# **Oracle Financial Services Business Intelligence Analytics**

**User Guide** 

Release 22.09.01

Sep 2022





Oracle Financial Services Business Intelligence Analytics User Guide

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# **Document Control**

Version Number	Revision Date	Change Log
1.0	June 2022	Created and released the Oracle Financial Services Business Intelligence Analytics Business Intelligence Analytics User Guide.
2.0	September 2022	Updated Guide for Data Insights and Processed Data Insights reports

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# 1 Get Help

#### Topics:

- Get Help
- Learn About Accessibility
- Get Support
- Get Training
- Join Our Community
- Share Your Feedback
- Before You Begin

# 1.1 Get Help in the Applications

Use help icons to access help in the application.

Note that not all pages have help icons. You can also access the <u>Oracle Help Center</u> to find guides and videos.

#### 1.1.1 Additional Resources

- Community: Use <u>Oracle Cloud Customer Connect</u> to get information from experts at Oracle, the partner community, and other users.
- Training: Take courses on Oracle Cloud from <u>Oracle University</u>.

## 1.2 Learn About Accessibility

For information about Oracle's commitment to accessibility, visit the <u>Oracle Accessibility Program</u>. Videos included in this guide are provided as a media alternative for text-based topics also available in this guide.

### 1.3 Get Support

You can get support at My Oracle Support.

For accessible support, visit Oracle Accessibility Learning and Support.

# 1.4 Get Training

Increase your knowledge of Oracle Cloud by taking courses at Oracle University.

# 1.5 Join Our Community

Use <u>Cloud Customer Connect</u> to get information from industry experts at Oracle and in the partner community. You can join forums to connect with other customers, post questions, and watch events.

#### 1.6 Share Your Feedback

We welcome your feedback about Oracle Applications user assistance. If you need clarification, find an error, or just want to tell us what you found helpful, we'd like to hear from you.

You can email your feedback to My Oracle Support.

Thanks for helping us improve our user assistance!

# 1.7 Before You Begin

See the following Documents:

- See What's New
- Get started with Cash Flow Engine Cloud Service

# 2 Introduction

Cash Flow Engine Cloud Service (CFE) Analytics User Guide describes the features and functions of CFE's Analytics is intended for the use of Administrators, Analysts, Reporting Analysts, and Administrators.

Cash Flow Engine (CFE) Could Service utilizes the power of Oracle Analytics to generate the Business Intelligence Reports.

Oracle Analytics is a scalable and secure Oracle Cloud Service that provides a full set of capabilities to explore and perform collaborative analytics for you, your workgroup, and your enterprise.

With Oracle Analytics Cloud, you also get flexible Service Management capabilities, including fast setup, easy scaling and patching, and automated lifecycle management.

For more information, see the Oracle Analytics Cloud documentation.

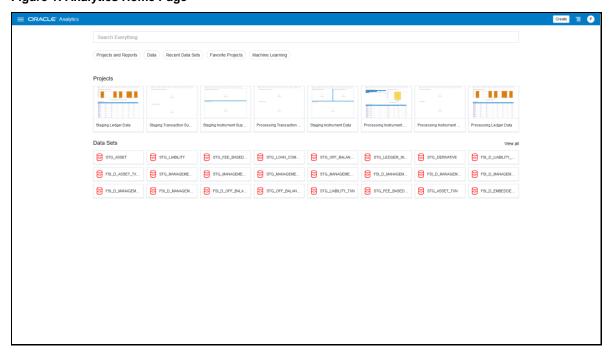
# 3 Access BI Reports

This section describes the steps to access the Business Intelligence (BI) Reports.

To access the Oracle Financial Services Cash Flow Engine Cloud Service BI Reports, follow these steps:

1. From the LHS Menu, select **Analytics**, and then select **Home Page**.

Figure 1: Analytics Home Page



Data Sets are self-service Data Models that you build specifically for your Data Visualization and Analysis requirements.

A Data Set can be based on one Table, Spreadsheet, or a File. Alternatively, a Data Set can be a self-service Data Model that contains multiple Tables with relationships defined between the Tables.

A Data Set contains Data Source Connection Information, Tables, the Columns you specify, and the Data Enrichments, and Transformations that you apply.

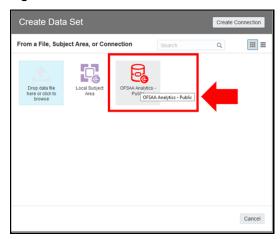
For more information, see Visualizing Data and Building Reports in Oracle Analytics Cloud.

To access the SQL Query Browser and prepare Data, follow these steps:

1. From the LHS Menu, select **Analytics**, and then select **SQL Query Browser**.

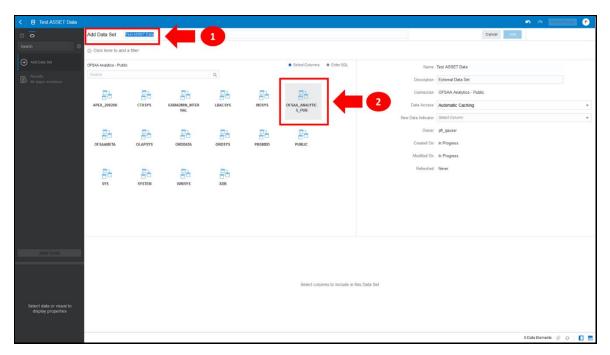
The SQL Query Browser allows you to use an existing Database Connector named OFSAA Analytics – Public to interact with the underlying available Database Structures.

Figure 2: Create Data Set Screen

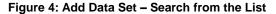


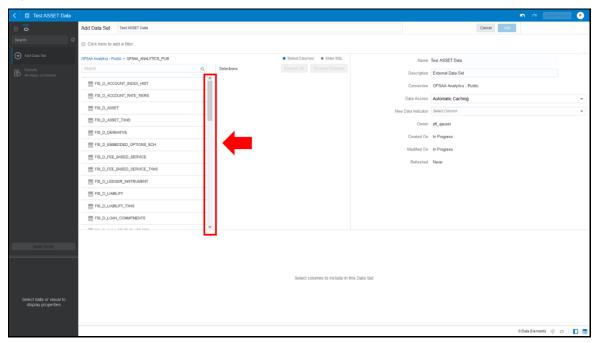
**2.** After selecting the Database Connector, you must select the Database Schema named OFSAA\_ANALYTICS\_PUB to proceed to the next step of Database Object Selection.

Figure 3: Add Data Set



- **3.** Provide a meaningful name to the Data Set, which will be generated from this process and be used for the SQL Query Analysis.
- **4.** You can search for a Database Object from the available options. You can either scroll down or search the Database Objects displayed in alphabetical order.

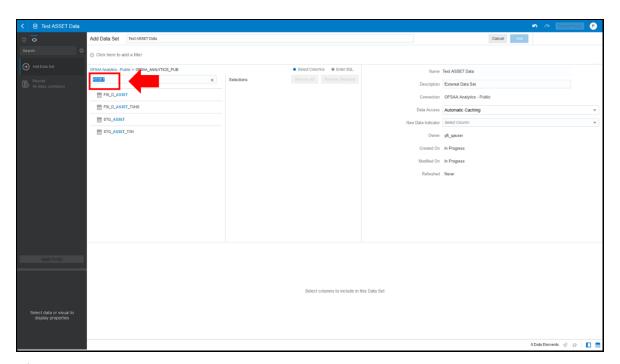




Or

Type the Database Object Name to filter the list with Description.

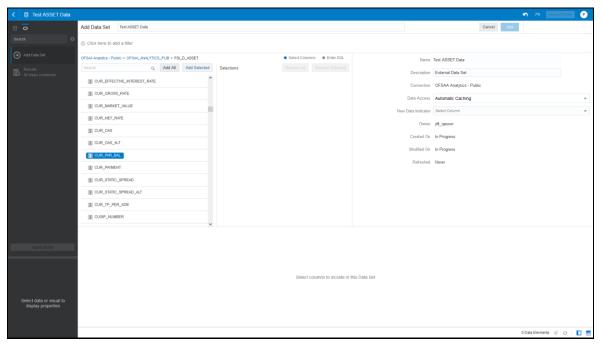
Figure 5: Add Data Set - Search by Name



After you select the Object that want, you can proceed to the next step.

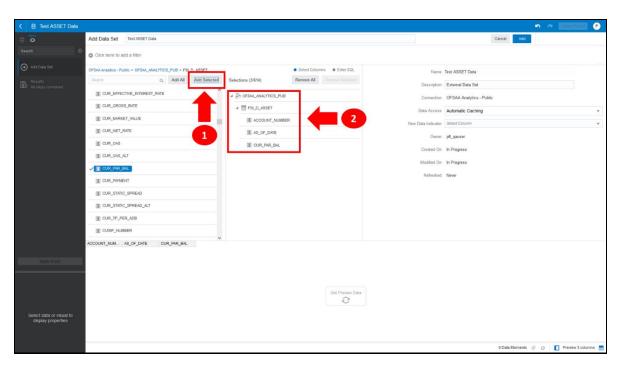
5. You search the Columns that are available for the selected Database Object by scrolling.

Figure 6: Add Data Set - Search Columns



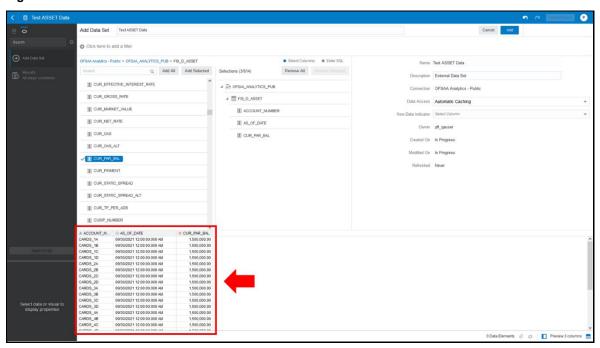
**6.** Add the Database Object Column as required.

Figure 7: Add Data Set – Adding the Database Object Column



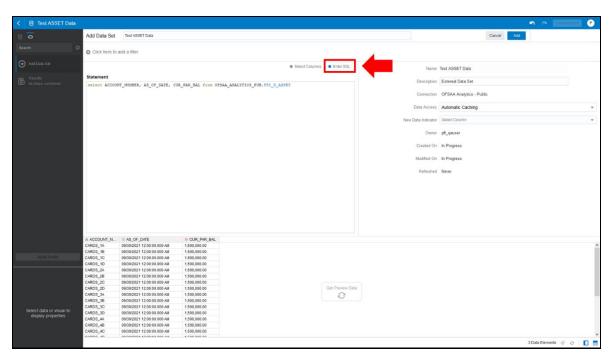
7. Click **Get Preview Data** to display the retrieved Data Results.

Figure 8: Data Results



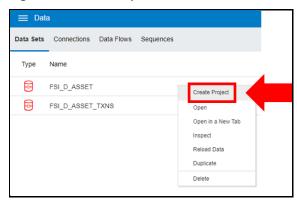
**8.** In addition, you can switch to the **Enter SQL** Pane Editor. You can change the auto-generated SQL Query at any time and click **Get Preview Data** to retrieve the results based on the modified SQL Query.

Figure 9: Data Results based on modified SQL Query



- 9. Click **Add** to save the SQL Data.
- 10. Click Data on the LHS Menu and click Data Sets to display the available Data Sets for usage. These Data Sets can be used at any time to create the ad-hoc analysis leveraging the Oracle Analytics tool's capabilities.
- **11.** Right-click on the Data Set name to display the options as shown:

Figure 10: Data Set Options



**12.** In the menu that is displayed, click **Create Project**.

# 5 Raw Data Analysis

To access the Raw Data Analysis Screen, form the LHS Menu, select **Raw Data Analysis** from the **BI Home**.

The following table lists the Raw Data Analysis Reports. You can select any report that you want.

**Table 1: Raw Data Analysis Reports** 

Report Name	Scope	Table Layer	Physical Table List Logical Table List F		Report Canvas Name
Staging	Instrument	STG	STG_ASSET	Stage Asset Instruments	Assets
Instrument		Staging	STG_LIABILITY	Stage Liability Instruments	Liabilities
Data			STG_DERIVATIVE	Stage Derivative Contracts	Derivative Contracts
			STG_FEE_BASED_SERVICE	Stage Fee Based and Other Services	Fee Based Services
			STG_LOAN_COMMITMENTS	Stage Loan Commitments	Loan Commitments
			STG_OFF_BALANCE_SHEET	Stage Off Balance Sheet Contracts	Off Balance Sheet Items
			STG_LEDGER_INSTRUMENT	Stage Ledger Instrument	Ledger - Instruments
Staging	Instrument	STG	STG_ACCOUNT_INDEX_HIST	Stage Account Index History	Account Index History
Instrument	Supplementary	Staging	STG_ACCOUNT_RATE_TIERS	Stage Account Rate Tiers	Account Rate Tiers
Supplementary Data			STG_EMBEDDED_OPTIONS_SCH	Stage Embedded Options Schedule	Embedded Options Schedule
Data			STG_PAYMENT_SCHEDULE	Stage Payment Schedule	Payment Schedule
Staging Ledger	Ledger         Ledger         STG         STG_MANAGEMENT_LEDGER         Stage Management Ledger		Stage Management Ledger	Management Ledger	
Data		Staging	STG_MANAGEMENT_LEDGER_01	Stage Placeholder Management Ledger 01	Management Ledger 01
			STG_MANAGEMENT_LEDGER_02	Stage Placeholder Management Ledger 02	Management Ledger 02
	STG_MANAGEMENT_LEDGER_03 St		Stage Placeholder Management Ledger 03	Management Ledger 03	
			STG_MANAGEMENT_LEDGER_04	Stage Placeholder Management Ledger 04	Management Ledger 04
		_	STG_MANAGEMENT_LEDGER_05	Stage Placeholder Management Ledger 05	Management Ledger 05

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Staging Transaction Summary Data	Transaction Summary	STG Staging	STG_LIABILITY_TXN STG_FEE_BASED_SERVICE_TXN STG_OFF_BALANCE_SHEET_TXN STG_OFF_BALANCE_SHEET_TXN Stage Liability Transaction Summary Stage Fee Based and Other Services Transaction Summary Stage Off Balance Sheet Transaction Summary C		Assets Transaction Summary Liabilities Transaction Summary Fee Based Services Transaction Summary Off Balance Sheet Transaction Summary
Processing Instrument Data	Instrument	FSI Processing	FSI_D_ASSET FSI_D_LIABILITY FSI_D_DERIVATIVE FSI_D_FEE_BASED_SERVICE FSI_D_LOAN_COMMITMENTS FSI_D_OFF_BALANCE_SHEET FSI_D_LEDGER_INSTRUMENT	Asset Instruments Liability Instruments Derivative Contracts Fee Based and Other Services Loan Commitments Off Balance Sheet Contracts Ledger Instrument	Assets Liabilities Derivative Contracts Fee Based Services Loan Commitments Off Balance Sheet Items Ledger Instruments
Processing Instrument Supplementary Data	Instrument Supplementary	FSI Processing	FSI_D_ACCOUNT_INDEX_HIST Account Index History		Account Index History Account Rate Tiers Embedded Options Schedule Payment Schedule
Processing Ledger Data	Ledger	FSI Processing	FSI_D_MANAGEMENT_LEDGER FSI_D_MANAGEMENT_LEDGER_01 FSI_D_MANAGEMENT_LEDGER_02 FSI_D_MANAGEMENT_LEDGER_03 FSI_D_MANAGEMENT_LEDGER_04 FSI_D_MANAGEMENT_LEDGER_05	Management Ledger Placeholder Management Ledger 01 Placeholder Management Ledger 02 Placeholder Management Ledger 03 Placeholder Management Ledger 04 Placeholder Management Ledger 05	Management Ledger Management Ledger 01 Management Ledger 02 Management Ledger 03 Management Ledger 04 Management Ledger 05

