Oracle Financial Services Regulatory Reporting for US Treasury Integration Pack

User Guide

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OFS Regulatory Reporting for US Treasury Integration Pack User Guide

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1 Preface

Welcome to Release 8.1.1.0.0 of the Oracle Financial Services Regulatory Reporting for US Treasury Integration Pack User Guide.

This section provides a brief description of the scope, the audience, the references, concepts, and the organization of the user guide and conventions incorporated into the user guide. The topics in this section are organized as follows:

- What is New in this Release for OFS REG REP US Treasury
- Scope of the Guide
- Intended Audience
- Access to Oracle Support
- Related Information Sources
- How This Guide is Organized
- Conventions Used

1.1 What is New in this Release for OFS REG REP US Treasury

This section lists new features and changes in OFS REG REP US Treasury release v8.1.1.0.0.

1.1.1 New Features

The new features introduced in this release are as follows:

- Conversion of existing Run Rule Framework to the new OFSAAI Process Modelling Framework feature. For more information, see the Executing Run through Process Modelling Framework in OFS REG REP US Treasury.
- New US Treasury Menu to access Data Extracts, Metadata Browser, and Reports (Report Summary). For more information, see the Data Extracts, Metadata Browser, and Viewing Report Summary.
- Enabling the Reporting Flag for a run through the new Process Execution Summary module. For more information, see the Reporting Flag for Run through Process Execution Summary
- New Drill down User Interface. For more information see the Report Verification – Drill down from AgileREPORTER to OFSAA Results Area.

1.2 Deprecated Features

There are no deprecated features in this manual.

1.3 Desupported Features

The desupported feature for OFS REG REP US Treasury Release v8.1.1.0.0 is the Run Execution and Run Management features through the Run Rule Framework.

1.4 Scope of the Guide

The objective of this user guide is to provide comprehensive working knowledge on Oracle Financial Services Regulatory Reporting for US Treasury– Lombard Risk Integration Pack, Release 8.1.1.0.0. This user guide is intended to help you understand the key features and functionalities of Oracle Financial Services Regulatory Reporting for US Treasury Integration Pack (Oracle Financial Services Data Foundation (OFSDF) Interface with Vermeg for US Treasury) release 8.1.1.0.0 and details the process flow and methodologies used.

1.5 Intended Audience

This guide is intended for:

- Regulatory Reporting (Reg Rep) Analyst who bears the responsibility to verify and submit the results. The Reg Rep Analyst is also entrusted to maintain the dimensional values across multiple reporting requirements, maintain the results area structure of Oracle Financial Services Data Foundation.
- Data Analysts, who clean, validate, and import data into the Oracle Financial Services Download Specification format, and ensure that data is populated in the relevant tables as per the specifications and executions required for regulatory reporting.
- System Administrator (SA), instrumental in making the application secure and operational and configures the user roles providing necessary access to users.

1.6 Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info
or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

1.7 Related Information Sources

In addition to this user guide you can refer to the following documents in the OHC documentation library:

- *Oracle Financial Services Regulatory Reporting for US Treasury Integration Pack Installation Manual Release 8.1.1.0.0*
- *Oracle Financial Services Data Foundation User Guide Release 8.1.1.1.0*
- *Oracle Financial Services Data Foundation Installation Manual Release 8.1.1.1.0*
- *Oracle Financial Services Analytical Applications Infrastructure User Guide Release 8.1.1.0.0*

1.8 How This Guide is Organized

The Oracle Financial Services Regulatory Reporting for US Treasury Integration Pack User Guide includes the following topics:

- Chapter 2: Introduction
- Chapter 3: Getting Started
- Chapter 4: Regulatory Reporting (REG REP) Solution Data Flow
- Chapter 5: OFSAA Features
- Chapter 6: Executing Run through Run Management for OFS REG REP US Treasury
- Chapter 7: Data Extracts
- Chapter 8: Metadata Lineage
- Chapter 9: Report Submission
- Chapter 10: Maintenance
- Chapter 11: Validation or Edit Checks for Data Schedules
- Chapter 12: Troubleshooting Guidelines

1.9 Conventions Used

The following table lists the conventions used in this guide.

Table 1: Conventions Used in this Guide

Conventions	Description
References to sections or chapters in the manual are indicated in *Italics*. Screen names are indicated in the following manner: **Introduction** screen Options and buttons are indicated in **Bold**. Code-related text is indicated in `Monospace`.	
OFSAAI	Oracle Financial Services Analytical Applications Infrastructure
OFS AAAI	Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack
RHEL	Red Hat Enterprise Linux
Atomic Schema	Database schema where the application data model is uploaded
Config Schema	Database schema which contains setup related configurations and metadata
OFS REG REP US Treasury	Oracle Financial Services Regulatory Reporting for US Treasury Integration Pack

2 Introduction

This chapter provides an understanding of the Oracle Financial Services Regulatory Reporting for the US Treasury Integration Pack application and its scope. It includes:

- Overview
- OFSAA Regulatory Reporting Architecture
- Scope

2.1 Overview

Regulatory reporting and financial services have evolved to be an inseparable combination. It has worsened since the 2008 financial crisis. Today, banks and financial institutions must file hundreds of regulatory reports. For the U.S. Treasury alone, institutions must file multiple submissions of FFIEC-101, call reports, stress testing reports, and so on. Reporting requirements increase rapidly in number and complexity for banks operating regionally or globally, where they must file in multiple jurisdictions.

Treasury International Capital (TIC) reporting system collects data for the United States on cross-border portfolio investment flows and positions between the U.S. and foreign residents. This data help in:

- Construction of Balance of Payments
- Formulation of International Financial and Monetary Policy
- Tracking developments in International Markets

The U.S. Treasury retains administrative control/oversight of the TIC system and the Federal Reserve Board has final oversight.

The data collected by TIC are as follows.

Table 2: US Treasury Data Type and Reports

Data Type	Reports
Annual detailed position data on holdings of long-term and short-term securities	SHL(A) and SHC(A)

Cross-border transactions and holdings not captured by TIC are:

- U.S. Government cross-border Capital Transactions
- Direct Investments

The U.S. Treasury expects the following institutions to report the TIC B reports:

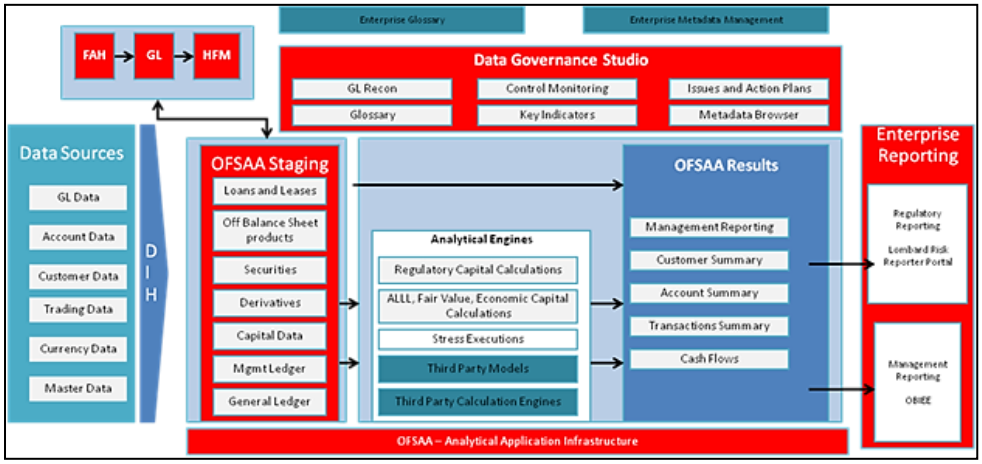
- Savings & Loans Holding Companies (SLHC)
- All other Financial Institutions
  - Insurance Companies
  - Pension Funds
  - Mutual Funds
  - Money Market Funds

  - Investment Banks
  - Private Equity Funds
  - Real Estate Investment Trust (REITS)
  - Credit Card Issuers
  - Hedge Funds
  - Trusts
  - Finance Companies
  - Mortgage Companies
  - Factors and other Financial Intermediaries who extend short-term business credit to finance inventories or carry accounts receivable
  - Futures Commission Merchants
- Depository Institutions located in the United States:
  - Commercial Banks
  - United States branches and agencies of foreign banks
  - Trust companies that conduct commercial banking business
  - Banking Edge Act and Agreement Corporations
  - The Federal Reserve Bank of New York
- Bank Holding Companies (BHC)
- Financial Holding Companies (FHC)
- Securities Brokers and Dealers

The OFS REG REP US Treasury solution enables financial services organizations to manage and execute regulatory reporting in a single integrated environment. It automates end-to-end processes from data capture through submission with industry-leading solutions. It leverages Oracle Financial Services Analytical Application (OFSAA) and Oracle Financial Services Data Foundation (OFSDF) for managing analytical application data. The AgileREPORTER in Regulatory Reporting (REG REP) Solution enables firms to automate the final mile of the reporting process. It provides pre-built integration to Vermeg Reporting, eliminating the need for further manual intervention. The solution ensures data integrity allowing banks to focus more time on analyzing and gaining new business insight from their growing stores of data instead of preparing data and reports with the sole objective of meeting submission deadlines.

2.2 OFSAA Regulatory Reporting Architecture

Figure 1: Regulatory Reporting (REG REP) Solution Architecture



This interface connects the Oracle FSDF to Lombard Risk. As you can see in the Architecture figure above, Data flows from OFSAA to Lombard Risk.

OFSDF is an analytical data warehouse platform for the Financial Services industry. It combines an industry data model for Financial Services along with a set of management and infrastructure tools that allows Financial Services Institutions to develop, deploy, and operate analytical solutions spanning key functional areas in Financial Services, including:

1. Enterprise Risk Management
2. Enterprise Performance Management
3. Customer Insight
4. Financial Crime and Compliance Management

OFSDF is a comprehensive data management platform that helps institutions to manage the analytical data life cycle from sourcing to reporting and business intelligence/BI using a unified, consistent platform and toolset.

AgileREPORTER is a form and workflow tool that enables both creation and submission of regulatory returns. AgileREPORTER addresses the financial reporting requirements of both domestic and international banks and financial institutions by automating compliance with mandated reports to central banks, regulatory agencies. AgileREPORTER works easily with multiple sources of information as it standardizes data elements and automates regulatory report production in prescribed templates with the associated workflow for automatic submission. It is a reliable and efficient infrastructure to compile, generate, and submit regulatory reports. It collects data from a wide universe (not just OFSAA Results). It provides automated repeated manual adjustments, variance analysis, and validation checks. It provides features to explain and justify a number quickly, including links to OBIEE.

The solution provides a pre-built interface or integration between FSDF and AgileREPORTER. With this integration, you can automate the end-to-end reporting process covering data preparation to the last mile of reporting.

2.3 Scope

Oracle Financial Services Regulatory Reporting for US Treasury Integration Pack covers the following regulatory reports for specified release as mentioned in the table:

Table 3: Scope of Regulatory Reports and Schedules

Report	Report Name	Released Version
SHLA	Foreign Residents' Holdings of U.S. Securities, including Selected Money Market Instruments (SHL(A))	8.1.1.0.0
SHCA	Report of U.S. Ownership of Foreign Securities, including Selected Money Market Instruments (SHC)	8.1.1.0.0

3 Getting Started

This chapter provides an understanding of the prerequisites, general, and data preparation assumptions, and logging into the application. It includes:

- Prerequisites
- Assumptions
- Accessing the OFSDF Interface or OFS REG REP US Treasury Interface
- Organization of the Interface for User Roles

The OFS REG REP US Treasury application allows you to perform the following activities:

- Manage Data Loading and Transformation from various source systems to staging, processing, and results.
- Manage relevant OFSAA metadata for regulatory reporting purposes. This includes creating, modifying, and viewing the metadata used in reporting.
- View the report metadata for mapping.
- Drill down from AgileREPORTER to OFSAA results area.

3.1 Prerequisites

For prerequisites and detailed instructions on installing this Interim Release, see the Oracle Financial Services Regulatory Reporting for US Treasury Integration Pack Installation Guide Release 8.1.1.0.0.

3.2 Assumptions

OFSDF interface with Vermeg for US Treasury is a reporting application and it does not perform any risk or stress calculations. Following listed are the assumptions for the application:

- Textual and other related portions of reports like personal details, contact details, Yes / No choices must be updated on Report Portal directly and FSDF does not have a placeholder for it.
- Data provided is post reconciliation to ensure that accuracy of data being reported (non-prescribed by regulators) are performed in OFSAA using various components – General Ledger (GL) reconciliation.
- Validity checks such as edit checks, cross-validation checks, and so on prescribed by regulators are performed within the AgileREPORTER.
- All monetary amounts are expected to be positive in number, except valuation outputs which can be positive or negative. Rules are constructed assuming the negative sign of valuation amounts wherever applicable.
- The application populates few specific dimension tables, known as seeded / sample tables as part of the installation script. Since they are used in the metadata, changes in data values have an impact on the overall functioning.
- All percentage data are expected in decimal format meaning 9% must be provided as 9 and not 0.09.

- For a data provided as of date, such as last day of the quarter of the reporting year: Quarterly and Year to Date (YTD) report for the given date display the same value for those measures which are of as of nature date. For example, the Annual and Quarterly Balance Sheet and BASEL report generated as of 31-MAR show the same values for all measures such as Account Balance.
- Account Balances such as End of Period Balances are expected to be provided as Net of (without) Unearned Income.
- Assumed all bonds issued by international and regional organizations as foreign government bonds based on the regulator instructions for SLT.

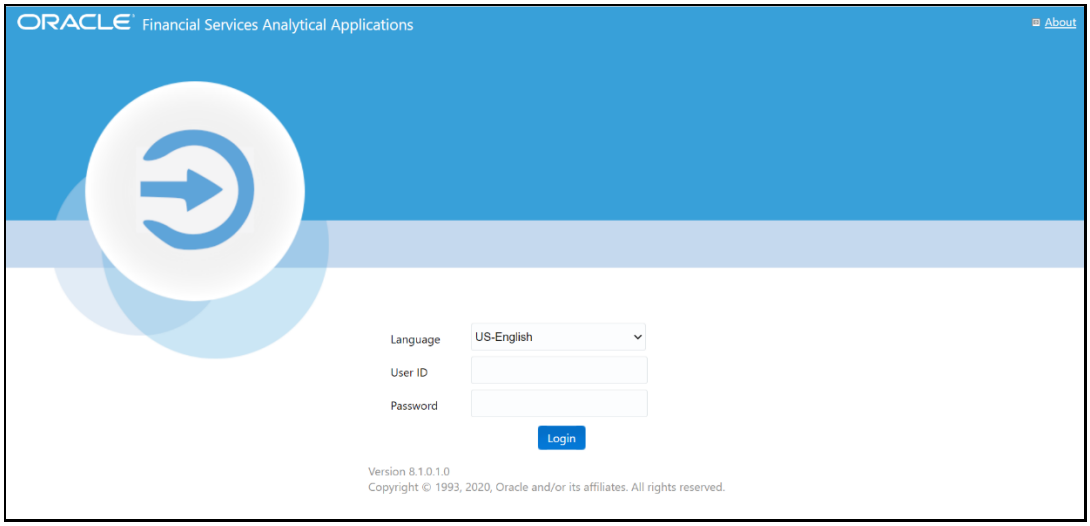
3.3 Accessing the OFSDF Interface or OFS REG REP US Treasury Interface

After the application is installed and configured, to access the OFS REG REP US Treasury application you must log in to the OFSAAI environment using the OFSAAI login page.

To access the application, follow these steps:

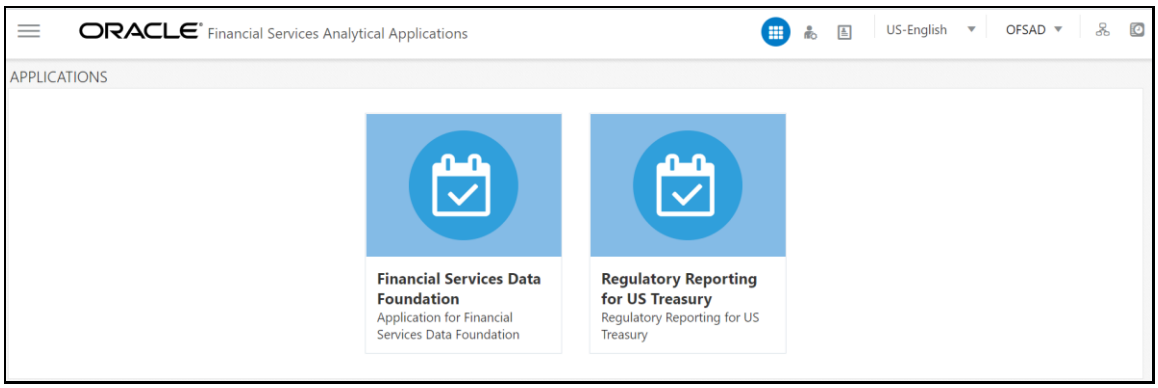
1. Enter the OFSAAI URL in your browser. The OFSAAI login page is displayed.

Figure 2: OFSAAI Log In



2. Select the desired language from the **Language** drop-down list.
3. Enter your **User ID** and **Password**. When you log into OFSAAI, the OFSAAI Applications page is displayed.

Figure 3: OFSAAI Applications Page



4. Select the **Financial Services Data Foundation** option to navigate to the **FSDF** application or select the **Regulatory Reporting for US Treasury** to navigate to the **OFS REG REP US Treasury** application.

3.4 Organization of Interface for User Roles

This section explains the various features used by an analyst. It describes the organization of the user interface and provides step-by-step instructions for navigating through the application to carry out these activities.

To access the Process Execution Summary, the following roles must be assigned to the user:

1. Modify Run Parameters
2. Approve Reporting Flag
3. Override Reporting Flag
4. Request Reporting Flag
5. Run Reporting Flag
6. View Run Details

Data Analysts are expected to perform the following activities:

1. Executing Batch to Refresh Derived Entities
2. Drill down from AgileREPORTER to OFSDF

Regulatory Report Analysts are expected to perform the following activities:

1. Drill down from AgileREPORTER to OFSDF
2. Using Metadata Browser to check schedule-wise metadata
3. Using Metadata Browser to check metadata usage across schedules

Topics:

- Process Execution Summary
- Marking Run as Final
- Reporting Flag for Run through Process Execution Summary

- Executing Batch to Resave Derived Entities
- Retrieving the Returns from AgileREPORTER
- Report Verification – Drill down from AgileREPORTER to OFSAA Results Area

3.4.1 Process Execution Summary

This section provides information on the Runs that apply to US Treasury. The Process Execution Summary is launched after the Runs are executed from the Processing Modelling Framework.

3.4.2 Marking Run as Final

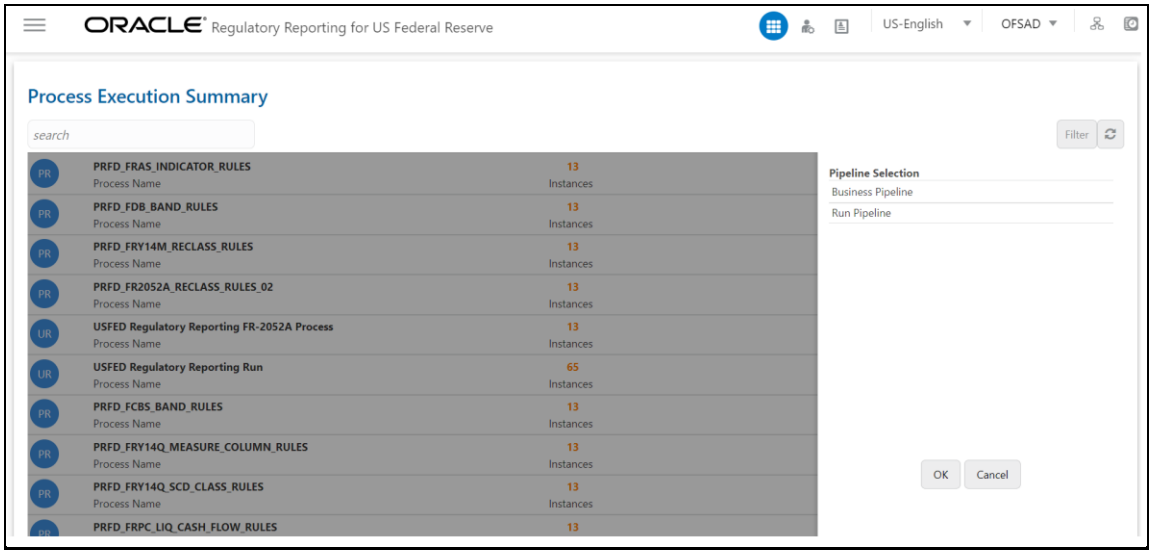
Various applications provide the data for regulatory reporting. You must mark specific executions for regulatory reporting as the final run.

1. After logging into the OFSAAI applications page, navigate to **Regulatory Reporting for US Treasury,** select **Process and Operations,** and then select **Process Execution Summary.**

Figure 4: Process Execution Summary Screen

2. Scroll towards the right and click **Filter**, select the **Run Pipeline** from the available pipeline selection list. Click **OK**.

Figure 5: Pipeline Selection Screen



3. After the Run execution, the Process Execution Summary is generated in the list format as illustrated in the following steps. The summary page displays the **Process Names** for which the **Run Parameters** are generated.

4. Scroll towards the right and click View  in the Process Name row.

Figure 6: Process Execution Summary View Screen

You can view the detailed definition of a Run in a read-only mode. The **Process Execution Details** page displays the execution details for the selected Execution Key with the color band displaying the status of each Execution Key.

Figure 7: Process Execution Details Screen

The execution keys and the corresponding execution details are as follows:

- **Process Description**: The US Treasury Regulatory Run appears as the process description when the user executes the Regulatory Run.
- **MIS Date**: The extraction date is displayed in this field.
- **Start Time**: It displays the Execution Date and the Execution Time when the Execution Run starts.
- **End Time**: It displays the End Execution Date and Execution Time.
- **Process Execution Key**: Unique identifiers are assigned to each Process Execution.
- **Approval Status**: It displays the Approval status of the Execution as Completed, Failed, or Ongoing.
- **Process Monitor**: This helps to show the run definition as defined in the process modeling framework. There are four icons in the Process Monitor as follows:
  - **PMF Launch**: Click **View** to view the Process flow associated with the selected run.
  - **Request Report Flag**: To request for a Reporting Run, select an Execution ID in the **Process Execution Summary** page and click the **Request Report Flag**. A dialog box appears for you to input your comments. Click **Submit** and the status of this Run is displayed in the **Reporting Flag** section. Only a successful execution can be requested for reporting. For the selected Run and Execution date, there can be only one reporting flag.
  - **Approve Report Flag**: After submitting the Reporting Run in the earlier section, the **Approve Report Flag** is enabled. When you click the **Approve Report Flag**, a dialog box is displayed with User Comments and Approver Comments. The Approver can update the comments in the **Approver Comments** field and then click **Approve** or **Reject**.
  - **Override Report Flag**: Any reporting execution can be overwritten with another execution. Select a successfully triggered batch on the **Process Execution Summary** page. The **Override Report Flag** is enabled if the execution is already marked as a Reporting Flag. You can override the execution by updating your comments. This must be approved by the approver and the procedure is similar to the procedure detailed in the Approve Report Flag for a Run section.

