiple branches are selected. The dealer column would display the sum of the positions of portfolios owned by that dealer for each branch. Hence in this selection, a single cash portfolio would be displayed for each dealer under that user to square off. ▮ Consolidated: Is used only if the selection of branch in the Cash flow query screen is 'All' or more than one branch. Wherein the sum of positions would be for portfolios across branches, no portfolio would be displayed. This would indicate to the user that the particular dealer's position is a summation of portfolios across branches hence a single cash portfolio cannot be defaulted in this case and the user would not be able |

| | |
|------------------------------|---|
| | to generate the deals and square the positions as the user does not have access to the cash portfolio of another dealer for this dealer. It would have to be done under branch unconsolidated option. This would be for the matter of information only |
| Portfolio Type | The cashflows of the portfolios can be segregated based on the following <ul style="list-style-type: none"> ▮ All Risk Trsy ▮ All Non-Risk Trsy |
| Calculate Balances | The Balances are calculated based on the portfolios selected and is displayed through the Selected Balances Column |
| Select All Portfolios | This check box is used to select all the Portfolios displayed |
| Sort By | Sorting of the cashflows can be done based on the following options: <ul style="list-style-type: none"> ▮ Dealer ▮ Portfolio ▮ Entity |
| Sort By Amount | The cashflows can also be sorted by amount once a particular record from the fetched Cashflows has been selected |
| Offer Rate | This field is used to specify the rate at which the Dominant Portfolio would lend the money. |
| Bid Rate | This field is used to specify the rate at which the Dominant Portfolio would borrow the money. |
| Maturity Date | This is the date on which the squared off deal will mature |
| Get Deals | To get the deal for Square off |

2.2.5.1 Steps for Squaring off positions Dealer-Wise

1. Click **Cashflow Query** on the launch bar.
2. All the mandatory fields in the Cashflow Query window are marked in red.
3. Select the required **Branch** from the combo-box. User can also select all the branches by selecting the option as All.
4. Select the **Currency** from the drop-down list. The Currency drop-down list is populated based on the branch selected in the Branch combo-box.
5. Select the **From Date** and **To Date** from the drop-down list. This is the date range between which the Cashflow will be displayed
6. Select the **Method** as **Dealer-wise** using which the cashflow is to be displayed.

7. Select the **View Type** from the drop-down list
8. If User selects the method as Dealer-wise, then User needs to select the **Cash Portfolio** from the Dominant portfolio drop-down list, which gets populated with the dominant portfolio for which the dealer has access.

A sample window for Dealer-wise method, consolidated view is given below.

Cumulative Cashflow Query - Intellect Money Market Front Office

File | **Fetch** | **JC** | **Delete** | **Save As**

Branch: All | London NA | AFC BV | Amsterdam CIP | Artemis IRE adjustment

Currency: EUR | **From Date**: 30-Jan-2015 | **To Date**: 06-Feb-2015

Cash Portf...: BCH1 | **Method**: Dealer-Wise | **View Type**: Consolidated | **Portfolio Type**: All Risk Trsy

Calculate Balances | ☐ **Select All Portfolio** | **Sort By**: Portfolio | **Sort By Amount**

| DATE | TOTAL | SELECTED | JGH1 | JWH1 | LPH1 | MGH1 | NFH1 | NFH3 |
|----------------|-----------------|----------|-----------|-----------|------------|---------------|---------------|------|
| | BALANCES | BALANCES | London NA | London NA | London NA | London NA | London NA | Lo |
| | | | JNGR | JWAL | LAUR | MAGL | NICK | |
| CFWD, Cashflow | (9,335,223,548) | 0 | 26,017 | 240,508 | 90,702,758 | (489,937,334) | 238,442,550 | 108 |
| 30-Jan-2015 | (9,335,223,548) | 0 | 26,017 | 240,508 | 90,702,758 | (489,937,334) | 238,442,550 | 108 |
| 31-Jan-2015 H | (9,335,223,548) | 0 | 26,017 | 240,508 | 90,702,758 | (489,937,334) | 238,442,550 | 108 |
| 01-Feb-2015 H | (9,335,223,548) | 0 | 26,017 | 240,508 | 90,702,758 | (489,937,334) | 238,442,550 | 108 |
| 02-Feb-2015 | (9,074,644,346) | 0 | 26,017 | 240,508 | 90,702,758 | (531,410,175) | 438,530,894 | 108 |
| 03-Feb-2015 | (8,278,525,823) | 0 | 26,017 | 240,508 | 90,702,758 | (531,332,871) | 838,740,073 | 108 |
| 04-Feb-2015 | (7,895,800,443) | 0 | 26,017 | 240,508 | 90,702,758 | (531,822,208) | 1,214,119,573 | 108 |
| 05-Feb-2015 | (7,850,907,351) | 0 | 26,017 | 240,508 | 90,702,758 | (531,821,154) | 1,214,119,573 | 108 |

Bid Rate: 0.000000 | **Offer Rate**: 0.000000 | **Maturity Date**: 03-Feb-2015 | **Get Deals**

Fig.44 CashFlow Query

9. Select the cashflow that needs to be squared off from the list of cashflows displayed. This can be done by placing a check mark in the check box provided in the **Portfolio** column head.
10. Specify the **Bid rate**, **Offer rate** and **Maturity date** for the deals in the text boxes provided in the bottom pane. Click the **Get Deals** button.
11. The Auto Squaring Off window appears as illustrated below, providing User the back to back deal details of the square off. In this window, User can change the interest rate for any of the deal set

| Branch | Portfolio | Product | Currency | Amount | Value Date | Maturity Date | Rate | Audit Trail |
|----------------|-----------|-----------|----------|---------------|-------------|---------------|----------|-------------|
| London NA(***) | BCH1 | Deposit | EUR | 26,017 | 31-Jan-2015 | 02-Feb-2015 | 0.000000 | |
| London NA | JGH1 | Placement | EUR | (26,017) | 31-Jan-2015 | 02-Feb-2015 | 0.000000 | |
| London NA(***) | BCH1 | Deposit | EUR | 240,508 | 31-Jan-2015 | 02-Feb-2015 | 0.000000 | |
| London NA | JWH1 | Placement | EUR | (240,508) | 31-Jan-2015 | 02-Feb-2015 | 0.000000 | |
| London NA(***) | BCH1 | Deposit | EUR | 108,654,358 | 31-Jan-2015 | 02-Feb-2015 | 0.000000 | |
| London NA | NFB3 | Placement | EUR | (108,654,358) | 31-Jan-2015 | 02-Feb-2015 | 0.000000 | |

Save&Auth Exit (***) Indicates the Deal with Cash Portfolio

Fig 46. Auto Squaring- Deals generated

12. Click **Save and Auth** to create and authorize the deal.
13. The cashflows are refreshed to reflect the square-off positions. The Deal. Ref. nos. for original and back to back deals are also shown.

Deals are saved in the System and a unique deal Reference Number is generated for each deal. Deals are updated in the blotter with deal status FO NEW. The deal becomes available for Front Office authorization.

2.2.5.2 Steps for Squaring off positions Portfolio-Wise

1. Repeat the steps from 1 to 5 from the section 2.2.5.2
2. Select the method as Portfolio-Wise.
3. Repeat the steps from 7 to 10.

A sample window for Portfolio-wise method is given below.

| DATE | TOTAL | SELECTED | CORE | LQDY |
|----------------|------------|----------|--------------|-------------|
| | BALANCES | BALANCES | Demo Bank | Demo Bank |
| | | | SHMT | SHMT |
| CFWD, Cashflow | 86,815,610 | 0 | (11,577,371) | 98,392,981 |
| 29-May-2014 | 70,487,373 | 0 | (8,384,302) | 78,871,675 |
| 30-May-2014 | 81,537,473 | 0 | (8,384,302) | 89,921,775 |
| 31-May-2014 H | 85,538,351 | 0 | (8,384,302) | 93,922,653 |
| 01-Jun-2014 H | 85,538,451 | 0 | (8,384,302) | 93,922,753 |
| 02-Jun-2014 | 87,538,451 | 0 | (8,384,302) | 95,922,753 |
| 03-Jun-2014 | 90,136,449 | 0 | (8,384,302) | 98,520,751 |
| 04-Jun-2014 | 90,136,449 | 0 | (8,384,302) | 98,520,751 |
| 05-Jun-2014 | 95,734,699 | 0 | (8,384,302) | 104,119,001 |

Fig.45 Cashflow Query

Note: User need to use the 'W' shortcut for the date instead of the 'D' shortcut, as the 'D' shortcut considers the Holiday logic

2.2.5.3 Squaring off positions Entity-Wise

Steps would be the same as mentioned in section 2.2.5.2. Select the method as Entity-Wise.


3.0 Blotters

Blotters supported by Intellect gives the User a provision of viewing the deals, risk numbers and status of deals at a single place. Various Blotters supported are explained in the further sub sections.

3.1 Common Blotter Features

3.1.1 User Preferences in Blotters

It is to set or define the selection criteria based on which a user wants to view deal related data.

The button on the Blotters  is used to invoke the user preferences screen of the blotter. The preferences are configurable and it is used to show/display the deals & other valuable information with saved or selected properties like deals booked in past 'n' days or booked in certain portfolio etc

The user preference screen has different tabs for selection of Dealer groups, branch/portfolio, and currency and blotter columns. Refer to the below screen shot.

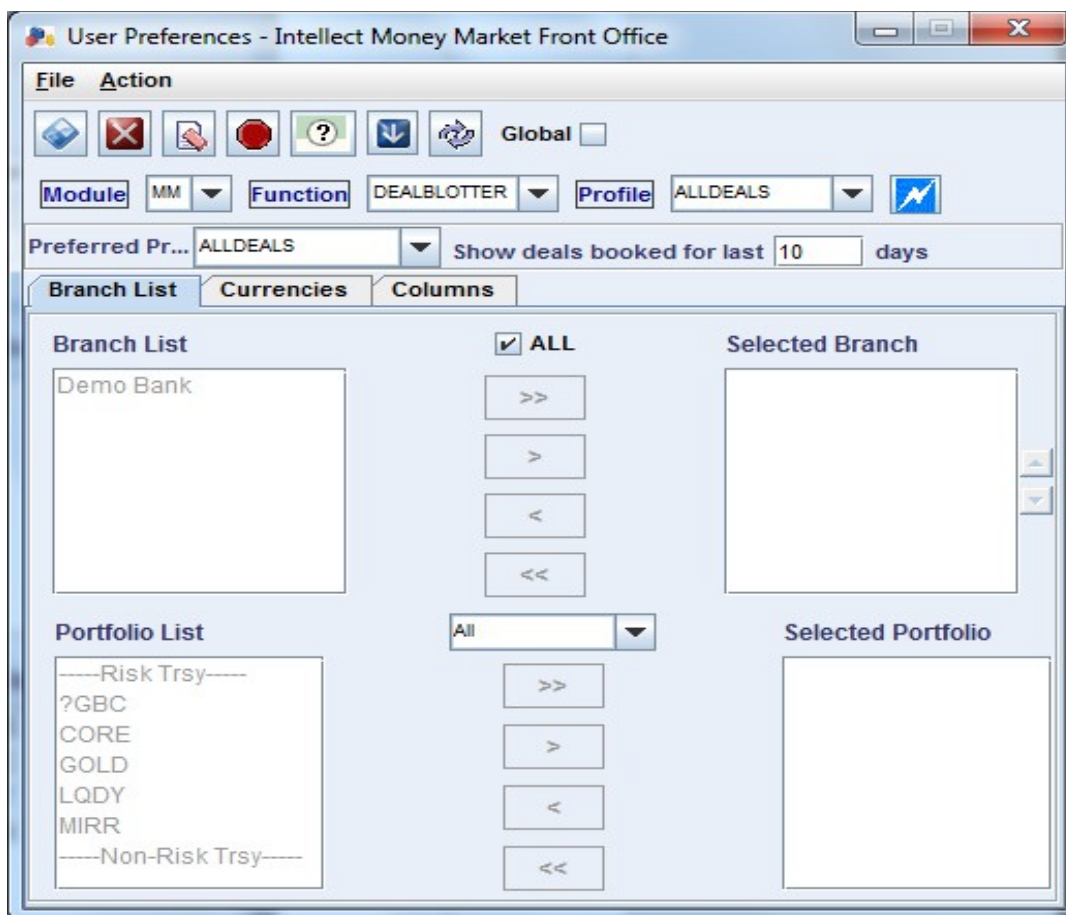



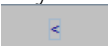
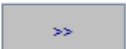
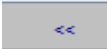


Fig.56 User Preferences


Note: The Icons related to User Preferences have been listed in the section 1.3.2 Key Icons
User Preferences are common across Blotters. Dealer can set preferences for following criteria so as to filter the deals as per one's need .