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Processing Transaction Summary Data	Transaction Summary	FSI Processing	FSI_D_ASSET_TXNS FSI_D_LIABILITY_TXNS FSI_D_FEE_BASED_SERVICE_TXNS FSI_D_OFF_BALANCE_SHEET_TXNS	Asset Transaction Summary Liability Transaction Summary Fee Based and Other Services Transaction Summary Off Balance Sheet Transaction Summary	Assets Transaction Summary Liabilities Transaction Summary Fee Based Services Transaction Summary Off Balance Sheet Transaction Summary

# **5.1** Staging Instrument Data

You can use this report to perform the analysis on the Staging Area Tables related to Instrument Data. The report contains specifically the following Staging Database Objects:

**Table 2: Staging Instrument Data Reports** 

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Staging	Instrument	STG-Staging	STG_ASSET	Stage Asset Instruments	Assets
Instrument Data			STG_LIABILITY	Stage Liability Instruments	Liabilities
			STG_DERIVATIVE Stage Derivative Contracts		Derivative Contracts
			STG_FEE_BASED_SERVICE Stage Fee Based and Other Services F		Fee Based Services
			STG_LOAN_COMMITMENTS	STG_LOAN_COMMITMENTS Stage Loan Commitments L	
			TG_OFF_BALANCE_SHEET Stage Off Balance Sheet Contracts		Off Balance Sheet Items
			STG_LEDGER_INSTRUMENT	Stage Ledger Instrument	Ledger - Instruments

#### **5.1.1** Assets

The Assets Report provides the Analysis Capability on the Stage Asset Instrument Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

Stage Asset Instruments - Aggregated Statistics

Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_CODE.

In addition, for CUR\_NET\_RATE, the Additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_ASSET, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Stage Asset Instruments Number of Records Trend
   Total Records Asset aggregated by AS\_OF\_DATE.
- Stage Asset Instruments
   Granular table records at ACCOUNT\_NUMBER level.

ADJUSTABLE\_TYPE\_CODE 5.91% 6.79M 6.40M 3.17M 24.00M 12:00 AM 31 Mar 2015 03/31/2015 12:00:00.000 CARDS\_1A FLOAT BEH\_PAT 15.50 CARDS\_1B FLOAT BEH\_PAT 15.50 FLOAT BEH\_PAT 15.50 FLOAT 6 Rows, 4 Columns | 🌠 👙

Figure 11: Stage Instrument Data - Assets

## 5.1.2 Liabilities

The Liabilities Report provides the Analysis Capability on the Stage Liability Instrument Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

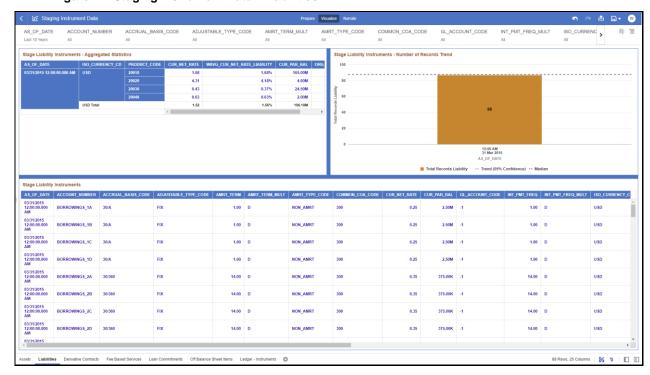
• Stage Liability Instruments - Aggregated Statistics

Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_CODE.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_LIABILITY, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Stage Liability Instruments Number of Records Trend
   Total Records Liability aggregated by AS\_OF\_DATE.
- Stage Liability Instruments
   Granular table records at ACCOUNT\_NUMBER level.

Figure 12: Staging Instrument Data - Liabilities



#### **5.1.3** Derivative Contracts

The Derivative Contracts Report provides the Analysis Capability on the Stage Derivative Contracts Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

Stage Derivative Contracts (Payment) - Aggregated Statistics
 Aggregation for CUR\_PAR\_BAL\_PAY (sum), ORG\_PAR\_BAL\_PAY (sum) and CUR\_NET\_RATE\_PAY (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD\_PAY and PRODUCT\_CODE.

5 Rows, 4 Columns | 🌠 🕏

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_PAY\_DERIVATIVE, is calculated as the Weighted AVG by CUR\_PAR\_BAL\_PAY.

Stage Derivative Contracts (Receive) - Aggregated Statistics

Aggregation for CUR\_PAR\_BAL\_RCV (sum), ORG\_PAR\_BAL\_RCV (sum) and CUR\_NET\_RATE\_RCV (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD\_RCV and PRODUCT\_CODE.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_RCV\_DERIVATIVE, is calculated as the Weighted AVG by CUR\_PAR\_BAL\_RCV.

- Stage Derivative Contracts Number of Records Trend
   Total Records Derivative Contracts aggregated by AS\_OF\_DATE.
- Stage Derivative Contracts
   Granular table records at ACCOUNT\_NUMBER level.

| Stage Centrative Contracts | Stage Centrative Centracts | Stage Centrati

Figure 13: Staging Instrument Data – Derivative Contracts

### **5.1.4** Fee Based Services

The Fee Based Services Report provides the Analysis Capability on the Stage Fee Based and Other Services Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

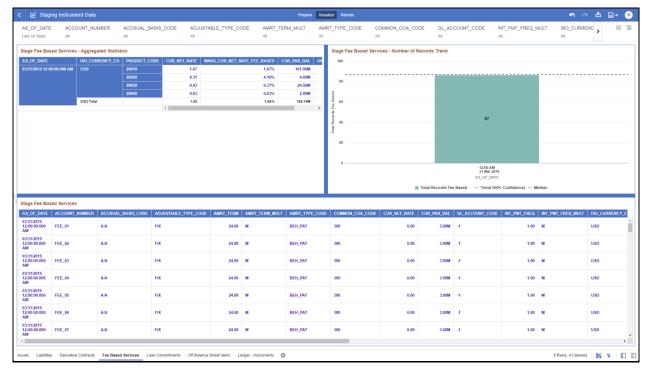
• Stage Fee Based Services - Aggregated Statistics

Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_CODE.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_FEE\_BASED, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Stage Fee Based Services Number of Records Trend
   Total Records Fee Based aggregated by AS\_OF\_DATE.
- Stage Fee Based Services
   Granular table records at ACCOUNT\_NUMBER level.

Figure 14: Staging Instrument Data – Fee Based Services



#### **5.1.5** Loan Commitments

The Loan Commitments Report provides the Analysis Capability on the Stage Loan Commitments Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

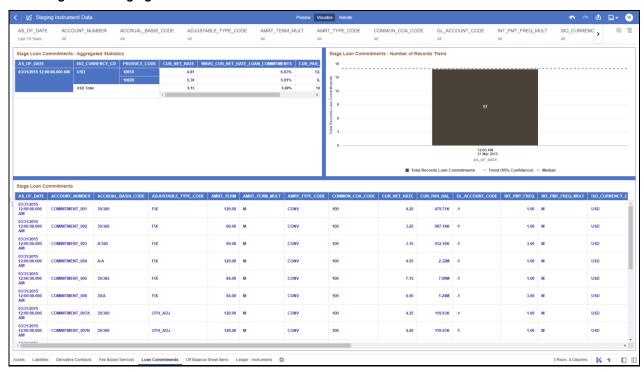
The report displays the underlying data according to the following Charts' logic:

Stage Loan Commitments - Aggregated Statistics
 Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_CODE.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_LOAN\_COMMITMENTS, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Stage Loan Commitments Number of Records Trend
   Total Records Loan Commitments aggregated by AS\_OF\_DATE.
- Stage Loan Commitments
   Granular table records at ACCOUNT\_NUMBER level.

Figure 15: Staging Instrument Data - Loan Commitments



## **5.1.6** Off Balance Sheet Items

The Off Balance Sheet Items Report provides the analysis capability on the Stage off Balance Sheet Contracts Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

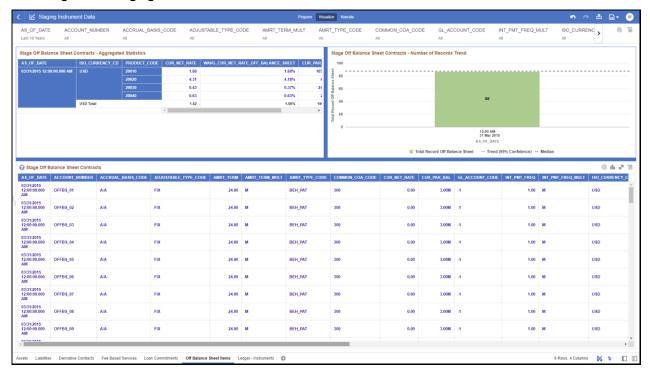
• Stage Off Balance Sheet Contracts - Aggregated Statistics

Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_CODE.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_OFF\_BALANCE\_SHEET, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Stage Off Balance Sheet Contracts Number of Records Trend
   Total Record off Balance Sheet aggregated by AS\_OF\_DATE.
- Stage Off Balance Sheet Contracts
   Granular table records at ACCOUNT\_NUMBER level.

Figure 16: Staging Instrument Data - Off Balance Sheet Items



## **5.1.7** Ledger – Instruments

The Ledger – Instrument Report provides the analysis capability on the Stage Ledger Instrument Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

Stage Ledger Instrument - Aggregated Statistics

Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_CODE.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_LEDGER\_INSTRUMENTS, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Stage Ledger Instrument Number of Records Trend
   Total Records Ledger Instruments aggregated by AS\_OF\_DATE.
- Stage Ledger Instrument
   Granular table records at ACCOUNT\_NUMBER level.

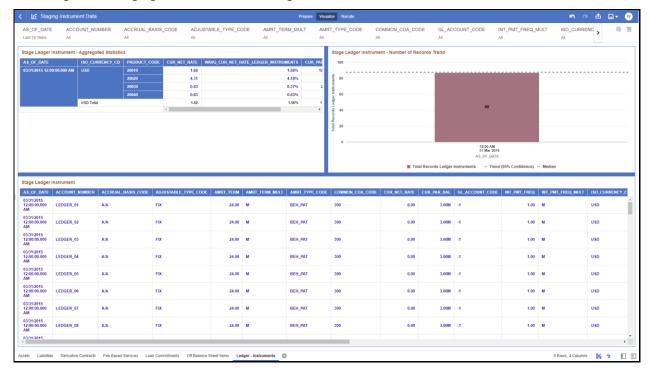


Figure 17: Staging Instrument Data - Ledger - Instruments

# **5.2** Staging Instrument Supplementary Data

You can use the Staging Instrument Supplementary Data Report to perform the analysis on the Staging Area Tables related to Instrument Supplementary Data. The report contains specifically the following Staging Database Objects:

**Report Name Table Layer Physical Table List Logical Table List Report Canvas** Scope Name Account Index Staging Instrument STG-Staging STG\_ACCOUNT\_INDEX\_HIST Stage Account Index Instrument Supplementary History History STG\_ACCOUNT\_RATE\_TIERS Supplementary Stage Account Rate **Account Rate Tiers** STG\_EMBEDDED\_OPTIONS\_SCH Data Tiers **Embedded Options** STG\_PAYMENT\_SCHEDULE Stage Embedded Schedule **Options Schedule** Payment Schedule Stage Payment Schedule

**Table 3: Staging Instrument Data Reports** 

# **5.2.1** Account Index History

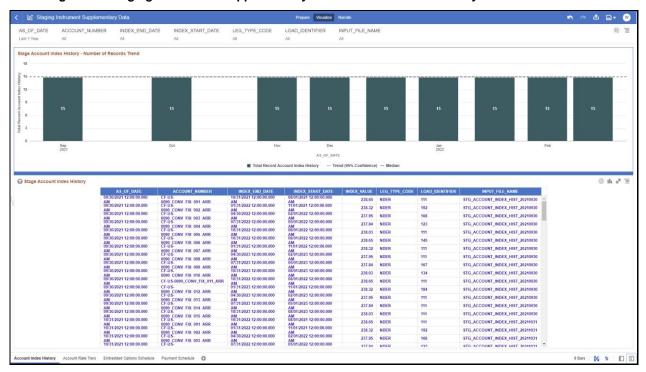
The Account Index History Report provides the analysis capability on the Stage Account Index History Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Account Index History Number of Records Trend
   Total Records Account Index History aggregated by AS\_OF\_DATE.
- Stage Account Index History
   Granular table records at ACCOUNT\_NUMBER level.

Figure 18: Staging Instrument Supplementary Data - Account Index History



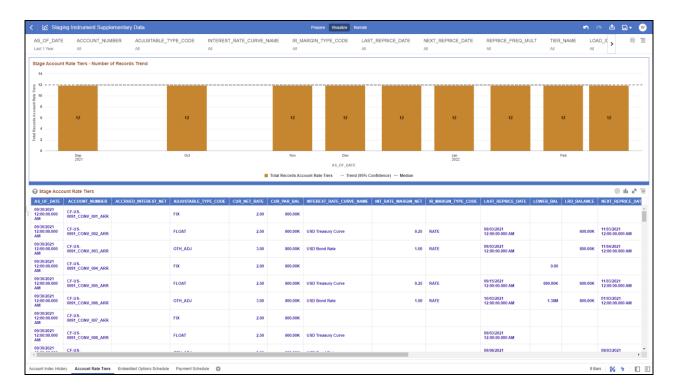
### **5.2.2** Account Rate Tiers

The Account Rate Tiers Report provides the analysis capability on the Stage Account Rate Tiers Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Stage Account Rate Tiers Number of Records Trend
   Total Records Account Rate Tiers aggregated by AS\_OF\_DATE.
- Stage Account Rate Tiers
   Granular table records at ACCOUNT\_NUMBER level.