3.4.3 Reporting Flag for Run through Process Execution Summary

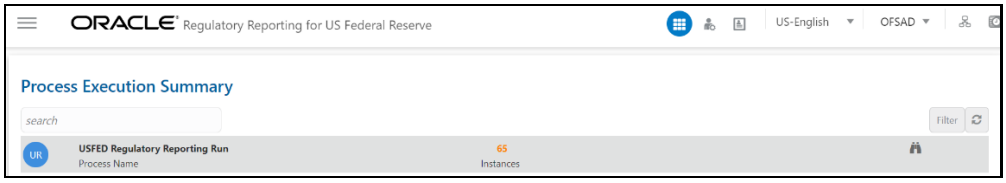
To request, approve, and override a flag for the process execution, perform the following steps:

1. After logging into the OFSAAI applications page, navigate to **Regulatory Reporting for US Treasury,** select **Process and Operations,** and then select **Process Execution Summary.**

Figure 8: Process Execution Summary Page

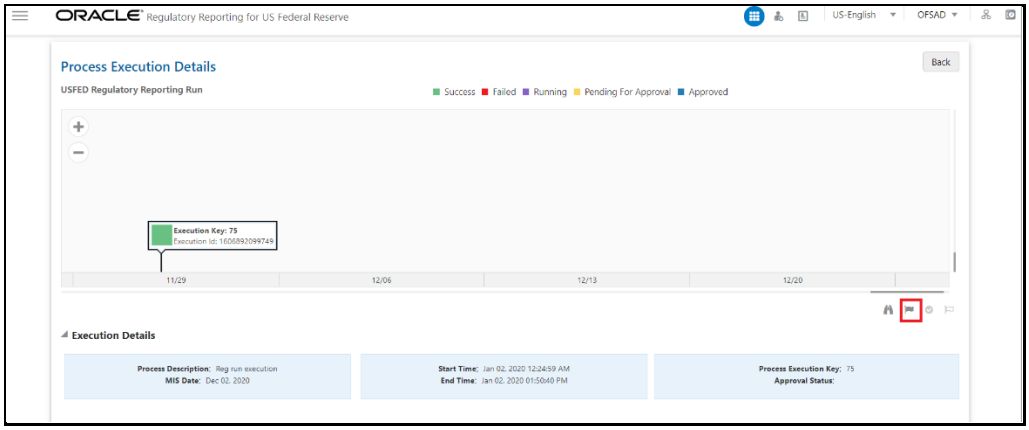
2. Scroll towards the right and click **Filter**, select the **Run Pipeline** from the available pipeline selection list. Click **OK**.

Figure 9: Process Execution Summary Filter Search Result Pane



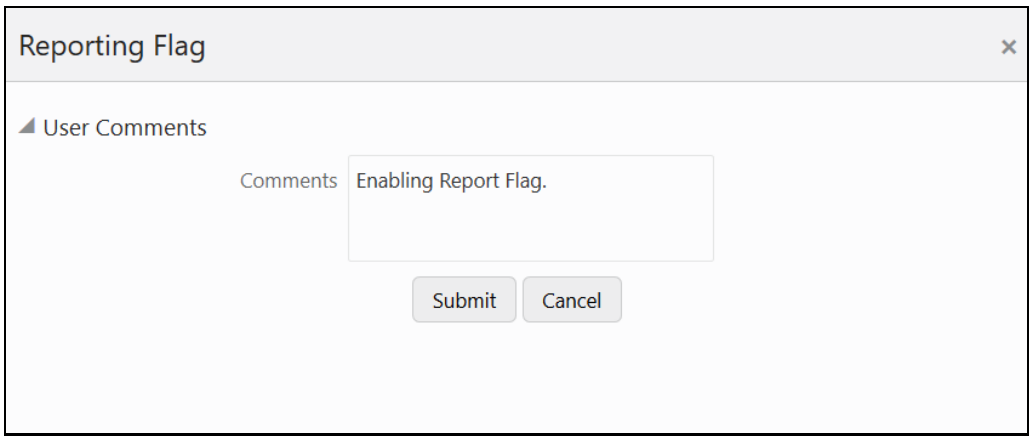
3. Scroll towards the right and click View  in the **Process Name** row.

Figure 10: Process Execution Details Page



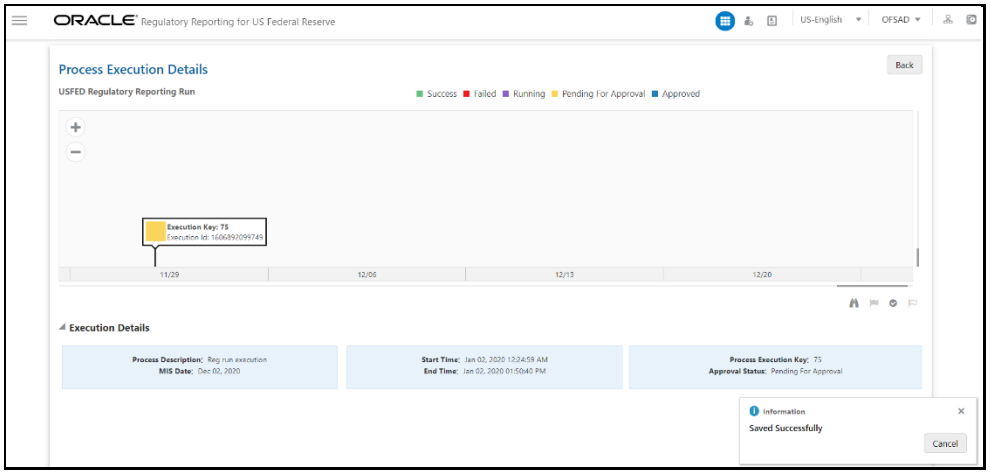
4. Select **Request Report Flag** to request a reported flag for the selected run execution.

Figure 11: Request Report Flag Window



5. Enter information in the **Comments** field and click **Submit**. The request report flag for a run is saved successfully.

Figure 12: Request Report Flag Save Page

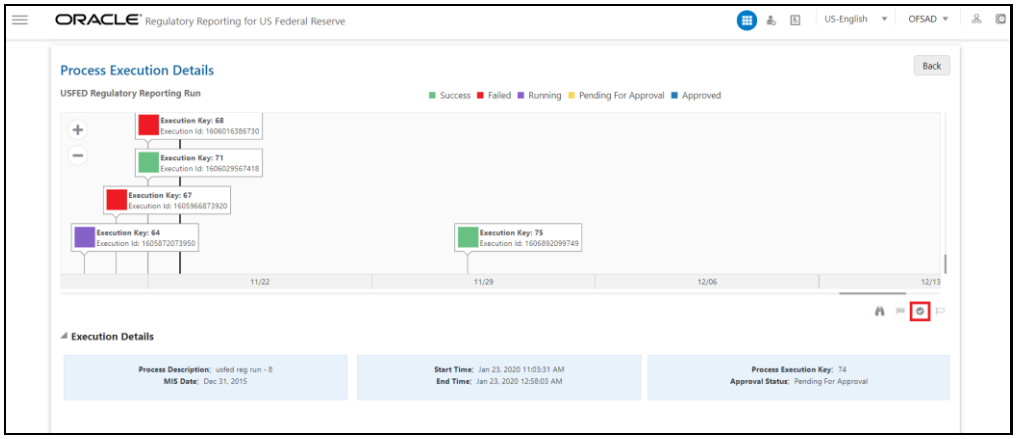


3.4.3.1 Approve Report Flag for a Run

To approve the report flag, perform the following steps:

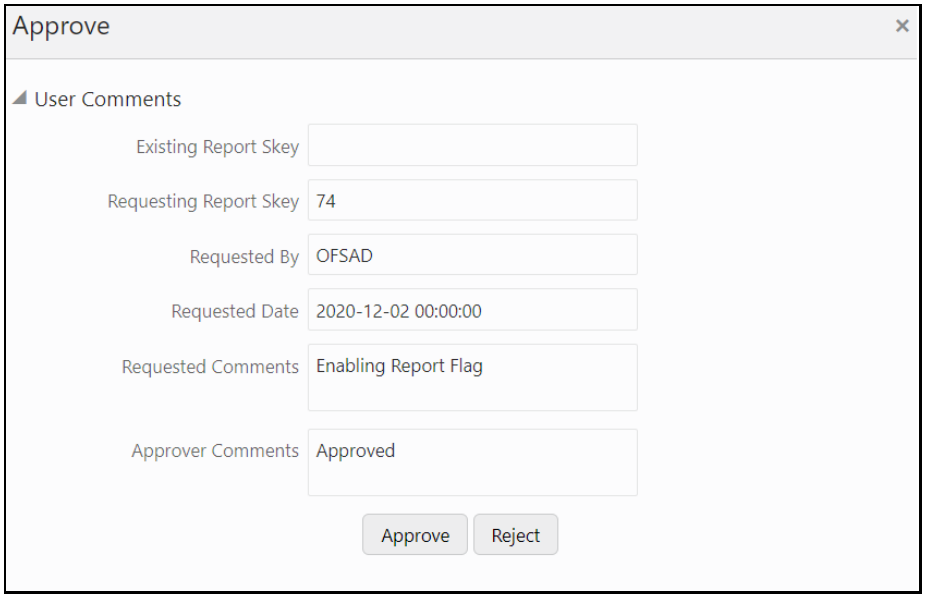
1. Navigate to the **Process Execution Summary** page and select the process name for which the report flag must be approved.
2. Click **Approve** to approve the request.

Figure 13: Approve Request Report Flag



3. Enter the information on the Approve Request Flag page.

Figure 14: Approve Request Report Flag Window



4. Click **Approve** to approve the requested report flag.

3.4.3.2 Override Report Flag for a Run

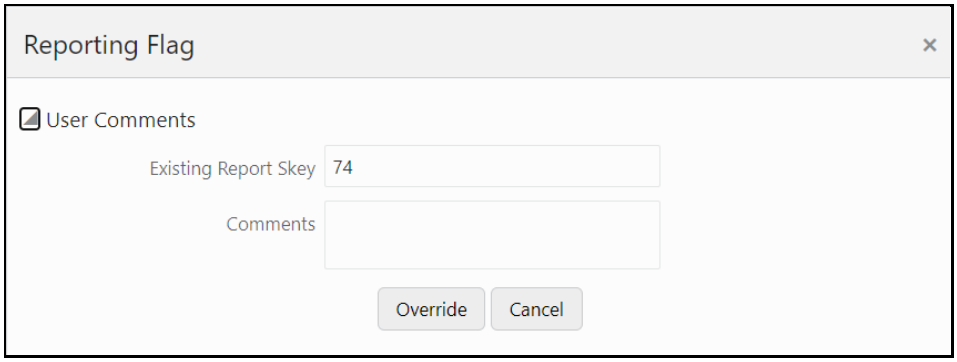
To override the report flag for a successful run, perform the following steps:

1. Navigate to the **Process Execution Summary** page and select the process name for which the report flag must be overridden.
2. Click **Override Report Flag** to override the report flag.

Figure 15: Override Request Report Flag

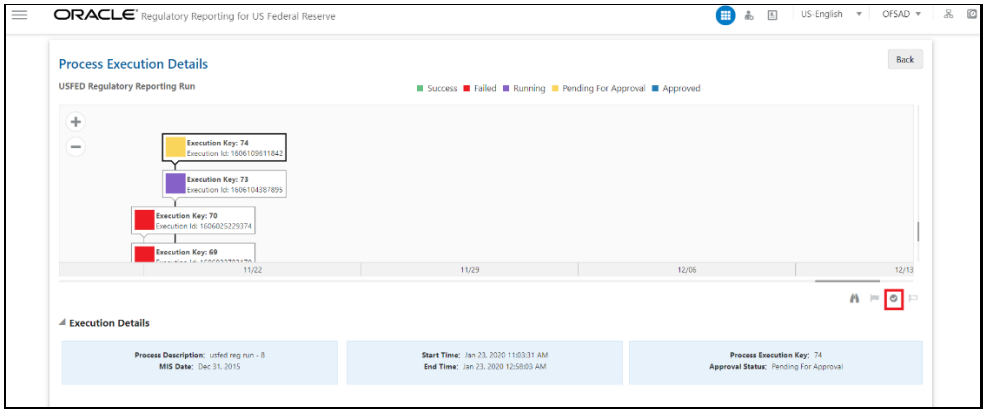
3. Enter the information in the Override Report Flag window.

Figure 16: Override Report Flag Details Window



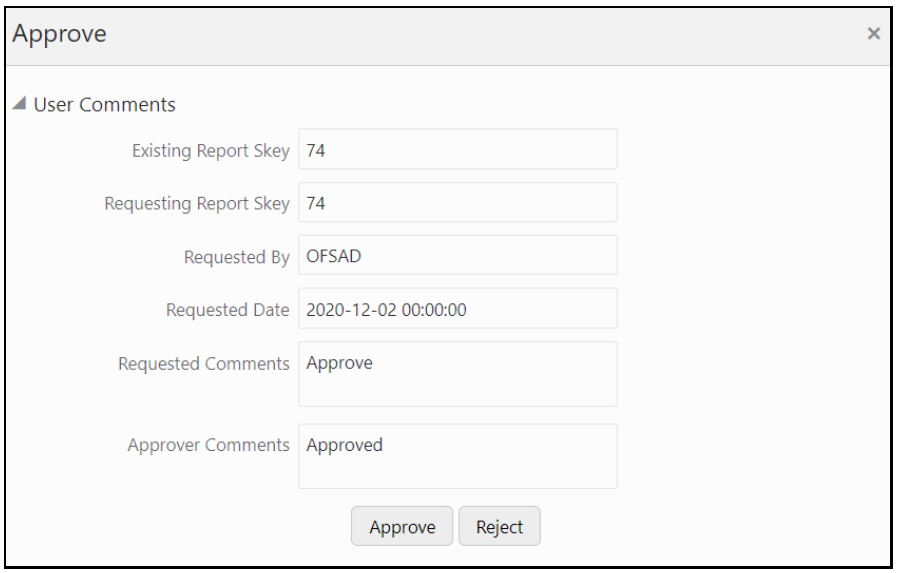
4. Click **Override** to override the requested report flag.

Figure 17: Report Flag Pending for Approval



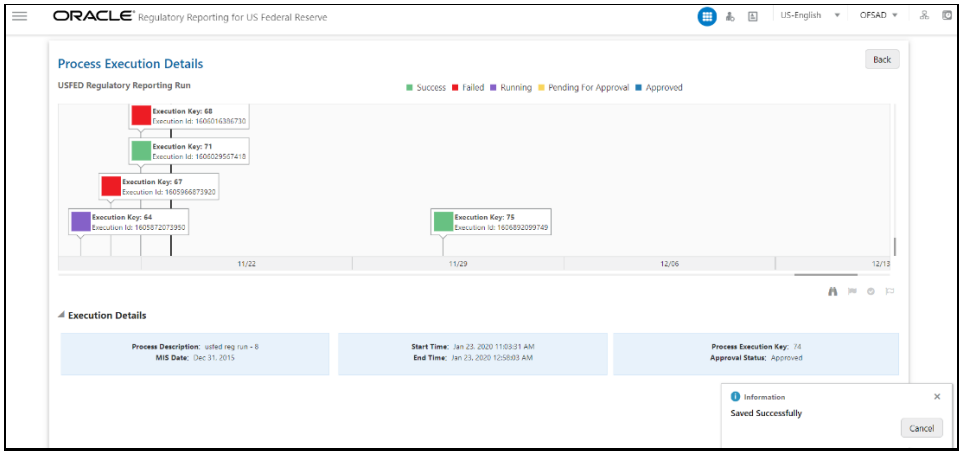
5. Click **Approve Report Flag** to approve the override report flag request.

Figure 18: Figure 19: Approve Override Report Flag Window



6. Enter the information in the **Approver Comments** field and click **Approve** and the report flag is overridden successfully.

Figure 20: Figure 21: Overridden Report Flag

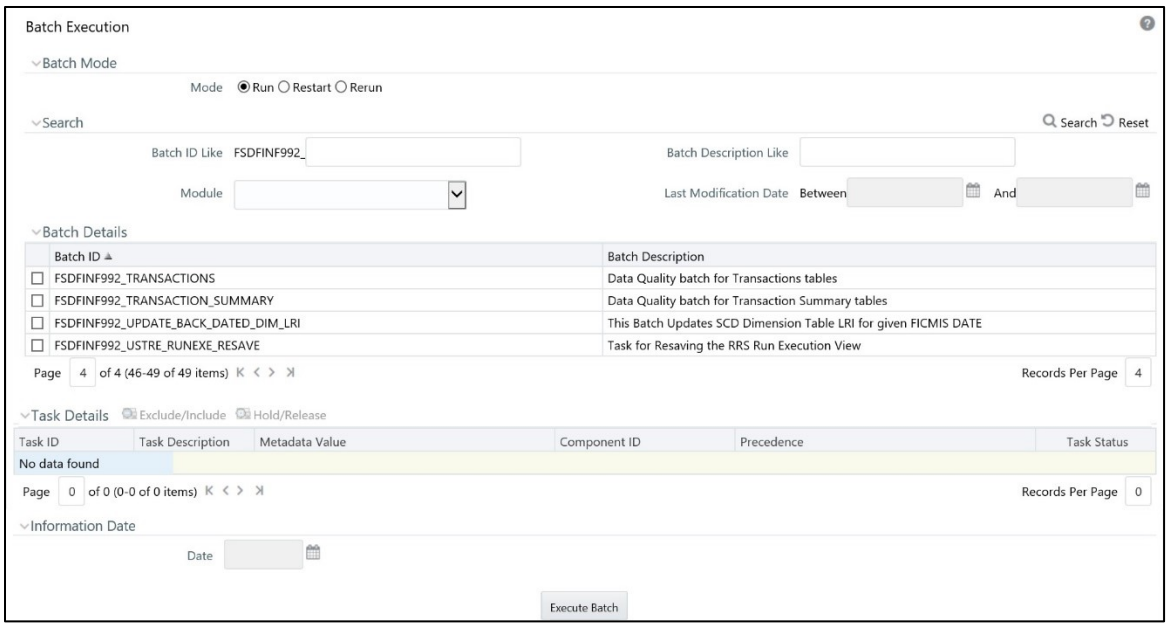


3.4.4 Executing Batch to Resave Derived Entities

To execute the batch to resave derived entities, follow these steps:

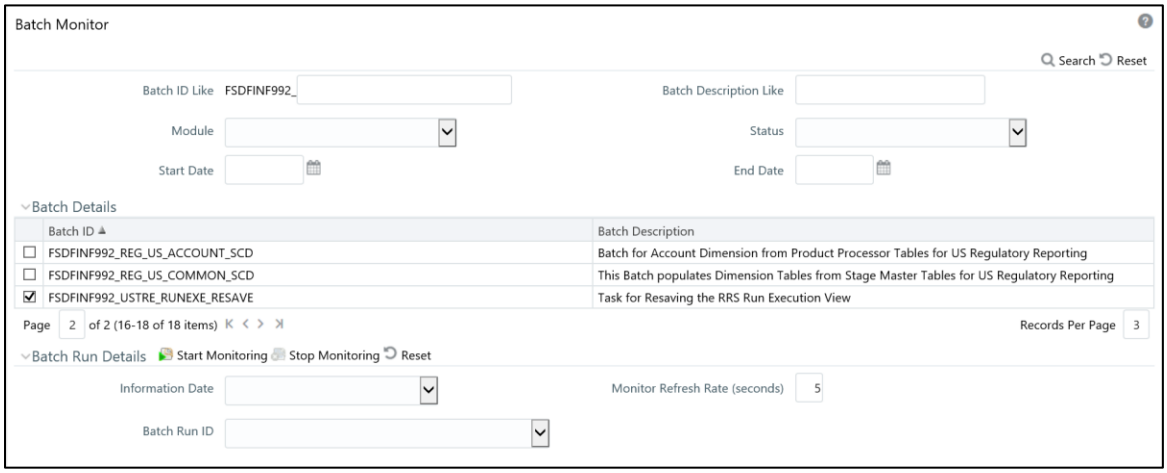
1. Navigate to **Process and Operations**, select **Operations,** and then select **Batch Execution.**
2. Select the batch **<<INFODOM>>_REG_REP_USTRE_DE_RESAVE** to resave all the DEs.

Figure 22: Batch Maintenance Screen



3. Monitor the status of the batch using the **Batch Monitor** link **(**Navigate to **Regulatory Reporting for US Treasury,** select **Process and Operations,** select **Operations,** and then select **Batch Monitor**.)

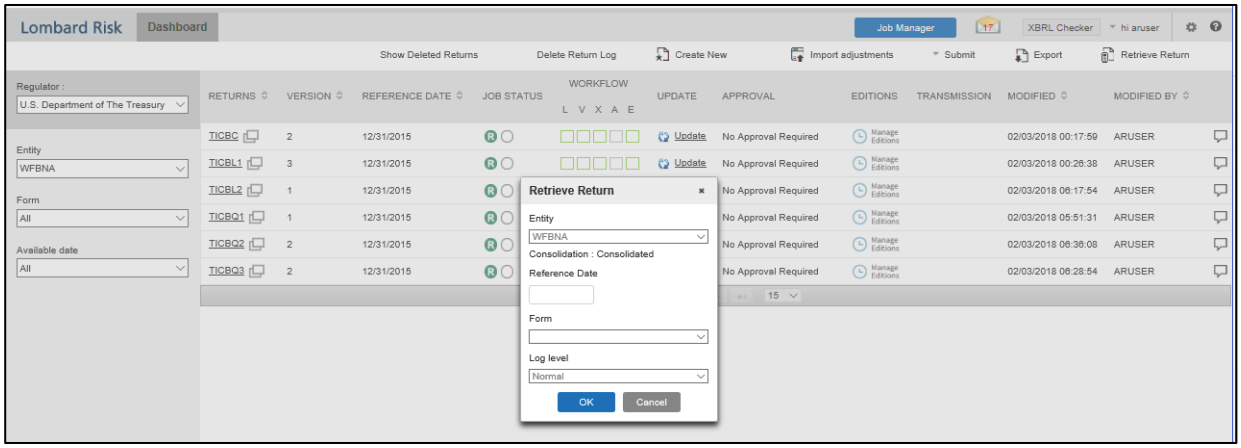
Figure 23: Batch Monitor Screen



3.4.5 Retrieving the Returns from AgileREPORTER

The Retrieve Return functionality in AgileREPORTER fetches data from OFSAA derived entities and embeds them on AgileREPORTER templates. This runs the decision table process in Lombard Risk. You can view the relevant OFSAA data on various schedules of the AgileREPORTER using this functionality.