- ▮ **Show Last 'N' Days:** System provides user with option to view deals done as of today for last 'n' days where 'n' is user specified. By default, the deals done during the day are displayed.
- ▮ **Branch:** Dealer can choose branch for which one would like to see the deals done.
- ▮ **Portfolio:** Dealer can choose one or more Portfolios for which one would like to see the deals done.
- ▮ **Currency:** Dealer can choose list of currencies.
- ▮ **Columns:** Dealer can choose list of configured columns to display

3.1.1.1 Operating in the User Preferences Screen



- Available items are placed in left panel and the selected item are placed in the right.
Select an item from available list and Click on  to add it to the 'selected items list box.
needs to be left unchecked.
- To remove an item from 'selected item list 'box select the item and click on .
- To select multiple items press and Hold <CTRL> key and click on the available items which need to be selected. . Use  and  for selection and De- selections of the items
- To move all the available items from the left panel to the selected items in right panel, click on 
Similarly to de-select all the items from selected list to available list click on 

3.1.1.2 Create Local/Global Profile

- Go to deal blotter and Click on the  button.
- Enter name of the profile to be created in the profile field.
- Select the values from the available drop down against the branch, portfolio , currency and columns .
- If the user wants to create a global profile Check the Global check box.
- Click on save button. There would be a pop-up saying that the new preference has been saved successfully. This newly saved profile can now be seen on the profile dropdown of the deal blotter.

3.1.1.3 Modifying and Deleting a profile

Listed below are the steps to modify or delete an existing profile.


- Go to deal blotter and Click on the  button.
- Click on the Profile Field and choose the profile that has to be modified.
- Click on the fetch button in preferences .
- Deleting a Profile:**


Click on delete button  to delete a selected profile

5. Modify a Profile:


Modify the profile against any of criteria's as mentioned and Click on save button.

3.1.2 Printing and Spooling of Blotter

Blotter can be saved in an excel with a simple click of  button for MIS purpose.

Clicking on the  button can also print the blotter.

3.1.3 Live/Frozen

Auto Refreshing can be controlled using LIVE/ROZEN functionality by  button. This is helpful for the dealer when he monitors numbers and can be choose to stop the blotters to refresh online.

- ⌘ LIVE : Refresh the blotters real time
- ⌘ FROZEN : Stops refreshing real time

3.1.4 Additional Features

The dealer has additional configurability as to the view of it as follows

- ⌘ Setting the order in which the columns are to be shown .This can be done by selecting a column and dragging it.
- ⌘ Sort the Blotter on any column by right clicking on the column heading.
- ⌘ If a tenor end date falls on a holiday then the tenor date is marked with a superscript H to represent that the tenor date is a holiday.

3.2 Deal Blotter

Deal blotter displays the list of all the deals done today or for a selected time period based on the user preferences. Blotter displays all the important attributes of the Deal in front office
Deal blotter is updated as soon as a deal is saved. All the fields captured in deal capture are displayed in the blotter

Easy color codes in the deal blotter help recognize the status of the deal. To further show the exact status of the deal there is a status column with a proper convention.



Copy deal function can also be directly used from the deal blotter where on choosing a trade

and clicking on the copy button the deal details would be populated in the deal capture window.

| Deal No | Status | Last Update | Brn Name | Counterparty | Curr | Cust Rate | Customer Spre | Deal Ch | Deal Chk Date Time | Deal Make Date Ti | Deal Ma | Dealer IC |
|------------|------------|--------------|-------------|-------------------|------|------------|---------------|---------|--------------------|--------------------|---------|-----------|
| 2EC1510... | FO MOD | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | USD | 6.00000000 | 0.00000000 | | | 14-Apr-15 09:59:01 | MAKER | SHMT |
| 2EC1510... | FO MOD | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | INR | 1.00000000 | 0.00000000 | | | 14-Apr-15 12:13:53 | MAKER | SHMT |
| 2EC1510... | FO NEW | 14-Apr-15... | 1 DEMO BANK | 8... BARCLAYS ... | JPY | 8.00000000 | 2.00000000 | | | 14-Apr-15 12:31:18 | MAKER | SHMT |
| 2EC1510... | FO NEW | 14-Apr-15... | 1 DEMO BANK | 8... AFRICAN D... | EUR | 5.00000000 | 0.00000000 | | | 14-Apr-15 12:51:49 | MAKER | SHMT |
| 2EC1510... | FO CANCEL | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | USD | 1.00000000 | 0.00000000 | | | 14-Apr-15 14:48:38 | MAKER | SHMT |
| 2EC1510... | FO AUTH | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | CAD | 6.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 20:38:39 | 14-Apr-15 20:38:38 | MAKER | SHMT |
| 2EC1510... | FO AUTH | 14-Apr-15... | 1 DEMO BANK | 8... AFRICAN D... | EUR | 3.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 19:03:35 | 14-Apr-15 19:03:33 | MAKER | SHMT |
| 2EC1510... | FO AUTH | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | CAD | 2.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 18:59:25 | 14-Apr-15 18:59:24 | MAKER | SHMT |
| 2EC1510... | BO CANCEL | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | USD | 2.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 18:32:47 | 14-Apr-15 18:32:46 | MAKER | SHMT |
| 2EC1510... | BO AUTH | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | USD | 1.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 18:22:03 | 14-Apr-15 18:22:03 | MAKER | SHMT |
| 2EC1510... | BO AUTH | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | USD | 1.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 18:20:59 | 14-Apr-15 18:20:59 | MAKER | SHMT |
| 2EC1510... | BO AUTH | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | USD | 1.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 18:19:06 | 14-Apr-15 18:19:06 | MAKER | SHMT |
| 2EC1510... | FO AUTH | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | USD | 1.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 18:15:55 | 14-Apr-15 18:15:55 | MAKER | SHMT |
| 2EC1510... | FO AUTH | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | USD | 2.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 18:12:37 | 14-Apr-15 18:12:37 | MAKER | SHMT |
| 2EC1510... | FO AUTH | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | EUR | 6.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 18:11:38 | 14-Apr-15 18:11:38 | MAKER | SHMT |
| 2EC1510... | BO REVERSE | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | EUR | 2.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 18:03:53 | 14-Apr-15 18:03:52 | MAKER | SHMT |
| 2EC1510... | BO AUTH | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | USD | 5.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 17:58:39 | 14-Apr-15 17:58:39 | MAKER | SHMT |
| 2EC1510... | FO AUTH | 14-Apr-15... | 1 DEMO BANK | 8... AFRICAN D... | GBP | 2.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 17:55:37 | 14-Apr-15 17:55:37 | MAKER | SHMT |
| 2EC1510... | FO AUTH | 14-Apr-15... | 1 DEMO BANK | 8... AFRICAN D... | GBP | 2.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 17:55:02 | 14-Apr-15 17:55:02 | MAKER | SHMT |
| 2EC1510... | BO AUTH | 14-Apr-15... | 1 DEMO BANK | 8... BANK OF C... | EUR | 5.00000000 | 0.00000000 | SYSTEM | 14-Apr-15 17:52:49 | 14-Apr-15 17:52:49 | MAKER | SHMT |

Fig.37 Deal Blotter

| Field | Description |
|-----------------------|---|
| Deal Status | Displays the status of the deal as of today. This column is color coded for deals with different status. <ul style="list-style-type: none"> Amber for new/modified/Repriced deals Green for authorized deals Red for deleted deals Blue for Matured-Cancelled deals |
| Deal Number | Displays the deal reference of each deal. |
| Status | Displays the status of the deal as of today. The status can be: <ul style="list-style-type: none"> FO NEW FO AUTH FO CANCEL/AUTH FO MOD FO SendBack REPRICED |
| Active Tenor | Displays the active tenor of the deal. The tenor specifies the bucket of current cashflow date. |
| Booking Status | The Booking Status indicates whether the deal is currently unauthorized or matured |
| Branch Name | Branch name where deal has been entered. |

| | |
|--------------------------------|---|
| Branch Number | Branch number as maintained in the setup. |
| Deal Maker Id | ID of the dealer/user who has entered the Deal |
| Deal Maker Date Time | The date and time when the maker entered the deal. |
| Deal Checker Date Time | The date and time when the deal was authorized. |
| Dealer Id | Captures the ID of the dealer who has booked/authorized the deal. This field remains unchanged even if other dealer modifies the deal |
| Source | Source code for the deal. |
| Source Reference Number | Indicates the reference number of the source deal |
| Tenor | Indicates the total number of tenors in the deal. |

3.2.1 Different Views in Blotter

Different 'Views' present in the Deal blotter enables User to view the required deals. Below mentioned are the Views available.

A drop-down is provided in the Deal Blotter. It has the following options:

| Field | Description |
|--------------------------------------|--|
| All Deals | This view displays all deals that the dealer has the right to see. This is the default view in the blotter |
| My Deals | This view displays only those deals that have been entered by the Dealer |
| My UnAuth Deals | This view displays the unauthorized deals |
| UnAuth All Deals | This view displays all the deals that are presently unauthorized in the system |
| All Auth Deals | This view displays all the Authorized deals |
| MyAuth Deals | This view displays all the Authorized deals of the Logged in User |
| Outstanding for Repricing- 0D | All the Outstanding deals which are to be Repriced as of that date are displayed |
| Outstanding -0D | All the Outstanding deals as on 0D are displayed |
| UnAudited Deals | This view displays the list of the deals which are not audited yet |
| Maturing-0D | The deals maturing as of that day are displayed |


| De... | Deal No | Status | Last Upd | View | Amount | Brn Name | Br... | C... | Counterparty... |
|------------|------------|------------|----------|----------------------|-------------|------------|-------|--------------|-----------------|
| 2EC1510... | 2EC1510... | FO AUTH | 14-Apr- | All deals | 1,000,000 | SMART BANK | 18... | BANK OF C... | |
| 2EC1510... | 2EC1510... | FO AUTH | 14-Apr- | My Deals | 1,000,000 | SMART BANK | 18... | AFRICAN D... | |
| 2EC1510... | 2EC1510... | FO AUTH | 14-Apr- | UnAuth All Deals | 1,000,000 | SMART BANK | 18... | BANK OF C... | |
| 2EC1510... | 2EC1510... | FO AUTH | 14-Apr- | My UnAuth Deals | 1,000,000 | SMART BANK | 18... | BANK OF C... | |
| 2EC1510... | 2EC1510... | BO CANCEL | 14-Apr- | All Auth Deals | (1,000,000) | SMART BANK | 18... | BANK OF C... | |
| 7EC1510... | 7EC1510... | FO AUTH | 14-Apr- | My Auth Deals | (200,000) | SMART BANK | 18... | BARCLAYS ... | |
| 2EC1510... | 2EC1510... | BO AUTH | 14-Apr- | OutstngForReprice-OD | (1,000) | SMART BANK | 18... | BANK OF C... | |
| 2EC1510... | 2EC1510... | BO AUTH | 14-Apr- | Outstanding-OD | (1,000) | SMART BANK | 18... | BANK OF C... | |
| 7EC1510... | 7EC1510... | FO AUTH | 14-Apr- | Anu | (200,000) | SMART BANK | 18... | BANK OF C... | |
| 2EC1510... | 2EC1510... | BO REVERSE | 14-Apr- | Anu | (1,000) | SMART BANK | 18... | BANK OF C... | |
| 7EC1510... | 7EC1510... | FO AUTH | 14-Apr- | Anu | (200,000) | SMART BANK | 18... | BANK OF C... | |

Fig.38 Deal Blotter Views

3.2.2 Bulk Authorization

Whenever the options *UnAuth All deals* and *My UnAuth Deals* are chosen, the Deal Status column in the deal blotter is replaced by the ‘authorize’ column, which allows checking of those deals that can be authorized at one go through the Bulk Authorization feature

1. Click on the Blotter button in the launch bar. The Deal Blotter would open up
2. Click on the Views drop-down. Choose the option as *UnAuth All Deals* or *My UnAuth Deals*. The ‘authorize’ column replaces the Deal Status column in the blotter.
3. Check the deals that need to be authorized.