Figure 19: Staging Instrument Supplementary Data - Account Rate Tiers



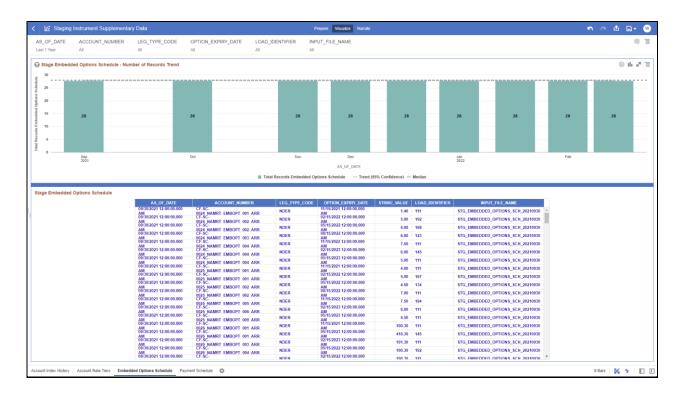
## **5.2.3** Embedded Options Schedule

The Embedded Options Schedule Report provides the analysis capability on the Stage Embedded Options Schedule Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Stage Embedded Options Schedule Number of Records Trend
   Total Records Embedded Options Schedule aggregated by AS\_OF\_DATE.
- Stage Embedded Options Schedule
   Granular table records at ACCOUNT\_NUMBER level.

Figure 20: Staging Instrument Supplementary Data - Embedded Options Schedule



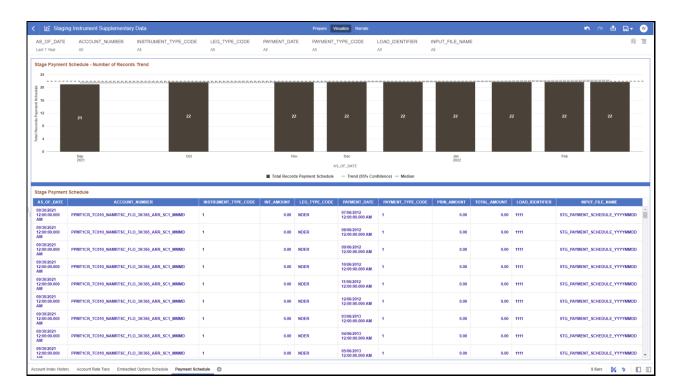
### 5.2.4 Payment Schedule

The Payment Schedule Report provides the analysis capability on the Stage Payment Schedule Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Stage Payment Schedule Number of Records Trend
   Total Records Payment Schedule aggregated by AS\_OF\_DATE.
- Stage Payment Schedule
   Granular table records at ACCOUNT\_NUMBER level.

Figure 21: Staging Instrument Supplementary Data - Payment Schedule



# 5.3 Staging Ledger Data

You can use this report to perform the analysis on the Staging Area Tables related to Ledger Data. The report contains specifically the following Staging Database Objects:

**Table 4: Staging Ledger Data Reports** 

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Staging Ledger Data	Ledger	STG-Staging	STG_MANAGEMENT_LEDGER STG_MANAGEMENT_LEDGER_01 STG_MANAGEMENT_LEDGER_02 STG_MANAGEMENT_LEDGER_03 STG_MANAGEMENT_LEDGER_04 STG_MANAGEMENT_LEDGER_05	Stage Management Ledger Stage Placeholder Management Ledger 01 Stage Placeholder Management Ledger 02 Stage Placeholder Management Ledger 03 Stage Placeholder Management Ledger 04 Stage Placeholder Management Ledger 04 Stage Placeholder Management Ledger 05	Management Ledger  Management Ledger 01  Management Ledger 02  Management Ledger 03  Management Ledger 04  Management Ledger 05

## **5.3.1** Management Ledger

The Management Ledger Report provides the analysis capability on the Stage Management Ledger Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

• Stage Management Ledger - Number of Records Trend

Total Records Management Ledger aggregated by AS\_OF\_DATE.

• Stage Management Ledger

Granular table records at FINANCIAL\_ELEM\_CODE level.

| 12 | Subgraph | Common | Color | Conscious | Common | Color | Color

Figure 22: Staging Ledger Data - Management Ledger

## **5.3.2** Management Ledgero1

The Management Ledger 01 Report provides the analysis capability on the Stage Placeholder Management Ledger 01 table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Stage Management Ledger01 Number of Records Trend
   Total Records Management Ledger01 aggregated by AS\_OF\_DATE.
- Stage Management Ledger01

Granular table records at FINANCIAL\_ELEM\_CODE level.

| Companies | Comp

Figure 23: Staging Ledger Data - Management Ledger01

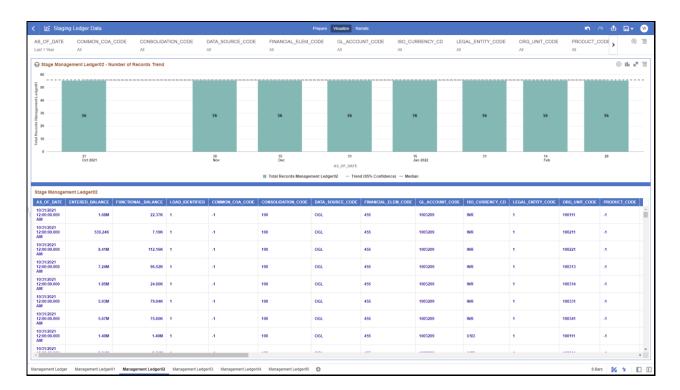
### 5.3.3 Management Ledgero2

The Management Ledger 02 Report provides the analysis capability on the Stage Placeholder Management Ledger 02 table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Stage Management Ledger02 Number of Records Trend
   Total Records Management Ledger02 aggregated by AS\_OF\_DATE.
- Stage Management Ledger02
   Granular table records at FINANCIAL\_ELEM\_CODE level.

Figure 24: Staging Ledger Data - Management Ledger02



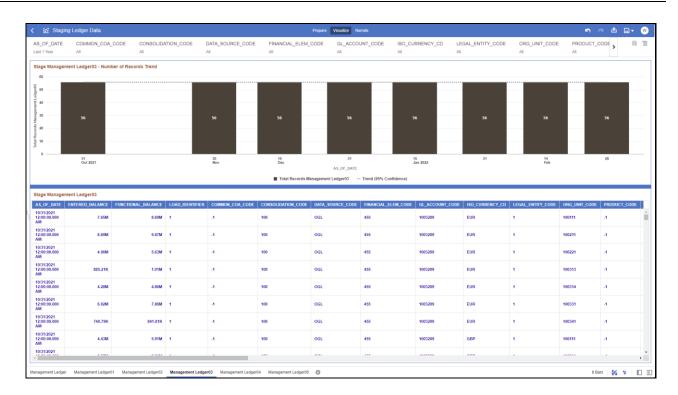
### 5.3.4 Management Ledgero3

The Management Ledger 03 Report provides the analysis capability on the Stage Placeholder Management Ledger 03 table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Stage Management Ledger03 Number of Records Trend
   Total Records Management Ledger03 aggregated by AS\_OF\_DATE.
- Stage Management Ledger03
   Granular table records at FINANCIAL\_ELEM\_CODE level.

Figure 25: Staging Ledger Data - Management Ledger03



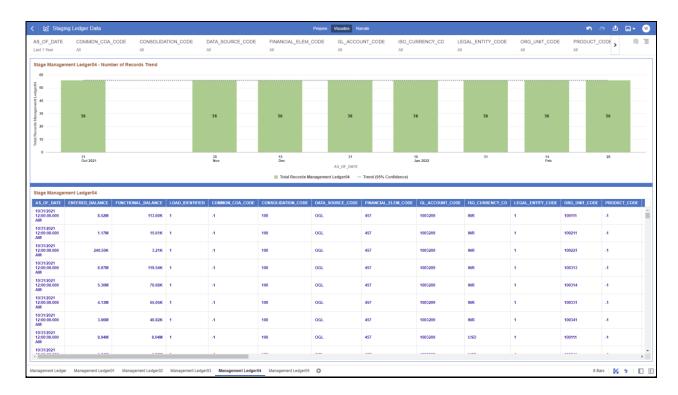
## **5.3.5** Management Ledger04

The Management Ledger 04 Report provides the analysis capability on the Stage Placeholder Management Ledger 04 table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Stage Management Ledger04 Number of Records Trend
   Total Records Management Ledger04 aggregated by AS\_OF\_DATE.
- Stage Management Ledger04
   Granular table records at FINANCIAL\_ELEM\_CODE level.

Figure 26: Staging Ledger Data - Management Ledger04



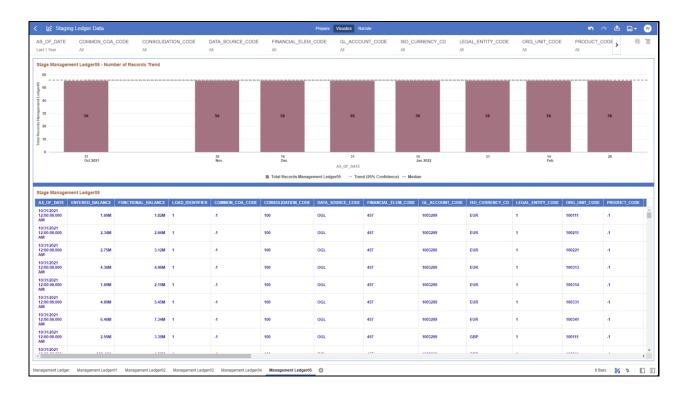
### **5.3.6** Management Ledgero5

The Management Ledger 05 Report provides the analysis capability on the Stage Placeholder Management Ledger 05 table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Stage Management Ledger05 Number of Records Trend
   Total Records Management Ledger05 aggregated by AS\_OF\_DATE.
- Stage Management Ledger05
   Granular table records at FINANCIAL\_ELEM\_CODE level.

Figure 27: Staging Ledger Data – Management Ledger05



# 5.4 Staging Transaction Summary Data

You can use this report to perform the analysis on the Staging area tables related to Transaction Summary Data. The report contains specifically the following Staging Database Objects:

**Table 5: Staging Ledger Data Reports** 

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Staging Transaction Summary Data	Transaction Summary	STG-Staging	STG_ASSET_TXN STG_LIABILITY_TXN STG_FEE_BASED_SERVICE_TXN STG_OFF_BALANCE_SHEET_TXN	Stage Asset Transaction Summary Stage Liability Transaction Summary Stage Fee Based and Other Services Transaction Summary Stage Off Balance Sheet Transaction Summary	Assets Transaction Summary Liabilities Transaction Summary Fee Based Services Transaction Summary Off Balance Sheet Transaction Summary

## **5.4.1** Asset Transaction Summary

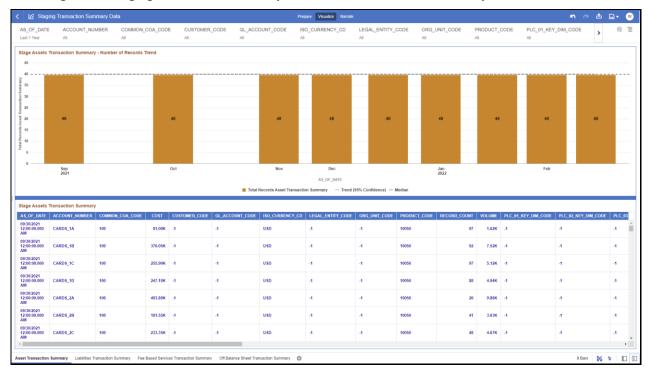
This report provides the analysis capability on the Stage Assets Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Assets Transaction Summary Number of Records Trend
   Total Records Assets Transaction Summary aggregated by AS\_OF\_DATE.
- Stage Assets Transaction Summary
   Granular table records at ACCOUNT\_NUMBER level.

Figure 28: Staging Transaction Summary Data - Asset Transaction Summary



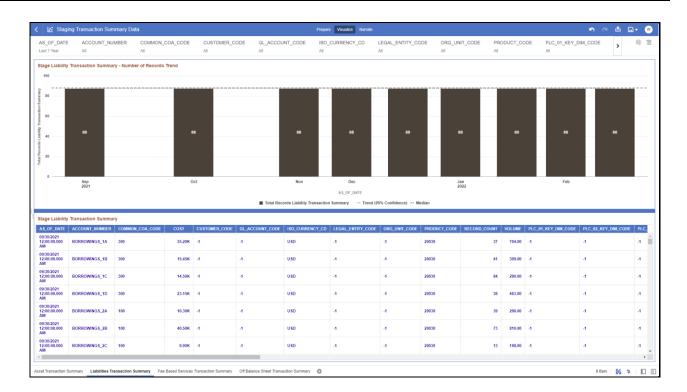
## **5.4.2** Liabilities Transaction Summary

The Liabilities Transaction Summary Report provides the analysis capability on the Stage Liability Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to functional Key Attributes pertaining to the Table Columns Perimeter.

- Stage Liability Transaction Summary Number of Records Trend
   Total Records Liability Transaction Summary aggregated by AS\_OF\_DATE.
- Stage Liability Transaction Summary
   Granular table records at ACCOUNT\_NUMBER level.

Figure 29: Staging Transaction Summary Data - Liabilities Transaction Summary



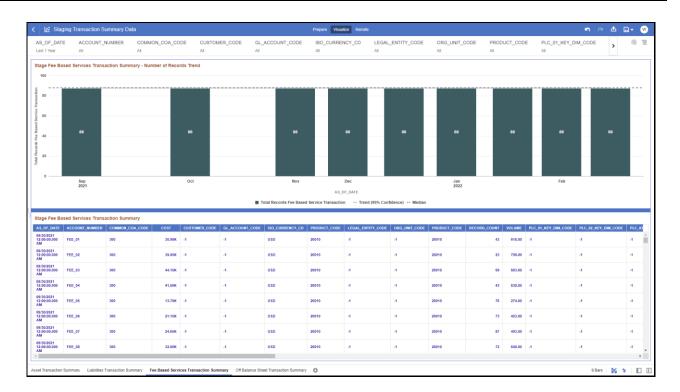
## **5.4.3** Fee Based Services Transaction Summary

The Fee Based Services Transaction Summary Report provides the analysis capability on the Stage Fee Based and Other Services Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Stage Fee Based Services Transaction Summary Number of Records Trend
   Total Records Fee Based Service Transaction aggregated by AS\_OF\_DATE.
- Stage Fee Based Services Transaction Summary
   Granular table records at ACCOUNT\_NUMBER level.

Figure 30: Staging Transaction Summary Data - Fee Based Services Transaction Summary



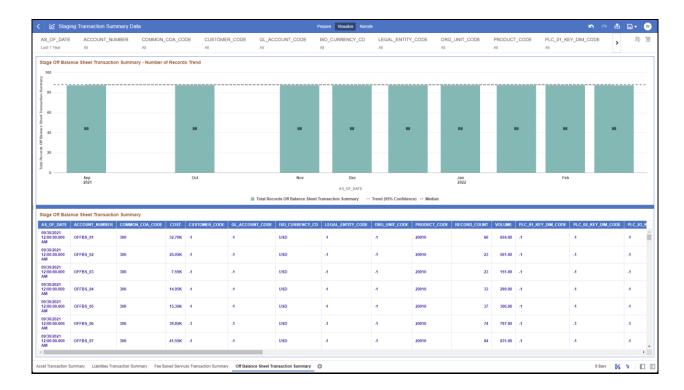
## 5.4.4 Off Balance Sheet Transaction Summary

The Off Balance Sheet Transaction Summary Report provides the analysis capability on the Stage Off Balance Sheet Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Stage Off Balance Sheet Transaction Summary Number of Records Trend
   Total Records Off Balance Sheet Transaction Summary aggregated by AS\_OF\_DATE.
- Stage Off Balance Sheet Transaction Summary
   Granular table records at ACCOUNT\_NUMBER level.