Figure 24: Retrieve Returns Page

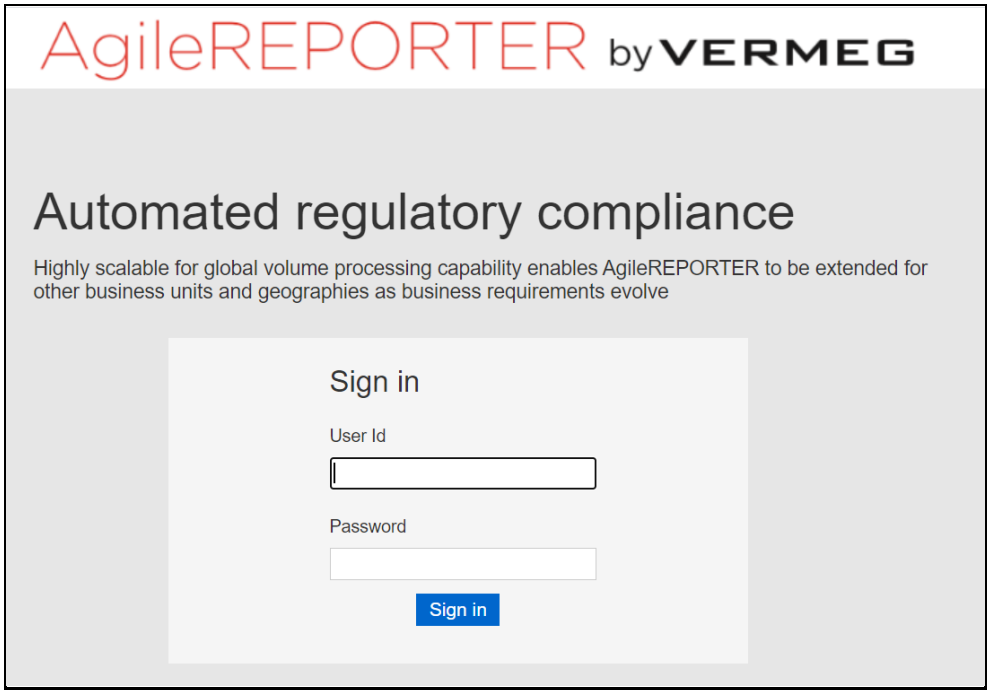


3.4.6 Report Verification - Drill Down from AgileREPORTER to OFSAA Results Area

Drill-down functionality enables you to view the accounts included in the aggregation. Following these steps to drill down from AgileREPORTER to OFSAA:

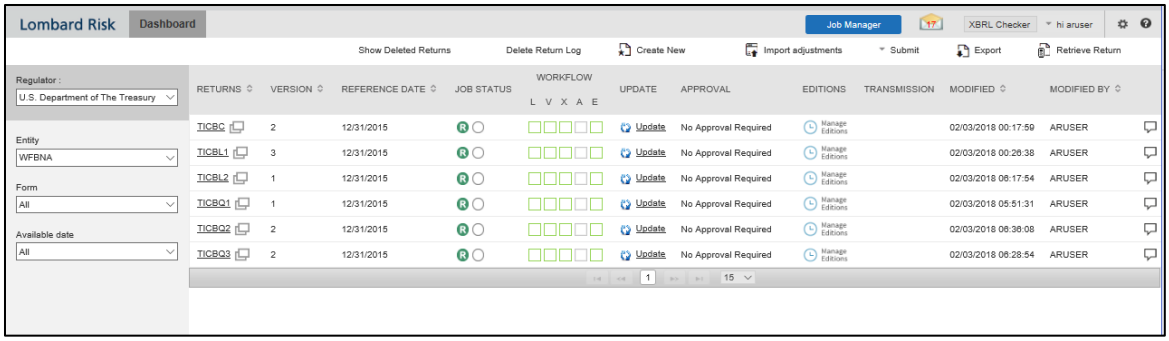
1. Log in to the AgileREPORTER.

Figure 25: AgileREPORTER Login Page



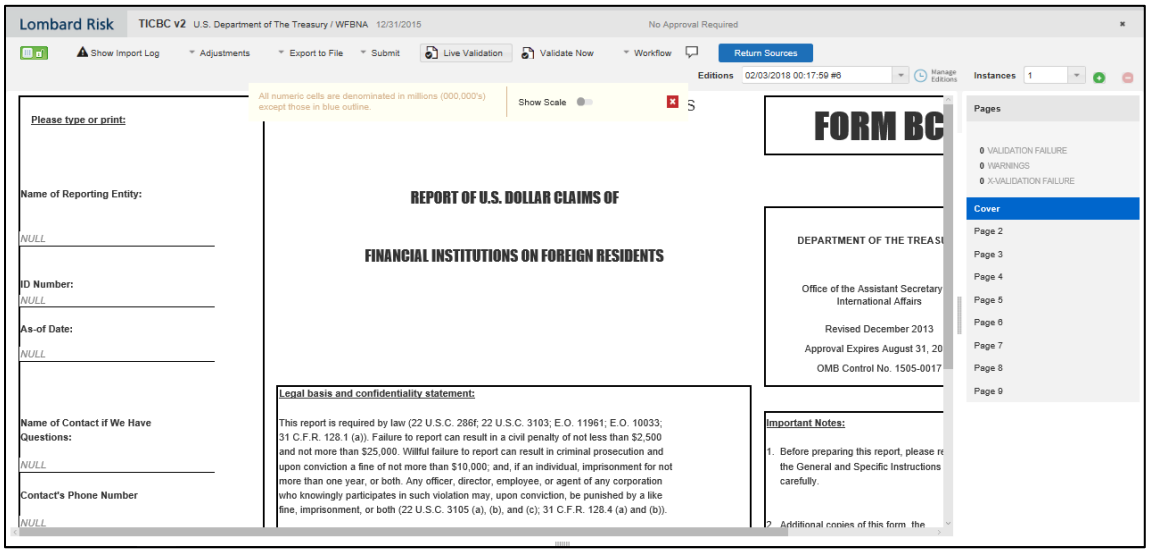
2. You can view the list of reports on the main page. Click any report name in the Returns column, for example, **TIC BC**.

Figure 26: AgileREPORTER Main Page



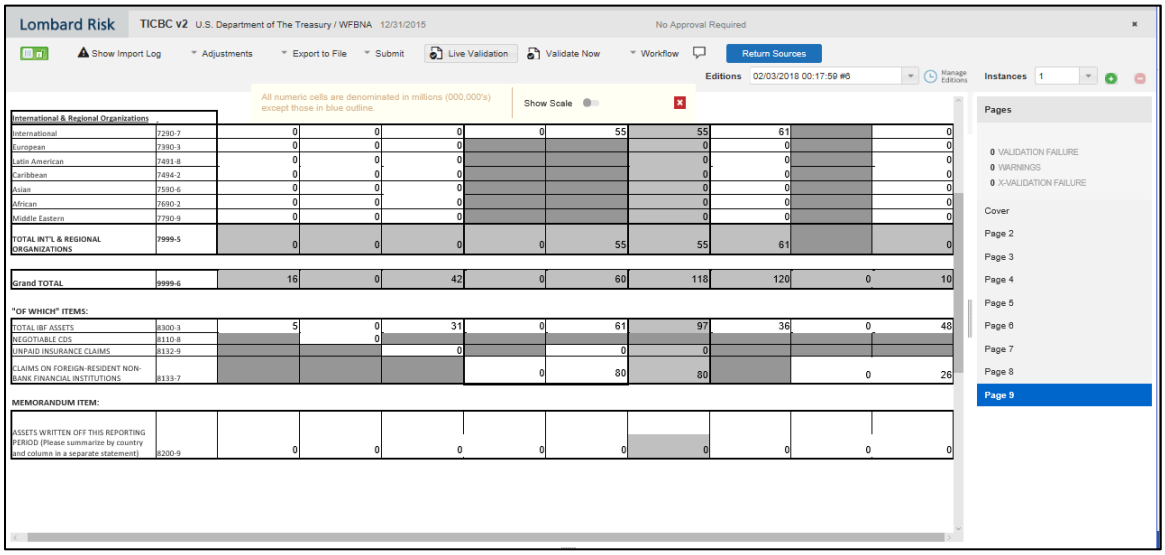
3. The report is displayed on the left-hand side. Click any page number, for example, **Page 9**.

Figure 27: AgileREPORTER Page Displaying List of Schedules



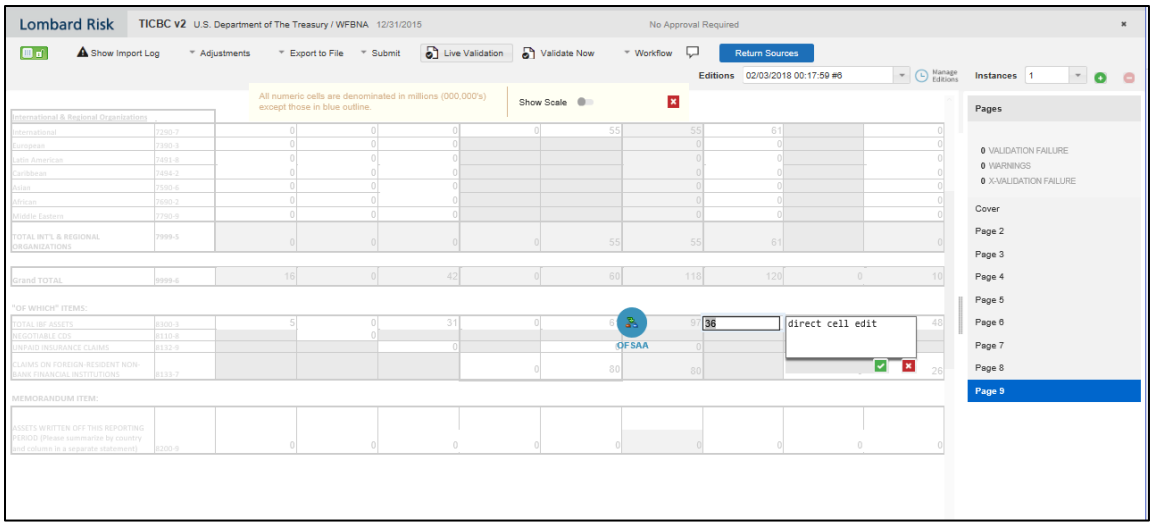
4. Click any cell to drill down.

Figure 28: AgileREPORTER Schedule Details Page



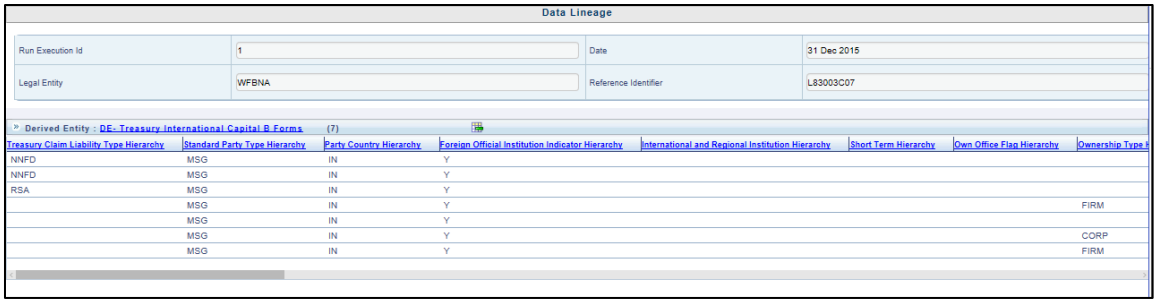
5. Figure 29 displays drill-down for the TOTAL IBF ASSETS in Column A. The **OFSAA icon** is displayed. It provides information about the amounts against different MDRM codes here. In the figure, the first MDRM code – L8300-3C07 indicates the number of deposits held by the bank that are of non-interest-bearing variant. Click the cell, and the OFSAA icon, to view how this cell was populated from OFSAA results. You are redirected to the OFSAA drill-down page.

Figure 29: AgileREPORTER Drill Down the page



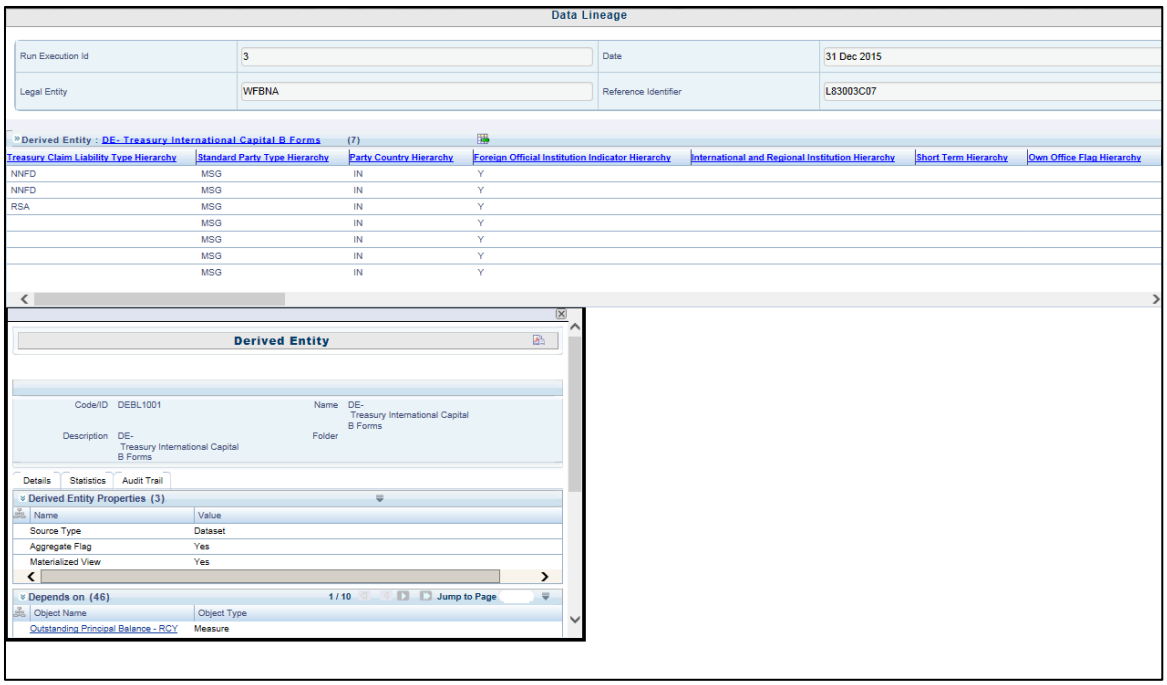
This cell is populated from the derived entity mentioned in the grid header *DE – Treasury International Capital B Forms*. The value in the derived entity grid must match that of the cell in the report. A derived entity is an aggregate built on top of the OFSAA results model to serve regulatory template requirements. It is built using dimensions, measures, and business processors. The dimensions that participate in determining the cell value are displayed with data.

Figure 30: Data Trace Browser/ OFSAA Report Drill-down Screen



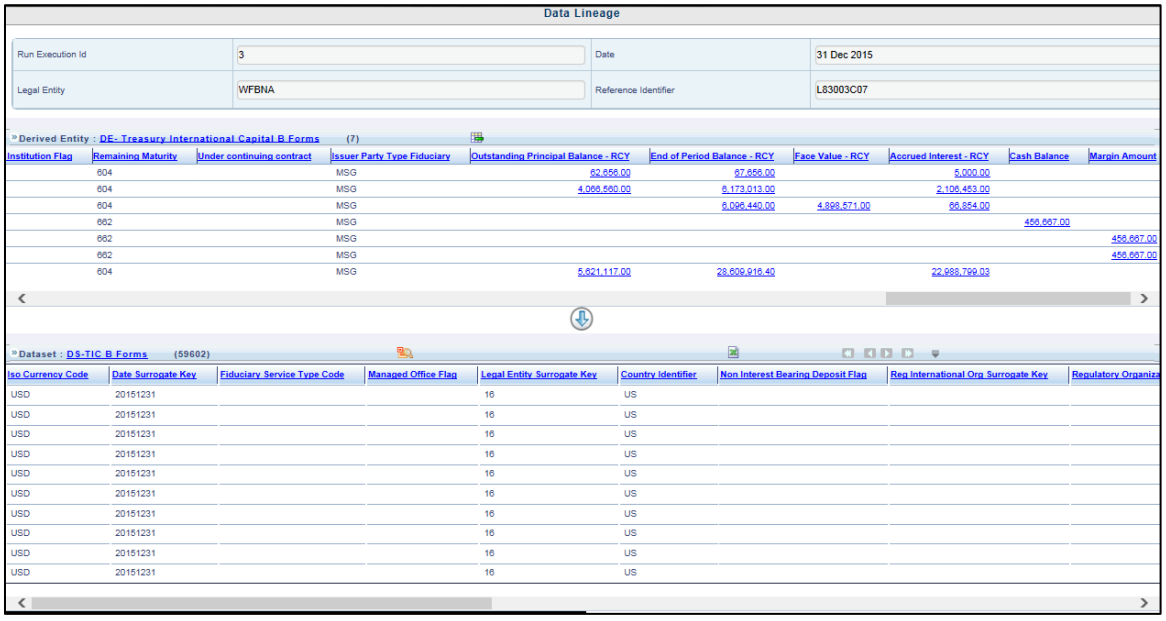
6. Derived entity details are displayed in the Metadata Browser within the page. Scroll to view complete details such as Datasets, Hierarchies, Measures, and so on. Click the derived entity link in the grid header.

Figure 31: Derived Entity MDB View



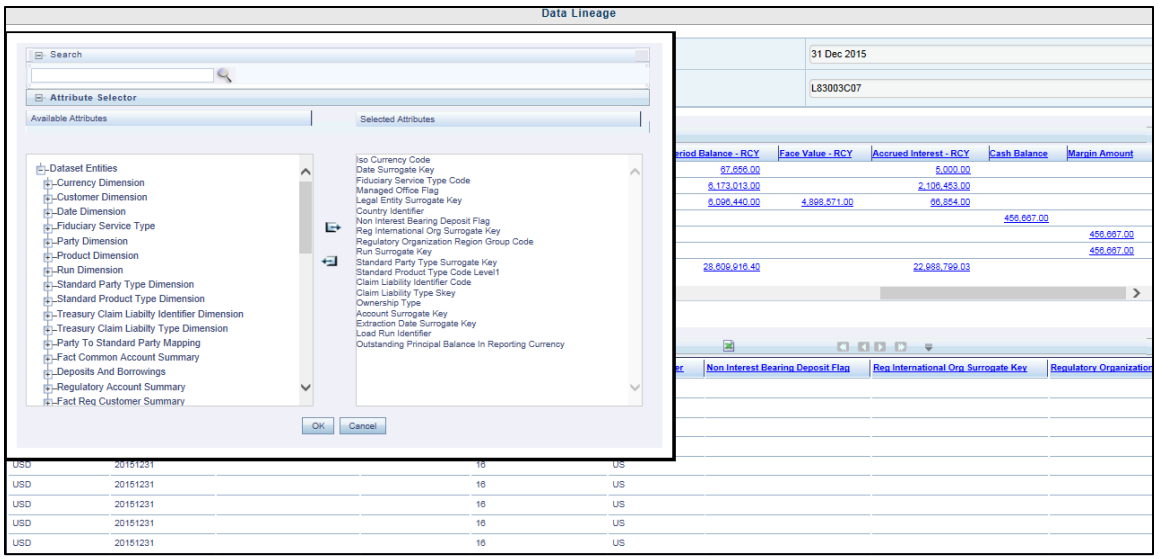
7. Double-click any figure (number) on the screen to drill down to the fact tables. The below grid displays the detailed granular rows of fact data that comprise the derived entity aggregate. The number is now segregated down to multiple records with different balances. Scroll to the right in the second grid to view measure values.

Figure 32: Drill Down Page



8. Click the **Column Selector** button on the header of the second table.

Figure 33: Drill Down Attribute Selector



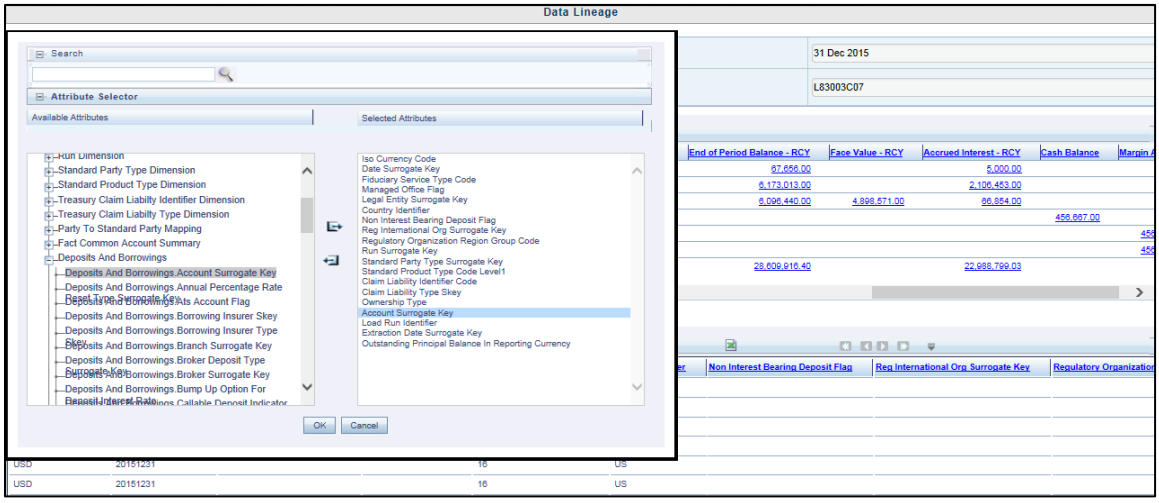
NOTE

Select the required Data Source, from the Available Attributes list and click **Move** . You can press the **Ctrl** key and click **Move** for multiple selections to map all the listed Data Sources to the application.

Select the required Data Source, from the Selected Attributes list and click **Remove** to remove the mapped Data Source from the application.

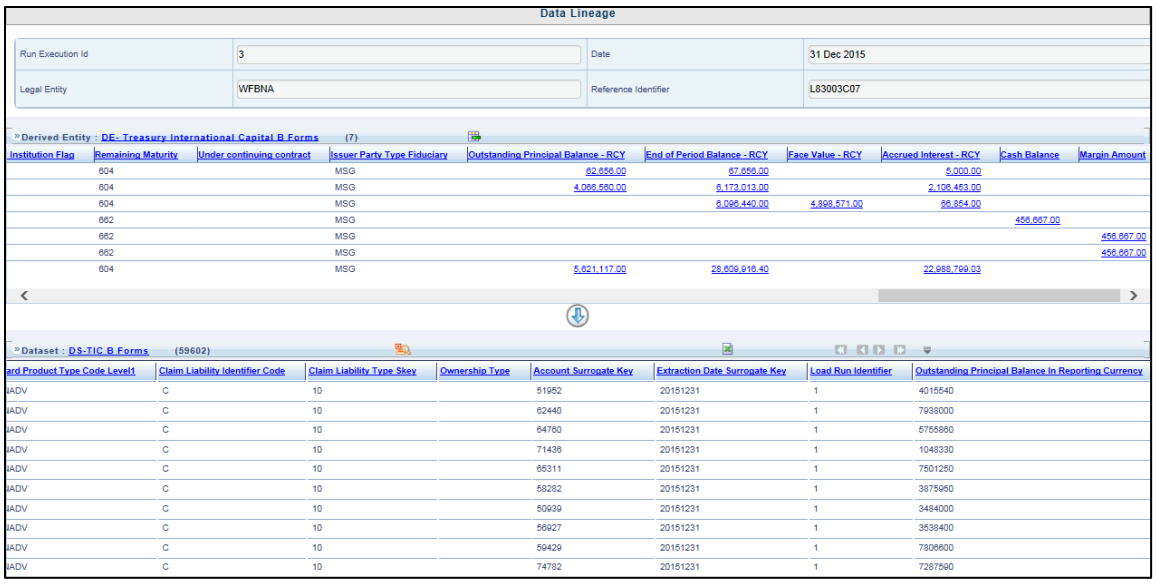
9. Expand Deposits and Borrowings and select Deposits And Borrowings. Account Surrogate Key to move to the Selected Attributes. Click OK.