Click on authorize button . There would be a pop-up asking, “Do you wish to authorize the selected deals”.

4. On clicking “Yes” in the above pop-up all the selected deals would be authorized and the user console would display a message saying x number of deals authorized.

3.2.3 Filters

If the dealer wants to choose the deals of only a specific currency or others out of the currencies chosen in the preferences, system allows to Filter deals in Deal Blotter .The options to apply filter can be viewed by right clicking on the deal blotter.

| De... | Deal No | Status | Last Updat... | Dealer ID | Product Name | Curr... | Amount | Ext. Ref. No | Treasury Rate | Cust Rate | Counterparty... | |
|-------|------------|----------|---------------|-----------|--------------|---------|---------------|--------------|---------------|-----------|-----------------|----|
| | 2GB1503... | FO AUTH | 30-Jan-15... | CARL | DEPOSITS | GBP | 782 | | 0.469380 | 0.469380 | 9999999999 | 01 |
| | 2GB1503... | FO AUTH | 30-Jan-15... | CARL | PLACEMENTS | GBP | (1,135,973) | | 0.469380 | 0.469380 | 9999999999 | 01 |
| | 2GB1503... | FO AUTH | 30-Jan-15... | CARL | DEPOSITS | GBP | 3,739,677 | | 0.469380 | 0.469380 | 9999999999 | 01 |
| | 2GB1503... | FO AUTH | 30-Jan-15... | CARL | DEPOSITS | GBP | 1,135,973 | | 0.469380 | 0.469380 | 9999999999 | 01 |
| | 2GB1503... | FO AUTH | 30-Jan-15... | CARL | PLACEMENTS | GBP | | | 0.469380 | 0.469380 | 9999999999 | 01 |
| | 2GB1503... | FO AUTH | 30-Jan-15... | CARL | PLACEMENTS | GBP | | | 0.469380 | 0.469380 | 9999999999 | 01 |
| | 7GB0918... | REPRICED | 26-Jan-15... | DAWI | IRDF | USD | | | 0.256100 | 0.256100 | 9999999999 | 01 |
| | 7GB0918... | FO MOD | 26-Jan-15... | DAWI | IRFP | USD | | | 5.622000 | 5.622000 | 9999999999 | 01 |
| | 2CP1502... | FO MOD | 28-Jan-15... | CARL | DEPOSITS | USD | 1,000,000,000 | | 2.000000 | 2.000000 | 3AB OPTIQ... | 28 |
| | 2CP1502... | FO MOD | 28-Jan-15... | CARL | DEPOSITS | USD | 1,000,000 | | 2.000000 | 2.000000 | 3AB OPTIQ... | 28 |
| | 2CP1503... | REPRICED | 30-Jan-15... | CARL | DEPOSITS | USD | 1,000,000 | | 1.000000 | 1.000000 | CITIINTLDN | 19 |
| | 2CP1503... | REPRICED | 30-Jan-15... | CARL | DEPOSITS | USD | 1,000,000 | | 2.005007 | 22.005007 | CITIINTLDN | 28 |
| | 2CP1503... | REPRICED | 30-Jan-15... | CARL | DEPOSITS | USD | 1,000,000 | | 1.000000 | 1.000000 | CITILDN | 19 |
| | 2CP1503... | REPRICED | 30-Jan-15... | CARL | DEPOSITS | USD | 1,000,000 | | 1.000000 | 1.000000 | CITIINTLDN | 19 |
| | 2CP1503... | REPRICED | 30-Jan-15... | CARL | DEPOSITS | USD | 1,000,000 | | 1.000000 | 1.000000 | CITIINTLDN | 19 |
| | 2CP1503... | REPRICED | 30-Jan-15... | CARL | DEPOSITS | USD | 1,000,000 | | 2.000000 | 2.000000 | CITIINTLDN | 27 |
| | 2CP1503... | REPRICED | 30-Jan-15... | CARL | DEPOSITS | USD | 1,000,000 | | 2.005007 | 2.005007 | CITIINTLDN | 28 |
| | 2CP1503... | REPRICED | 30-Jan-15... | CARL | DEPOSITS | USD | 1,000,000 | | 1.000000 | 1.000000 | CITILDN | 19 |

Fig.39 Deal Blotter Filter

To apply filters user can select over the list of columns provided and enter text in 'Find'. Once 'Filtered' deals will be optimized respectively.

Find : EUR

Filter Clear Filter

Options

☐ Match Case ☐ Match Whole Word ☐ Filter Results

Select Column Brn Name

Fig.40 Filter table

Similarly dealer can clear or restore filters.

3.3 Call Notice Blotter

The screen is used to set the Maturity Date of all deals which are of the Notice /Call Type.

3.3.1 Mature Notice Call Contracts

The user can use the blotter in View / Modify & Authorize modes.

- ▮ In the View Mode the blotter can only be Manually Refreshed.
- ▮ In the Modify Mode, Maturity Date can be set on records and one or more records can be

updated simultaneously.

- ¶ For Notice deals the maturity date must be set to a date on/after X working days from the system date, where X is notice period. Any change can also be deleted on unauthorized but matured deals. The Find field enables the user to set Maturity Date on all Deals that match particular criteria. Only Manual refresh is possible.
- ¶ In the authorize mode the system authorizes all the selected record/s. For all the records selected
- ¶ The system displays any overrides that occur (for each record). Once the user has accepted the overrides the record is authorized.
- ¶ In order to access the Mature Notice/Call Contracts interface, select Mature Call/Notice from the main screen. The screen that appears is shown below.

| Deal No. | Product | Counterparty | Currency | TAB_AUTH = Auth... | Value Date | Maturity Date | Notice Days | Cust Rate % |
|---------------|---------|--------------|----------|--------------------|------------|---------------|-------------|--------------|
| 2EC1414900971 | MM202 | BIS | EUR | 1,000,000 | 25/05/14 | | | 9.0000000000 |
| 2EC1414901088 | MM101 | BIS | EUR | 1,000,000 | 05/06/14 | | | 3.0000000000 |

Fig.43 Call Notice Blotter

3.3.2 Steps to Access Call Notice Blotter

1. A profile can be Created/Deleted using the Save Profile/Delete Profiles respectively, through several filters available.
2. Once a filter is created, deals can be fetched by selecting the required profile and clicking on Fetch deals as shown in the screenshot.
3. Clear profile is used to clear the existing profile.
4. Once the deals are populated in the grid below, the required deals can be selected and the maturity date can be entered 'X' days from the application date.
5. Notice days field to be entered for Notice deals.
6. Actions such as Save/Delete/Authorize/Save & Authorize can be performed on the deals.
7. The deals can be Printed or Spooled to and excel.

3.4 Risk Sheet

The Risk Sheet displays the real-time or the historic view of the outstanding positions for all the Money Market deals entered. User can create a profile with the required select criteria through

the Preferences. Selecting a profile user can view the outstanding positions across tenors from 0D-30Y. Dealer can also open up multiple risk sheets to view the risks in different portfolios.

The summary row shows the fields like MTM, Accruals and other Risk Figures on a daily level as well as on a monthly level.

The risk sheet also has the following functionalities apart from the common features:

- ▮ Historical Risk Sheet: To fetch the cashflows from a history date
- ▮ Cashflow Blow up: This feature is explained in further sections
- ▮ Preferences: This feature is explained in further sections

The risk sheet has following views:

1. Intraday Liquidity Sheet
2. Consolidated View of Cashflows

3.4.1 Intraday Liquidity

The Intraday liquidity shows the cashflows with the risk figures for a selected currency.

The tenors of the Cashflow, if fall on a holiday then the tenor date is marked with a superscript H to represent that the tenor date is a holiday. If the revaluation rate for the tenor is an interpolated rate then the reval rate has a * marked to indicate that the rate has been arrived at by interpolation.

Dealer can also change the currency through the drop-down in the risk sheet. The revaluation rate used in the risk sheet by default is EOD rates however the rates can be changed to LIVE rates by choosing LIVE from the drop-down. Dealer can also see the cumulative risk of a number of currencies together.

| Risk Sheet - Intellect Money Market Front Office (ALLRISK) | | | | | | | | | | | |
|--|--------|------------------------|--|--------------------|--|--------------------|--|----------------|----|--------------------------|---------------|
| Last Refreshed 19:07:26 29-May-20... EUR/USD 1.38670 | | | | | | | | | | | |
| Profile | | Ccy | | History Date | | Reval Rates | | Branch | | Desk | |
| ALLRISK | | EUR | | | | EOD | | ALL | | 12345,FMDG,FXDSK,IBDS... | |
| Delta | | -533,237 | | Previous Day MT... | | 614,882 | | Daily Accrual | | -33,456 | |
| MTD Economic V... | | -533,237 | | Current MTM | | 81,645 | | MTD Accrual | | -33,456 | |
| Economic Value | | | | | | | | Economic Value | | -566,693 | |
| | | | | | | | | MTD Gain/Loss | | -499,782 | |
| CFWD. Cashflow | | | | | | | | CFWD. Cashflow | | 5,576,598 | |
| BV. Cashflow | | | | | | | | BV. Cashflow | | 81,239,014 | |
| + | Bucket | Cumulative (Act+Proj)* | | Cumulative (Loans) | | Cumulative (Proj)* | | DF | FS | FS (USD) | Interest Rate |
| | 0D-30Y | | | | | | | | | | |
| | 0D | 70,487,373 | | 0 | | 0 | | 1.0000000000 | 0 | 0 | 8.000000 |
| | 1D | 81,537,472 | | 0 | | 0 | | 0.9997785887 | 0 | 0 | 8.000000* |
| | 2D | 85,538,350 | | 0 | | 0 | | 0.9995572264 | 0 | 0 | 8.000000* |
| | 3D | 85,538,450 | | 0 | | 0 | | 0.9993359131 | 0 | 0 | 8.000000* |
| | 4D | 87,538,450 | | 0 | | 0 | | 0.9991146489 | 0 | 0 | 8.000000* |
| | 5D | 90,136,449 | | 0 | | 0 | | 0.9988934336 | 0 | 0 | 8.000000* |
| | 6D | 90,136,449 | | 0 | | 0 | | 0.9986722673 | 0 | 0 | 8.000000* |
| | 7D | 95,734,899 | | 0 | | 0 | | 0.9984511499 | 0 | 0 | 8.000000* |
| | 8D | 97,733,976 | | 0 | | 0 | | 0.9982300816 | 0 | 0 | 8.000000* |
| | 9D | 97,733,976 | | 0 | | 0 | | 0.9980090621 | 0 | 0 | 8.000000* |
| | 10D | 98,433,976 | | 0 | | 0 | | 0.9977880916 | 0 | 0 | 8.000000* |
| | 11D | 98,833,976 | | 0 | | 0 | | 0.9975671701 | 0 | 0 | 8.000000* |
| | 12D | 98,833,976 | | 0 | | 0 | | 0.9973462974 | 0 | 0 | 8.000000* |
| | 13D | 98,833,976 | | 0 | | 0 | | 0.9971254737 | 0 | 0 | 8.000000* |
| | 14D | 95,642,376 | | 0 | | 0 | | 0.9969046988 | 0 | 0 | 8.000000* |
| | 15D | 95,282,286 | | 0 | | 0 | | 0.9966838728 | 0 | 0 | 8.000000* |