Figure 31: Staging Transaction Summary Data – Off Balance Sheet Transaction Summary



# **5.5** Processing Instrument Data

You can use this report to perform the analysis on the Processing Area Tables related to Instrument Data. The report contains specifically the following Processing Database Objects:

**Table 6: Staging Ledger Data Reports** 

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Processing Instrument Data	Instrument	FSI- Processing	FSI_D_ASSET FSI_D_LIABILITY FSI_D_DERIVATIVE FSI_D_FEE_BASED_SERVICE FSI_D_LOAN_COMMITMENTS FSI_D_OFF_BALANCE_SHEET FSI_D_LEDGER_INSTRUMENT	Asset Instruments Liability Instruments Derivative Contracts Fee Based and Other Services Loan Commitments Off Balance Sheet Contracts Ledger Instrument	Assets Liabilities Derivative Contracts Fee Based Services Loan Commitments Off Balance Sheet Items Ledger - Instruments

## **5.5.1** Assets

The Assets Report provides the analysis capability on the Asset Instrument Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

Asset Instruments - Aggregated Statistics

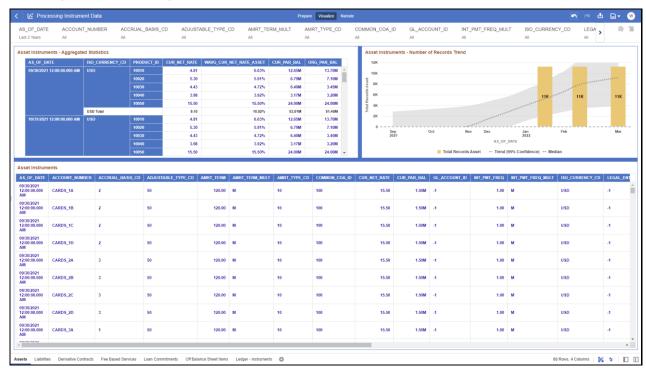
Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_ASSET, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Asset Instruments Number of Records Trend
   Total Records Asset aggregated by AS\_OF\_DATE.
- Asset Instruments

Granular table records at ACCOUNT\_NUMBER level.

Figure 32: Processing Instrument Data - Assets



## 5.5.2 Liabilities

The Liabilities Report provides the analysis capability on the Liability Instrument Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

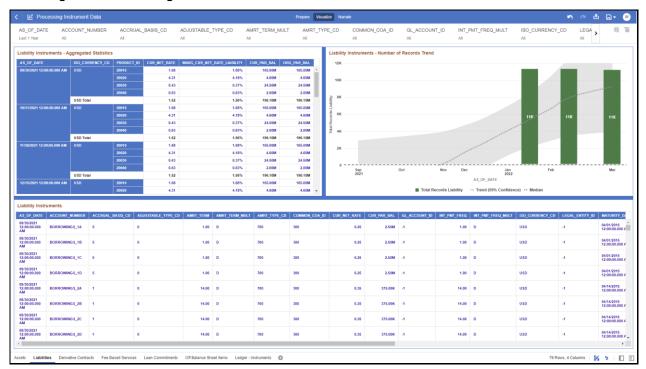
• Liability Instruments - Aggregated Statistics

Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_LIABILITY, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Liability Instruments Number of Records Trend
   Total Records Liability aggregated by AS\_OF\_DATE.
- Liability Instruments
   Granular table records at ACCOUNT\_NUMBER level.

Figure 33: Processing Instrument Data - Liabilities



## **5.5.3** Derivative Contracts

The Derivative Contracts Report provides the analysis capability on the Derivative Contracts Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

Derivative Contracts - Aggregated Statistics

Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_LIABILITY, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Derivative Contracts Number of Records Trend
   Total Records Derivative Contracts aggregated by AS\_OF\_DATE.
- Derivative Contracts

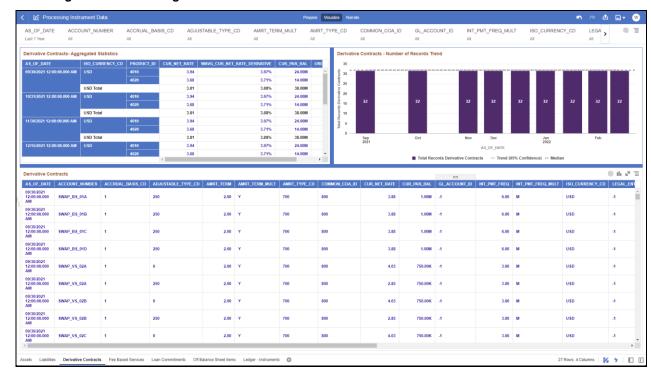


Figure 34: Processing Instrument Data - Derivative Contracts

## **5.5.4** Fee Based Services

The Fee Based Services Report provides the analysis capability on the Fee Based and Other Services Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

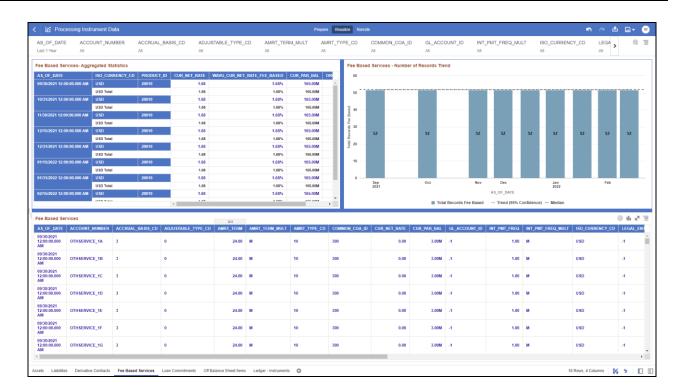
• Fee Based Services - Aggregated Statistics

Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_FEE\_BASED, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Fee Based Services Number of Records Trend
  - Total Records Fee Based aggregated by AS\_OF\_DATE.
- Fee Based Services

Figure 35: Processing Instrument Data – Fee Based Services



### **5.5.5** Loan Commitments

The Loan Commitments Report provides the analysis capability on the Loan Commitments Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

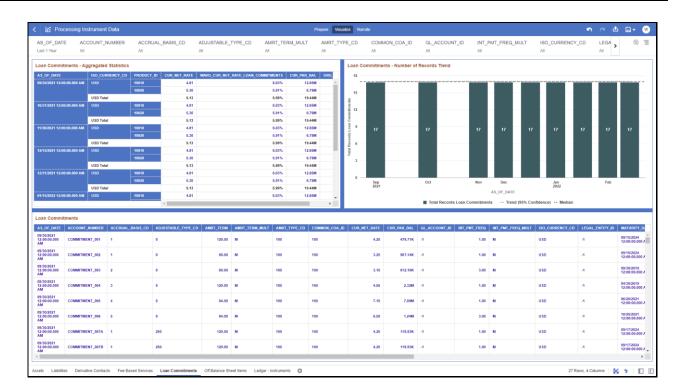
• Loan Commitments - Aggregated Statistics

Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_LOAN\_COMMITMENTS, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Loan Commitments Number of Records Trend
  - Total Records Loan Commitments aggregated by AS\_OF\_DATE.
- Loan Commitments

Figure 36: Processing Instrument Data - Loan Commitments



### **5.5.6** Off Balance Sheet Items

The Off Balance Sheet Items Report provides the analysis capability on the Off Balance Sheet Contracts Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

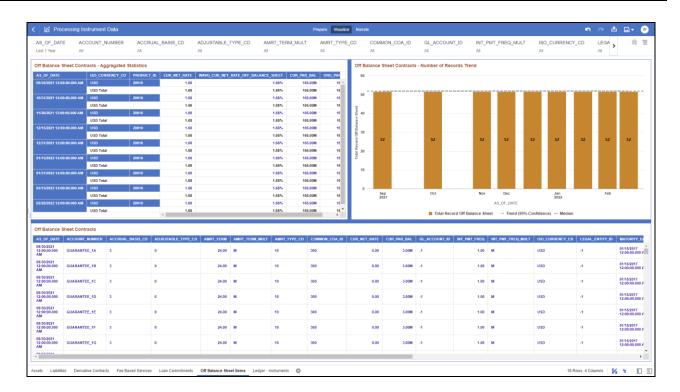
Off Balance Sheet Contracts - Aggregated Statistics

Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_OFF\_BALANCE\_SHEET, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Off Balance Sheet Contracts Number of Records Trend
   Total Record Off Balance Sheet aggregated by AS\_OF\_DATE.
- Off Balance Sheet Contracts

Figure 37: Processing Instrument Data - Off Balance Sheet Items



## 5.5.7 Ledger – Instruments

The Ledger – Instrument Report provides the analysis capability on the Ledger Instrument Table.

You can use a series of Report Prompts to filter the data according to functional key attributes pertaining to the table columns perimeter.

The report displays the underlying data according to the following Charts' logic:

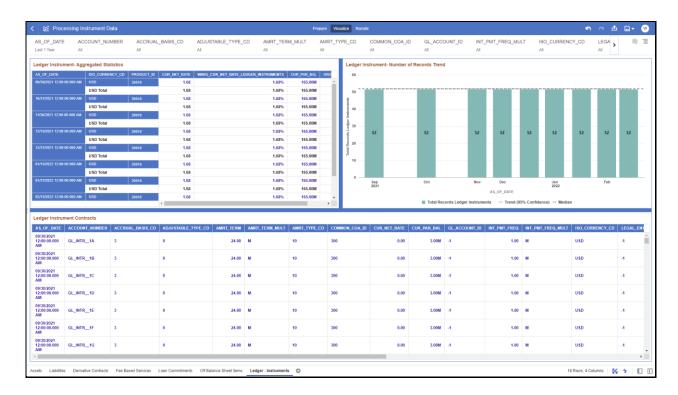
• Ledger Instrument - Aggregated Statistics

Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_LEDGER\_INSTRUMENTS, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Ledger Instrument Number of Records Trend
   Total Records Ledger Instruments aggregated by AS\_OF\_DATE.
- Ledger Instrument

Figure 38: Processing Instrument Data – Ledger Instruments



# 5.6 Processing Instrument Supplementary Data

You can use this report to perform the analysis on the Processing Area Tables related to Instrument Data. The report contains specifically the below Processing Database Objects:

**Table 7: Staging Ledger Data Reports** 

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Processing Instrument Supplementary Data	Instrument Supplementary	FSI– Processing	FSI_D_ACCOUNT_INDEX_HIST FSI_D_ACCOUNT_RATE_TIERS FSI_D_EMBEDDED_OPTIONS_SCH FSI_D_PAYMENT_SCHEDULE	Account Index History Account Rate Tiers Embedded Options Schedule Payment Schedule	Account Index History Account Rate Tiers Embedded Options Schedule Payment Schedule

# **5.6.1** Account Index History

The Account Index History Report provides the analysis capability on the Account Index History Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

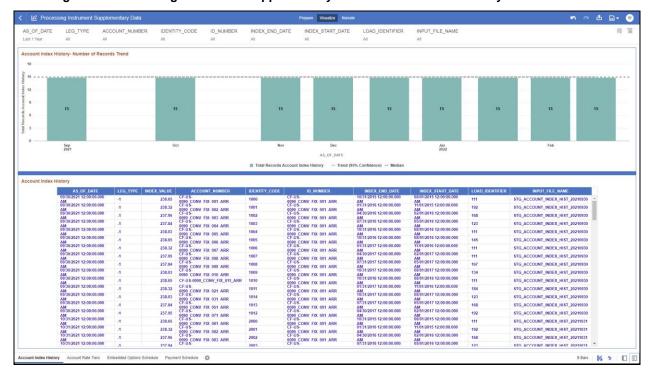
Account Index History - Number of Records Trend

Total Records Account Index History aggregated by AS\_OF\_DATE.

Account Index History

Granular table records at ACCOUNT\_NUMBER level.

Figure 39: Processing Instrument Supplementary Data – Account Index History



## **5.6.2** Account Rate Tiers

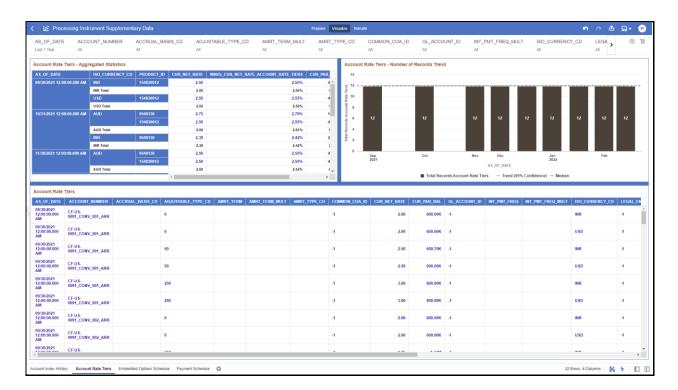
The Account Rate Tiers Report provides the analysis capability on the Account Rate Tiers Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Account Rate Tiers Number of Records Trend
   Total Records Account Rate Tiers aggregated by AS\_OF\_DATE.
- Account Rate Tiers

Figure 40: Processing Instrument Supplementary Data – Account Rate Tiers



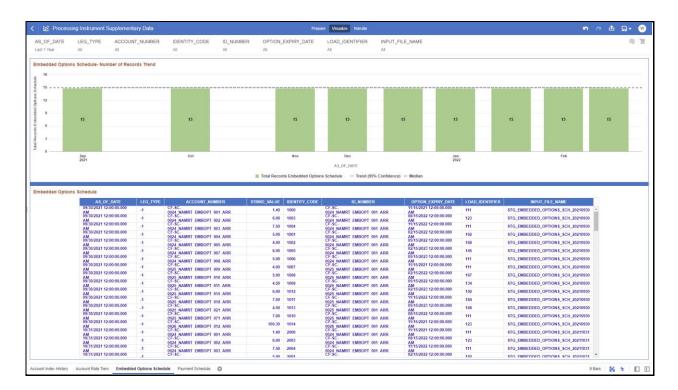
## **5.6.3** Embedded Options Schedule

The Embedded Options Schedule Report provides the analysis capability on the Embedded Options Schedule Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Embedded Options Schedule Number of Records Trend
   Total Records Embedded Options Schedule aggregated by AS\_OF\_DATE.
- Embedded Options Schedule
   Granular table records at ACCOUNT\_NUMBER level.