Figure 34: US Treasury Drill Down Attribute Selector 2



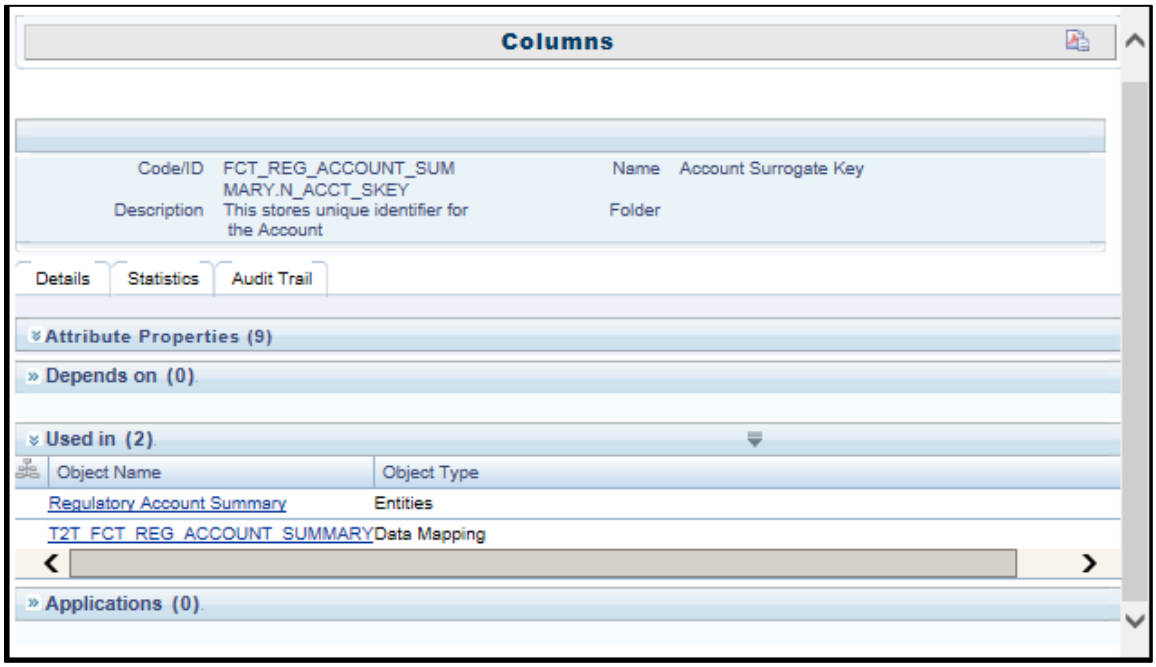
10. If an account surrogate key is required, scroll and select **Account Surrogate Key**.

Figure 35: US Treasury Drill Down Attribute Selector 3



11. The Attribute Properties and other details are displayed in the drill-down grid.

Figure 36: Drill Down - Granular



4 Regulatory Reporting Solution Data Flow

This chapter provides an understanding of the data flow. It explains what happens within data flow and how various processing aspects are integrated with the overall data flow.

Topics:

- Data Preparation
- Overview of OFS REG REP US Treasury User Interface
- Mapping of Results to Line Items in Reporting
- AgileREPORTER: Submission

4.1 Data Preparation

This section explains the input data preparation from OFSAA.

Topics:

- Assumptions for Data Preparation
- US Treasury Run Chart
- RUser Specific Reclassification Rules or Mapper Maintenance
- Configuring Setup Tables for Standard Set of Values
- Run or Execution Expectations
- Consolidation
- Data Flow from Sources Systems to Staging Area
- Data Flow from Staging to Results Area
- Data flow from Staging to Processing Area
- Data Flow from Processing to Results Area
- Guidelines for Data Loading to Result Area Tables in Data Foundation for Regulatory Reporting Implementations
- FSDF Entity Information
- Fact Tables or Entities

4.1.1 Assumptions for Data Preparation

The following are the assumptions for data preparation:

1. REG REP is a reporting solution, which uses data from underlying fact tables directly for reporting. You are expected to prepare the load for the required data in the reporting area accordingly. Although this has a thin processing layer to reclassify regulatory dimensions and bands, all the processing measures are expected to be from respective applications and provide as required.
2. It is integrated with the results area of the respective processing application, and any change in the underlying processing can disturb the REG REP data sourcing.

3. For usage of consolidation dimension (which has values like Actual, Budget, Forecast, and so on), all historical data is expected to be tagged as actual to report vintage data, as per report requirements. For projection data, for a given run and Projection Period (quarter/year), only one set of data is expected to be stored.
4. All processing reporting requirements requiring cash flows, integration package expects bucketed cash flow as an input (meaning a time bucket for cash flow and cash flow amount is expected as input).

4.1.2 US Treasury RUN CHART

Oracle Financial Services Regulatory Reporting for US Treasury – Lombard Risk Integration Pack provides the US Treasury RUN Chart listing the tasks required for the population of data for US Treasury Reports. This covers the following tasks:

- Set up table population
- Stage Dimension Load
- Seeded Dimension Data Population
- Common data Population
- Common Tasks like Exchange Rate Population
- US Treasury Specific Data Population and Transformation
- Derived Entity Refresh

Download the **US Treasury 8.1.1.0.0 RUN Chart** from the MOS.

4.1.3 User-specific Reclassification Rules / Mapper Maintenance

Within reclassification rules, few rules where the source is customer-specific values. In such cases, these rules must be validated and updated as required by you, because the Out-of-Box rule may differ from what you have. Such rules are very few and restricted to:

- Standard Product Type Reclassification
- Standard Party Type Reclassification
- Standard Mitigant Type Reclassification
- Regulatory Industry Reclassification
- Regulatory Credit Status Reclassification
- Regulatory Loan Purpose Reclassification
- Regulatory Credit Score Model Mapper Maintenance
- GL Account to Reporting Line Mapper Maintenance

Table 4: Standard Dimension Reclassification

RULE NAME	TARGET HIERARCHY	SOURCE HIERARCHY

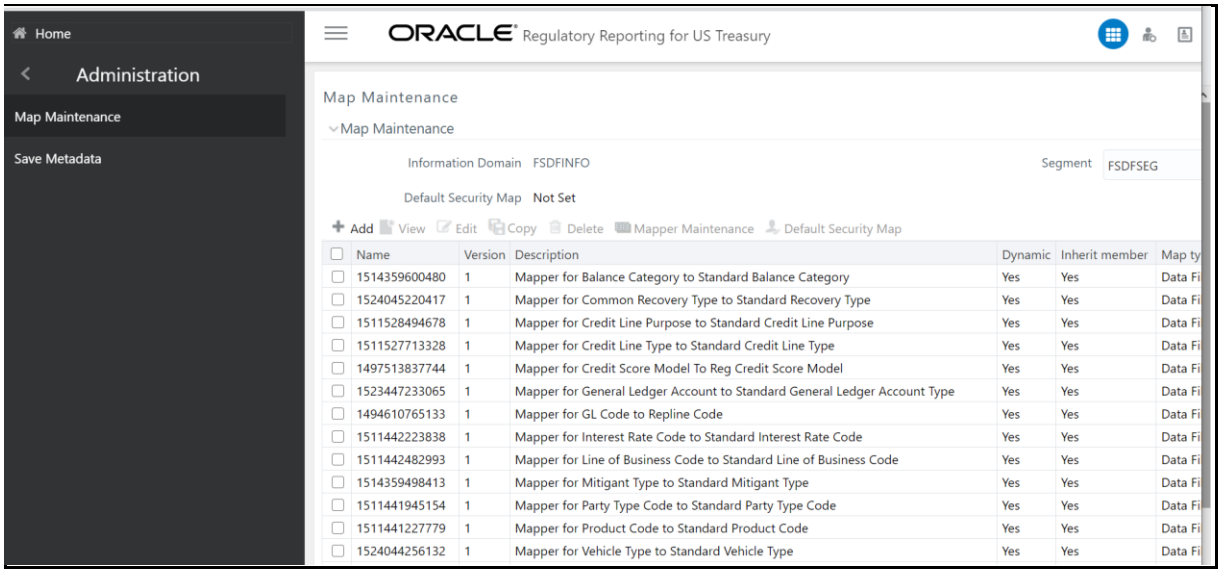
Regulatory Treasury Foreign Official Indicator	DIM_FOREIGN_OFFICIAL_INST	FCT_REG_CUSTOMER_SUMMARY
Treasury Claim Liability Identifier	DIM_PRODUCT	FCT_REG_ACCOUNT_SUMMARY
Treasury Claim Liability Type Classification	DIM_TRS_CLAIM_LIABILITY_TYPE	FCT_REG_ACCOUNT_SUMMARY
Regulatory Organization Regional Group Classification	DIM_REG_INTL_ORG	DIM_REG_ORGN_REGION_GROUP
Treasury Country Classification	DIM_STANDARD_PARTY_TYPE	FCT_REG_ACCOUNT_SUMMARY

4.1.3.1 Maintenance of Mappers for Reclassification of Standard Dimensions

The mapper can be maintained under OFSAAI.

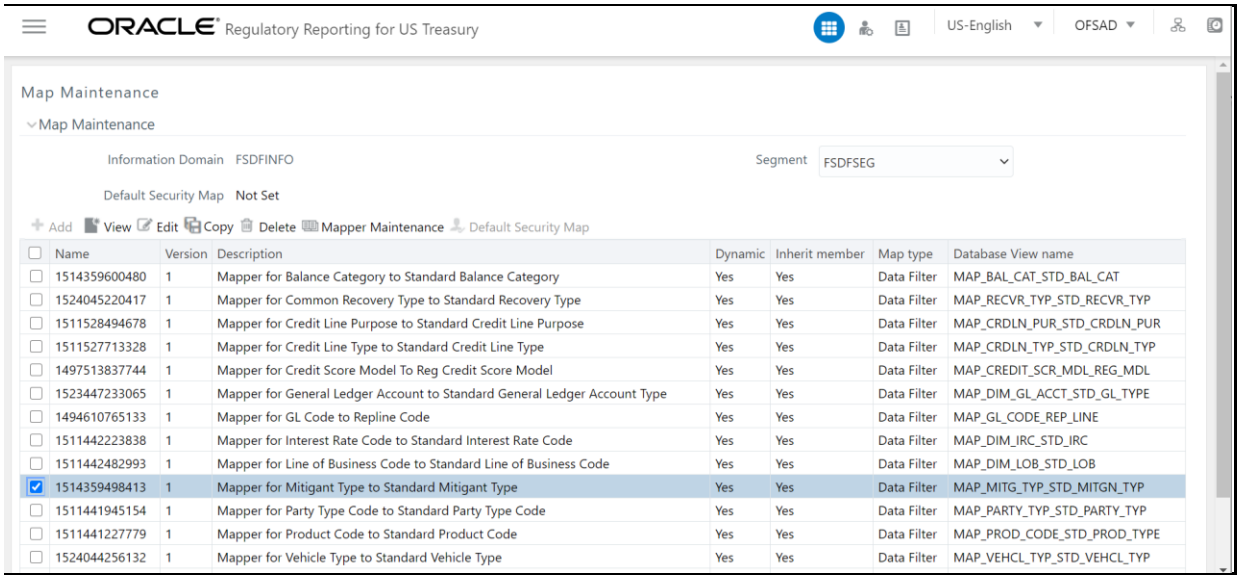
1. After logging into the OFSAAI applications page, navigate to **Regulatory Reporting for US Treasury**, select **Administration,** and then select **Map Maintenance**.

Figure 37: Map Maintenance page



2. For illustration, we have selected **Mapper for Mitigant Type to Standard Mitigant Type**. Click **Mapper Maintenance**.

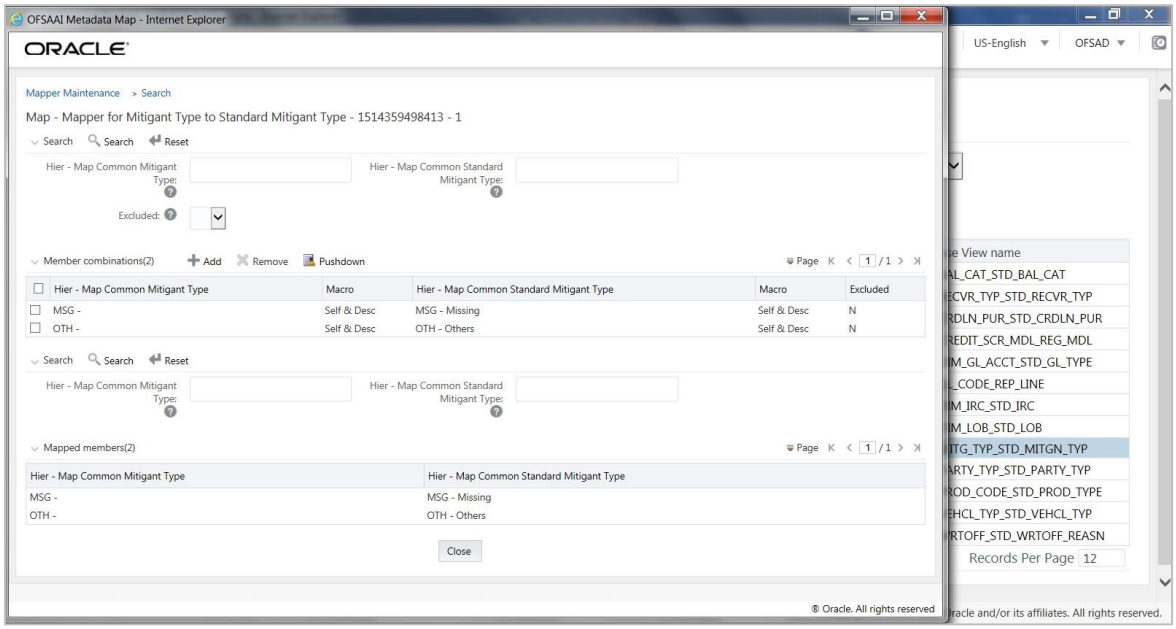
Figure 38: Mapper for Mitigant Type to Standard Mitigant Type



Name	Version	Description	Dynamic	Inherit member	Map type	Database View name
1514359600480	1	Mapper for Balance Category to Standard Balance Category	Yes	Yes	Data Filter	MAP_BAL_CAT_STD_BAL_CAT
1524045220417	1	Mapper for Common Recovery Type to Standard Recovery Type	Yes	Yes	Data Filter	MAP_RECVR_TYP_STD_RECVR_TYP
1511528494678	1	Mapper for Credit Line Purpose to Standard Credit Line Purpose	Yes	Yes	Data Filter	MAP_CRDLN_PUR_STD_CRDLN_PUR
1511527713328	1	Mapper for Credit Line Type to Standard Credit Line Type	Yes	Yes	Data Filter	MAP_CRDLN_TYP_STD_CRDLN_TYP
1497513837744	1	Mapper for Credit Score Model To Reg Credit Score Model	Yes	Yes	Data Filter	MAP_CREDIT_SCR_MDL_REG_MDL
1523447233065	1	Mapper for General Ledger Account to Standard General Ledger Account Type	Yes	Yes	Data Filter	MAP_DIM_GL_ACCT_STD_GL_TYPE
1494610765133	1	Mapper for GL Code to Repline Code	Yes	Yes	Data Filter	MAP_GL_CODE_REP_LINE
1511442223838	1	Mapper for Interest Rate Code to Standard Interest Rate Code	Yes	Yes	Data Filter	MAP_DIM_IRC_STD_IRC
1511442482993	1	Mapper for Line of Business Code to Standard Line of Business Code	Yes	Yes	Data Filter	MAP_DIM_LOB_STD_LOB
1514359498413	1	Mapper for Mitigant Type to Standard Mitigant Type	Yes	Yes	Data Filter	MAP_MITG_TYP_STD_MITGN_TYP
1511441945154	1	Mapper for Party Type Code to Standard Party Type Code	Yes	Yes	Data Filter	MAP_PARTY_TYP_STD_PARTY_TYP
1511441227779	1	Mapper for Product Code to Standard Product Code	Yes	Yes	Data Filter	MAP_PROD_CODE_STD_PROD_TYPE
1524044256132	1	Mapper for Vehicle Type to Standard Vehicle Type	Yes	Yes	Data Filter	MAP_VEHCL_TYP_STD_VEHCL_TYP

3. OFS REG REP US Treasury maps OTH and MSG out-of-the-box for this mapper. The remaining mappings can be maintained by the user according to user-specific values.

Figure 39: Map Maintenance Search page



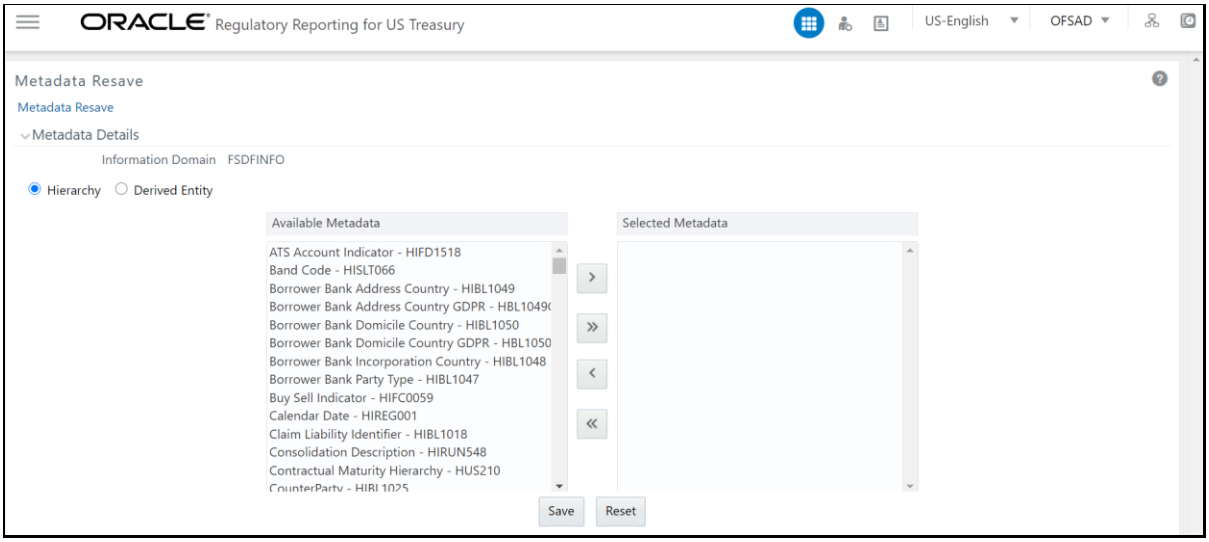
Prerequisites for Mapper Maintenance

1. After logging into the OFSAAI applications page, navigate to **Regulatory Reporting for US Treasury**, select **Administration,** and then select **Save Metadata**. Load all the required user-specific dimensions using SCD.
2. To Resave these hierarchies, select these hierarchies and click **Save**

- HCMDF001 - Hier - Map Common Product
- HCMDF002 - Hier - Map Common Standard Product Type
- HCMDF003 - Hier - Map Common Party Type
- HCMDF004 - Hier - Map Common Standard Party Type
- HCMDF005 - Hier - Map Common Interest Rate Curve
- HCMDF006 - Hier - Map Common Standard Interest Rate Curve
- HCMDF007 - Hier - Map Common Line of Business
- HCMDF008 - Hier - Map Common Standard Line of Business
- HCMDF009 - Hier - Map Common Credit Line Type
- HCMDF010 - Hier - Map Common Standard Credit Line Type
- HCMDF011 - Hier - Map Common Credit Line Purpose
- HCMDF012 - Hier - Map Common Standard Credit Line Purpose
- HCMDF013 - Hier - Map Common Mitigant Type
- HCMDF014 - Hier - Map Common Standard Mitigant Type
- HCMDF015 - Hier - Map Common Balance Category
- HCMDF016 - Hier - Map Common Standard Balance Category
- HCMDF017 - Hier - Map Common General Ledger Code
- HCMDF018 - Hier - Map Common Standard General Ledger Type
- HCMDF019 - Hier - Map Common Vehicle Type
- HCMDF020 - Hier - Map Common Standard Vehicle Type
- HCMDF021 - Hier - Map Common Write Off Reasons
- HCMDF022 - Hier - Map Common Standard Write Off Reasons
- HCMDF023 - Hier - Map Common Recovery Type
- HCMDF024 - Hier - Map Common Standard Recovery Type
- HRLMP001 - HIR - RLMP Industry Codes
- HRLMP002 - HIR - RLMP Regulatory Industry Codes
- HRLMP003 - HIR - RLMP Application Status
- HRLMP004 - HIR - RLMP Regulatory Application Status
- HRLMP005 - HIR - RLMP Document Type
- HRLMP006 - HIR - RLMP Regulatory Document Type
- HRLMP007 - HIR - RLMP Account Status
- HRLMP008 - HIR - RLMP Regulatory Account Status
- HRLMP009 - HIR - RLMP Regulatory Account Purpose
- HRLMP010 - HIR - RLMP Organization Unit Code

- HRLMP011 - HIR - RLMP Line of Business Code
- HRLMP012 - HIR - RLMP Std Secondary Line of Business
- HRLMP013 - HIR - RLMP Underlying Type
- HRLMP014 - HIR - RLMP Regulatory Underlying Type
- HRLMP501 - HIR - RLMP Property Type
- HRLMP502 - HIR - RLMP Regulatory Property Type
- HRLMP503 - HIR - RLMP Account Purpose
- HRLMP504 - HIR - RLMP Regulatory Loan Purpose
- HRLMP505 - HIR - RLMP Account Status Code
- HRLMP506 - HIR - RLMP Regulatory Credit Status
- HRLMP507 - HIR - RLMP Sec Pool Type
- HRLMP508 - HIR - RLMP Regulatory Sec Pool Type

Figure 40: Metadata Resave page



Possible Mapping Combinations

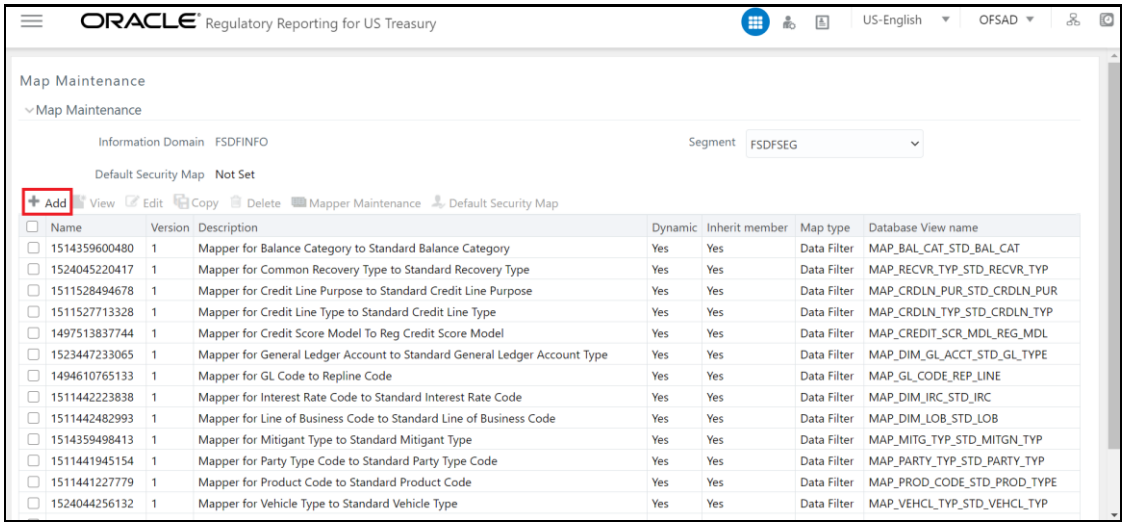
One Standard Dimension table in the source can be mapped only to one Standard Dimension table. One to Many or Many to Many mapping leads to an error in T2T as the records are duplicated. From the illustration, the possible combinations for Mitigant Type to Standard Mitigant Type mapping are One to One and Many to One mapping.