* All Figures are shown in Default Amounts H - Holiday * - Interpolated Rate

Fig.47 Risk Sheet

3.4.1.1 Cash Flow Blow up

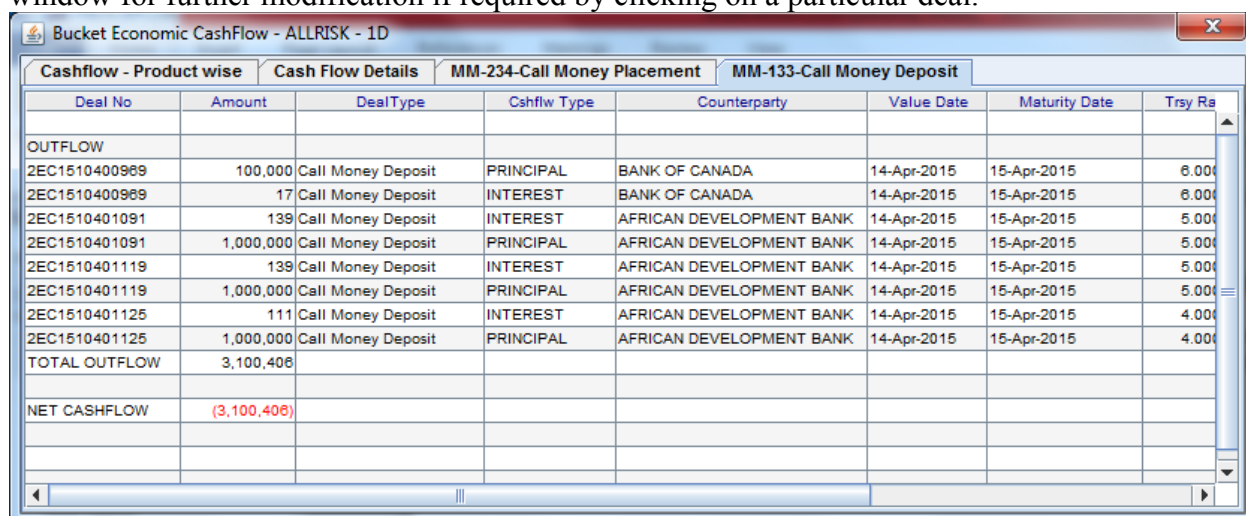
The user has the ability to drill down on any particular tenor bucket to view the Products/Instruments that have contributed for the inflow and outflows along with the Netcash flows for selected tenor bucket in the Risk Sheet. The user can also see the Cash flow details through the Cashflow tab in the Blow up screen.

| Bucket Economic CashFlow - ALLRISK - 1D | | | |
|---|------------|-------------------|-------------|
| Cashflow - Product wise | | Cash Flow Details | |
| Product | InFlow | OutFlow | NetCashFlow |
| MM-252-Placement | 0 | 300,000 | (300,000) |
| MM-234-Call Money Placement | 2,000,333 | 0 | 2,000,333 |
| MM-133-Call Money Deposit | 0 | 3,100,406 | (3,100,406) |
| FX-401-L1 FWD - FCY Vs LCY | 1,000,000 | 0 | 1,000,000 |
| FX-101-SPOT - FCY Vs FCY | 6,450,000 | 1,442,273 | 5,007,727 |
| MM-199-IRDF | 200,000 | 0 | 200,000 |
| FX-102-SPOT - FCY Vs LCY | 1,000,000 | 0 | 1,000,000 |
| FX-105-TOM - FCY Vs FCY | 3,000,000 | 0 | 3,000,000 |
| MM-165-Deposit | 1,000,000 | 0 | 1,000,000 |
| TOTAL CashFlow | 14,650,333 | 4,842,679 | 9,807,655 |

| Bucket Economic CashFlow - ALLRISK - 1D | | | | | |
|---|----------|--------------|-------------------|---------------|-----------------|
| Cashflow - Product wise | | | Cash Flow Details | | |
| Portfolio | Currency | Tenor Bucket | Tenor | CashFlow Date | CashFlow Amount |
| DBU | EUR | 1D | 1D | 15-Apr-2015 | (100,017) |
| FCBT | EUR | 1D | 1D | 15-Apr-2015 | 10,007,727 |
| FCBU | EUR | 1D | 1D | 15-Apr-2015 | (100,056) |

The user can further drill down on a specific Product/Instrument and can view the deals which made up that cashflow. The user can also opt to see the open up the deal in the deal capture

window for further modification if required by clicking on a particular deal.



| Deal No | Amount | Deal Type | Cshflw Type | Counterparty | Value Date | Maturity Date | Trsy Ra |
|----------------------|--------------------|--------------------|-------------|--------------------------|-------------|---------------|---------|
| OUTFLOW | | | | | | | |
| 2EC1510400989 | 100,000 | Call Money Deposit | PRINCIPAL | BANK OF CANADA | 14-Apr-2015 | 15-Apr-2015 | 6.00% |
| 2EC1510400989 | 17 | Call Money Deposit | INTEREST | BANK OF CANADA | 14-Apr-2015 | 15-Apr-2015 | 6.00% |
| 2EC1510401091 | 139 | Call Money Deposit | INTEREST | AFRICAN DEVELOPMENT BANK | 14-Apr-2015 | 15-Apr-2015 | 5.00% |
| 2EC1510401091 | 1,000,000 | Call Money Deposit | PRINCIPAL | AFRICAN DEVELOPMENT BANK | 14-Apr-2015 | 15-Apr-2015 | 5.00% |
| 2EC1510401119 | 139 | Call Money Deposit | INTEREST | AFRICAN DEVELOPMENT BANK | 14-Apr-2015 | 15-Apr-2015 | 5.00% |
| 2EC1510401119 | 1,000,000 | Call Money Deposit | PRINCIPAL | AFRICAN DEVELOPMENT BANK | 14-Apr-2015 | 15-Apr-2015 | 5.00% |
| 2EC1510401125 | 111 | Call Money Deposit | INTEREST | AFRICAN DEVELOPMENT BANK | 14-Apr-2015 | 15-Apr-2015 | 4.00% |
| 2EC1510401125 | 1,000,000 | Call Money Deposit | PRINCIPAL | AFRICAN DEVELOPMENT BANK | 14-Apr-2015 | 15-Apr-2015 | 4.00% |
| TOTAL OUTFLOW | 3,100,406 | | | | | | |
| NET CASHFLOW | (3,100,406) | | | | | | |

3.4.2 Consolidated Risk Sheet

The Consolidated risk sheet shows the cashflows either for All the currencies or for the Preferred currencies and based on the preferences set.

It displays the rate change and FS values of the selected currencies along with the Economic values and Gain/Loss

Below is the screen shot of the Consolidated Risk Sheet.

Combined Risk Sheet - Intellect Money Market Front Office (ALLRISK)

FROZEN

VIEW


FS (USD)

Last Refreshed 18:00:02 07-Sep-2015

| | | | | | | | | | | | | | | | |
|-------------------|--|-----------|--|--------------------|--|-------------|--|---------------|--|--------------------------|--|----------------|--|-----------|--|
| Profile | | Ccy | | History Date | | Reval Rates | | Branch | | Desk | | Portfolio | | | |
| ALLRISK | | Pref Coys | | | | EOD | | ALL | | 12345,FMDG,FXDSK,IBDS... | | All | | | |
| Delta | | 3,201,908 | | Previous Day MT... | | 371,598 | | Daily Accrual | | 16,772 | | Economic Value | | 3,218,680 | |
| MTD Economic V... | | 3,590,528 | | Current MTM | | 3,573,506 | | MTD Accrual | | 17,022 | | MTD Gain/Loss | | 3,573,506 | |

</

3.4.3 User Preferences in Risk Sheet

The User Preferences window for the Risk Sheet helps the dealer to customize the Risk Sheet window. The  button is used to invoke the user preferences screen of the Risk Sheet.

3.4.3.1 Tabs in User Preferences

This tab is used to set the general preferences in the Risk Sheet window. The view in the risk sheet has the capability of displaying the figures in actual figures or thousands or Millions. Through the Grid highlighted in below figure.

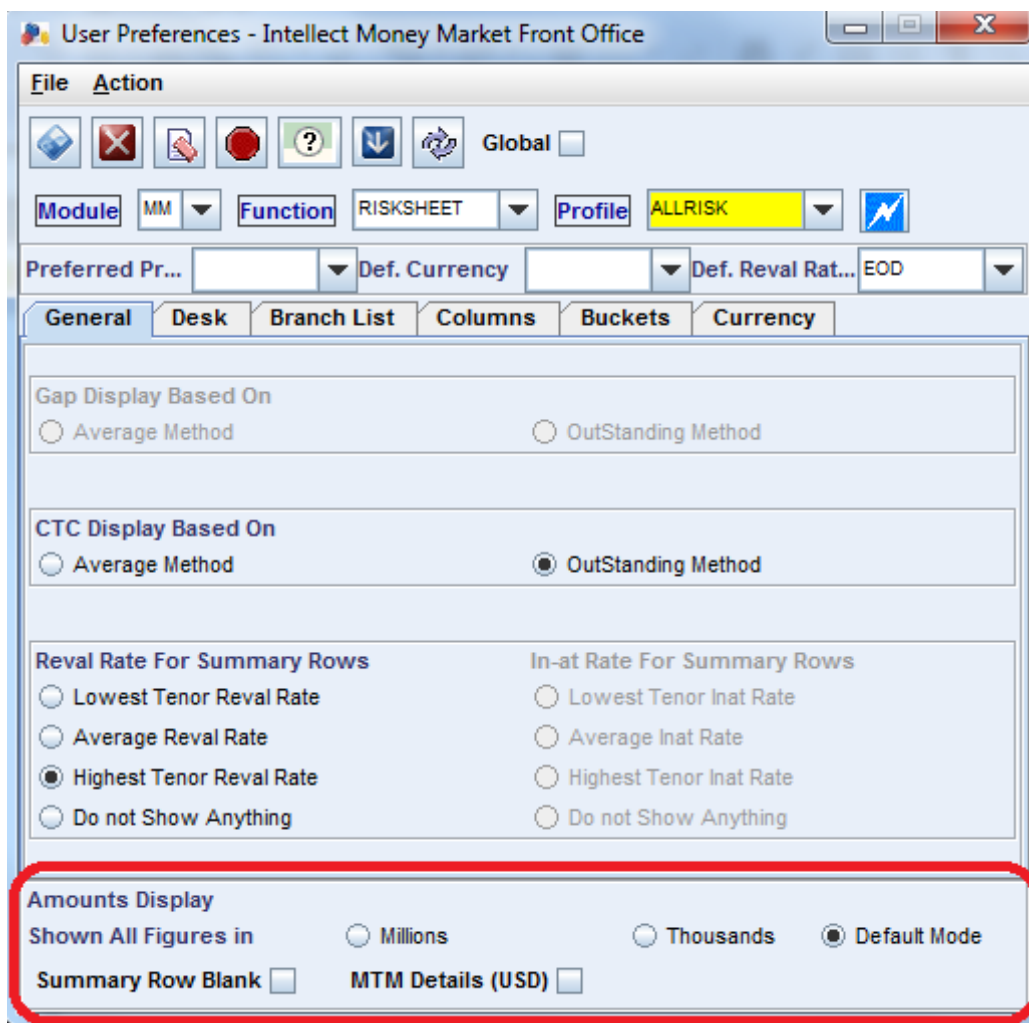


Fig.48 Risk Sheet User Preferences

There are several options which dealer can select to display the deals in the risk sheet. The options are explained below:

General Tab:

| Field | Description |
|------------------------------------|--|
| Gap Display Based On | Method for calculating the gap. Dealer can select either the average method or the outstanding method |
| CTC Display Based On | Method for calculating Cost to Close. Dealer can select either the average method or the outstanding method |
| Reval Rate for Summary Rows | Based on the selections made, the revaluation rate to be used for calculating MTM are determined and the details are displayed in the summary rows at the top of the page. Dealer can select one of the following rates: Lowest Tenor Reval Rate, Average Tenor Reval Rate, Highest Tenor Reval Rate or Do not Show Anything |

Desk Tab:

It is used to filter the required desk to view risk impact on the Cashflows.