Figure 41: Processing Instrument Supplementary Data – Embedded Options Schedule



## 5.6.4 Payment Schedule

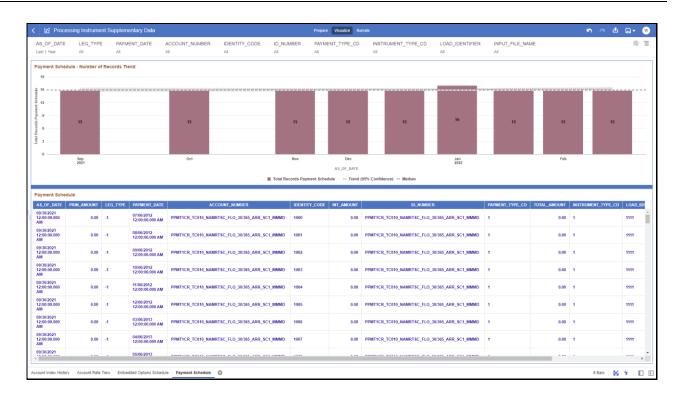
The Payment Schedule Report provides the analysis capability on the Payment Schedule Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Payment Schedule Number of Records Trend
   Total Records Payment Schedule aggregated by AS\_OF\_DATE.
- Payment Schedule

Figure 42: Processing Instrument Supplementary Data - Payment Schedule



## **5.7** Processing Ledger Data

You can use this report to perform analysis on the Processing Area Tables related to Ledger Data. The report contains specifically the following Staging Database Objects:

**Table 8: Staging Ledger Data Reports** 

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Processing Ledger Data	Ledger	FSI- Processing	FSI_D_MANAGEMENT_LEDGER FSI_D_MANAGEMENT_LEDGER_01 FSI_D_MANAGEMENT_LEDGER_02 FSI_D_MANAGEMENT_LEDGER_03 FSI_D_MANAGEMENT_LEDGER_04 FSI_D_MANAGEMENT_LEDGER_05	Management Ledger Placeholder Management Ledger O1 Placeholder Management Ledger O2 Placeholder Management Ledger O3 Placeholder Management Ledger O4 Placeholder Management Ledger O4 Placeholder Management Ledger O5	Management Ledger  Management Ledger 01  Management Ledger 02  Management Ledger 03  Management Ledger 04  Management Ledger 04  Management Ledger 05

## **5.7.1** Management Ledger

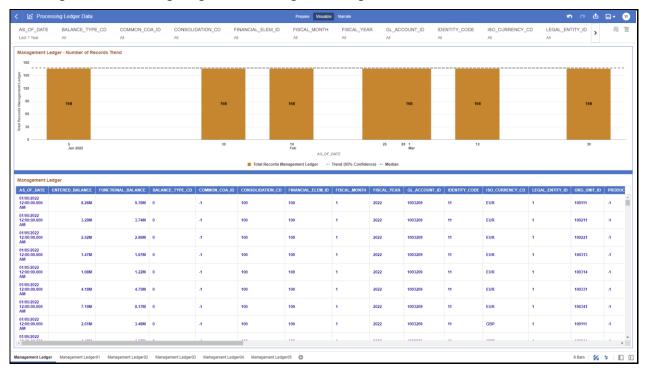
The Management Ledger Report provides the analysis capability on the Management Ledger Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Management Ledger Number of Records Trend
   Total Records Management Ledger aggregated by AS\_OF\_DATE.
- Management Ledger
   Granular table records at FINANCIAL\_ELEM\_ID level.

Figure 43: Processing Ledger Data - Management Ledger



## 5.7.2 Management Ledgero1

The Management Ledger 01 Report provides the analysis capability on the Placeholder Management Ledger 01 Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Management Ledger01 Number of Records Trend
   Total Records Management Ledger01 aggregated by AS\_OF\_DATE.
- Management Ledger01

Granular table records at FINANCIAL\_ELEM\_ID level.

EUR EUR

Figure 44: Processing Ledger Data - Management Ledger01

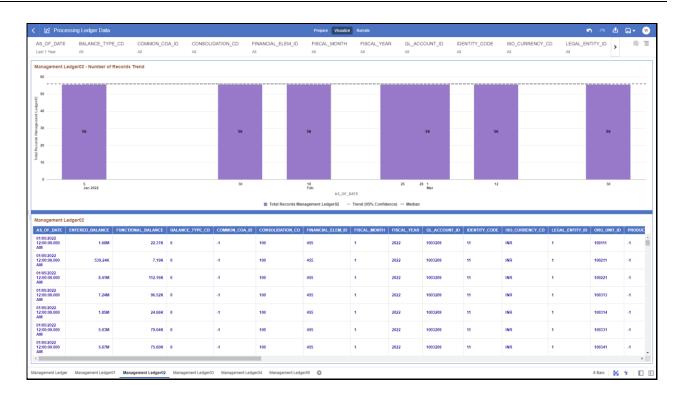
#### **Management Ledgero2** 5.7.3

The Management Ledger02 Report provides the analysis capability on the Placeholder Management Ledger 02 Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Management Ledger02 Number of Records Trend Total Records Management Ledger02 aggregated by AS\_OF\_DATE.
- Management Ledger02 Granular table records at FINANCIAL\_ELEM\_ID level.

Figure 45: Processing Ledger Data - Management Ledger02



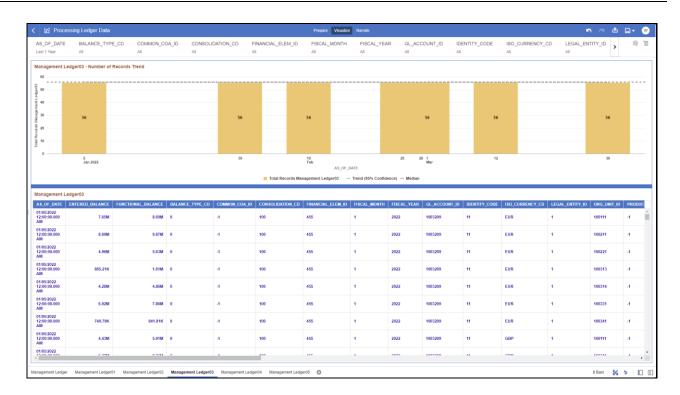
## **5.7.4** Management Ledgero3

The Management Ledger03 Report provides the analysis capability on the Placeholder Management Ledger 03 Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Management Ledger03 Number of Records Trend
   Total Records Management Ledger03 aggregated by AS\_OF\_DATE.
- Management Ledger03
   Granular table records at FINANCIAL\_ELEM\_ID level.

Figure 46: Processing Ledger Data – Management Ledger03



## 5.7.5 Management Ledger04

The Management Ledger04 Report provides the analysis capability on the Placeholder Management Ledger 04 Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

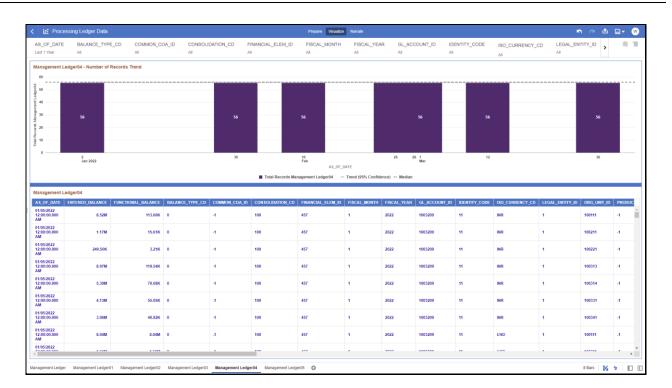
Management Ledger04 - Number of Records Trend

Total Records Management Ledger04 aggregated by AS\_OF\_DATE.

Management Ledger04

Granular table records at FINANCIAL\_ELEM\_ID level.

Figure 47: Processing Ledger Data - Management Ledger04



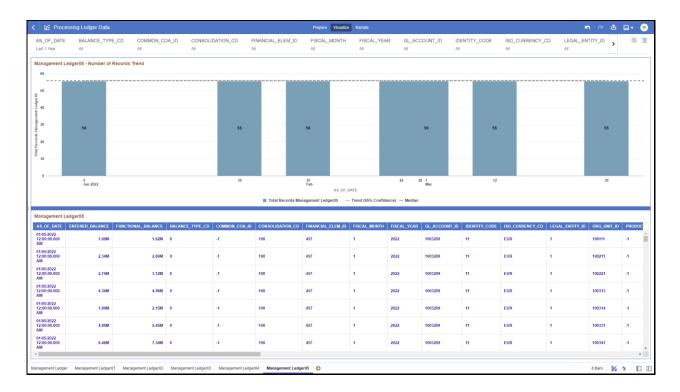
## **5.7.6** Management Ledgero5

The Management Ledger 05 Report provides the analysis capability on the Placeholder Management Ledger 05 Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Management Ledger05 Number of Records Trend
   Total Records Management Ledger05 aggregated by AS\_OF\_DATE.
- Management Ledger05
   Granular table records at FINANCIAL\_ELEM\_ID level.

Figure 48: Processing Ledger Data – Management Ledger05



# **5.8** Processing Transaction Summary Data

You can use this report to perform the analysis on the Processing Area Tables related to Transaction Summary Data. The report contains specifically the following Staging Database Objects:

**Table 9: Staging Ledger Data Reports** 

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Processing Transaction Summary Data	Transaction Summary	FSI– Processing	FSI_D_ASSET_TXNS FSI_D_LIABILITY_TXNS FSI_D_FEE_BASED_SERVICE_TXNS FSI_D_OFF_BALANCE_SHEET_TXNS	Asset Transaction Summary Liability Transaction Summary Fee Based and Other Services Transaction Summary Off Balance Sheet Transaction Summary	Assets Transaction Summary Liabilities Transaction Summary Fee Based Services Transaction Summary Off Balance Sheet Transaction Summary

## **5.8.1** Asset Transaction Summary

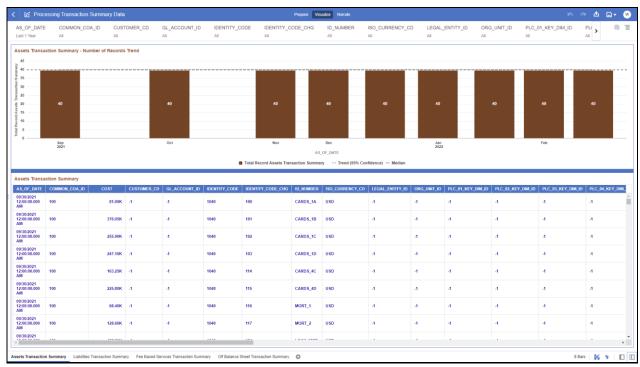
The Asset Transaction Summary Report provides the analysis capability on the Assets Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Assets Transaction Summary Number of Records Trend
   Total Record Assets Transaction Summary aggregated by AS\_OF\_DATE.
- Assets Transaction Summary
   Granular table records at ID\_NUMBER level.

Figure 49: Processing Transaction Summary Data - Asset Transaction Summary



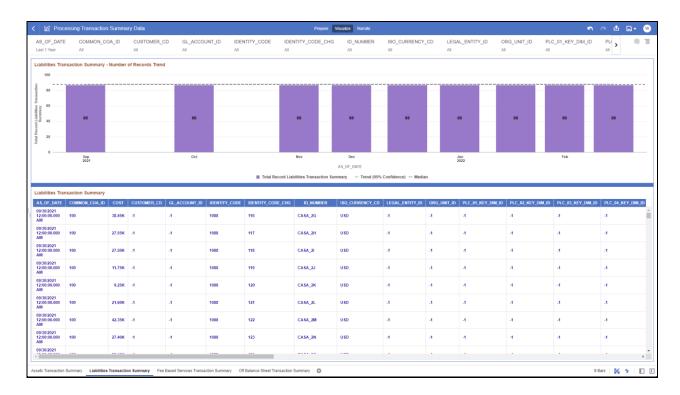
## **5.8.2** Liabilities Transaction Summary

The Liabilities Transaction Summary Report provides the analysis capability on the Liability Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Liabilities Transaction Summary Number of Records Trend
   Total Record Liability Transaction Summary aggregated by AS\_OF\_DATE.
- Liabilities Transaction Summary
   Granular table records at ID\_NUMBER level.

Figure 50: Processing Transaction Summary Data – Liabilities Transaction Summary



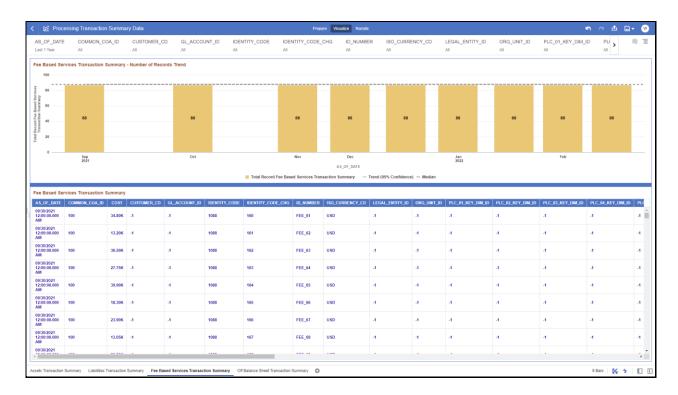
## **5.8.3** Fee Based Services Transaction Summary

The Fee Based Services Transaction Summary Report provides the analysis capability on the Fee Based and Other Services Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Fee Based Services Transaction Summary Number of Records Trend
   Total Record Fee Based Services Transaction Summary aggregated by AS\_OF\_DATE.
- Fee Based Services Transaction Summary
   Granular table records at ID\_NUMBER level.

Figure 51: Processing Transaction Summary Data - Fee Based Services Transaction Summary



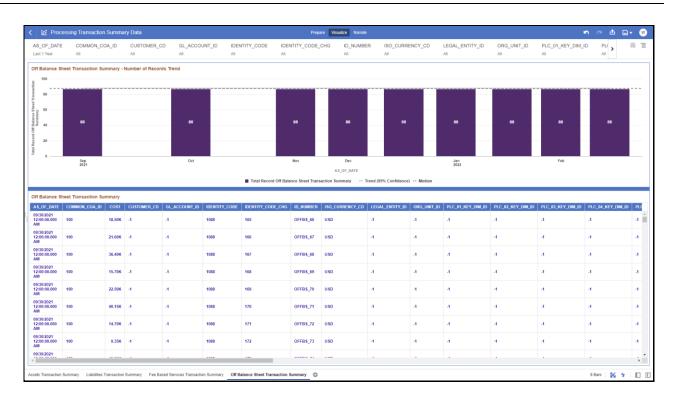
## **5.8.4** Off Balance Sheet Transaction Summary

The Off Balance Sheet Transaction Summary Report provides the analysis capability on the Off Balance Sheet Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

- Off Balance Sheet Transaction Summary Number of Records Trend
   Total Record Off Balance Sheet Transaction Summary aggregated by AS\_OF\_DATE.
- Off Balance Sheet Transaction Summary
   Granular table records at ID\_NUMBER level.

Figure 52: Processing Transaction Summary Data – Off Balance Sheet Transaction Summary



# 6 Cash Flow Report

This module discusses the procedure for viewing the Input and Output Data for an instrument.

#### **Topics:**

- Navigation Path in UI
- Overview of Cash Flow Report
- Viewing Cash Flow Report
- Downloading Cash Flow Report

## **6.1** Navigation Path in UI

To navigate to Cash Flow Report, select **Cash Flow Engine Cloud Service** menu, select **Analytics**, and then select **Cash Flow Report**.