- **One to One Mapping**: You can map one Mitigant Type data model to one Standard Mitigant Type data model using the Mapper Maintenance screen. Here, you must select one value in the Mitigant Type data model and one value in the Standard Mitigant Type data model.
- **Many to One Mapping**: You can map many values in the Mitigant Type data model to one value in the Standard Mitigant Type data model using the Mapper Maintenance screen.

To conduct One to One or Many to One mapping:

1. After logging into the OFSAAI applications page, navigate to **Regulatory Reporting for US Treasury**, select **Administration,** and then select **Map Maintenance**

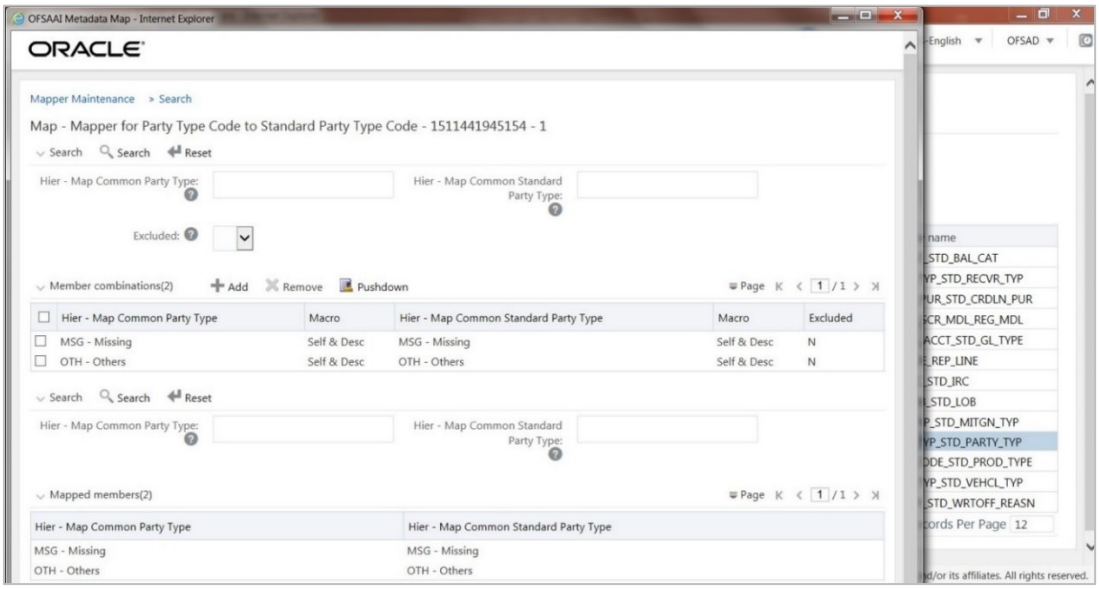
Figure 41: Map Maintenance Page



2. Click **Create new Map** icon to create a new map or select an existing Map. For illustration, **Mapper for Party Type Code to Standard Party Type Code** value is selected. Click the **Mapper Maintenance** icon.

3. The **Mapper Maintenance** window opens (in this illustration, the **Map - Mapper for Party Type Code to Standard Party Type Code** window opens). To conduct One to One or Many to One mapping, in the Member Combinations section, click **Add**.

Figure 42: Map Maintenance Add page

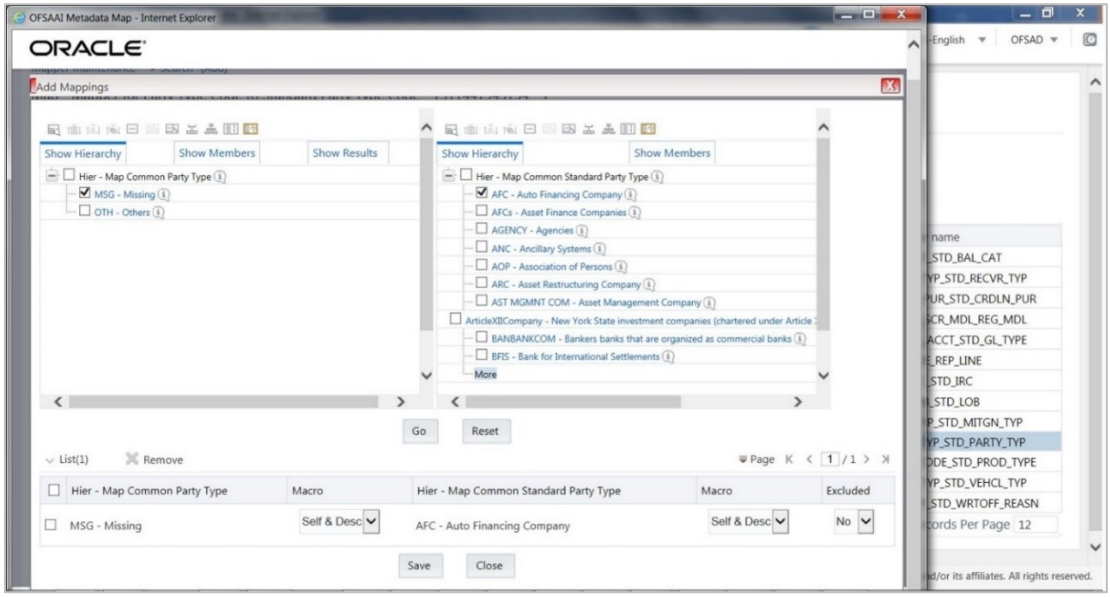


4. The **Add Mappings** pop-up window opens. In this illustration:

- To map One to One, select one value in the Hier - Map Common Mitigant Type data model and one value in the Hier - Map Common Standard Mitigant Type data model, and click **Go**. Repeat this step for each One to One data model mapping, and then click **Save**.

In this illustration, **MSG - Missing** is mapped to **AFC - Auto Financing Company**.

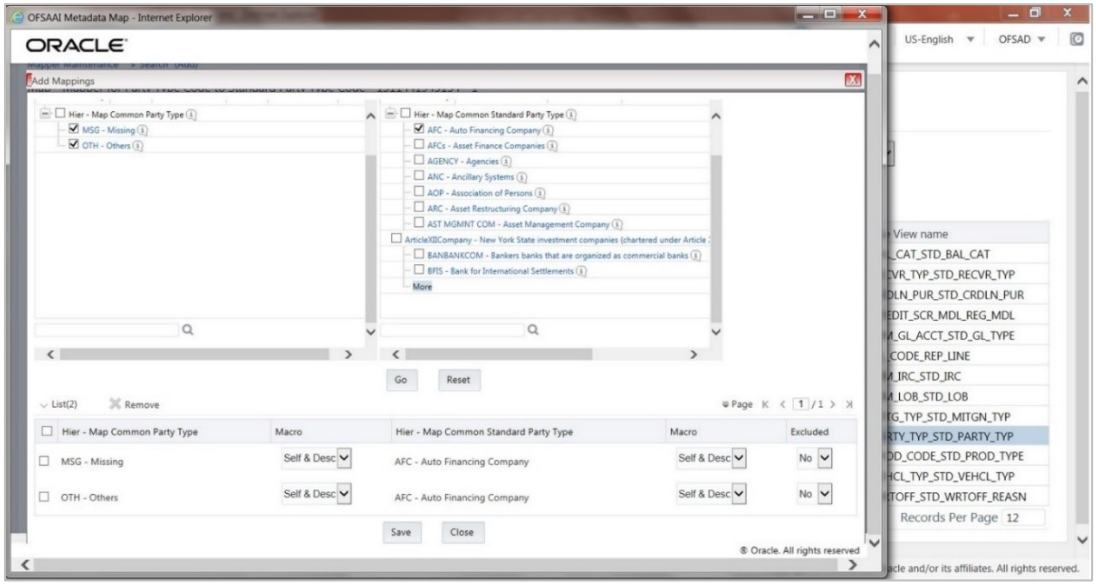
Figure 43: One to One Mapping page



- To map Many to One, select multiple (two in this illustration) values in the Hier - Map Common Mitigant Type data model and one value in the Hier - Map Common Standard Mitigant Type data model, and then click **Go**. Click **Save**.

In this illustration, **MSG-Missing** and **OTH-Others** are mapped to the **AFC-Auto Financing Company**.

Figure 44: One to Many Mapping windows



5. An acknowledgment is displayed: *Confirm Save?* To confirm and save data, click **Yes**. In the **Mapper Maintenance** window, in the Mapped combinations and the Mapped member's sections, you can see the newly conducted mapping.

4.1.4 Configuring Setup Tables for Standard Set of Values

The following are the setup configurations that are required to be done before executing the US Treasury Regulatory Reporting Run.

4.1.4.1 SETUP_MASTER Table

The SETUP_MASTER table in an atomic schema must be modified with the required values for US Treasury.

Table 5: Setup Master

V_COMPONENT_CODE	V_COMPONENT_DESC	V_COMPONENT_VALUE	Description
DEFAULT_FINANCIAL_ELEMENT	Default Financial Element	DEFAULT	Component Value to be updated according to the values used in STG_GL_DATA.V_FINANCIAL_ELEMENT_CODE. This is used for Fact Management Reporting T2T.
DEFAULT_FX_RATE_SRC	Default FX Rate Source	DEFAULT	Component Value to be updated according to the values used in STG_EXCHANGE_RATE_HIST.V_RATE_DATA_ORIGIN. This is used for Calculating the Reporting Currency.
DEFAULT_MARKET_CENTER	Market Center Identifier	DEFAULT	Component Value to be updated according to the values used in STG_INSTRUMENT_MARKET_PRICES.V_MKT_CENTER_ID. This is used for Calculating the Instrument Close Price.
USTR_DEFAULT_PD_MODEL	PD Model for US Treasury Regulatory Reporting	DEFAULT	Component Value to be updated according to the values used in STG_PD_MODEL_MASTER.V_PD_MODEL_CODE. This is used for Calculating PD Model Band Skey.

4.1.4.2 FSI_PARTY_STD_PARTY_MAP

In the US Treasury Regulatory Reporting, there is a reporting requirement for certain Party which is considered to be Regulatory Standard. As Party Dimension is an SCD table and the values of Party Identifier Code (V_PARTY_ID) can change bank to bank, the FSI_PARTY_STD_PARTY_MAP is used for

mapping the bank-specific V_PARTY_ID to Regulatory-specific V_STD_PARTY_CODE. Here, you must modify the V_PARTY_ID column according to the bank-specific V_PARTY_ID of the corresponding Party, which is stored in Party Dimension (DIM_PARTY).

The following are the STD Party Codes that are getting used in US Treasury Regulatory Reporting.

Table 6: Standard Party Codes

V_STD_PARTY_CODE	V_STD_PARTY_NAME	V_PARTY_ID
ASEAN	Association of Southeast Asian Nations (ASEAN)	ASEAN
BCEAO	Central Bank of West African States	BCEAO
BEAC	Bank of Central African States	BEAC
BIS	Bank of International Settlements	BIS
ECB	European Central Bank	ECB
ECCB	Eastern Caribbean Central Bank	ECCB
FAO	Food and Agriculture Organization (FAO)	FAO
FZ	Franc Zone	FZ
IAEA	International Atomic Energy Agency	AUS
IBI	Bank Indonesia	IBI
IBRD	International Bank for Reconstruction and Development (IBRD) (part of World Bank)	API
ICAO	International Civil Aviation Organization	ATC
ICRI	Consulate of the Republic of Indonesia	ICRI
IDB	Inter-American Development Bank (IDB)	IDB
IMF	International Monetary Fund (IMF)	IMF
IOM	International Organization for Migration	IOM
RBI	Reserve Bank of India	RBI
UNICEF	United Nations Children's Emergency Fund (UNICEF)	UNICEF
WTO	World Trade Organization (WTO)	WTO
WBG	West Bank and Gaza	WBG

4.1.5 Run or Execution Expectations

Run refers to execution. It is assumed that at different periods, different combinations of parameters, and different data require different executions. From a reporting perspective, as required by regulators, the RRDF application requires data for the following executions:

1. Current Data / Execution
    a. Reporting month-end data

b. Projection Data

2. Historical (trend/vintage) Data
   c. Yearly
   d. Quarterly
3. Stressed Data

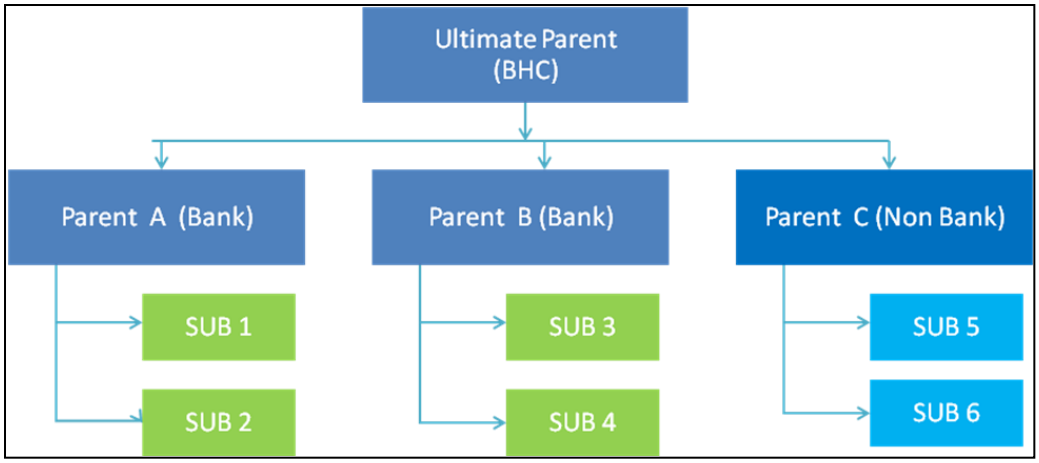
4.1.6 Consolidation

Consolidation is handled as part of the Financial Services Data Foundation (FSDF). Consolidation in FSDF refers to the elimination of intracompany transactions, that is, any kind of transactions between two parties or entities which are part of the reporting organizational hierarchy for a given execution. When there is only one legal entity involved in an execution it is called SOLO Entity vs the earlier one as CONSOLIDATED Entity.

It is expected that in the staging area, the customer loads the data from the source system and then uses consolidation logic to arrive at the consolidated output for results.

- The scope of consolidation is about a list of Entities that participate in consolidation.
- Legal Entity Structure is looked at through ORGANIZATION STRUCTURE DIMENSION. This stores a parent-child relationship. This is stored only once.
- While moving the data, Legal Entity can move related entities to the processing/reporting area.
- The legal structure being finalized once, this structure only stores one parent-child relationship.

Figure 45: Consolidation workflow



- Transaction/exposure between SUB 1 and SUB 2 should be eliminated while reporting for Parent A.
- Transaction/exposure between SUB 1 and SUB 3 should not be eliminated while reporting for Parent A.
- It is a customer for banking products and issuer for traded securities which are considered for the intracompany elimination.

Consider the following example:

Table 7: Consolidation

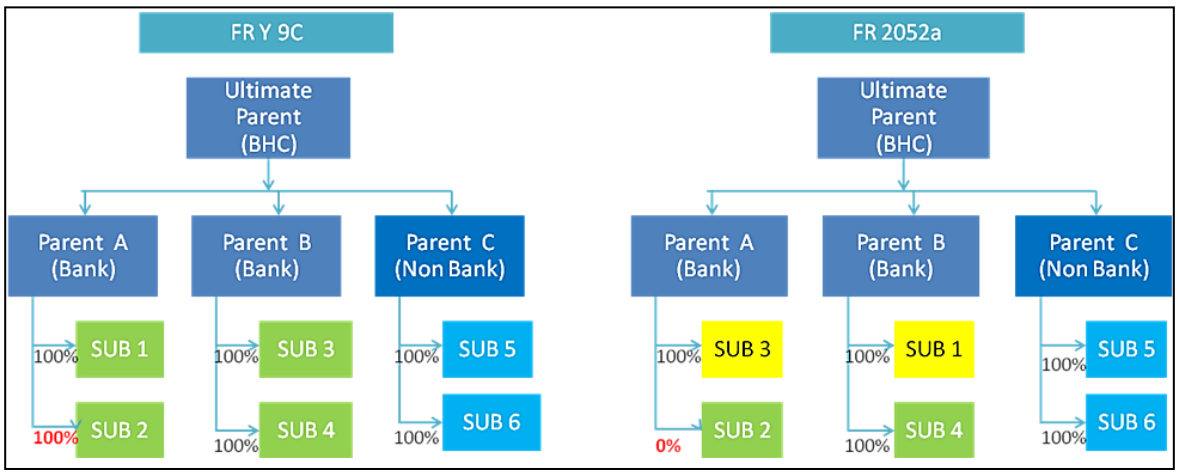
FSDF AREA	ENTITY CODE	ACCOUNT NUMBER	CUSTOMER	ISSUER
STAGE LOAN CONTRACTS	SUB 1	ACCOUNT 1	SUB 2	
STAGE LOAN CONTRACTS	SUB 1	ACCOUNT 2	PARTY 1	
STAGE INVESTMENT CONTRACTS	SUB 1	ACCOUNT 3	PARTY 1	SUB 2
FCT COMMON ACCOUNT SUMMARY	SUB 1	ACCOUNT 2	PARTY 1	
FCT_REG_INTRA_COMP_ACC_SUMM	SUB 1	ACCOUNT 1	SUB 2	
FCT_REG_INTRA_COMP_ACC_SUMM	SUB 1	ACCOUNT 3	PARTY 1	SUB 2

As shown in the preceding table, Account 1 is moved to the FSI INTRA COMPANY ACCOUNT and Account Summary tables. Run Enabled tables contain records specific to the selected legal entity and consolidation type.

Consolidation is also linked to multiple hierarchies banking organizations have. Multiple hierarchies refer to the different grouping of group entities under different parents for the given regulatory requirements.

Refer to the following representation where TIC BC and TIC BL1 are two regulatory reporting requirements.

Figure 46: Consolidation with Multiple Hierarchies



Consolidation percentage refers to the percentage of asset or liability of a child entity that is brought under the parent heading. Except for Joint ventures and similar organization structures, child entities are moved under the parent or they are not. This means the consolidation percentage is either 100% or 0%. For proportionate consolidation (Joint venture is an example for this), a given child is moved under two parents with all assets and liabilities divided as per the Joint venture agreement. Currently, in FSDF 804, proportionate consolidation is not handled.

The hierarchy structure is thus the primary input to the consolidation process. Depending on whether you have multiple hierarchies or not, there are two data flows.

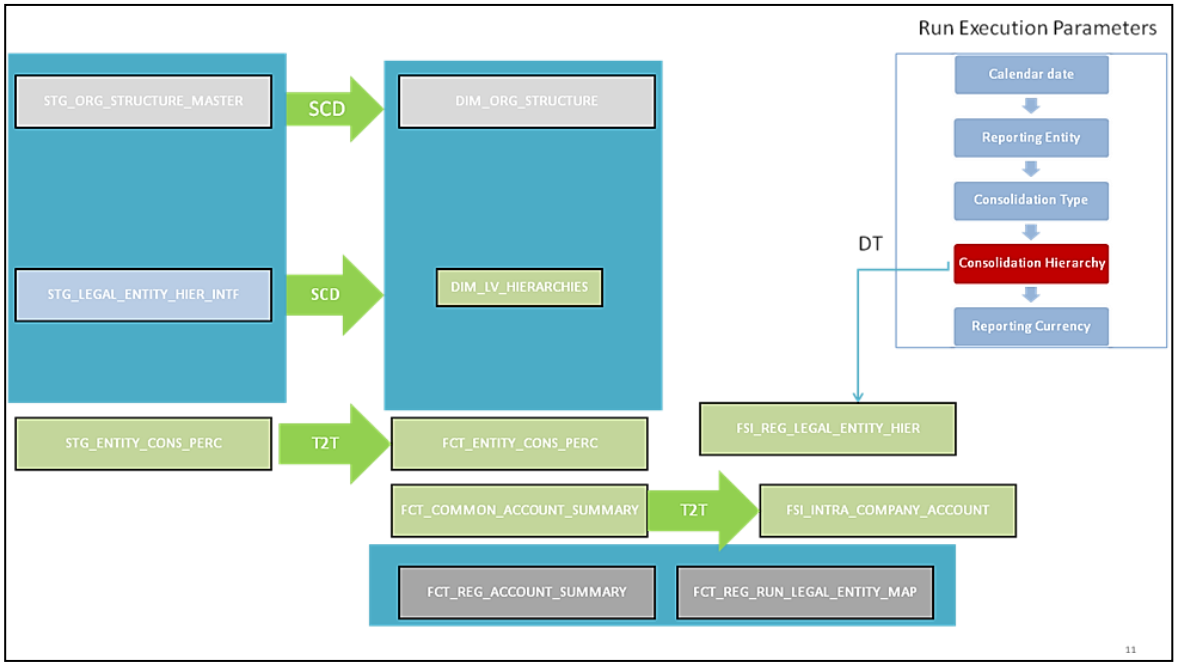
Consolidation with Multiple Organization Structure Hierarchy:

- You load Organization Structure Hierarchy to the STAGE ORG STRUCTURE MASTER table, which is moved to the ORG STRUCTURE DIMENSION using the SCD component.

- Execution-specific organization structure hierarchies along with parent and child entity codes are populated in the STAGE LEGAL ENTITY HIERARCHY INTERFACE table, which is moved to the LEGAL ENTITY HIERARCHIES DIMENSION using the SCD component.
- Execution-specific Consolidation percentage is loaded in the STAGE ENTITY CONSOLIDATION PERCENTAGE table, where the child entity code, parent entity code, and the consolidation percentage are populated. This is moved to the FACT ENTITY CONSOLIDATION PERCENTAGE table using Table-to-Table transformation. In FSDF 804 release, this feature is not supported yet.