Buckets Tab:

This tab is used to filter the Tenor Buckets. The Tenor Buckets can be grouped accordingly as per the Users requirement.

Access of Tabs Branch List, Columns, Currency and other features in Preferences can be referred from the section 3.1.1 User Preferences in Blotters

3.5 Reval Page

This is one single screen for all currencies where the dealer can update the currency rates. Dealer with read permissions would only be able to view the rates. And the dealer with read-write permission can view and also save the rates.

All the rates, which are saved, are auto-authorized, will revalue the Risk sheet with latest curve saved.

On receiving the rates, the **Reval Page** option in the Launch bar turns **Red** to indicate that the rates are copied and waiting for the verification by the dealers

Below is the snapshot of Curve Revaluation page.

The screenshot displays the 'Curve Revaluation Page' in the Intellect Money Market Front Office. The interface includes a 'File' menu, 'Interest Rate' and 'Fetch Live Rates' tabs, and buttons for 'Get Rates', 'Upload', 'Save', 'Apply', 'Clear', and 'Hist Date'. The main form contains fields for 'Branch' (Demo Bank), 'Currency' (EUR), 'Rates' (EOD), 'Spot Date' (27-Dec-2013), and 'Spot Reval' (1.3867). There is also an 'Instrument Points' checkbox. Below the form is a table with columns for 'Rates Type', 'Demo Bank', 'Branch Spread', and 'Branch Rate'. The table lists various rates including 'Cust Pool - Bid', 'Cust Pool - Offer', 'Treas Pool - Bid', and 'Treas Pool - Offer'. A detailed table at the bottom shows 'Tenor', 'End Date', 'CASH', and 'LIBOR' values for different tenors (1D, 1W, 2W, 3W, 1M, 2M, 3M, 4M).

| Tenor | End Date | CASH | LIBOR |
|-------------|-------------|------------------|------------------|
| Update Time | | 04-Dec-2013 1... | 19-Mar-2015 1... |
| Basis | | Actual/360 | Actual/360 |
| 1D | 30-May-2014 | 8 | 87 |
| 1W | 05-Jun-2014 | | |
| 2W | 12-Jun-2014 | | |
| 3W | 19-Jun-2014 | | |
| 1M | 30-Jun-2014 | 8 | 89.285809 |
| 2M | 31-Jul-2014 | 8 | 91.531618 |
| 3M | 29-Aug-2014 | 8 | 93.651246 |
| 4M | 30-Sep-2014 | 8 | 95.990145 |

Fig.23 Reval Page

3.5.1 Steps to Access Reval page

1. Select the required branch, Currency from the drop-down list.
2. Select as **EOD** as the rate from the **Rates** drop-down list.
3. Click on Get rates to fetch the rates.
4. Upload the rates using **Upload Rates** button. New EOD rates for different curves and for all tenors are displayed in the Edit Mode. User can verify New EOD rates and if required edit the same and Save. Similar can be followed for all the currencies.
5. Once all Currency rates are verified by the respective dealers, click on **Apply**.
6. A window appears with all the branches defined in the system selected. If user doesn't want rates to be applied for any of the branches listed, the respective branch can be deselected.
7. Doing this will:
 - ⌘ Apply the verified and modified rates to selected branches. A message stating, 'Applying EOD Reval rates to the selected branches' appears in the User Console.
 - ⌘ Revalue the entire book with new rates. A message stating, 'EOD Reval rates applied successfully' is displayed in the User Console.
 - ⌘ This changes the appearance of the **Reval Page** button to **Grey**.

3.5.2 Procedure for Fetch LIVE Rates

1. Click **Upload**. The current LIVE rates are fetched and stored in a Temporary table. A message appears, 'Rates are uploaded successfully, click the **Modify** button to view and modify rates'.
2. Click **Modify**. The latest LIVE rates are shown for different curves and for all tenors.
3. If User clicks **Discard**, the latest fetched LIVE rates are deleted from the Temporary table.
4. After modification of rates, User can click **Save**. This saves the modified rates in Temporary table. A message appears, 'Rates saved successfully in the Temporary table'. Even after saving the rates, if User wish to modify the rates, click **Modify** and after modification click the **Save** button again.
5. Once all currency rates are verified, click the **Modify** button to get the last saved rates from the Temporary table and click the **Apply** button. This will apply the New LIVE rates in the main tables.
6. Click on **Revalue**. The system prompts User to select the Branch and Currency. After choosing the Branches and Currencies, click the **Revalue** button. A message appears in the User Console, 'Live rates revaluation is in progress '. On completion, a message appears in the User Console, 'Live rates revaluation is completed'.
7. At any point of time, User can click the **View** button to view the last applied rate.

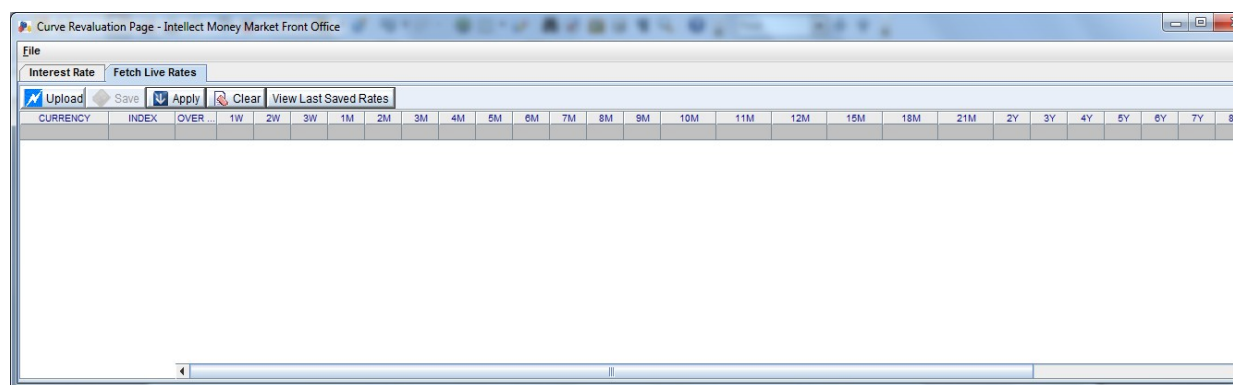


Fig.24 Reval Page- Live Rates

3.5.3 Additional Features of Reval Page

1. **EOD rates Viewing and Modifying Spread:** To view current EOD rates for a Branch and Currency combination, select the required **Branch** and **Currency**. Select the Rates as **EOD** from the drop-down. Click the **Get Rates** button. This displays the rates for

different curves and for all tenors in the Read Only Mode. The Spot Date and Spot Reval values are displayed in the respective text boxes.

To modify the spread select a value edit it and click the **Save** button.

Note: Spread for Bid and Offer has to be kept the same, otherwise an alert message appears when User click **Save**, 'It is not allowed to have different spread for bid and offer'.

2. **Viewing the LIVE rates:** To view current LIVE rates for a Branch and Currency combination, select the required **Branch** and **Currency**. Select **LIVE** from Rates drop-down list. Click the **Get Rates** button. This displays the rates for different curves and for all tenors in the Read Only Mode.

3.6 SALES DESK

Usually banks have a separate Sales Desk which is merchant desk, does deals with corporate and other clients by taking the rate from inter-bank dealers. These Sales desk books the trade and then pass on to the Inter bank dealer individual transaction to utilize the funds. Deals struck by dealers belonging to this desk need to transfer their positions to the Inter Bank Dealer, this needs an approval from the inter-bank dealers. This is achieved by having a Work Flow Blotter for the Inter Bank Dealer as well. This blotter captures the relevant deals booked by a WF dealer and pending action by an Inter-Bank Dealer.

These deals once authorised by an Inter-Bank dealer, will they hit the Deal Blotter, Risk Sheet, Deal Query, etc. of the Inter Bank Dealer and subsequently be sent to the Back Office. Blotter provides the real time or the historic view of the entire workflow/sales group trades in the system as well as the trades that have been closed during the day.

The trades that can be seen on the workflow blotter are dependent on the portfolio, which the dealer has access to. By default when the user logs in then all the unauthorized trades are shown on the top of the blotter. However as the day progresses the latest transactions are shown at the top of the blotter. The sorting order of the blotter can be changed by an easy right click on the column by which the dealer wants to sort the view.

Below is the snapshot of the workflow blotter.

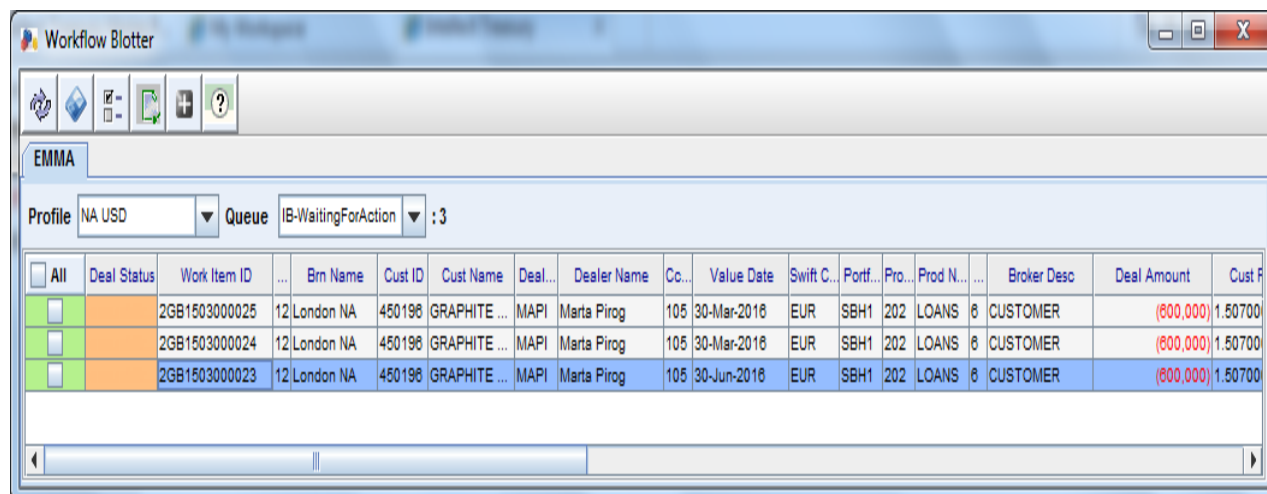


Fig.51 Work-Flow Blotter

Different Views present in the Workflow Blotter:

| Field | Description |
|-------------------------------|---|
| All Workflow | Displays all deals. |
| WF- Waiting for Action | Displays all deals that are pending action by WF users. |
| IB- Pending | Display all deals that are pending action from a Inter Bank Dealer. |
| IB- Accepted | Display all deals that are accepted by an Inter-Bank Dealer. |
| All Funding Swap | Lists all deals that have been approved by the Inter Bank Dealer |

3.6.1 Steps to Access Work-Flow Blotter

1. WF Maker enters trade through the Deal capture, once the trade is saved the Status of the deal is White and the WF Checker Authorises the trade and status of the deal changes to Amber.
2. The deal on authorisation appears in the "WF Blotter of the Inter Bank Dealer" as well, waiting for approval by an Inter Bank Dealer.
3. The WF dealer can modify the deal before/after approval by the IB dealer. However, if the deal is already authorized, the modification needs to be submitted to the Inter Bank Dealer.