## **6.2** Overview of Cash Flow Report

The Cash Flow Report UI allows you to view the reports with the following information:

- 1. View the report for following input information about the selected instrument as follows:
  - Instrument Attributes
  - Payment Schedule, if applicable
  - Rate Tiers, if applicable
  - Embedded Options Schedule, if applicable
  - Index History, if applicable
- 2. View the report for the following output information about the selected instrument as follows:
  - Cash Flow
  - Forecast Interest Rate Curve, if applicable
  - Forecast Economic Indicator, if applicable
  - Messages logged during processing

The Cash Flow Report Summary Page allows you to do the following:

- Viewing Cash Flow Report. For more information, see the <u>Viewing Cash Flow Report</u> Section.
- Downloading the report in CSV or Excel. For more information, see the <u>Downloading Cash Flow</u> <u>Report</u> Section.

The account number based on the search criteria are listed here. This is the search section that contains multiple parameters. You can specify one or multiple search criteria in this section. It is mandatory to select a Process and Execution ID to view the report. When you click Search, depending upon the search criteria, this filters and displays the relevant search combination parameters under the Cash Flow Report Summary as a list. You can perform search on the following search criteria:

As of Date

- Process Name
- Execution ID
- Legal Entity
- Products
- Currency
- Account Number

The **Cash Flow Report Summary** Page displays the following columns:

Cash Flow Process rule - Fields and Descriptions

Column	Description	
Account Number	Displays the Account Number of Cash Flow Report	
As of Date	Displays the As of Date of the Instrument	
Legal Entity	Displays the Legal Entity of the Instrument	
Product	Displays the Product	
Currency	Displays the Currency of the Instrument	

## 6.3 Viewing Cash Flow Report

To view Cash Flow Report of an account, perform the following steps:

- 1. Navigate to the **Cash Flow Report** Summary Page.
- **2.** Apply search criteria to get list of account numbers that are available. It is mandatory to select a **Process** and **Execution ID** to view the report. Click on an account number to view report.

The Cash Flow Report is displayed.

- **3.** Select **Input** Section. Here, you can view the Input information for the following fields:
  - Instrument Attributes
  - Payment Schedule
  - Rate Tiers
  - Embedded Options Schedule
  - Index History

#### **NOTE**

You can download the data in CSV or Excel format.

- Instrument Attributes: Displays the Input Data from Instrument Tables for selected ACCOUNT\_NUMBER and AS\_OF\_DATE. Attributes have been grouped into multiple categories to simplify viewing. Select the Category, Version, and Leg Type. Leg Type drop-down list is applicable for Derivative Accounts.
- Payment Schedule: Displays the Input Data from FSI\_D\_PAYMENT\_SCHEDULE (order by PAYMENT\_DATE) for selected ACCOUNT\_NUMBER and AS\_OF\_DATE in Table format. This is applicable if the Amortization type is Payment Schedule (800, 801, 802).
- Rate Tiers: Displays the Input Data from FSI\_D\_ACCOUNT\_RATE\_TIERS (order by rank) for selected ACCOUNT\_NUMBER and AS\_OF\_DATE in table format. This is applicable if the Adjustable type is Tiered Rate (300)
- **Embedded Options Schedule:** Displays the Input Data from FSI\_D\_EMBEDDED\_OPTIONS\_SCH (order by option\_expiry\_date) for selected ACCOUNT\_NUMBER and AS\_OF\_DATE in table format. This is applicable if Embedded Options Flag is Yes and the Option Exercise Type is Bermudan.
- Index History: Displays the Input Data from FSI\_D\_ACCOUNT\_INDEX\_HIST (order by INDEX\_START\_DATE) for selected ACCOUNT\_NUMBER and AS\_OF\_DATE in table format. This is applicable if Index Adjustment Type is not 'Not Applicable' and Index ID is null or zero.
- **4.** Select **Output** section. Here, you can view the Output information for the following fields:
  - Cash Flow: Displays the Output from FSI\_O\_CFE\_OUTPUT\_HIST for selected
     ACCOUNT\_NUMBER, AS\_OF\_DATE, and EXECUTION\_RUN\_ID in table format. Here, you can
     Order by data of the SCENARIO\_NUM, LEG\_TYPE, SPLIT\_ID, RECORD\_SEQUENCE.
  - Forecast Interest Rate: Displays the Output from FSI\_O\_FCAST\_IRC\_RATES\_HIST for selected PROCESS\_ID and EXECUTION\_RUN\_ID. Here, you can Order by data of the SCENARIO\_NUMBER, INTEREST\_RATE\_TERM\_DAYS. You can compare the Forecast Rates across the scenario. You can select interest rate from INTEREST\_RATE\_CD drop-down list. Data appears here if Forecast Rates has been selected in Cash Flow Process and Interest Rate Curve(s) have been selected under Calculation Elements.
  - Forecast Economic Indicator: Displays the Output from FSI\_O\_FCAST\_ECO\_IND\_RATES\_HIST for selected PROCESS\_ID and EXECUTION\_RUN\_ID. You can filter Economic Indicator from Economic Indicator Name drop-down list to display data. You can compare the Forecast Economic Indicator across the scenario. Here, you can Order by data of the SCENARIO\_NUMBER, RATE PERIOD. Data appears here if Forecast Rates has been selected in Cash Flow Process and Economic Indicator(s) have been selected under Calculation Elements.
  - Message Log: Displays the Output from FSI\_O\_CFE\_MESSAGES\_HIST for selected ACCOUNT\_NUMBER, and EXECUTION\_RUN\_ID in table format.

## 6.4 Downloading the Report

You can download the Cash Flow Report in CSV or Excel format.

To download the report, follow these steps:

1. Navigate to **Cash Flow Report** and select the **Input** or **Output** Section.

2. Click the **Download** link. The report will be downloaded.

# 7 Data Insights

To access the Data Insights Report, select **Analytics** from the LHS Menu, and then select **Data Insights**.

# 7.1 Cash Flow Edits

The Cash Flow Edits Process allows you to verify the accuracy and check the completeness of your Instrument Table Data.

The Cash Flow Edits is arranged as a set of reports catering to analysis of the following categories:

- "Rules"
- "Process Stats"
- "Message Log"

### 7.1.1 Common filters

### 7.1.1.1 "Rules" Canvas Prompt Filters

You can use a series of Report Prompts to filter the data according to Functional Key Attributes as described below:

Figure 53: Canvas Prompt Filters for key Attributes

Group Name	Subgroup Name	Rule Name	Rule Identifier	Condition Columns
All	All	All	All	All

- **Group Name**: You can use this filter to select a specific Group value related to the available granular rules
- **Subgroup Name:** You can use this filter to select a specific Subgroup value related to the available granular rules
- Rule Name: You can use this filter to select a specific Rule value
- Rule Identifier: You can use this filter to select a specific Rule Identifier value
- **Rule Condition Columns:** You can use this filter to select a specific Condition value related to the available granular rules

## 7.1.1.2 "Process Stats" Canvas Prompt Filters

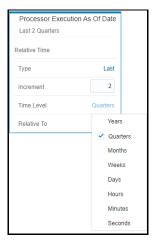
You can use a series of Report Prompts to filter the data according to Functional Key Attributes as described below:

Figure 54: Canvas Prompt Filters for Time Dimension

Processor Execution As Of Date	Processor Execution As of Date (Year)	Processor Execution As of Date (Quarter)	Processor Execution As of Date (Month)	Processor Execution As of Date (Day)
Last 2 Quarters	All	All	All	All

• **Processor Execution As of Date**: The Execution Period of the Cash Flow Edit process. You can use this filter to isolate a selected timeframe for the analysis. The following screenshot displays the possible options that this filter provides against the Time Dimension.

Figure 55: As of Processor Execution Date Selection



- Additional Filters for the Time Dimension as follows:
  - Processor Execution As of Date (Year)
  - Processor Execution As of Date (Quarter)
  - Processor Execution As of Date (Month)
  - Processor Execution As of Date (Day)

Figure 56: Canvas Prompt Filters for Standard Dimension

Cashflow Edits Process Na	me Execution Run Identifier	Legal Entity Leaf Name	e Source Table Name
All	All	All	All

- Cashflow Edits Process Name: You can use this filter to select a specific Cashflow Edit Process
  value
- Execution Run Identifier: You can use this filter to select a specific Execution Run Identifier
  value at leaf related to the Cashflow Edits Process
- Legal Entity Leaf Name: You can use this filter to select the Legal Entity Leaf Name that is related to the Cashflow Edit Process execution
- **Source Table Name:** You can use this filter to select a specific Source Table value related to the to the Cashflow Edit Process execution

## 7.1.1.3 "Message Log" Canvas Prompt Filters

You can use a series of Report Prompts to filter the data according to Functional Key Attributes as described below:

Figure 57: Canvas Prompt Filters for Standard Dimension

Processor Execution As of Date (Day)	Cashflow Edits Process Name	Execution Run Identifier	Account Number
All	All	All	All

- Processor Execution As of Date (Day): The Execution Period of the Cash Flow Edit process.
   You can use this filter to isolate a selected timeframe for the analysis
- Cashflow Edits Process Name: You can use this filter to select a specific Cashflow Edit Process
  value
- **Execution Run Identifier:** You can use this filter to select a specific Execution Run Identifier value at leaf related to the Cashflow Edits Process
- Account Number: You can use this filter to select a specific Account Number value related to the to the Cashflow Edit Process execution

### 7.1.2 Report Data Action

The Data Actions provide the capability to perform drill down analysis across the downstream report canvases. The drill down is enabled via a data action.

From "Rules" and "Process Stats" report canvases charts, you can select a combination of values, and then perform the navigation to the "message Log" report canvas.

In order to do so, with a right click on the chart selection, the data action options will appear for you to be able to navigate further as described in the following mapping:

• Navigate to Message Log – the Data Action will be drilling through the "Message Log" canvas.

The following screenshots show the Data Action list as well as the navigation options that appears once you right click on the desired selection.

Figure 58 Data Action configuration

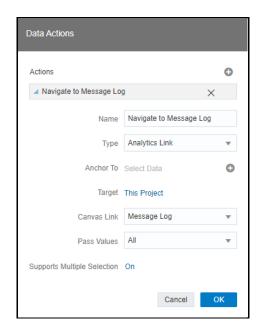
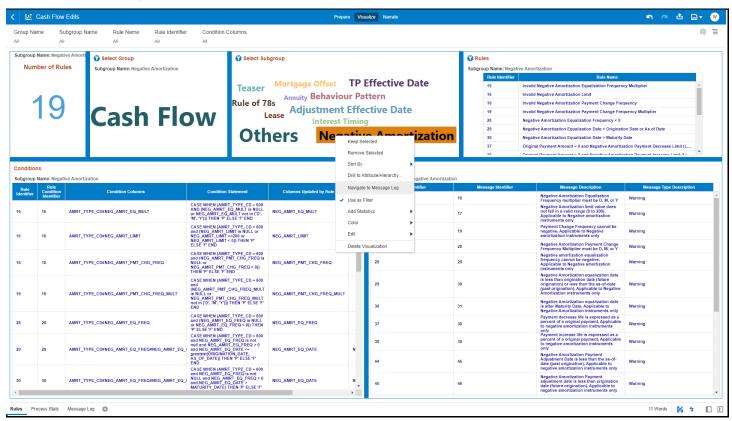


Figure 59 Data Action for Drill down with report Canvases



### **7.1.1** Rules

The "Rules" Report provides a view of the available Rules to be leveraged by the Cash Flow Edits processes. You can use the report to identify the list of the available rules within the Application as well as to look at their grouping and subgrouping with the granular details for Conditions and Messages.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Cash Flow Edit messages.

The report displays the underlying data according to the following Chart' logic:

#### Number of Rules

The chart provides you with the total Number of Rules available within the Application

#### Select Group

The chart provides you with a selection capability for the desired Group of rules

#### Select Subgroup

The chart provides you with a selection capability for the desired Subgroup of rules

#### Rules

The chart reports the list of rules available within the Application. The columns displayed in the chart are the following:

- Rule Identifier
- Rule Name

#### Conditions

The chart reports the list of conditions defined for each of the rules available within the Application. The columns displayed in the chart are the following:

- Rule Identifier
- Rule Condition Identifier
- Condition Columns
- Condition Statements

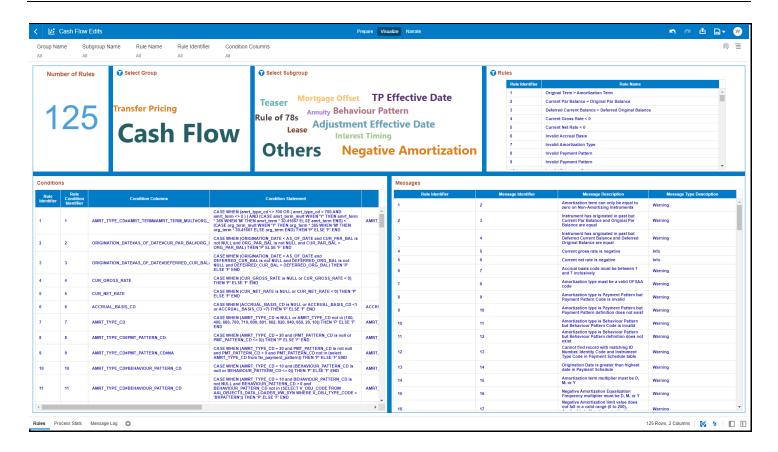
#### Messages

The chart reports the list of log messages defined for each of the rules available within the Application.

The columns displayed in the chart are the following:

- Rule Identifier
- Message Identifier
- Message Description
- Message Type Description

Figure 60 "Rules" Report



### 7.1.2 Process Stats

The "Process Stats" Report provides a view of the available statistics related to the execution of the Cash Flow Edits processes. You can use the report to identify the number of errors and the aggregated details for the Cash Flow Edits executed out of the underlying Instrument table account data.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Cash Flow Edit messages.

The report displays the underlying data according to the following Chart' logic:

#### Cashflow Edits found

The chart reports the trend analysis of the Number of Errors for each Cash Flow Edit execution with respect to Processor Execution As of Date and the Message Type received during the executions. The columns displayed in the chart are the following:

- Processor Execution As of Date (Day)
- Cashflow Edits Process Name
- Execution Run Identifier
- Message Type Description
- Number of Errors

#### Processing Time (in Mins)

The chart reports the trend analysis of the Processing Time for each Cash Flow Edit execution with

respect to Processor Execution As of Date.

The columns displayed in the chart are the following:

- Processor Execution As of Date (Day)
- Cashflow Edits Process Name
- Execution Run Identifier
- Processor Execution Time In Minutes

#### Number of Errors

The chart reports the trend analysis of the Number of Errors for each Cash Flow Edit execution with respect to Processor Execution As of Date.

The columns displayed in the chart are the following:

- Processor Execution As of Date (Day)
- Cashflow Edits Process Name
- Execution Run Identifier
- Number of Errors

#### Number of Errors by Source Table Name

The chart reports the trend analysis of the Number of Errors for each Cash Flow Edit execution with respect to Processor Execution As of Date and the Source Table Name where the errors have been identified.