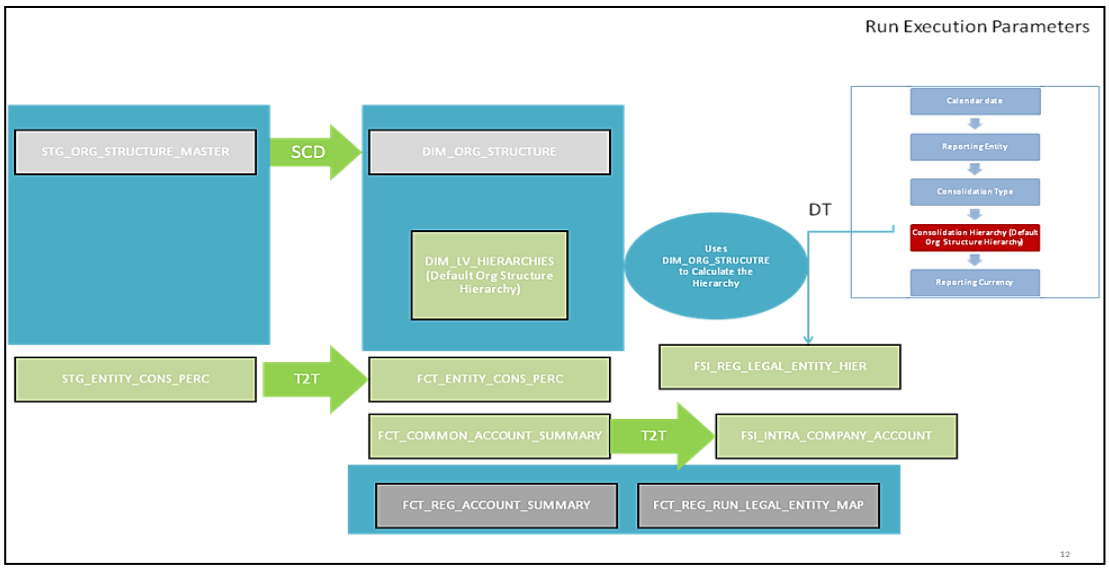
The STAGE LEGAL ENTITY HIERARCHY is used for the Consolidation process and not the one from ORGANIZATION STRUCTURE DIMENSION.

Figure 47: Consolidation with Multiple Organization Structure Hierarchy



If you do not have Multiple Hierarchies, STAGE LEGAL ENTITY HIERARCHY which is used for the Consolidation process can be populated from ORG STRUCTURE DIMENSION instead of the STAGE LEGAL ENTITY HIERARCHY.

Figure 48: Consolidation without Multiple Organization Structure Hierarchy



A Solo Run does not require any type of consolidation of the elimination of accounts with other entities.

Additional Data Preparations to handle Consolidation

The entity FCT_REG_RUN_LEGAL_ENTITY_MAP is used once you select REPORTING ENTITY from AgileREPORTER. This table is populated as part of the US Treasury Run Execution.

Table 8: Reporting Entity in AgileREPORTER

RUN TYPE	FIC MIS DATE	REPORTING ENTITY	RUN EXECUTION
SOLO	20151231	LE1	12
SOLO	20151231	LE2	14
CONSOLIDATED	20151231	LE1	16
CONSOLIDATED	20151231	LE2	16
CONSOLIDATED	20151231	LE3	16

For the solo run, only one reporting entity is expected to be included whereas a consolidated run includes all entities involved in execution. This entity provides flexibility to select one REPORTING ENTITY in AgileREPORTER and select relevant data for the particular execution based on if it is consolidated or solo.

4.1.6.1 Relationship between Run and Stress

The REG REP application for example in **TIC BC** picks up reporting data based on the Reporting Run that populates the underlying Fact Table(s). Reporting Run is a flag, which must be marked as 'Y' in a DIM_RUN table so that, the OBIEE reporting layer selects a particular run execution.

In this application, a Run comprises:

Baseline Run: The Bank Holding Company (BHC) may have multiple runs. The run used for reporting is marked with a **Reporting Flag = Y**. This is the Baseline run for a given reporting date. It is referred to as a Baseline because the values that it represents are not stressed and the BHC may use these base values for stressing them according to various scenarios. A history of such runs accumulated over some time

provides historical runs. For more information on updating the reporting flag, refer to section Updating Reporting Flag.

> **NOTE** For retrieving multiple Runs in AgileREPORTER for the same date, you must refresh the Derived Entities for each Run separately by enabling and disabling the **Reporting Flag** in a sequence.

Stress Run: Stress runs hold data, which are stressed by a certain percentage/basis point over the Baseline figures. The BHC expects these figures to reflect the business/risk position under predetermined business scenarios/economic conditions.

Identification of Baseline and Stress run occurs from STRESS DIMENSION.

In this application, the required stress runs are tagged to a Baseline run. If the BHC performs several stress runs, the relevant runs which are intended for reporting are identified and tagged with a reporting Baseline run using the V_RUN_ID in the DIM_RUN.

DIM RUN stores n_run_skey / v_execution_id, which are execution specific for every run definition which is v_run_id. Therefore, the run definition can remain constant over some time and different executions provide different outputs due to underlying data changes.

DIM_STRESS conveys the stress definition. Additionally, it links the original run Definition (v_run_id) and Stressed run ID (v_stressed_run_id). You must refer to the DIM_RUN table to get the expected run execution of these runs definitions about a particular date / n_mis_date_skey.

The same fact table stores both the Baseline data and the Stressed data, uniquely identified through Scenario codes (and Run skeys).

Refer to the *Business Metadata.xls* present in the installer package for details on different Fact tables used for related reports.

4.1.7 Data Flow from Source Systems to Staging Area

The staging area is populated with data from various data sources, such as GL data, Account data, Customer data, Trading data, Currency data, and Master data. See the Data Integration Hub (DIH) User Guide in OHC Documentation Library for details. DIH enables to load of the data from the source systems to the OFSAA staging tables, through logical interfaces, known as Application Data Interfaces (ADI). DIH provides a set of User Interfaces (UI), which is used to define and maintain External Data Descriptor (EDD), Application Data Interfaces, and map the EDDs and ADIs through connectors.

4.1.8 Data Flow from Staging to Results Area

This section details the pass-through data, transformed data, and classification.

Topics:

- Pass-Through Data
- Derived or Transformed Data and Reclassifications
- Reclassified to Regulatory Classifications

4.1.8.1 Pass-Through Data

Pass through data refers to the static data that is pre-processed and flows to the results area directly. The Common Staging Area (CSA) model represents the data entry point into the FSDF. CSA provides a simplified, unified data sourcing area for inputs required by analytical applications and engines. It consists of over 400 tables and nearly 9000 columns organized into distinct subjects.

The staging area is a physical data model, which is deployed using the Analytical Application Infrastructure, which manages it. The design of the staging area data model is to allow efficient data loading for analytics. It thus has crucial differences from a general-purpose repository of operational or transactional data across a bank.

The staging area acts as the single source of data and contains unified data requirements for various banking areas such as Loans and Losses, Off-balance Sheet products, Securities, Derivatives, Capital Data, Management Ledger, and General Ledger. A common example of this category includes various monetary amounts, dates, and so on.

4.1.8.2 Derived or Transformed Data and Reclassifications

OFSDF Interface with Lombard Risk for OFS REG REP US Treasury requires specific hierarchies and data to be transformed and reclassified to regulator specific values.

Table 9: Data Transformation Example

Source Hierarchy			Target Hierarchy
ISSUER TYPE = US GOVT / TREASURY	INSTRUMENT RISK FACTOR = INTEREST RATE	INSTRUMENT DERIVATIVE TYPE = SPOT	DIM REG INSTR CLASSIFICATION = US GOVT SECURITIES
PROPERTY TYPE = 1-4Units	LTV Ratio < 2		DIM REG PRODUCT CLASSIFICATION

For example, data from banks has attributes such as issuer type and bank instrument type. However, these values are bank-specific and must be converted or reclassified to a regulatory specific set of values such as DIM REG INSTR CLASSIFICATION as mentioned above.

Reporting derived entities use these reclassified dimensions. Some of the reclassifications are performed in the respective application area.

For example, DIM BASEL PRODUCT TYPE. This reclassification is performed in Basel application processing and is available for reporting directly.

Other transformations include various bands such as delinquency band, loan purpose, and so on.

4.1.8.3 Reclassified to Regulatory Classifications

After transformation, the regulatory data is reclassified as follows.

Table 10: Data Reclassification Example 1

Source		Target
DIM PROPERTY TYPE	LTV Band Ratio	DIM REG PROD CLASSIFICAITON
1TO4UNITS	>2	1-4FAMCONLOAN

Table 11: Data Reclassification Example 2

FCT REG ACCOUNT SUMMARY			
Account Number	REG PROD Classification	Residual Maturity Band	Delinquency Band
1	1-4FAMCONLOAN	1	3

The sample reclassifications performed to transform the existing hierarchies to regulatory specific hierarchies are:

- Regulatory Product Classification
- Regulatory Instrument Classification
- Regulatory Deposit Classification
- Regulatory Treasury Foreign Official Indicator
- Regulatory Treasury Claim Liability Identifier
- Regulatory Treasury Claim Liability Type Classification
- Regulatory Organization Regional Group Classification
- Regulatory Treasury Country Classification

The additional transformations that are performed are:

- Remaining Time to Maturity Band
- Contractual Maturity Band

See Business Metadata for details of these reclassifications.

4.1.9 Data Flow from Staging to Processing Area

The staging area of the FSDF serves as a container for analytical processing from sourcing to consumption. Such processing is usually delivered in the form of discrete units called analytical applications, spanning different analytical use cases ranging from Finance to Risk to Compliance.

These applications include custom-built computational engines and numerical libraries and can execute processes on the data that range from simple aggregations to complex, multi-step stochastic processes such as Monte-Carlo simulation.

Hence, analytical applications place varying demands on the data infrastructure in terms of volumes and speed and hence place different demands on the data architecture. In practice, the normalized (3NF) design favored for enterprise data warehouses often fails to be efficient or performant when it comes to analytical processing across a wide range of use cases.

Therefore, the OFSDF recognizes the need for distinct application-specific working stores, separate from the staging and reporting area. For example, the OFSAA Asset and Liability Management (ALM) application have a distinct set of ALM-specific tables, as does the Market Risk solution.

> **NOTE** The structure of these processing area stores is decided by the actual analytical application and engine used. The OFSAA suite of applications is organized this way, with each application managing a specific set of tables or schemas within the processing area.

The processing area tables or schemas are not part of the OFSDF. This is because OFSDF is intended to be an open platform. Other analytical applications and engines can equally provision data out of OFSDF by mapping their input requirements appropriately to the OFSDF staging area model.

4.1.10 Data Flow from Processing to Results Area

This step is similar to Data Flow from Staging to Results Area. It involves either pass through data from processing to results or loading directly to results. This is mostly due to processing measures such as Fair Value, Risk-Weighted Assets, and so on.

4.1.11 Guidelines for Data Loading to Result Area Tables in Data Foundation for Regulatory Reporting Implementations

Regulatory reports make use of data available across several fact tables in the OFSAA data foundation model and these result tables are either loaded from the raw data sourced from source systems via out-of-the-box T2Ts or processed data output from various OFSAA applications.

For example, Fact LRM Account Summary (FCT_LRM_ACCOUNT_SUMMARY) which stores the liquidity risk-related attributes and metrics computed by OFSAA LRM application, Fact Loan Loss Forecasting and Provision Account Summary (FCT_LLFP_ACCOUNT_SUMMARY) which stores the attributes and measures computed by OFSAA LLFP application. However, there can be several implementations use cases in the regulatory reporting space where the customer cannot have licensed any of the OFSAA applications and hence must put additional custom effort to design an ETL process to load the required data elements into the respective fact tables referenced by the report. The following section highlights some of the guidelines that the customer can consider when designing a data flow for such a use case.

- Consistent Usage of Run Identifier

  Most of the fact tables used in regulatory reporting are run enabled and have a composite primary key inclusive of run identifier that enables the same snapshot of data to be loaded multiple times into the target fact table for any given execution date. All the out of the box processes that impact data used in regulatory reports are executed as part of an integrated run to ensure that run identifier is consistent across fact tables. Since the reporting is done on an integrated schema, the customs data flow design must keep this integrity intact. This essentially means that the custom ETL processes designed to load the data directly into the fact tables must be able to leverage the run identifier generated by the run engine during execution. Run Identifier information is available in the DIM_RUN table.

- Correct Dimensional Lookup Configuration

  Dimensional identifiers are typically part of referential integrity constraints with the fact table so the custom ETL processes must ensure that lookups retrieve a valid surrogate key for a given value of the business key. The intermediate staging structure must ensure all the business keys are persisted correctly and the lookup condition is designed on the correct dimension table.

For example, FCT_LRM_ACCOUNT_SUMMARY.n_asset_level_skey refers DIM_ASSET_LEVEL.n_asset_level_skey. The business key (v_asset_level_code) must be sourced and persisted to ensure correct values are populated in the target column, that is, FCT_LRM_ACCOUNT_SUMMARY.n_asset_level_skey.

- Data Loading Guidelines for handling Negative or Credit Balances
- To handle Negative Balances in Regulatory Reporting, there are two primary sources of the negative balances:

  a. Natural asset negative balances from the system of records

  b. Adjustment entries or Plug entries.

  The reporting requirement is to show the genuine asset negative balances as liabilities where adjustment entries should be aggregated to the same heading assets or liabilities as they are loaded. US Treasury uses the Treasury Claim Liability Identifier Dimension. Primarily following two General Claim Liability codes are used for this purpose.

  a. CLAIM

  b. LIABILITY

  Treasury Claim Liability Identifier is populated based on the claim liability identifier rule. Following conditions are considered for the treatment of negative balances based on product and instrument type:

  a. Loans and Cards

    i. Loans are reported under the Assets category in the Balance Sheet. There are cases when a customer makes an excess payment towards the loan account which makes the end of the period account balance becoming credit balance or negative balance.

    ii. When excess payment is made, then the account does not fall under the Asset category, but it becomes a liability for the financial institution and must be reported as non-interest-bearing demand deposits in respective line items.

    iii. To avoid reporting the excess payment as a Claim, you must assign a Claim Liability Identifier to a given account with V_TRS_CLAIM_LIAB_IDEN_CD= 'LIAB'.

    iv. When for any loan regulatory reclassification assigned with Claim Liability Identifier having V_TRS_CLAIM_LIAB_IDEN_CD= 'LIAB', it excludes the reporting for all claim line items and it is added to Liability in respective line items.

  b. Products

    i. All the products are identified as Claim or Liability based on the balance sheet category when the instrument code is null. If the balance sheet category is Asset, then the Claim Liability Identifier code is Claim, if the balance sheet category is Liability, then the Claim Liability Identifier code is Liability.

  c. Instruments

    i. If the instrument code is not null, then the buy-sell indicator is used to update the Claim Liability Identifier code. Any instrument with a buy flag is a Claim and a sell flag is a Liability.

ii. If the buy-sell indicator is buying and the fair value is less than **0**, then the Claim Liability Identifier code is Liability.

Currently, this feature is enabled for BC, BL-1, BL-2, BQ-1, BQ-2, and BQ-3 Reports only. Other reports to uptake this feature in subsequent releases.

From the OFSAA technical infrastructure standpoint, the mentioned options are available to the customer to design and implement the custom ETL process explained above. OFSAA strongly recommends the following options to maintain consistency in terms of data lineage in the Metadata browser as the configured metadata can be made available in the meta-model through MDB publish:

1. Data Integration Hub (DIH) Connectors
2. Data Mapping (T2T) option in Application Infrastructure
3. Data File Mapping (F2T) option in Application Infrastructure

Topics:

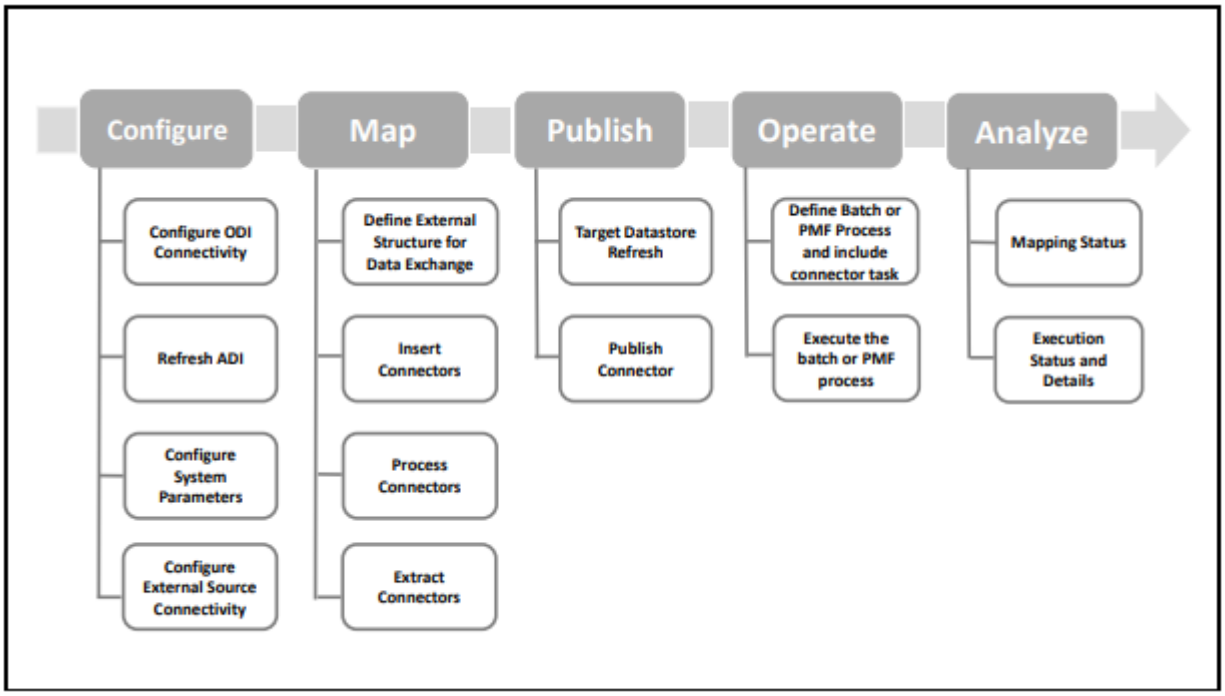
- DIH Connectors
- Data Mapping (T2T)
- Data File Mapping (Flat File to RDBMS Target - F2T)

4.1.11.1 DIH Connectors

If you have a licensed DIH to source the data from the external systems into OFSAA, a DIH connector is the recommended approach to load the data into results. The Source data could either reside in a relational structure or a file structure. The mappings maintained in DIH are logical and they abstract the physical references including the Dimensional lookups seamlessly without the need for any additional join or configuration.

See the Data Integration Hub (DIH) User Guide, for more information about loading the data into a result area table.

Figure 49: DIH Connectors



4.1.11.2 Data Mapping (T2T)

Data Mapping refers to the process of retrieving unstructured data from data sources for further data processing, storage, or migration. This feature is commonly known as the RDBMS source to RDBMS target (T2T) framework in the OFSAA world and can be leveraged when source data is available in the Oracle database. Dimensional lookups must be handled via the T2T's join condition and expressions. See the OFSAAI User Guide for more details on configuring a T2T.

4.1.11.3 Data File Mapping (Flat File to RDBMS Target - F2T)

If the source data is available in file structures, the OFSAA F2T component can be used to bring the data into the OFSAA ecosystem. As lookups cannot be configured in an F2T, this component must be used in conjunction with the T2T component, that is, data is first loaded from the file to an interim staging structure using the F2T component followed by data load to the target result area table using the T2T component. This is the least recommended approach as there is a need for interim table structure in the data model and involves multiple data hops that add to the overhead.

See the OFSAAI User Guide, for more details on configuring an F2T.

4.1.12 FSDF Entity Information

The FSDF entity information is given in the Dimension Tables and Data Elements documents available on the MOS page.

OFS Regulatory Reporting for US Treasury - Dimension Tables <release version>

OFS Regulatory Reporting for US Treasury - Data Elements <release version>

4.1.12.1 Dimension Tables or Entities

Table 12: Dimension Tables or Entities

Sl. No.	List of Dimension Tables	Table/Entity Logical Names	Table/Entity Descriptions
1	DIM_ACCOUNT	Account Dimension	This table stores the list of identifiers that uniquely identify every single financial arrangement between customer and reporting bank.
2	DIM_AGENCY_TYPE	Agency Type Dimension	This table stores details of Agency type which issues and guarantees loans like US Government Agency, US Government Sponsored Agency.
3	DIM_BANDS	Bands Dimension	This setup table contains the list of band dimensions. Information on the table name, columns containing the band codes, upper and lower bound values are stored in the setup table and a generic code is executed to populate the band codes in the respective fact tables.
4	DIM_COUNTRY	Country Dimension	This table stores the master list of countries.
5	DIM_CURRENCY	Currency Dimension	This table stores the currency information.
6	DIM_CUSTOMER	Customer Dimension	This entity stores the list of the organization's customers and counterparties and their attributes.
7	DIM_DATES	Date Dimension	This Data Transformation table stores the List of Dates generated between any two dates typically covering extraction dates and cash flow dates.
8	DIM_ENTITY_TYPE	Entity Type Dimension	This table stores list of all types of entities in the organization structure.
9	DIM_FED_AGENCY_CORP	Federal Government Agencies Dimension	This table stores the list of US Federal Government Agencies and Corporations as prescribed by US Treasury.
10	DIM_FED_SPONSORED_ENT	Federally Sponsored Enterprises Dimension	This table stores the list of Federally Sponsored Enterprises as prescribed by US Treasury.
11	DIM_FIDUCIARY_SERVICE_TYPE	Fiduciary Service Type Dimension	This entity stores the details of various types of fiduciary services.

12	DIM_FOREIGN_OFFICIAL_INST	Foreign Official Institutions Dimension	This table stores the list of foreign official institutions as prescribed by the US Treasury.
13	DIM_GL_ACCOUNT	General Ledger Account Dimension	This table stores the GL account details.
14	DIM_GEOGRAPHY	Geography Dimension	This table stores the distinct list of all geographical locations, where any of the transaction channels of the Bank are located.
15	DIM_INSTRUMENT_CONTRACT	Instruments Contracts Dimension	This entity stores the contracts and instruments in the Market and their details like Effective Date, Maturity Date, Face Value, Day Convention, Strike, and so on.
16	DIM_INSTRUMENT_TYPE	Instrument Type Dimension	This entity stores the details of all the Instrument Types which Reveleus Market Risk solution supports.
17	DIM_INTEREST_TYPE	Interest Type Dimension	This table stores the Interest Type.
18	DIM_ISSUER	Issuer Dimension	This entity is used as an issuer of marketable collaterals.
19	DIM_ISSUER_TYPE	Issuer Type Dimension	This entity stores the issuer types.
20	DIM_MARKET_CENTRE	Market Centre Information Dimension	This table stores the list of market centers, financial institutions where customers can trade on various instruments like equities, bonds, options, and so on. For example the New York stock exchange, Montreal Exchange, London Metal Exchange (LME), and so on.
21	DIM_OPTION_TYPE	Option Type Dimension	This table stores the different embedded option types. This table contains pre-seeded values.
22	DIM_ORG_STRUCTURE	Organization Structure Dimension	This entity stores the Organization Structure of the Financial Institution.
23	DIM_PARTY	Party Dimension	This table stores the history of a party. The party here can be the customer, issuer and guarantor, and so on.
24	DIM_PARTY_TYPE	Party Type Dimension	This table stores the history of a party for party type. The party here could be the customer, issuer and guarantor, and so on.
25	DIM_PRODUCT	Product Dimension	This entity stores the details of all the products (existing/stopped) offered by the Financial Institution.