▮ Before approval by an Inter-Bank Dealer

Any deal that has been authorized in the WF but is pending authorization from the Inter Bank Dealer, can be modified by the WF dealer only after he recalls the deal through

path: Actions -> Recall option.

The WF dealer can now modify the deal.

π **After approval by a Inter Bank Dealer**

The WF User can modify the deal even after the approval of IB Dealer.

The Inter Bank Dealer can view the changed attributes for the WF deal **path: Tools -> Deal Compare** option.

Once the Inter Bank Dealer accepts the deal, its state changes from 'IB Pending for Action' to 'IB Authorized' in the "WF Blotter of the Inter Bank Dealer". The deal is then saved in the Deal Blotter and the Risk Sheet is updated.

4. **Cancelling Workflow Deal:** A WF dealer can cancel a deal either before or after it is approved by an Inter-Bank Dealer.

π **Before approval by Inter Bank Dealer**

The dealer can populate the deal from the WF Blotter into the Deal Capture window and click **Del** button. This removes the deal from the WF Blotter.

π **After approval by Inter Bank Dealer**

The Dealer can populate the deal from the WF Blotter into the Deal Capture window and click the **Del** button.

In case of a WF Maker, the deal status changes to **WHITE**, indicating that a WF Checker needs to authorize the cancellation.

In case of a WF Checker, on clicking the **Del** button, the system prompts if the cancellation needs authorization. The Inter Bank Dealer can now see this deal with an **AMBER** status in the WF Blotter. He/she can either accept or reject the cancellation of the deal.

π The Inter Bank Dealer invokes the deal from the WF Blotter into the Deal Capture window and inputs a Penalty Rate and/ or Admin Fee. The system then calculates the Total Cost. The Inter Bank Dealer can choose to override the calculated fee if a flat fee or no fee needs to be applied.

5. When the Inter Bank Dealer accepts the deal, the deal moves from the WF Blotter to the Deal Blotter of the Inter Bank Dealer as a new deal with "FO AUTH" status

6. If the IB dealer rejects the deal, then it shows in RED, with status as “WF Rejected” in the WF blotter.
7. **Pre-terminating Workflow Deal:** These deals can also be Pre-terminated from the Deal capture.
8. **Rolling Over Workflow Deal:** These deals can also be Rolled over from the Deal capture.
9. **Bulk Authorization:**

IB dealer can click the **Start Bulk Auth** button to start the bulk authorization process of the deals. Clicking the button does not bulk authorize all deals immediately. Instead, it opens the Deal Capture window and displays the unauthorized workflow deal with the earliest Deal Checker time for only those deals which are displayed in the view selected mode. i.e. if the user has filtered the workflow blotter to only a particular product or branch, then the deals would populate in a sequence as filtered on that product or branch.

There is also an alert system whenever there is a deal pending in the workflow blotter and is waiting to be authorized by the dealer.

3.7 Limit Workflow Authorization Queue

New deal is booked with overrides and Fo Save is done. For Fo Auth the deal must first be approved through Workflow Blotter.
Deal appears in Pending for Auth queue from where it is approved by right click.

| Sta | WID | Br | Ref Num | Mod | Product | Customer | Amount | Curr | Cust Rate |
|-----|---------------|----|----------------|-----|---------|-----------|---------------|------|------------|
| | 2EC1514803493 | 1 | 2EC15148034... | 1 | MM | Call M... | 1,000,000 | LKR | 5.00000000 |
| | 2EC1514803431 | 1 | 2EC15148034... | 1 | MM | Treas... | (12,000,000) | LKR | 3.00000000 |
| | 2EC1514803429 | 1 | 2EC15148034... | 1 | MM | Call M... | (100,000,000) | USD | 7.00000000 |
| | 2EC1514803400 | 1 | 2EC15148034... | 1 | MM | Call M... | 2,000,000 | LKR | 1.00000000 |
| | 2EC1514803342 | 1 | 2EC15148033... | 1 | MM | Borro... | 100,000,000 | LKR | 6.00000000 |
| | 2EC1514803341 | 1 | 2EC15148033... | 1 | MM | Borro... | 100,000,000 | LKR | 6.00000000 |
| | 2EC1514803288 | 1 | 2EC15148032... | 1 | MM | Borro... | 1,000 | USD | 4.00000000 |
| | 2EC1514803178 | 1 | 2EC15148031... | 1 | MM | Place... | (1,000) | LKR | 7.00000000 |
| | 2EC1514803176 | 1 | 2EC15148031... | 1 | MM | Call M... | 1,000 | LKR | 7.00000000 |
| | 2EC1514803170 | 1 | 2EC15148031... | 1 | MM | Borro... | 2,000,000 | USD | 2.00000000 |
| | 2EC1514803167 | 1 | 2EC15148031... | 1 | MM | Call M... | (10,000) | LKR | 7.00000000 |
| | 2EC1514803148 | 1 | 2EC15148031... | 1 | MM | Call M... | (1,000) | LKR | 7.00000000 |
| | 2EC1514803098 | 1 | 2EC15148030... | 1 | MM | Treas... | (1,000) | USD | 8.00000000 |
| | 2EC1514803097 | 1 | 2EC15148030... | 1 | MM | Disco... | (1,000) | LKR | 7.00000000 |
| | 2EC1514803096 | 1 | 2EC15148030... | 1 | MM | Call M... | (1,000) | USD | 7.00000000 |
| | 2EC1514803078 | 1 | 2EC15148030... | 1 | MM | Call M... | 1,000 | USD | 7.00000000 |
| | 2EC1514803051 | 1 | 2EC15148030... | 1 | MM | Call M... | 1,000 | LKR | 7.00000000 |

After approval the deal moves to Authorized queue and we are able to authorize the deal:

Workflow Blotter - Intellect Money Market Front Office

Last Refreshed: 28-May-2015 RefNum: 2EC1514803493

| Profile | Desk | Branch | Portfolio | CCY |
|---------|-------|--------|-----------|---------------------------|
| All | [ALL] | [ALL] | [ALL] | [GBP, EUR, USD, INR, ...] |

MM_FRONTOFFICE

- MM Pending Auth Queue(115)
- MM Authorized Queue(56)

FL_FRONTOFFICE

- FIS Pending Auth Queue(344)
- FIS Authorized Queue(77)

SWIFT_Queues

- UnProcessedQueue(0)
- ProcessedQueue(0)
- FailureQueue(0)
- RTGS Queue(0)
- Swift Queue(0)
- Delivered Queue(0)

FX_FRONTOFFICE

- Over Limit Queue(321)
- FX Authorized Queue(26)**
- FX Rejected Queue(0)

My Deals

| Sta... | WID | Ref Num | Module | Product | Customer | Ccy Bought | Amount Bought | Ccy Sold |
|--------|-----------------|------------------|--------|---------|-----------------|------------|---------------|----------|
| | 1EC1514803646L1 | 1 1EC15148036... | 1 FX | SWAP | ALBILAD BANK... | GBP | 1,000,000 | EUR |
| | 1EC1514803441 | 1 1EC15148034... | 1 FX | FORW... | ALBILAD BANK... | USD | 1,000,000 | LKR |
| | 1EC1514803369 | 1 1EC15148033... | 1 FX | SPOT | BARCLAYS LO... | USD | 25,000,000 | AUD |
| | 1EC1514803337 | 1 1EC15148033... | 1 FX | SPOT | CENTRAL BAN... | USD | 1,000 | GBP |
| | 1EC1514803287L1 | 1 1EC15148032... | 1 FX | SWAP | ALBILAD BANK... | USD | 1,000 | LKR |
| | 1EC1514803286 | 1 1EC15148032... | 1 FX | CASH | ALBILAD BANK... | USD | 1 | LKR |
| | 1EC1514803284 | 1 1EC15148032... | 1 FX | CASH | DFCC BANK | USD | 1,000,000 | LKR |
| | 1EC1514803282 | 1 1EC15148032... | 1 FX | FORW... | DFCC BANK | GBP | 1,000,000 | USD |
| | 1EC1514803272 | 1 1EC15148032... | 1 FX | SPOT | BARCLAYS LO... | USD | 1,000,000 | LKR |
| | 1EC1514803263 | 1 1EC15148032... | 1 FX | SPOT | BARCLAYS LO... | GBP | 1,000,000 | AUD |
| | 1EC1514803223L1 | 1 1EC15148032... | 1 FX | SWAP | DFCC BANK | USD | 10,000 | GBP |
| | 1EC1514803222 | 1 1EC15148032... | 1 FX | SPOT | CENTRAL BAN... | USD | 10,000 | GBP |
| | 1EC1514803040 | 1 1EC15148030... | 1 FX | SPOT | CENTRAL BAN... | USD | 10,000 | LKR |
| | 1EC1514803023 | 1 1EC15148030... | 1 FX | SPOT | CENTRAL BAN... | USD | 1,000 | LKR |
| | 1EC1514802831 | 1 1EC15148028... | 1 FX | SPOT | DFCC BANK | USD | 1,000 | GBP |
| | 1EC1514802791 | 1 1EC15148027... | 1 FX | SPOT | ALBILAD BANK... | EUR | 5,000,000 | USD |
| | 1EC1514802700 | 1 1EC15148027... | 1 FX | SPOT | ALBILAD BANK... | EUR | 5,000,000 | GBP |



3.7 Counter-Party Limits

The counter party limits screen displays the limits defined for the counter party. User can choose

the liability number and click on Show limits to fetch the limits maintained for the selected counterparty or also click on Show All limits to fetch the limits maintained for all the Counterparties at one go.

If the dealer wants to check the deals, which are responsible for the limit utilization, user can click on the respective product to know the deal details.

User can click on the refresh button to see the updated limit utilizations of the counterparty being selected.