The columns displayed in the chart are the following:

- Processor Execution As of Date (Day)
- Cashflow Edits Process Name
- Execution Run Identifier
- Source Table Name
- Message Type Description
- Number of Errors

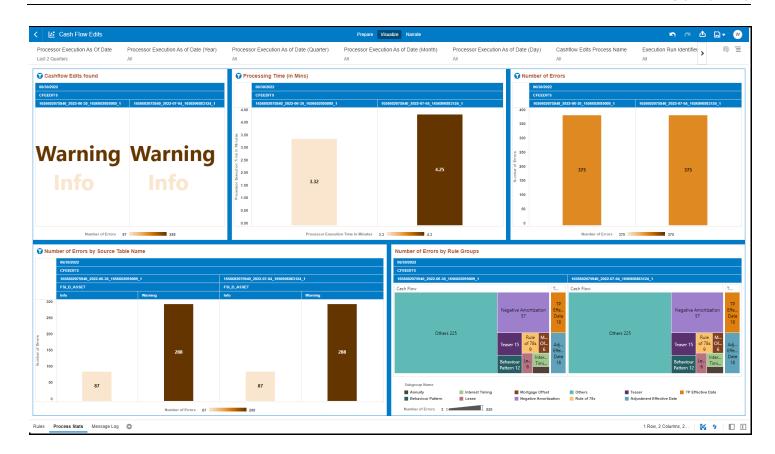
#### Number of Errors by Rule Groups

The chart reports the trend analysis of the Number of Errors for each Cash Flow Edit execution with respect to Processor Execution As of Date and the Rule Group/Subgroup.

The columns displayed in the chart are the following:

- Processor Execution As of Date (Day)
- Cashflow Edits Process Name
- Execution Run Identifier
- Group Name
- Subgroup Name
- Number of Errors

Figure 61 "Process Stats" Report



## 7.1.3 Message Log

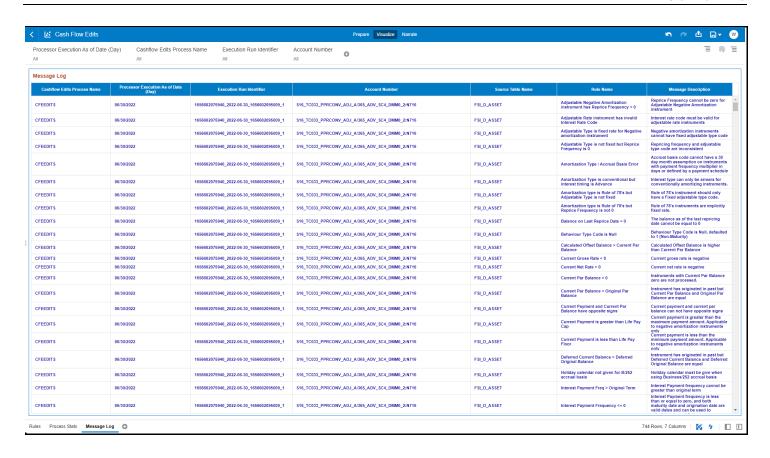
The "Message Log" Report provides a view of the underlying Cash Flow Edits messages retrieved during the Cash Flow Edit Process execution, and the available granularity is at Customer Accounts level.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Cash Flow Edit messages.

- Message Log
   The tabular report displays all the message details related to the execution of the Cash Flow Edit process, including information related to the Customer Account details.

   Following the granular elements available for this table chart:
  - "Cashflow Edits Process Name", "Processor Execution As of Date (Day)", "Execution Run Identifier", "Account Number", "Source Table Name", "Rule Name" and "Message Description".

Figure 62 "Message Log" Report



# **8** Processed Data Insights

To access the Processed Data Insights Reports, select **Analytics** from the LHS Menu, and then select **Processed Data Insights**.

## 8.1 Cash Flow Output

The Cash Flow Output allows you to get insight into projected cash inflows and outflows of your Balance Sheet.

The Cash Flow Output is arranged as a set of reports catering to analysis of the following categories:

- "Process Stats"
- "Runoff by KPDs"
- "Balances by KPDs"
- "Rates by KPDs"
- "Process Results Details"

### 8.1.1 Common filters

You can use a series of Report Prompts to filter the data according to Functional Key Attributes as described below:

Figure 63: Canvas Prompt Filters for Time Dimension



• **As of Date**: The Execution Period for the output results. You can use this filter to isolate a selected timeframe for the analysis. The following screenshot displays the possible options that this filter provides against the Time Dimension.

Figure 64: As of Date Selection



• Additional Filters for the Time Dimension as follows:

### As of Date (Day)

Figure 65: Canvas Prompt Filters for Cashflow Output Process execution data



Number of Cashflow Projection in Years: You can use this filter to select a specific Cashflow
Projection period to be applied to the Cashflow Output Process execution data; i.e. for next two
years of Cashflow Projection you can apply the following selection



- Cash Flow Date: You can use this filter to select a specific Cashflow Date to be applied to the Cashflow Output Process execution data
- **Cashflow Process Name**: You can use this filter to select a specific Cashflow Process Name to be applied to the Cashflow Output Process execution data
- **Execution Run Identifier:** You can use this filter to select a specific Execution Run Identifier to be applied to the Cashflow Output Process execution data
- **Scenario Name:** You can use this filter to select a specific Scenario Name to be applied to the Cashflow Output Process execution data
- Currency Name: You can use this filter to select a specific Currency Name to be applied to the Cashflow Output Process execution data

Figure 66: Canvas Prompt Filters for Legal Entity key processing dimension



 LE Hierarchy Name: N.B. this is a mandatory filter for the group filtering on Legal Entity key processing dimension.

As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select "LE Hierarchy Name" must be selected with only a single value simultaneously.

• **Legal Entity Leaf Name:** You can use this filter to select the Legal Entity Leaf Name that is related to the Cashflow Output Process execution data.

Figure 67: Canvas Prompt Filters for Org Unit key processing dimension



• **Org Hierarchy Name**: N.B. this is a mandatory filter for the group filtering on Org Unit key processing dimension.

As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select "Org Hierarchy Name" must be selected with only a single value simultaneously.

• **Org Unit Leaf Name:** You can use this filter to select the Org Unit Leaf Name that is related to the Cashflow Output Process execution data.

Figure 68: Canvas Prompt Filters for Product key processing dimension



• **Prod Hierarchy Name**: N.B. this is a mandatory filter for the group filtering on Product key processing dimension.

As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select "Prod Hierarchy Name" must be selected with only a single value simultaneously.

 Prod Leaf Name: You can use this filter to select the Prod Leaf Name that is related to the Cashflow Output Process execution data.

Figure 69: Canvas Prompt Filters for GL Account key processing dimension



• **GL Account Hierarchy Name**: N.B. this is a mandatory filter for the group filtering on GL Account key processing dimension.

As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select "GL Account Hierarchy Name" must be selected with only a single value simultaneously.

 GL Account Leaf Name: You can use this filter to select the GL Account Leaf Name that is related to the Cashflow Output Process execution data.

Figure 70: Canvas Prompt Filters for Common COA key processing dimension



• **Common COA Hierarchy Name**: N.B. this is a mandatory filter for the group filtering on Common COA key processing dimension.

As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select "Common COA Hierarchy Name" must be selected with only a single value simultaneously.

• **Common COA Leaf Name:** You can use this filter to select the Common COA Leaf Name that is related to the Cashflow Output Process execution data.

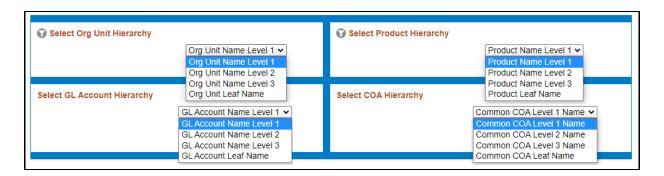
## 8.1.2 Report Hierarchies

The Report provides you with the roll-up and drill down capability on the Cashflow Output Process execution data, leveraging the available levels for the following Hierarchies:

- Org Unit Entity Hierarchy
- Product Hierarchy
- GL Account Hierarchy
- Common COA Hierarchy

Following screenshot displays the available selections for the aforementioned hierarchies.

Figure 71: Cashflow Output key processing dimension hierarchies



## 8.1.3 In canvas Variable Prompts

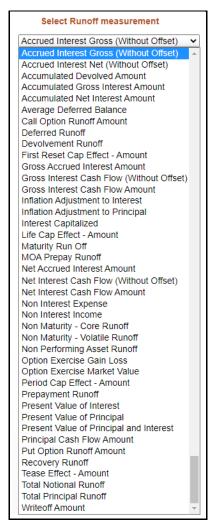
• **Select** Runoff measurement: This is the variable prompt to select the desired Runoff measurement to be applied to the "Runoff by KPDs" report canvas charts.

The following elements are available for selection:

"Accrued Interest Gross (Without Offset)", "Accrued Interest Net (Without Offset)",
 "Accumulated Devolved Amount", "Accumulated Gross Interest Amount", "Accumulated Net Interest Amount", "Average Deferred Balance", "Call Option Runoff Amount",

"Deferred Runoff", "Devolvement Runoff", "First Reset Cap Effect - Amount", "Gross Accrued Interest Amount", "Gross Interest Cash Flow (Without Offset)", "Gross Interest Cash Flow Amount", "Inflation Adjustment to Interest", "Inflation Adjustment to Principal", "Interest Capitalized", "Life Cap Effect - Amount", "Maturity Run Off", "MOA Prepay Runoff", "Net Accrued Interest Amount", "Net Interest Cash Flow (Without Offset)", "Net Interest Cash Flow Amount", "Non Interest Expense", "Non Interest Income", "Non Maturity - Core Runoff", "Non Maturity - Volatile Runoff", "Non Performing Asset Runoff", "Option Exercise Gain Loss", "Option Exercise Market Value", "Period Cap Effect - Amount", "Prepayment Runoff", "Present Value of Interest", "Present Value of Principal", "Present Value of Principal and Interest", "Principal Cash Flow Amount", "Put Option Runoff Amount", "Recovery Runoff", "Tease Effect - Amount", "Total Notional Runoff", "Total Principal Runoff" and "Writeoff Amount".

Figure 72: "Select Runoff measurement" list

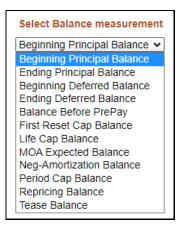


• **Select** Balance measurement: This is the variable prompt to select the desired Balance measurement to be applied to the "Balances by KPDs" report canvas charts.

The following elements are available for selection:

"Beginning Principal Balance", "Ending Principal Balance", "Beginning Deferred Balance",
 "Ending Deferred Balance", "Balance Before PrePay", "First Reset Cap Balance", "Life Cap Balance", "MOA Expected Balance", "Neg-Amortization Balance", "Period Cap Balance",
 "Repricing Balance" and "Tease Balance".

Figure 73: "Select Balance measurement" list

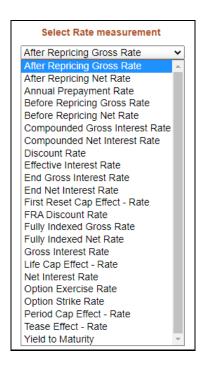


• **Select** Rate measurement: This is the variable prompt to select the desired Rate measurement to be applied to the "Rates by KPDs" report canvas charts.

The following elements are available for selection:

"After Repricing Gross Rate", "After Repricing Net Rate", "Annual Prepayment Rate", "Before Repricing Gross Rate", "Before Repricing Net Rate", "Compounded Gross Interest Rate", "Compounded Net Interest Rate", "Discount Rate", "Effective Interest Rate", "End Gross Interest Rate", "End Net Interest Rate", "First Reset Cap Effect - Rate", "FRA Discount Rate", "Fully Indexed Gross Rate", "Fully Indexed Net Rate", "Gross Interest Rate", "Inflation Index Factor", "Life Cap Effect - Rate", "Net Interest Rate", "Option Exercise Rate", "Option Strike Rate", "Period Cap Effect - Rate", "Tease Effect - Rate" and "Yield to Maturity".

Figure 74: "Select Rate measurement" list



## 8.1.4 Report Data Action

The Data Actions provide the capability to perform drill down analysis across the downstream report canvases. The drill down is enabled via a data action.

From every report canvas charts, you can select a combination of values, and then perform the navigation to the "Process Results Details" report canvas.

In order to do so, with a right click on the chart selection, the data action options will appear for you to be able to navigate further as described in the following mapping:

• Navigate to Process Results Details – the Data Action will be drilling through the "Process Results Details" canvas.

The following screenshots show the Data Action list as well as the navigation options that appears once you right click on the desired selection.

Figure 75 Data Action configuration

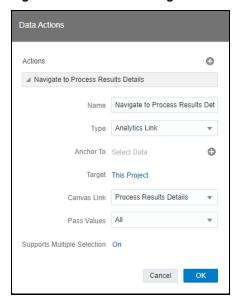
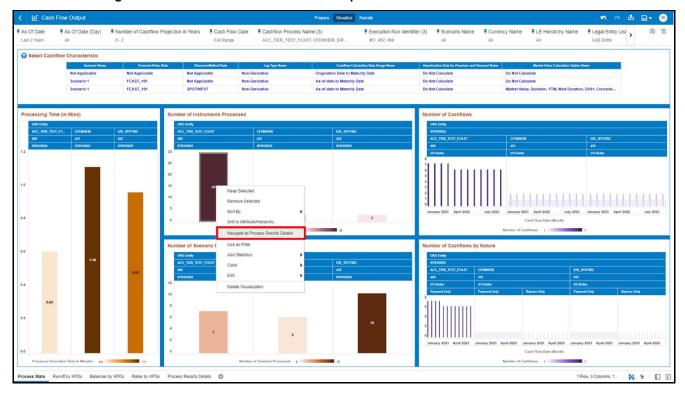


Figure 76 Data Action for Drill down with report Canvases



## 8.1.5 Process Stats

The "Process Stats" Report provides a view of the available statistics related to the execution of the Cash Flow Output processes. You can use the report to identify the process statistics related to the processing time, the number of cashflow generated as well as the number of instruments and scenarios processed.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Cash Flow Output results.

The report displays the underlying data according to the following Chart' logic:

### • Select Cashflow Characteristic

The chart provides you with a selection capability on the desired Cashflow characteristics utilized by the Cashflow Output processes.

The columns displayed in the chart are the following:

- Scenario Name
- Forecast Rates Rule
- Discount Method Rule
- Leg Type Name
- Cashflow Calculation Data Range Name
- Amortization Date for Premium and Discount Name
- Market Value Calculation Option Name

#### Processing Time (in Mins)

The chart reports the trend analysis of the Processing Time for each Cash Flow Output execution with respect to As of Date.

The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Processor Execution Time In Minutes

#### Number of Instruments Processed

The chart reports the trend analysis of the Number of Instruments Processed for each Cash Flow Output execution with respect to As of Date.

The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Number of Instruments Processed

#### Number of Cashflows

The chart reports the trend analysis of the Number of Cashflows generated for each Cash Flow Output execution with respect to As of Date and Cash Flow Date (Month).