26	DIM_PRODUCT_TYPE	Product Type Dimension	This table stores the loan product type information.
27	DIM_REG_DEPOSIT_TYPE	Regulatory Deposit Type Dimension	This table stores the details of various deposit types like Demand deposits and Negotiable Order of Withdrawal (NOW) accounts.
28	DIM_REG_INSTR_CLASSIFICATION	Regulatory Instrument Classification Dimension	This table stores data for different Instrument Classifications defined by the Regulators.
29	DIM_REG_INTEREST_TYPE	Regulatory Interest Type Dimension	This table stores the list of indices that are designed to store the regulatory-based interest type code as designated by the regulator for an account at the account level or group of accounts at a credit line level. For example FIXED, FLOATING, MIXED, and so on.
30	DIM_REG_INTL_ORG	Regulatory International Organization Dimension	The table is seeded with Reg International Organizations-related information.
31	DIM_REG_ISSUER_TYPE	Regulatory Issuer Type Dimension	This table stores Issuer type codes as prescribed in US Treasury forms. This table will have indicative values as U.S. TREASURY, FEDERAL FINANCING BANK, U.S. GOVERNMENT CORPORATIONS, FEDERALLY SPONSORED AGENCIES, U.S. CORPORATE, and so on.
32	DIM_REG_ORGN_REGION_GROUP	Regulatory Organization Region Group Dimension	This table stores the information about various regulator prescribed organizations according to their region. The list of values includes International Organization, European Organization, African Organization, and so on.
33	DIM_REG_PRODUCT_TYPE	Regulatory Product Type Dimension	This table stores the regulatory product types. This is used for regulatory reporting purposes and contains values like Auto Loans, Credit Cards, other consumer loans, and so on.
34	DIM_RUN	Run Dimension Dimension	The Run Master Dimension entity stores all the baseline and simulation runs.
35	DIM_SERVICED_LOAN_ACCOUNT	Serviced Loan Account Dimension	This table stores the account summary. However, only for those accounts which the bank holds for servicing purposes only. This account may or may not be originated by a bank.

36	DIM_SHAREHOLDER	Shareholder Dimension	This dimension stores list of all investor who is shareholders of the entity. A shareholder is an individual or entity that owns the shares of a corporation. Share ownership entitles a shareholder to certain rights. There may be only a small number of shareholders.
37	DIM_STANDARD_PARTY_TYPE	Standard Party Type Dimension	This table stores the standard party type. The party here can be the customer, issuer and guarantor, and so on.
38	DIM_STANDARD_PRODUCT_TYPE	Standard Product Type Dimension	This table stores the list of all product types specified by regulators for risk computations.
39	DIM_TRADING_ACCT_BOOK_TYPE	Trading Account Book Type Dimension	This table helps to identify trading assets and liabilities. Along with Holding type as held for trading at times regulator has additional criteria like positive fair value for identification of trading assets and negative fair value for trading liabilities.
40	DIM_TRS_CLAIM_LIABILITY_TYPE	Treasury Claim Liability Type Dimension	This table stores the list of products reported as claims and liabilities in the US Treasury Reports.
41	DIM_TRS_CLAIM_LIABILITY_IDEN	Treasury Claim Liability Identifier Dimension	This table stores the claims and liabilities as dimensional values to be used for classifying every account as a claim or liability.
42	FSI_CUSTODIAN_CODES	Custodian Codes Dimension	This table stores the list of custodian codes by various jurisdictions.
43	FSI_COUNTRY_REG_ID_MAP	Country Regulatory Identifier Map Dimension	This table stores the mapping to a given country to various regulatory identifier codes across regulatory reporting.

4.1.12.3 Fact Tables or Entities

For all tables with data flow type tagged as a Processing, it is recommended that you map data directly to the result area if the processing application is not part of the OFSAA product suite. For example, Basel computations, RWA Numbers, and Capital Ratio are taken from the processing area which is populated by OFSAA or other Basel applications.

For processed tables, you can look for the following options:

- OFSAA Data Integration Hub (DIH) product
- Flat File
- Table-to-Table Transformation with the source being processing application

The list of processing output tables is available in the OFS Regulatory Reporting for US Treasury - Data Elements <release version> document on the MOS page.

Table 13: Fact Tables/Entities

Sl. No.	List of Fact Tables	Table/Entity Logical Names	Table/Entity Descriptions	Source Table
1	FCT_COMMON_ACCOUNT_ SUMMARY	Fact Common Account Summary	This table stores common account-level information that usually comes as input through staging.	STG_MM_CONTRACTS STG_OD_ACCOUNTS STG_REPO_CONTRACTS STG_TRADING_ACCOUNT STG_INVESTMENTS STG_LOAN_CONTRACTS STG_CASA STG_BORROWINGS STG_TD_CONTRACTS STG_CUSTODIAL_ACCOUNTS STG_SWAPS_CONTRACTS STG_FUTURES STG_FORWARDS STG_FX_CONTRACTS STG_OPTION_CONTRACTS

				STG_CORRESPONDENT_ACCOUNT STG_MUTUAL_FUNDS STG_CREDIT_DERIVATIVES STG_GL_MASTER STG_INSTRUMENT_CONTRACT_MASTER
2	FCT_DEPOSITS_BORROWINGS	Deposits and Borrowings	This table stores all the deposit and other borrowings account of the bank.	STG_BORROWINGS STG_CASA STG_TD_CONTRACTS
3	FCT_FIDUCIARY_SERV_INVST_SUMM	Fact Fiduciary Services Investment Summary	This entity stores the details of investments done through a fiduciary account.	STG_CASA STG_CUSTODIAL_ACCOUNTS STG_INVESTMENTS STG_MUTUAL_FUNDS STG_TD_CONTRACTS
4	FCT_LOAN_ACCOUNT_SUMMARY	Fact Loan Summary	This table stores the details of loans. This table includes mortgage and vehicle loans.	STG_LEASES_CONTRACTS STG_LOAN_CONTRACTS STG_OD_ACCOUNTS
5	FCT_LOANS_SERVICED	Fact Loans Serviced	This table stores the details of loans serviced by the bank. They may or may not be originated from the bank.	STG_LOANS_SERVICED
6	FCT_PARTY_DETAILS	Fact Party Details	This table stores the details about a Party.	STG_PARTY_DETAILS
7	FCT_REG_ACCOUNT_SUMMARY	Fact Regulatory Account Summary	This table stores the regulatory reclassifications and other information as required for regulatory reporting.	FCT_COMMON_ACCOUNT_SUMMARY
8	FCT_REG_CUSTOMER_SUMMARY	Fact Regulatory Customer Summary	This table stores the details at a customer level.	FCT_COMMON_CUSTOMER_SUMMARY

9	FCT_REG_PARTY_DETAILS	Fact Regulatory Party Details	This table stores the regulatory information of the Party.	FCT_PARTY_DETAILS
10	FCT_REG_TRANSACTION_SUMMARY	Fact Regulatory Transaction Summary	This table stores the summary of regulatory transactions. For example amount of securities sold or transferred from HTM to AFS.	FCT_TRANSACTION_SUMMARY
11	FCT_SHARE_HOLDING_DETAILS	Fact Share Holding Details	This table lists the shareholders who are holding shares of the reporting legal entity.	STG_SHARE_HOLDING_DETAILS
12	FCT_CAP_INSTR_POSITIONS	Fact Capital Instrument Positions	This entity stores the regulatory position of capital instruments and details of treatment to capital instruments under Basel I and III regulations.	STG_CAP_INSTR_POSITIONS
13	FCT_REG_CAP_INSTR_POSTN	Fact Regulatory Capital Instrument Positions	This entity stores the regulatory position of capital instruments and details of treatment to capital instruments under Basel I and III regulations used for regulatory capital purposes.	FCT_CAP_INSTR_POSTN
14	FCT_TRANSACTION_SUMMARY	Fact Transaction Summary	This table stores the transaction summary.	STG_ANNUITY_TXNS STG_BORROWINGS_TXNS STG_CASA_TXNS STG_COMMODITIES_TXNS STG_CORRESPONDENT_ACCT_TXNS STG_CREDIT_DERIVATIVES_TXNS STG_CUSTODIAN_ACCOUNT_TXNS STG_FOREX_TXNS

				STG_INVESTMENT_TXNS STG_LOAN_CONTRACT_TXNS STG_MM_TXNS STG_MUTUAL_FUNDS_TXNS STG_OD_ACCOUNTS_TXNS STG_REPO_TRANSACTIONS STG_FUTURES_TXNS STG_SWAP_ACCOUNT_TXNS STG_FORWARDS_TXNS STG_OPTION_CONTRACTS_TXNS

4.2 Overview of OFS REG REP User Interface

This section provides details to log in to the OFSAA application, view report summary, view schedule summary, view cells, and map data schedules. It includes:

- Logging in to OFS REG REP UI
- Viewing Report Summary
- Viewing Schedule Summary
- Viewing Data Elements
- Viewing Cell Summary

4.2.1 Logging in to OFS REG REP UI

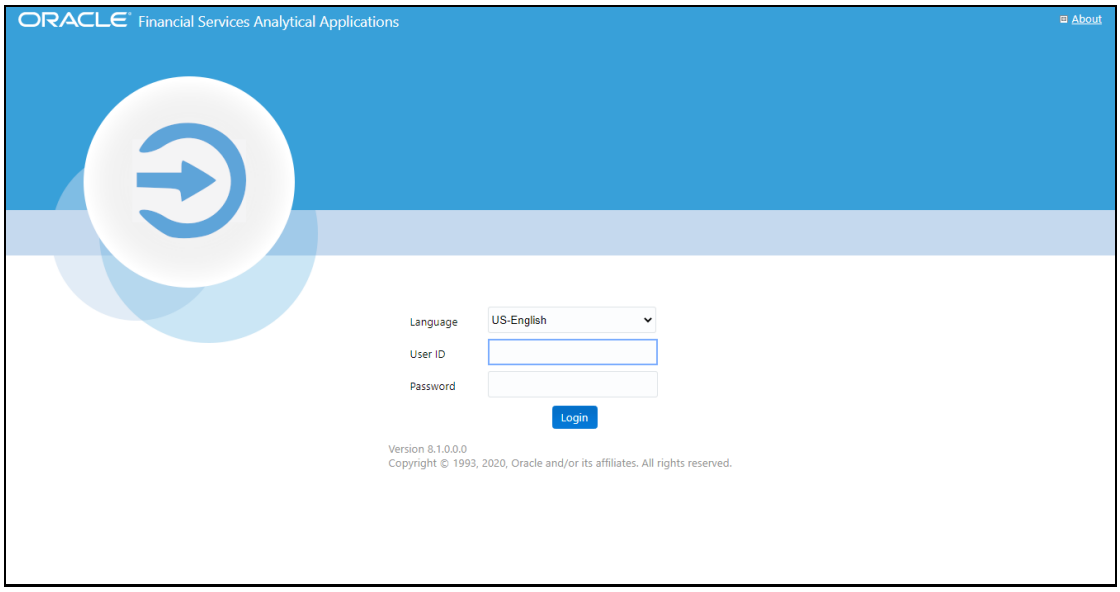
After the applications are installed and configured, to access the OFS REG REP UI you must log in to the OFSAAI environment using the OFSAAI login page.

> **NOTE** The built-in security system ensures that you are permitted to access the window and actions based on the authorization only.

To access the OFS REG REP UI, follow these steps:

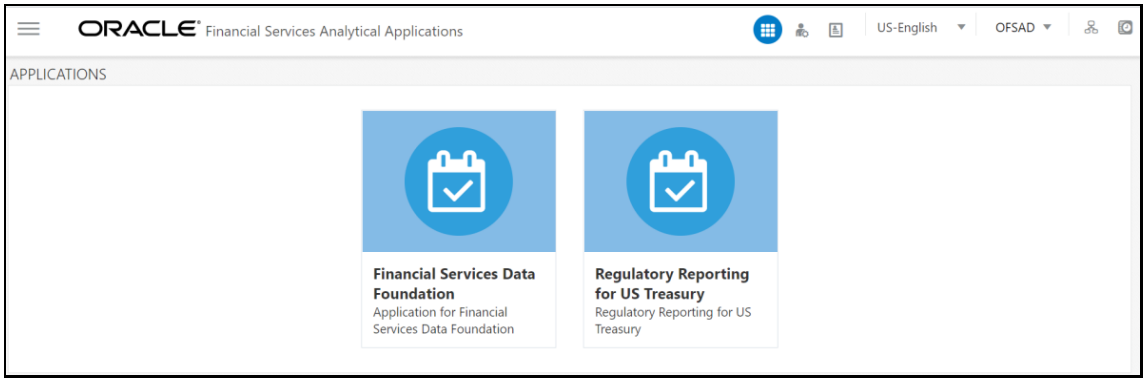
1. Enter the OFSAAI URL in your browser. The OFSAAI login page is displayed.

Figure 50: OFSAAI Log In



2. Select the desired language from the **Language** drop-down list.
3. Enter your **User ID** and **Password**. When you log into OFSAAI, the **OFSAA Applications** page is displayed.

Figure 51: OFSAA Applications Screen



4. Select the **Financial Services Data Foundation.** The FSDF landing page is displayed.

Figure 52: Financial Services Data Foundation Landing Page

Or select the **Regulatory Reporting for US Treasury**. The Regulatory Reporting for Reporting for US Treasury landing page is displayed.

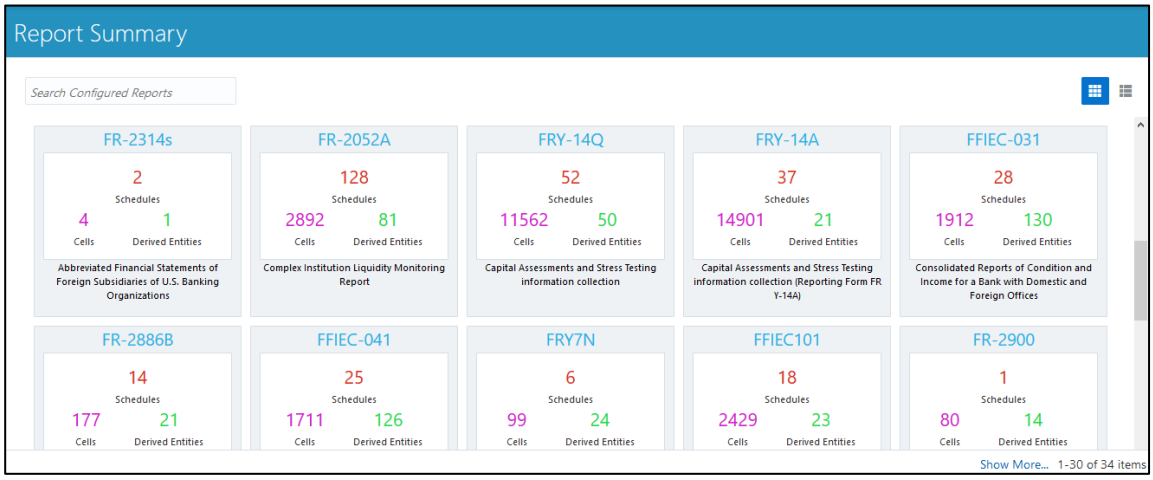
Figure 53: Regulatory Reporting for US Treasury Page

4.2.2 Viewing Report Summary

The Report Summary data comes pre-seeded based on the applications that are installed. The Report Summary enables you to view all the configured reports for the jurisdiction.

After logging into the OFS REG REP UI, navigate to **Regulatory Reporting Metadata** and select **Reports** to view **the Reports Summary** window.

Figure 54: Report Summary Screen



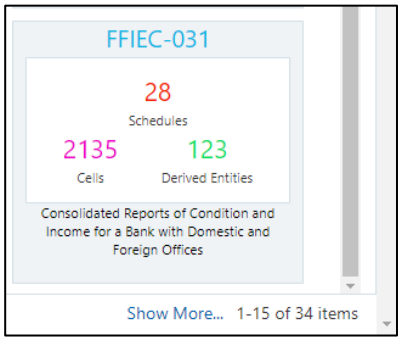
NOTE You can view the summary of all the configured reports in the Tile view or List view .

The Search Bar helps you to find the required information from the database. You can enter the nearest matching keywords to search and filter the results by entering information in the search box. You can search for a Report using either the name or description.

Figure 55: Report Summary Search Bar

The Paging option at the bottom right corner allows you to see more reports than the ones currently displayed on the window.

Figure 56: Report Summary Paging Option



4.2.2.1 Report Information

Each tile or list on the Report Summary window corresponds to one report. For each report, you can view the report code, report description, number of schedules within the report, the number of configured non-derived cells, and count of utilized derived entities.

For example, the CRSA report in the tile or list view is displayed as follows:

Figure 57: Report in Tile View

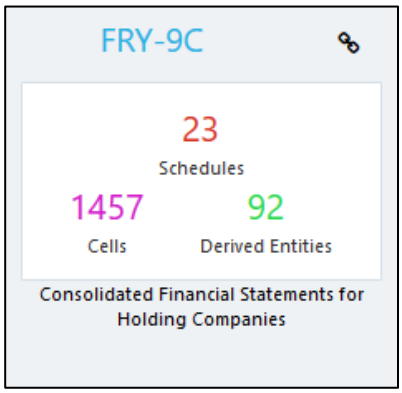
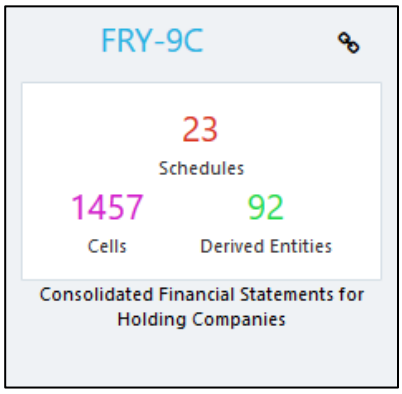


Figure 58: Report in List View

Select the **Report Code** to navigate to the **Schedule Summary** window.

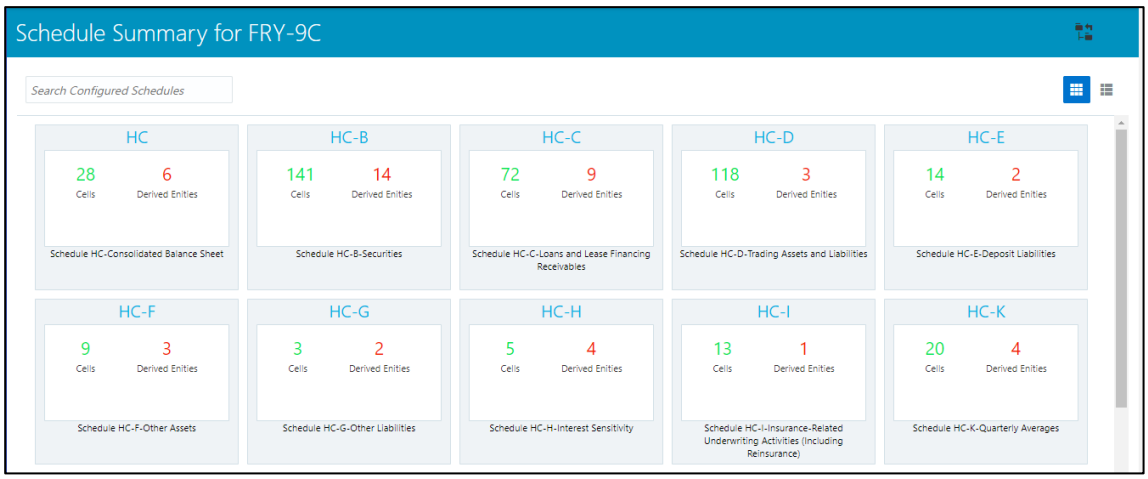
Figure 59: Report Information



4.2.3 Viewing Schedule Summary

The Schedule Summary window provides the component schedules for the corresponding report. Select the Report Code in the Report Summary window to navigate to the Schedule Summary window (as shown in Figure 66).

Figure 60: Schedule Summary Screen



NOTE You can view the summary of all the configured reports in the Tile view or List view .

The Search Bar helps you to find the required information from the database. You can enter the nearest matching keywords to search and filter the results by entering information in the search box. You can search for a Schedule using either the name or description.

The Paging option (Figure 61) at the bottom right corner allows you to see more reports than the ones currently displayed on the window.

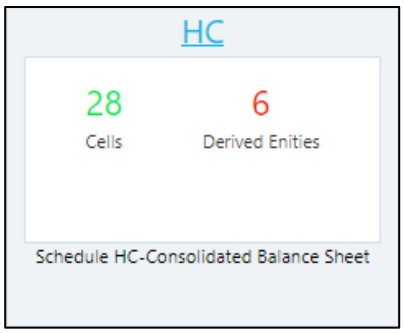
NOTE Select the icon on the top right corner to return to the Report Summary window.

4.2.3.1 Schedule Information

Each tile or list on the Schedule Summary window corresponds to one schedule under the report. For each schedule, you can view the schedule code and the description, the number of configured non-derived cells for the schedule, and the count of utilized derived entities.

For example, the Schedule Page3 tile is displayed as follows. Select the Schedule Code to navigate to the Cell Information window.

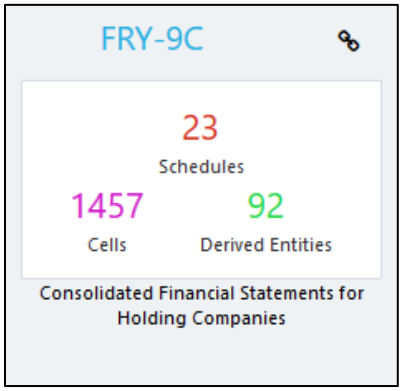
Figure 61: Schedule Information



4.2.4 Viewing Data Elements

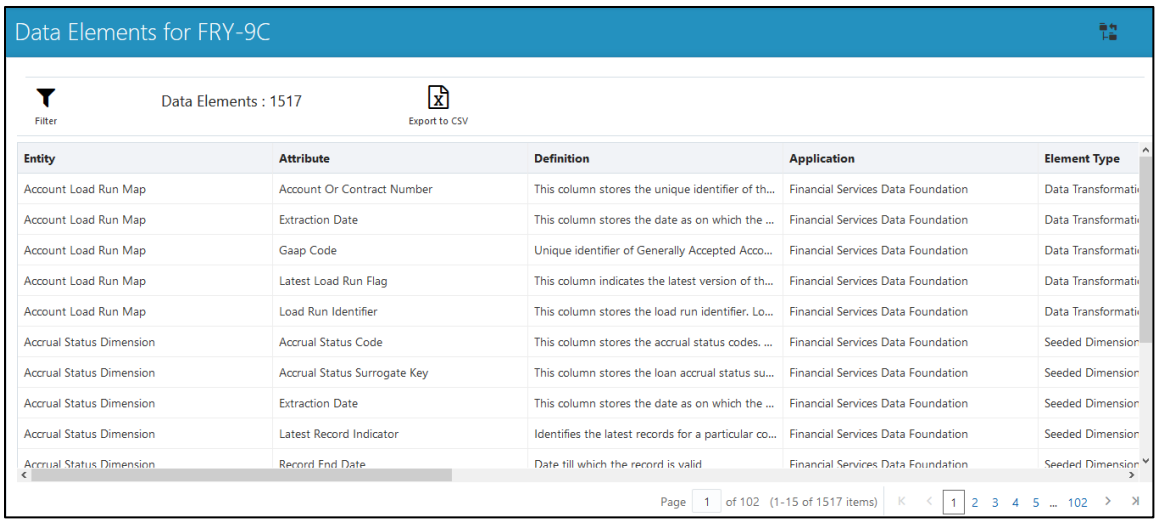
Each tile or list on the Report Summary window corresponds to one report. For each report, you can view the report code, report description, number of schedules within the report, the number of configured non-derived cells, and count of utilized derived entities.