Below screen shot shows counterparty limits across asset classes

| Customer Name | Limit Code | Limit Description | Limit Category | Tenor | Product Type | CCY | Limit Amount | Utilization Amount | Earmark Amount | Available Amount | Effective Date | Expiry Date |
|------------------|------------------|------------------------|-----------------|-------|--------------|-----|--------------|--------------------|----------------|-------------------|----------------|-------------|
| WELLS FARGO S... | FXGP1 | FXGP1 | PRODUCT LIMIT | 0 | FX | USD | 5,000,000.00 | 0.00 | 0.00 | 5,000,000.00 | 14-Apr-2015 | 20-Apr-2017 |
| WELLS FARGO S... | FXGP1 | FXGP1 | PRODUCT LIMIT | 0 | FX | USD | 5,000,000.00 | 0.00 | 0.00 | 5,000,000.00 | 14-Apr-2015 | 20-Apr-2017 |
| TESTBANK | FXGP1 | FXGP1 | PRODUCT LIMIT | 0 | FX | USD | 5,000,000.00 | 0.00 | 0.00 | 5,000,000.00 | 14-Apr-2015 | 20-Apr-2017 |
| SAMPATH BANK | MM_3M_SAMP... | CP TENOR LIMIT | CP TENOR LIMIT | 3M | MM | LKR | 2,000,000.00 | 1,004,360,000.00 | 0.00 | -1,002,360,000.00 | 03-Mar-2014 | 18-Aug-2022 |
| SAMPATH BANK | SETTLE_SAMP | SR SEYLAN | SETTLEMENT RISK | 99D | | USD | 5,000,000.00 | CLICK-TO-VIEW | 0.00 | CLICK-TO-VIEW | 18-Aug-2014 | 18-Aug-2022 |
| SAMPATH BANK | CPTNRFXSAMP | CPTENORFX | CP TENOR LIMIT | 0 | FX | USD | 1,000,000.00 | 0.00 | 0.00 | 1,000,000.00 | 03-Feb-2014 | 18-Aug-2022 |
| SAMPATH BANK | MM3MLKR_SAMP | MM_3m_LKR | CP TENOR LIMIT | 3M | MM | LKR | 5,000,000.00 | 0.00 | 0.00 | 5,000,000.00 | 03-Mar-2014 | 18-Aug-2022 |
| DFCC BANK | FXCPT_CST_DFCC | CASH TOM SPOT LIMIT | CP TENOR LIMIT | 0 | FX | USD | 1,000,000.00 | 210,249,467.66 | 0.00 | -209,249,467.66 | 01-Jan-2015 | 30-Dec-2016 |
| SAMPATH BANK | CPTNR_SPOTSA... | CASH TOM SPOT LIMIT | CP TENOR LIMIT | 0 | FX | USD | 5,000,000.00 | 73,715,271.18 | 0.00 | -68,715,271.18 | 13-Mar-2014 | 18-Aug-2022 |
| DFCC BANK | FXCPT_FW_DFCC | FWD TENOR LIMIT | CP TENOR LIMIT | 6M | FX | USD | 500,000.00 | 5,000,000.00 | 0.00 | -4,500,000.00 | 01-Jan-2015 | 30-Dec-2016 |
| SAMPATH BANK | CPTNR_FWD_SA... | FWD TENOR LIMIT | CP TENOR LIMIT | 3M | FX | USD | 2,000,000.00 | 25,324,507.49 | 0.00 | -23,324,507.49 | 13-Mar-2014 | 18-Aug-2022 |
| SAMPATH BANK | MMCPNTR_SAM... | MM PLACEMENT USD CPTNR | CP TENOR LIMIT | 3M | MM | USD | 1,000,000.00 | 16,386,708.33 | 0.00 | -15,386,708.33 | 20-Aug-2014 | 18-Aug-2022 |
| SAMPATH BANK | PRESETTLE_SA... | CP_PRESETTLEMENT (USD) | PRESETTLEMENT | 99D | | USD | 5,000,000.00 | 2,000,000,000.00 | 0.00 | -1,995,000,000.00 | 18-Aug-2014 | 18-Aug-2022 |
| DFCC BANK | FXCPTN_FWD | FXCPTN_FWD | CP TENOR LIMIT | 6M | FX | USD | 1,000,000.00 | 1,000,000.00 | 0.00 | 0.00 | 01-Jan-2015 | 30-Dec-2016 |
| DFCC BANK | MMCPNTR_F_6M... | MMCPNTR_F_6M | CP TENOR LIMIT | 6M | MM | USD | 2,000,000.00 | 0.00 | 0.00 | 2,000,000.00 | 01-Jan-2015 | 30-Dec-2016 |
| DFCC BANK | MMCPNTR_L_3M... | MMCPNTR_L_3M | CP TENOR LIMIT | 3M | MM | LKR | 2,000,000.00 | 400,000,000.00 | 0.00 | -398,000,000.00 | 01-Jan-2015 | 30-Dec-2016 |
| DFCC BANK | MMCPNTR_A_3M... | MMCPNTR_A_3M | CP TENOR LIMIT | 3M | MM | USD | 3,000,000.00 | 0.00 | 0.00 | 3,000,000.00 | 01-Jan-2015 | 30-Dec-2016 |
| DFCC BANK | FXCPTN_CST_DF... | FXCPTN_CST | CP TENOR LIMIT | 0 | FX | USD | 2,000,000.00 | 22,738,002.46 | 0.00 | -20,738,002.46 | 01-Jan-2015 | 30-Dec-2016 |

Fig.49 Counter-Party Limits

A further drill down is available. Clicking on arecord would give the list of deals which have contributed for that limit.

| Deal No. | Cust Short Name | Limit Description | Product Type | Buy CCY | Buy Amount | Transaction Date | |
|---------------|------------------|------------------------|--------------|---------|----------------|----------------------|-------------|
| 2EC1419837789 | BANQUE DE FRA... | PRESETTLEMENT EXPOSURE | MM | USD | 350,000,000.00 | 02-May-2014 00:00:00 | 01-May-2015 |
| 2EC1419838594 | BANQUE DE FRA... | PRESETTLEMENT EXPOSURE | MM | USD | 400,000,000.00 | 24-Jan-2014 00:00:00 | 14-Jan-2015 |
| 2EC1419838839 | BANQUE DE FRA... | PRESETTLEMENT EXPOSURE | MM | USD | 400,000,000.00 | 04-Apr-2014 00:00:00 | 02-Apr-2015 |
| 2EC1419838970 | BANQUE DE FRA... | PRESETTLEMENT EXPOSURE | MM | USD | 300,000,000.00 | 23-Jan-2014 00:00:00 | 23-Jan-2015 |
| 2EC1419838986 | BANQUE DE FRA... | PRESETTLEMENT EXPOSURE | MM | USD | 250,000,000.00 | 07-Mar-2014 00:00:00 | 08-Mar-2015 |
| 2EC1419839020 | BANQUE DE FRA... | PRESETTLEMENT EXPOSURE | MM | GBP | 200,000,000.00 | 14-Jan-2014 00:00:00 | 14-Jan-2015 |
| 2EC1419839156 | BANQUE DE FRA... | PRESETTLEMENT EXPOSURE | MM | USD | 250,000,000.00 | 19-Dec-2013 00:00:00 | 19-Dec-2014 |
| 2EC1419839161 | BANQUE DE FRA... | PRESETTLEMENT EXPOSURE | MM | USD | 250,000,000.00 | 24-Feb-2014 00:00:00 | 24-Feb-2015 |
| 2EC1419839213 | BANQUE DE FRA... | PRESETTLEMENT EXPOSURE | MM | AUD | 200,000,000.00 | 19-Dec-2013 00:00:00 | 19-Dec-2014 |
| 2EC1419839218 | BANQUE DE FRA... | PRESETTLEMENT EXPOSURE | MM | AUD | 200,000,000.00 | 24-Jan-2014 00:00:00 | 23-Jan-2015 |
| 2EC1419839261 | BANQUE DE FRA... | PRESETTLEMENT EXPOSURE | MM | USD | 300,000,000.00 | 18-Dec-2013 00:00:00 | 18-Dec-2014 |
| 2EC1419839271 | BANQUE DE FRA... | PRESETTLEMENT EXPOSURE | MM | USD | 300,000,000.00 | 20-Dec-2013 00:00:00 | 22-Dec-2014 |
| 2EC1419839439 | BANQUE DE FRA... | PRESETTLEMENT EXPOSURE | MM | AUD | 300,000,000.00 | 18-Dec-2013 00:00:00 | 18-Dec-2014 |

Fig.50 Counter-Party Limits

| Fields | Description |
|--------------------------|--|
| Limit Code | A Unique code assigned to a particular Limit. This code is given by the User while creating a new limit using Setup maintenance. |
| Limit Description | Provides the description and the purpose of the Limit created by the User |
| Limit Category | These are the predefined categories of the limits such as SR (Settlement Risk) PSR (Pre Settlement Risk) etc. |
| Tenor | Displays the tenor of the limit. |
| Product Type | The category or the module on which the limit is applicable. (FX/MM) |
| CCY | It is the currency code (SWIFT) in which the Limit will get defined |
| Limit Amount | Amount of the Limit, which will act as a benchmark to the user while booking the deal. This system will show the Overrides / Error if the limit is breached beyond this amount. |
| Utilization | Amount of the Limit, which is being utilized till now |

| | |
|-------------------------|---|
| Amount | |
| Available Amount | Difference between the Limit amount and the Utilized amount, shows what is the limit available to the user. |
| Effective Date | Date from which this limit will be effective. |
| Expiry Date | Date till which this limit will be effective. |
| Earmark Amount | Amount which the User is restricted to access. |

3.8 Deal Query

The Deal Query window is used to perform a search on all the deals in the Money Market module through several filters that are available to provide all the MIS functionality. The screen had multiple search criteria. There are AND/OR operator which can be used for effectively locating any deal in the system. The first three fields namely branch, dealer id and portfolio by default has the operator AND attached to them.

After selecting the criteria the dealer can click on the 'Enquire' button and then all the deals matching the selected criteria are displayed. A searched deal can be opened directly in the input screen by double clicking on the deal in the result section.

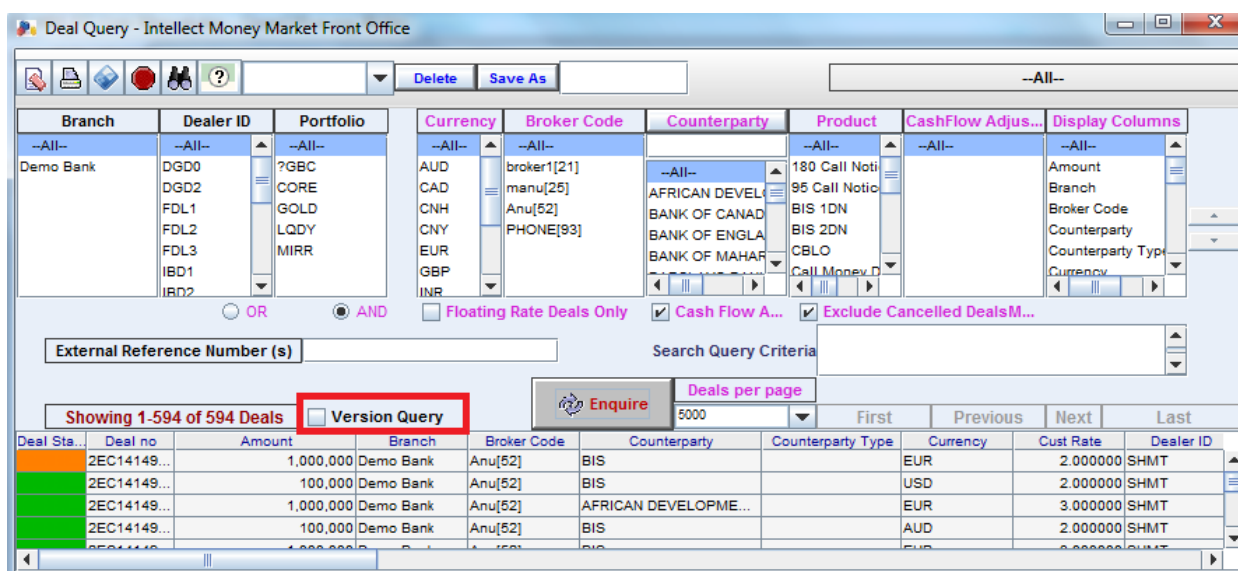

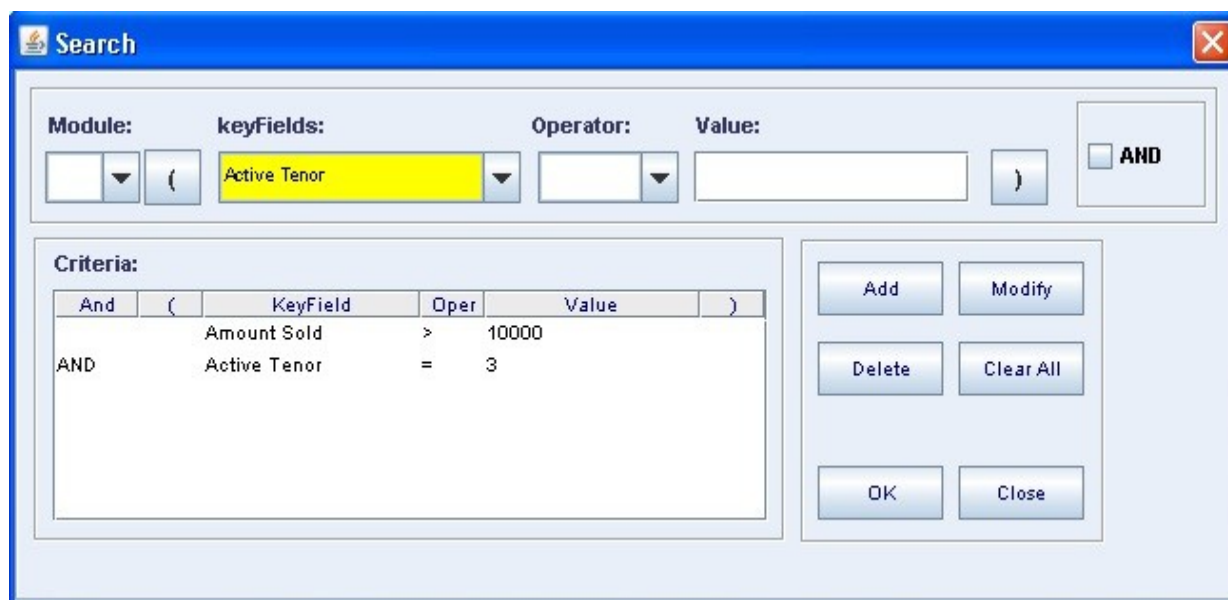


Fig.52 Deal Query

User can save the search by a unique name in the text field against 'Save As'. The saved search can now be deleted by the delete button.