The columns displayed in the chart are the following:

Legal Entity Leaf Name

- As Of Date (Day)
- Cashflow Process Name
- Execution Run Identifier
- Currency Name
- Cash Flow Date (Month)
- Number of Cashflows

#### • Number of Scenario Processed

The chart reports the trend analysis of the Number of Scenario processed for each Cash Flow Output execution with respect to As of Date.

The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Number of Scenario Processed

## • Number of Cashflows by Nature

The chart reports the trend analysis of the Number of Cashflows generated for each Cash Flow Output execution with respect to As of Date, Cash Flow Date (Month) and Cash Flow Nature ("Cashflow Code Name").

The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- As Of Date (Day)
- Cashflow Process Name
- Execution Run Identifier
- Currency Name
- Cashflow Code Name
- Cash Flow Date (Month)
- Number of Cashflows

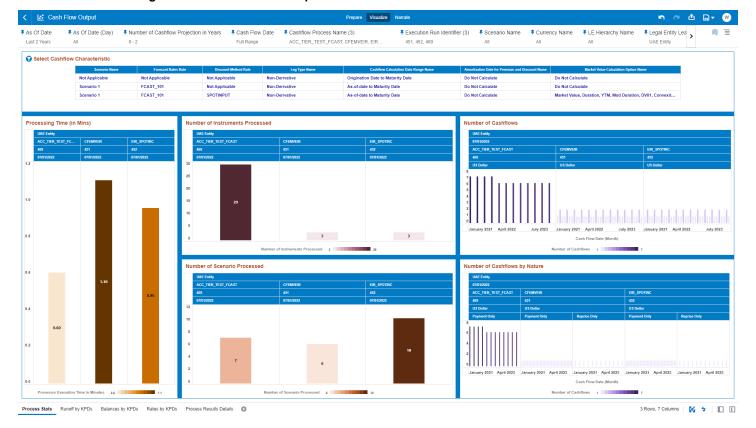


Figure 77 "Process Stats" Report

# 8.1.6 Runoff by KPDs

The "Runoff by KPDs" Report provides the Cash Flow Output processes results related to the Runoff measurements, you can drill down and roll up the results across hierarchies for the Key Processing Dimensions of Org Unit, Product, GL Account and Common COA.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Cash Flow Output results.

The report displays the underlying data according to the following Chart' logic:

#### • Select Runoff measurement

The chart provides you with a selection capability on the desired Cashflow Runoff measurement.

## Select Org Unit Hierarchy

The chart provides you with a selection capability for the desired Org Unit Hierarchical level.

#### Select Product Hierarchy

The chart provides you with a selection capability for the desired Product Hierarchical level.

#### Select GL Account Hierarchy

The chart provides you with a selection capability for the desired GL Account Hierarchical level.

#### Select COA Hierarchy

The chart provides you with a selection capability for the desired Common COA Hierarchical level.

### • Selected Runoff Measure by Org Unit

The chart reports the generated Cashflow output Runoff Measure by Org Unit for each Cash Flow Output execution with respect to As of Date and Cash Flow Date (Month).

The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Currency Name
- Org Unit Hierarchy
- Cash Flow Date (Month)
- Runoff Measure

#### • Selected Runoff Measure by Product

The chart reports the generated Cashflow output Runoff Measure by Product for each Cash Flow Output execution with respect to As of Date and Cash Flow Date (Month).

The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Currency Name
- Product Hierarchy
- Cash Flow Date (Month)
- Runoff Measure

## • Selected Runoff Measure by GL Account

The chart reports the generated Cashflow output Runoff Measure by GL Account for each Cash Flow Output execution with respect to As of Date and Cash Flow Date (Month).

The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Currency Name
- GL Account Hierarchy
- Cash Flow Date (Month)
- Runoff Measure

### Selected Runoff Measure by Common COA

The chart reports the generated Cashflow output Runoff Measure by Common COA for each Cash Flow Output execution with respect to As of Date and Cash Flow Date (Month). The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Currency Name
- COA Hierarchy
- Cash Flow Date (Month)
- Runoff Measure

Figure 78 "Runoff by KPDs" Report



## 8.1.7 Balances by KPDs

The "Balances by KPDs" Report provides the Cash Flow Output processes results related to the Balances measurements, you can drill down and roll up the results across hierarchies for the Key Processing Dimensions of Org Unit, Product, GL Account and Common COA.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Cash Flow Output results.

The report displays the underlying data according to the following Chart' logic:

#### • Select Balance measurement

The chart provides you with a selection capability on the desired Cashflow Balance measurement.

#### Select Org Unit Hierarchy

The chart provides you with a selection capability for the desired Org Unit Hierarchical level.

#### Select Product Hierarchy

The chart provides you with a selection capability for the desired Product Hierarchical level.

#### Select GL Account Hierarchy

The chart provides you with a selection capability for the desired GL Account Hierarchical level.

#### Select COA Hierarchy

The chart provides you with a selection capability for the desired Common COA Hierarchical level.

#### • Selected Balance Measure by Org Unit

The chart reports the generated Cashflow output Balance Measure by Org Unit for each Cash Flow Output execution with respect to As of Date and Cash Flow Date (Month).

The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Currency Name
- Org Unit Hierarchy
- Cash Flow Date (Month)
- Balance Measure

## • Selected Balance Measure by Product

The chart reports the generated Cashflow output Balance Measure by Product for each Cash Flow Output execution with respect to As of Date and Cash Flow Date (Month).

The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Currency Name
- Product Hierarchy
- Cash Flow Date (Month)
- Balance Measure

### • Selected Balance Measure by GL Account

The chart reports the generated Cashflow output Balance Measure by GL Account for each Cash Flow Output execution with respect to As of Date and Cash Flow Date (Month). The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Currency Name
- GL Account Hierarchy
- Cash Flow Date (Month)
- Balance Measure

#### Selected Balance Measure by Common COA

The chart reports the generated Cashflow output Balance Measure by Common COA for each Cash Flow Output execution with respect to As of Date and Cash Flow Date (Month). The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Currency Name
- COA Hierarchy
- Cash Flow Date (Month)
- Balance Measure

Figure 79 "Balances by KPDs" Report



## 8.1.8 Rates by KPDs

The "Rates by KPDs" Report provides the Cash Flow Output processes results related to the Rates measurements, you can drill down and roll up the results across hierarchies for the Key Processing Dimensions of Org Unit, Product, GL Account and Common COA.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Cash Flow Output results.

The report displays the underlying data according to the following Chart' logic:

#### • Select Rate measurement

The chart provides you with a selection capability on the desired Cashflow Rate measurement.

## Select Org Unit Hierarchy

The chart provides you with a selection capability for the desired Org Unit Hierarchical level.

#### Select Product Hierarchy

The chart provides you with a selection capability for the desired Product Hierarchical level.

#### Select GL Account Hierarchy

The chart provides you with a selection capability for the desired GL Account Hierarchical level.

#### Select COA Hierarchy

The chart provides you with a selection capability for the desired Common COA Hierarchical level.

### • Selected Rate by Org Unit

The chart reports the generated Cashflow output Rate by Org Unit for each Cash Flow Output execution with respect to As of Date and Cash Flow Date (Month).

The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Currency Name
- Org Unit Hierarchy
- Cash Flow Date (Month)
- Rate

#### • Selected Rate by Product

The chart reports the generated Cashflow output Rate by Product for each Cash Flow Output execution with respect to As of Date and Cash Flow Date (Month).

The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Currency Name
- Product Hierarchy
- Cash Flow Date (Month)
- Rate

#### • Selected Rate by GL Account

The chart reports the generated Cashflow output Rate by GL Account for each Cash Flow Output execution with respect to As of Date and Cash Flow Date (Month).

The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Currency Name
- GL Account Hierarchy
- Cash Flow Date (Month)
- Rate

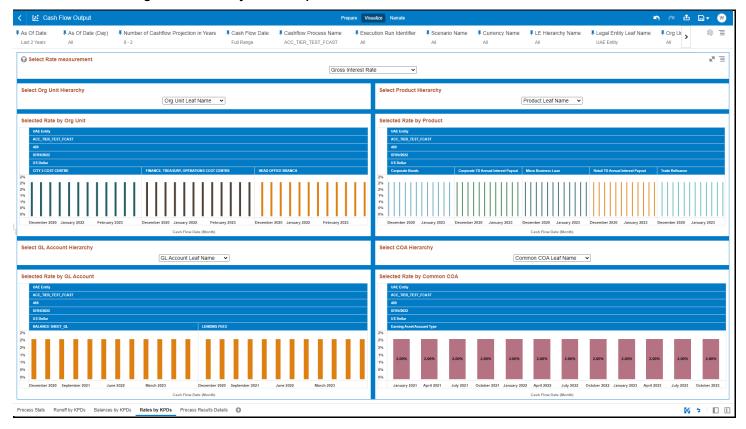
### Selected Rate by Common COA

The chart reports the generated Cashflow output Rate by Common COA for each Cash Flow Output execution with respect to As of Date and Cash Flow Date (Month).

The columns displayed in the chart are the following:

- Legal Entity Leaf Name
- Cashflow Process Name
- Execution Run Identifier
- As Of Date (Day)
- Currency Name
- COA Hierarchy
- Cash Flow Date (Month)
- Rate

Figure 80 "Rates by KPDs" Report



## 8.1.9 Process Results Details

The "Process Results Details" Report provides a view of the underlying Cash Flow Output results generated during the Cash Flow Output Process execution, and the available granularity is at Customer Accounts level.

The report provides the "Account Number" additional filter as shown in the screenshot "**Process Results Details Report – Account Number selection**".

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Cash Flow Output results.

The report displays the underlying data according to the following Chart' logic:

- Process Results Details

  The tabular report displays all the Cash Flow Output results details related to the execution of the Cash Flow Output process, including information related to the Customer Account details.

  Following the granular elements available for this table chart:
  - "As Of Date (Day)", "Cash Flow Date (Day)", "Cashflow Process Name", "Execution Run Identifier", "Record Sequence", "Legal Entity Leaf Name", "Common COA Leaf Name", "GL Account Leaf Name", "Org Unit Leaf Name", "Product Leaf Name", "Cashflow Calculation Data Range Name", "Discount Method Rule", "Forecast Rates Rule", "Prepayment Rule", "Model With Gross Rate Indicator", "Payment Pattern Split Identifier", "Rate Set Date (Day)", "Tiered Rate Rank", "Cashflow Code Name", "Scenario Name", "Leg Type Name", "Holiday Calendar Enabled", "Market Value Calculation Indicator", "Amortization Date for Premium and Discount Name", "Source Table Name", "Account Number", "Identity Number", "Currency Code", "Currency Name", "Accrued Interest Gross (Without Offset)", "Accrued Interest Net (Without Offset)", "Accumulated Devolved Amount", "Accumulated Gross Interest Amount", "Accumulated Net Interest Amount", "Average Deferred Balance", "Balance Before PrePay", "Beginning Deferred Balance", "Beginning Principal Balance", "Call Option Runoff Amount", "Deferred Runoff", "Devolvement Runoff", "Ending Deferred Balance", "Ending Principal Balance", "First Reset Cap Balance", "First Reset Cap Effect - Amount", "Gross Accrued Interest Amount", "Gross Interest Cash Flow (Without Offset)", "Gross Interest Cash Flow Amount", "Inflation Adjustment to Interest", "Inflation Adjustment to Principal", "Interest Capitalized", "Life Cap Balance", "Life Cap Effect - Amount", "Maturity Run Off", "MOA Expected Balance", "MOA Prepay Runoff", "Neg-Amortization Balance", "Net Accrued Interest Amount", "Net Interest Cash Flow (Without Offset)", "Net Interest Cash Flow Amount", "Non Interest Expense", "Non Interest Income", "Non Maturity - Core Runoff", "Non Maturity - Volatile Runoff", "Non Performing Asset Runoff", "Option Exercise Gain Loss", "Option Exercise Market Value", "Period Cap Balance", "Period Cap Effect - Amount", "Prepayment Runoff", "Present Value of Interest", "Present Value of Principal", "Present Value of Principal and Interest", "Principal Cash Flow Amount", "Put Option Runoff Amount", "Recovery Runoff", "Repricing Balance", "Tease Balance", "Tease Effect - Amount", "Total Notional Runoff", "Total Principal Runoff", "Writeoff Amount", "After Repricing Gross Rate", "After Repricing Net Rate", "Annual Prepayment Rate", "Before Repricing Gross Rate", "Before Repricing Net Rate", "Compounded Gross Interest Rate", "Compounded Net Interest Rate", "Convexity Value", "Day Count", "Discount Factor", "Discount Factor Term in Years", "Discount Rate", "Discount Rate Lookup Term In Days", "Dollar Duration DV01", "Macaulay Duration", "Effective Interest Rate", "End Gross Interest Rate", "End Net Interest Rate", "First Reset Cap Effect - Rate", "FRA Discount Factor", "FRA Discount Rate", "Fully Indexed Gross Rate", "Fully Indexed Net Rate", "Gross Interest Rate", "Inflation Index Factor", "Life Cap Effect - Rate", "Modified Duration", "Net Interest Rate", "Option Exercise Rate", "Option Strike Rate", "Period Cap Effect - Rate", "Tease Effect - Rate" and "Yield to Maturity".

Figure 81 "Process Results Details" Report

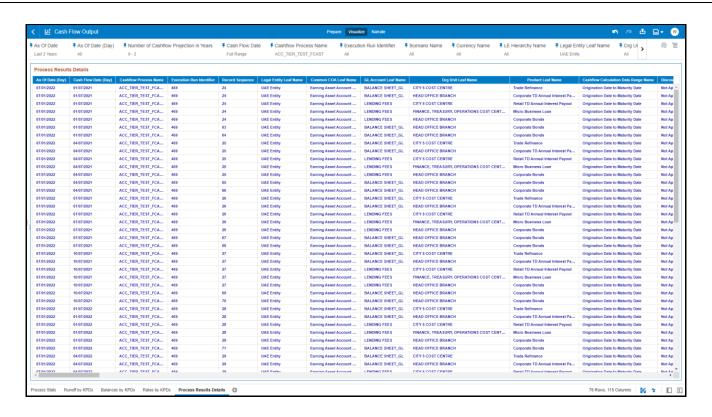
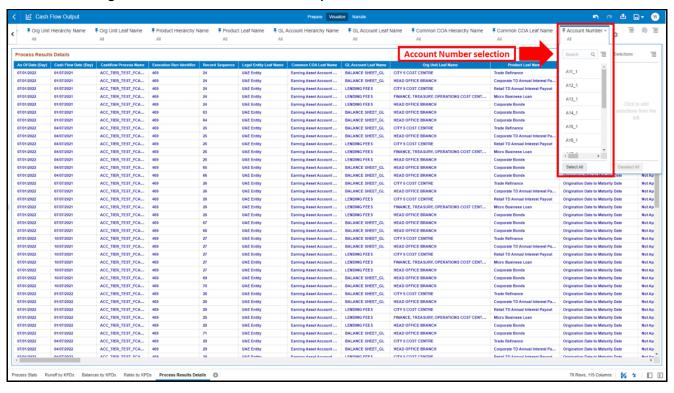


Figure 82 "Process Results Details" Report - Account Number selection



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