3.8.1 Search Deals using Oper

The user can customize for a particular deal by specifying the criteria in the search page. The is done by icon .



Search

Module: (keyFields: Active Tenor Operator: Value:) ☐ AND

Criteria:

| And | (| KeyField | Oper | Value |) |
|-----|---|--------------|------|-------|---|
| | | Amount Sold | > | 10000 | |
| AND | | Active Tenor | = | 3 | |

Add Modify Delete Clear All OK Close

Figure 3-E: Search on Key fields

User can choose to optimize the search by choosing 'AND' or 'OR' and relational operators like >, >=, = etc.

Labels in search window are explained below:

| Field | Description |
|-------------------|---|
| Key Fields | Fields provided to search the deal Example: Amount Bought, Amount sold, Buy Currency etc |
| Operator | Enter the key fields selected |
| Value | Value of the key field |
| Calendar | User can select the date from calendar |

| | |
|------------------|---|
| And | User can wish to choose some more key fields Using this operation |
| OR | User can wish to perform search in either of fields selected. |
| Add | To Add the chosen criteria. |
| Modify | The field selected can be modified using this operation |
| Delete | Deletes the selected fields |
| Clear All | Clears All the fields |
| OK | Select ok to perform the search once chosen. |
| Close | Close the Window. |

Steps to apply oper:

1. Select module ,and the key field to search.
2. Select the oper field and enter the value in proper format .
1. Click on add button. Repeat the steps for other fields and select the option as ‘AND’ or ‘OR’ to customize and click OK.

A query will be formed based on selected criteria and deals will be filtered accordingly.

3.8.2 Display version of Deals

If the dealer wishes to see all the versions of the deal since the inception, this can be done by checking the Version query check box. Once enquired, the versions of the deal are shown and the result becomes disabled .

3.8.3 Steps to Save/Retrieve Query

1. Make the selections in the filters available.
2. **Steps for saving a query:** By entering the shortcut of days in the date fields. Click on the text field next to the Save As button. Enter a name for the query.

There is a pop up saying the query saved successfully.

3. **Retrieving a saved query:** Once the query is saved, it would start appearing in the Fetch drop-down. Click on the Inquire Button. The result is displayed as per the saved query.
4. **Deleting a saved query:** Select the query from the drop down and click on the Delete button.

4.0 References/Glossary

4.1 Interest Basis

A convention to determine the number of days between tow dates and number of days in a year to calculate accrued interest on bonds and other rate dependent securities.

Following are the list of interest basis which are supported in the system

- π 30/Actual
- π 30/360
- π 30/365
- π Actual/365
- π Actual/360
- π Actual/Actual
- π No Interest

Conventions and assumptions:

Actual in numerator assumes the actual number of days between any 2 given dates

Actual in denominator assumes actual number of days in a year.

30 assumes 30 days in a month

365 assumes 365 days in a year

360 assumes 360 days in a year

No Interest doesn't consider the Interest

4.2 Holiday Logic

Following are the holiday logic supported in the system

- π Next Working Day
- π Previous Working Day
- π Next Working in Same Month
- π Previous Working in Same Month
- π

4.3 Computations

This section would list the formulas used across the manual.

1. **Simple Interest:** Is computed based the interest type selected.

$$\text{Future Value} = \text{Principal Amount} * [1 + (\text{Rate} * \text{Tenor} / 100)]$$

$$\text{Total Interest Amount} = (\text{Principal Amount} * \text{Interest rate} * \text{Tenor} / 100)$$

Where, Tenor<*in years*> = Calculate Tenor (From Date, To Date, Interest Method, Contract Currency)

2. Compound Interest:

$$\text{Future Value} = \text{Principal Amount} * [1 + R / (100 * N)]^{(\text{Tenor} * N)}$$

$$\text{Total Interest Amount} = \text{Future Value} - \text{Principal Amount}$$

Where, R = Interest Rate

N = Number of compounding periods. If Compounding Frequency = 3 Months, N = 4 =(12 / Tenor <*in years*> = Calculate Tenor (From Date, To Date, Interest Method, Contract Currency)

3. Formula to calculate Interest Amount, when Rate Type is Fixed, is as follows:

Case 1: If the Liquidation Frequency is not entered and Interest Type is Simple

$$\text{nt} = \text{Principal Amount} * (\text{Interest Rate} / 100) * \text{Calculate Tenor (From Date, To Date, Interest Method, Contract Currency)}$$

Case 2: If the Liquidation Frequency has been entered and Interest Type is Simple. The Interest Amount could be calculated depending on these cases.

Case 2.1: Interest Amount = Principal Amount * Interest rate * Calculate Tenor (Value Date, Next Liquidation Date, Interest Method, Contract Currency) / 100)

Case 2.2: Interest Amount = Principal Amount * Interest rate * Calculate Tenor (Prev Liquidation, Next Liquidation Date, Interest Method, Contract Currency) / 100)

Case 2.3: Interest Amount = Principal Amount * Interest rate * Calculate Tenor (Prev Liquidation, Maturity Date, Interest Method, Contract Currency) / 100)

Case 3: If the Liquidation Frequency is not entered and Interest Type is Compound interest

$$\text{Future Value} = \text{Principal Amount} * [1 + R / (100 * N)]^{(\text{Tenor} * N)}$$

$$\text{Interest Amount} = \text{Future Value} - \text{Principal Amount}$$

Where, R = Interest Rate

N = Number of compounding periods. If Compounding Frequency = 3 Months, N = 4 =(12 / 3)

Tenor <*in years*> = Calculate Tenor (Value Date, Maturity Date, Interest Method, Contract Currency)

Note:

- ⌈ If the first compound date is entered, interest is calculated for the period from value to compound date and then on the Compounding frequency is applied.
- ⌈ Liquidation Frequency cannot be entered for Compound Interest Type.

4. Rate reasonability check formula:

Let

R1 = Deal Interest rate

R2 = Reuters Rate or CASH benchmark rate based on Currency and tenor and product code

F = 100 if basis points

F = 1 if Percentage

C1 = Maximum rate change difference

C2 = Minimum rate change difference

IF (ABS(R2 – R1) * F) > C1 THEN

Interest Rate exceeded the maximum Limit of C1 with respect to either Reuters Rate or CASH benchmark rate R2

Else if (ABS (R2 – R1) * F) > C2 THEN

Interest Rate exceeded the minimum Limit of C2 with respect to either Reuters Rate or CASH benchmark rate R2

5. Formula to calculate Brokerage:

Let A = Local Currency Equivalent of Deal Amount

Case 1: If the Broker charges a Flat Amount

Brokerage = Flat Amount

Case 2: If the Broker charges simple percentage

Brokerage = specified percentage of A

Case 3: Slab-wise percentage

IF (A < Floor Amount)

Brokerage = Floor Charge

Otherwise:

Brokerage = (A - Floor Amount) * Rate/ 100

IF Brokerage > Maximum Brokerage

Brokerage = Maximum Brokerage

IF Brokerage < Minimum Brokerage

Brokerage = Minimum Brokerage

6. **Net Cashflow**= Inflow- Out flow
7. **Discount Factor:** DF is used to calculate the Present value of the net Cashflow. To obtain the Discount factor for a cashflow date, the tenor end discount factors are generated and the DF for a cash flow date is calculated by exponential interpolation of boundary tenor discount factors. Bootstrapping principle is used to calculate Discount Factors for standard tenors beyond 12 M.

Formula:

DFs for the standard tenors up to 12M:

$$DF = \frac{1}{\left(1 + \frac{k * D_t}{Basis * 100}\right)}$$

where k = Reval rate for that particular points

Dt = No. of days between the last date of tenor for the points and today.

Basis = No. of days in year depending on the interest basis used i.e.360, 365, actual for the currency.

8. **Calculation of DFs for cash flow dates:**

Tenor end DFs are exponentially interpolated to obtain DF for the cash flow date.

Example: If the cash flow date lies in (T+1) tenor, tenor end DFs of T and T+1 are exponentially interpolated to get the DF for cash flow date.

Formula for the exponential interpolation is:

$$df_2 = df_1 \wedge \left(1 - \frac{(b_2 - b_1)}{b_3 - b_1}\right) * df_3 \wedge \left(\frac{(b_2 - b_1)}{b_3 - b_1}\right)$$

Where-

No. of Days in X-1 Points = b1

No. of Days in X Points = b2

No. of Days in X+1 Points = b3

Discount Factor of X-1 Points = df1 (= 1 for 0 Day)

Discount Factor of X+1 Points = df3

Discount Factor of X Points = df2

9. **The present value** for the bucket is calculated as:

Present Value = Net Cash Flow x Discount Factor

10. **Factor of Sensitivity:**

FS (USD) = FS (Local Currency) * Current exchange rate vis a vis USD

11. **Present Value(USD):**

PV (USD) = PV (Local Currency) * Current exchange rate vis a vis USD

12. **MTM (Mark to Market):** equals the PV(reval rate) – PV (cover rate) – accrual to date It calculates the net position by considering the PVs arrived by using reval rates and the cover rates

⌘ Previous day MTM – MTM as on beginning of day before entering any new deals on that day. This value remains constant till EOD.

⌘ Current MTM - this is equal to previous day MTM at BOD and varies as and

when deals are entered

- ⌘ Gain / Loss – diff between current MTM and Previous MTM. This represents the change in MTM on that day.
- ⌘ MTD Gain / Loss – this is the gain or loss in MTM w.r.t. EOM MTM. The formula is = Current MTM – EOM MTM (Base state MTM)

13. Accrual :

- ⌘ Daily Accrual – daily interest accrued but not received/ paid. Before EOD this column shows the interest earned as on previous day. The daily accrual for a particular day is passed upon EOD.
- ⌘ MTD Accrual – accrual happened till date from the beginning of the month.
- ⌘ Total accrual - accrual happened till date from the beginning of the value date. This is considered for MTM calculations.

14. **Economic value:** sum of gain / loss + daily accrual ; gives the economic value of the positions as on that day

15. **MTD Economic value:** MTD gain / loss + MTD accrual; gives the economic value of the positions for that month

16. **BV cashflow:** Any Impact happens today, on the cashflows which are back valued will be shown through this field. During the EOD this figure is merged with Opening Balance and BV Figure is reset to zero

17. **CFWD cashflow:** upon EOD, BV cashflow moves to carry forward cashflow. This shows sum of the cashflows which have occurred in the past

18. **Cumulative:** Open Bal + BV Cashflow + Net Cashflow of the previous and Current Bucket

19. **Projected cashflow:** for Repricing deals when the cashflows subsequent to the Repricing tenor are not known the principal at maturity is shown in this column.