Figure 62: Report Information



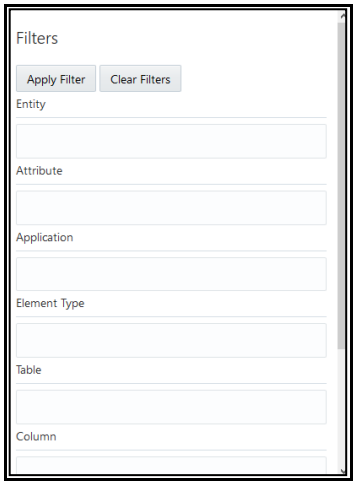
1. Click the chain icon on the right top corner to display the data elements for the respective item. The data elements view option is available at the report schedule and cell level.

Figure 63: Data Elements Screen



2. Select **Filter** to apply filters on the selected date. The filter pane allows filtering data on specific columns.

Figure 64: Filters



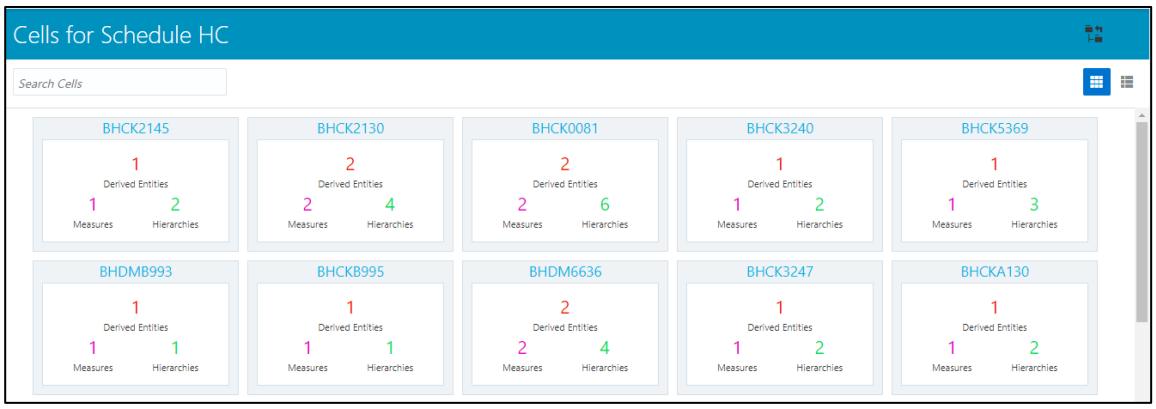
3. Select **Apply Filter** to apply the required filters on the selected date.
4. Select **Clear Filter** to clear the applied filters and display all records for the component.
5. Select **Export to CSV** to export the data displayed in the window.

4.2.5 Viewing Cell Summary

The Cell Summary window provides the non-derived cells or MDRMs configured as a part of the solution for the corresponding schedule under a report. Select the Schedule Code in the Schedule Summary window to navigate to the Cell Summary window (as shown in Figure 65).

For example, the **Cells for Schedule Page3** summary window under the CRSA report is displayed as follows.

Figure 65: Cell Summary Window



NOTE You can view the summary of all the configured reports in the Tile view or List view .

The Search Bar helps you to find the required information from the database. You can enter the nearest matching keywords to search and filter the results by entering information in the search box. You can search for a Cell using either the name or description.

The Paging option (Figure 65) at the bottom right corner allows you to see more reports than the ones currently displayed on the window.

NOTE Select the icon on the top right corner to return to the Report Summary window.

Topics:

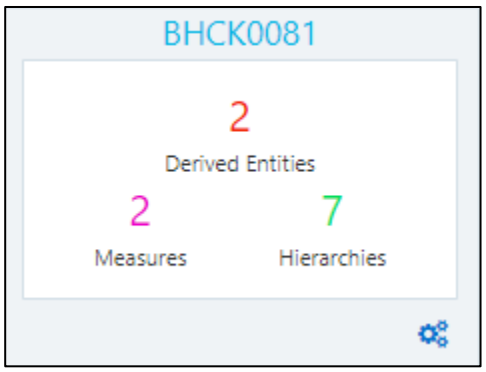
- Cell Information
- Derived Entity
- Measure
- Filters

4.2.5.1 Cell Information

Each tile or list on the Cell Summary window corresponds to one cell or MDRM under the schedule. For each cell, you can view the MDRM name, count of utilized derived entities, count of utilized OFSAA hierarchies, and measures for that cell.

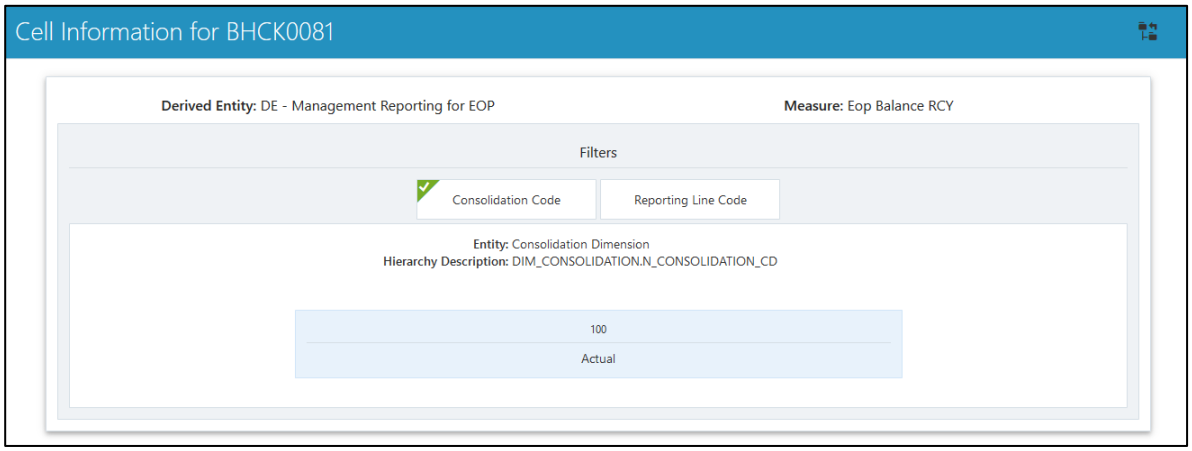
For example, the cell CRSAR040C180 tile is displayed as follows. Select the cell or MDRM Code to navigate to the Cell Information window.

Figure 66: Cell Information



The Cell Information window is displayed as follows.

Figure 67: Cell Information Window



Each section in the Cell Information window displays the relevant OFSAA Metadata and filters used for the cell.

4.2.5.2 Derived Entity

This displays the name of the OFSAA Materialized View or View that contributes to the Cell.

4.2.5.3 Measure

This displays the name of the OFSAA Measure that is reported for the particular Cell.

4.2.5.4 Filters

The Filter conditions are as follows:

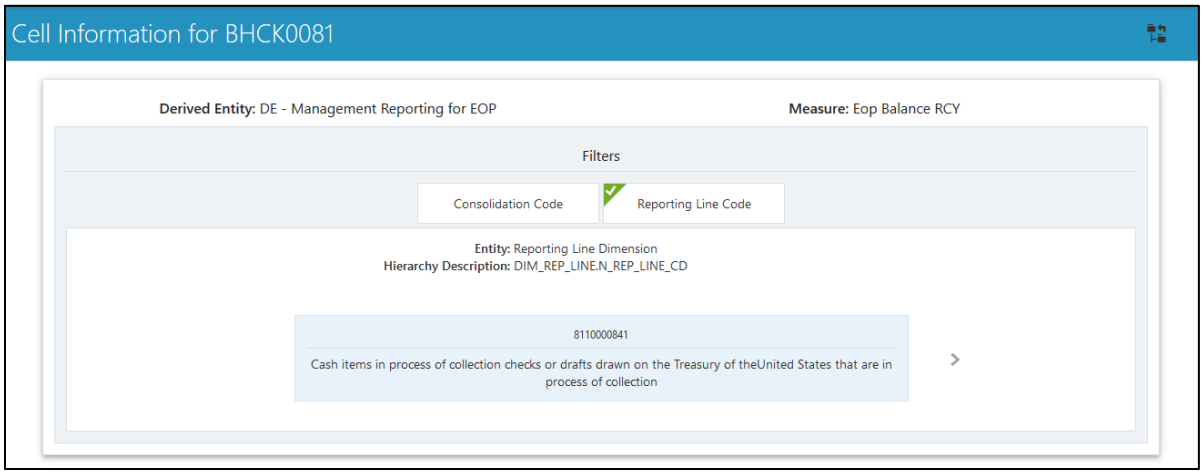
1. All filters that are applied to the cell are displayed under the filter section. It displays all the applied filters as their OFSAA description.
2. On selection, the filter is marked by a sign on the top left corner of the selected filter.
3. The section that follows displays the entity or table on top of which the filter is based and the OFSAA Level Description for the selected filter.

4. All filter values that apply to the particular MDRM are available as a ribbon. Each filter value is in a separate box.

   For example, in the previous case for MDRM CRSAR040C180, the applied filters are Consolidation Code and Reporting Line Code. Currently, the Consolidation Code filter is selected and the required filter values for the same are *100*.

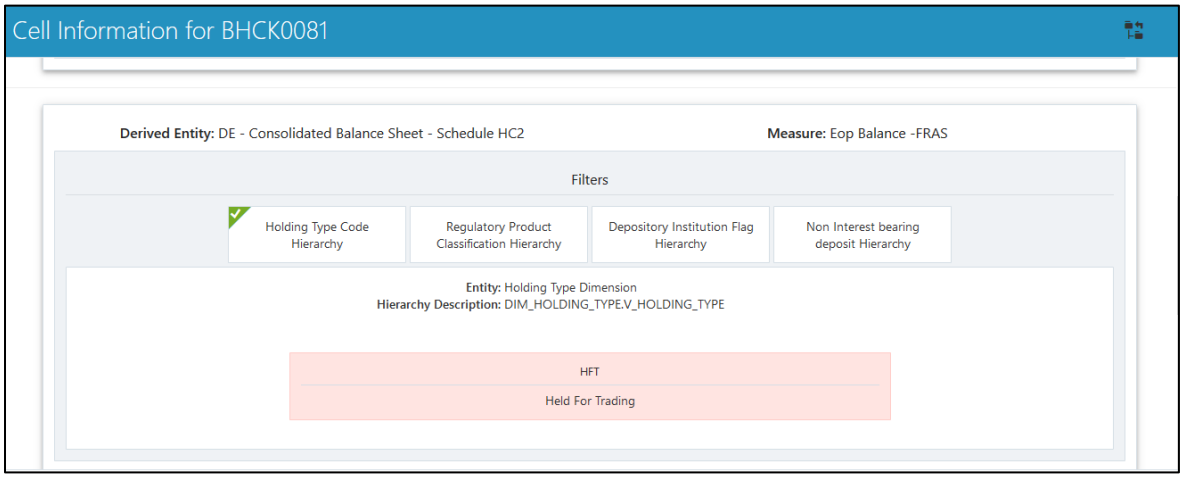
   In the case of multiple values, the filters are displayed as follows with an arrow mark.

Figure 68: Multiple Filter Values



The filters in case of not in condition are highlighted in red are displayed as follows.

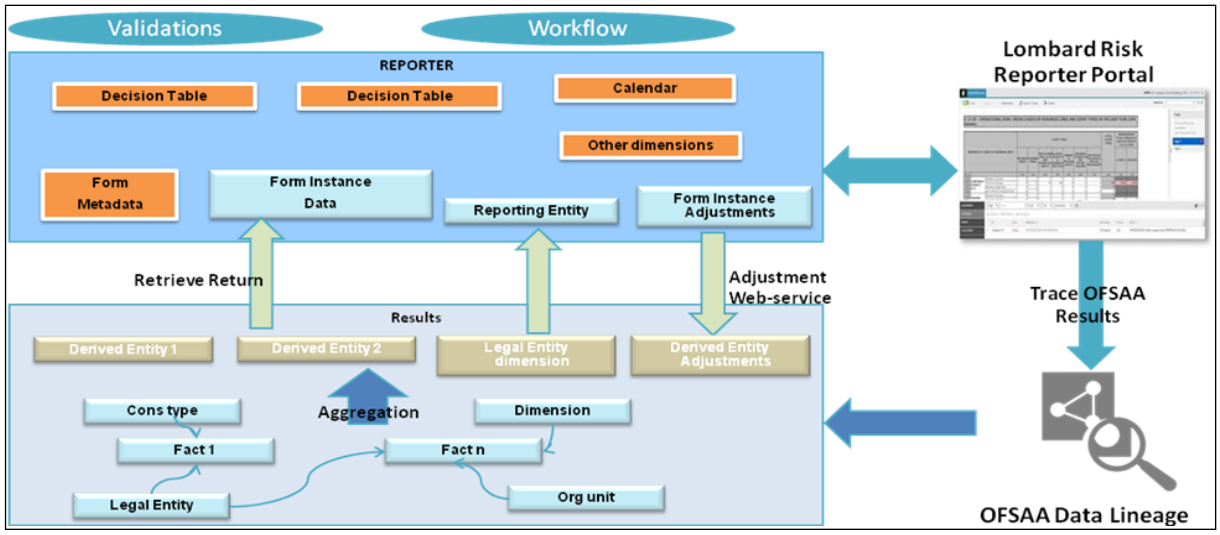
Figure 69: Not in Condition Filters



4.3 Mapping of Results to Reporting Requirements of Lombard Risk

Figure 70 explains the flow of data between OFSAA and AgileREPORTER.

Figure 70: Data Flow between OFSAA and AgileREPORTER

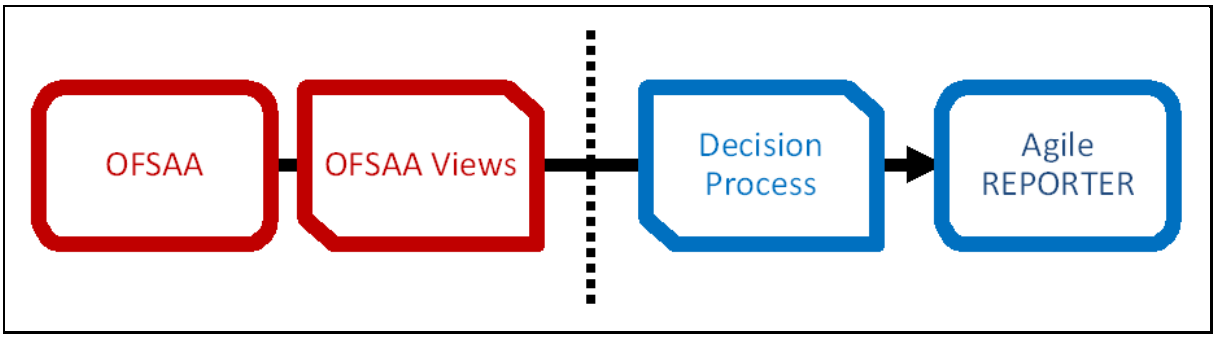


OFSAA provides the data to AgileREPORTER in the form of derived entities. The derived entity is an existing OFSAA higher-order metadata object and can be physicalized as a materialized view in the database. Derived entities store aggregated data from base fact entities specified in the dataset and have the necessary dimensions and measures.

Dimensional and measure combination stored within the derived entity is mapped to cells within the report. This mapping is maintained within the *Dimensional Mapping* template.

Decision Process within AgileREPORTER reads the derived entities and dimension mapping information to derive the data for reporting. Derived entities are created based on measures, hierarchies, and datasets.

Figure 71: Decision Process in AgileREPORTER



Some cells in the schedule can be derived as per the logic provided by the regulator. Derivation can be an expression built using values from other cells. Examples of derivation are ratio, node-level rollup, a direct reference to cells in other schedules within the report. These derivations are performed within the AgileREPORTER. OFSAA provides data only for the cells that are not derived.

NOTE Metadata for data transformation is available as part of the data warehouse configuration pack provided ready-to-use or preconfigured from OFSAA. You need not perform any mapping for the reports. However, this information can be useful for maintenance or extensions when a ready-to-use pack is not available.

4.4 AgileREPORTER: Submission

The AgileREPORTER is a web-based regulatory reporting tool provided by Lombard Risk. It provides necessary features to address e-filing workflow, validation, and submission process and supports reports (called forms or returns) for various jurisdictions. AgileREPORTER provides a reliable and efficient infrastructure to compile, generate, and submit regulatory reports.

5 OFSAA Features

This chapter provides an understanding of the AAI components used in the solution and dimensional mapping.

Topics:

- OFSAA Infrastructure
- Business Metadata
- Derived Entity
- Rules Framework Features
- Dimension Mapping

Regulatory Reporting Solution (RRS) configures the data hand-off structure to Lombard using metadata. The following sections provide details on datasets, measures, hierarchies, and Derived Entities. Multiple derived entities are linked to a specific regulatory schedule. You can modify the configuration using the OFSAA infrastructure. Additionally, the metadata route provides traceability from reporting elements to the data elements used.

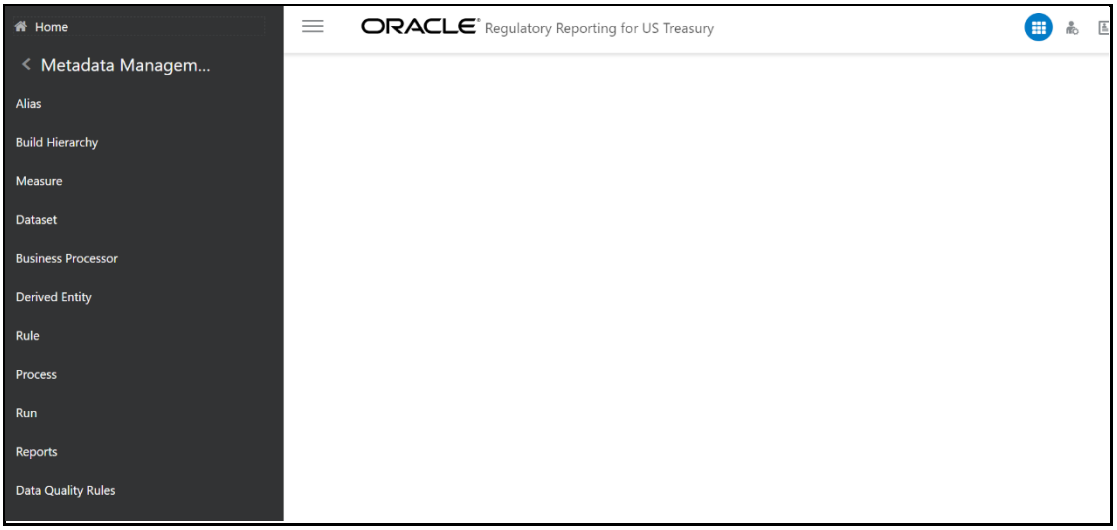
5.1 OFSAA Infrastructure

OFSAA Infrastructure includes the facilities for creating and maintaining dimensional reference data, interest rate, and currency exchange rate data, and process tuning data. Additionally, OFSAA Infrastructure includes functionality for building and maintaining rules that can be used by any Oracle Financial Services Analytical Application. These common rule objects include:

- Expressions
- Hierarchies
- Filters

The analytical applications that you see on the Left-Hand Side (LHS) of the Financial Services Applications home page depending on your logon privileges and on the OFSAA modules that are installed for your environment.

Figure 72: Metadata Management Landing Page



5.2 Business Metadata

In addition to Derived Entity, REG REP uses the following OFSAA features to create the business metadata. For details on the features, see the OFS Analytical Applications Infrastructure User Guide.

- **Hierarchies**: Some OFSAA dimensions support hierarchies. Hierarchies can be used to provide sophisticated stratification for either processing or reporting purposes. For example, an organizational hierarchy can start with a Division level containing Western Region, Eastern Region, and Southern Region; the next level down within the hierarchy can be state or county. A product hierarchy can begin with branches for Asset versus Liability versus Service products; under the Asset branch, you can define additional branches for Mortgage Lending, Commercial Lending, Consumer Lending, and so on.
- **Measures**: Business Measure refers to a uniquely named data element of relevance that can be used to define views within the data warehouse. It typically implies aggregated information as opposed to information at a detailed granular level that is available before adequate transformations.
- **Business Processor**: It refers to a uniquely named data element of relevance that can be used to define views within the data warehouse. It typically implies aggregated information as opposed to information at a detailed granular level that is available before adequate transformations.
- **Datasets**: It refers to a group of tables whose inter-relationship is defined by specifying a join condition between the various tables. It is a basic building block to create a query and execute a data warehouse for a large number of functions and to generate reports.

5.3 Derived Entity

It is the primary component of OFSAA used for the US Treasury. Regulatory Reporting Solution uses Derived Entity to create a physical materialized view which is then queried by Lombard using preset data handoff templates. An Entity refers to a table in which data is stored. Derived Entity within the infrastructure system facilitates you to define entities that are populated through a series of data

transformation processes resulting from an existing Dataset or a Source Application. An Entity can be used to define other Business Metadata such as measures, hierarchies, dimensions, Datasets, and cubes.

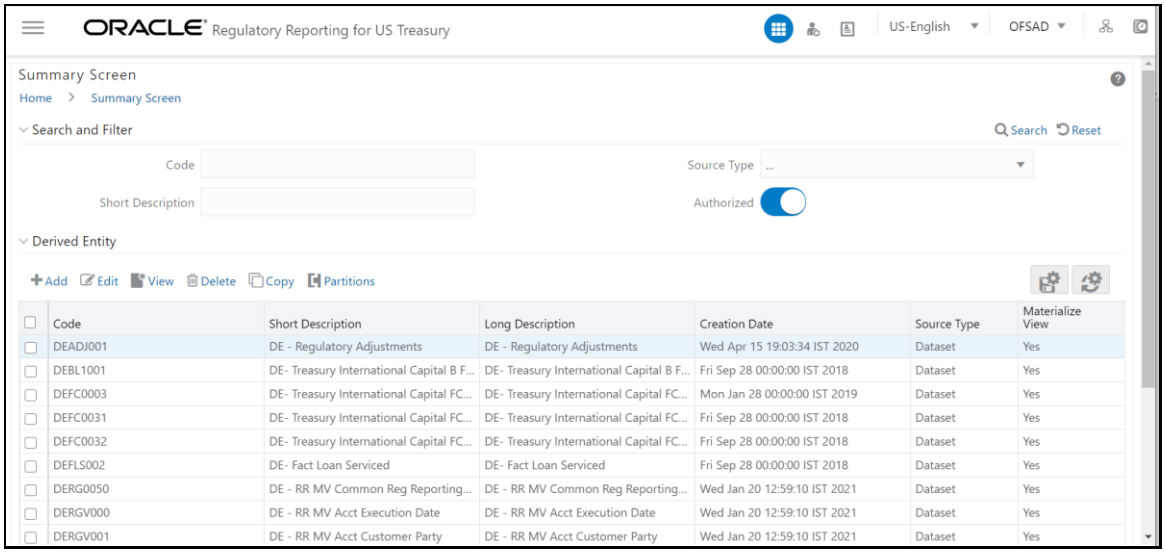
Derived Entities comprise the following:

- Measures
- Hierarchies
- Datasets

Ensure to define the above components within OFSAA before configuring the derived entity and select **Materialized View** property in Derived Entity. This property creates the derived entity as materialized views.

1. Navigate to **Regulatory reporting for US Treasury**, select **Metadata Management,** and then select **Derived Entity**. The existing derived entities summary screen is displayed. You can add a new derived entity and Edit, View, Delete, Copy or Partition an existing derived entity.

Figure 73: Derived Entity Summary Page



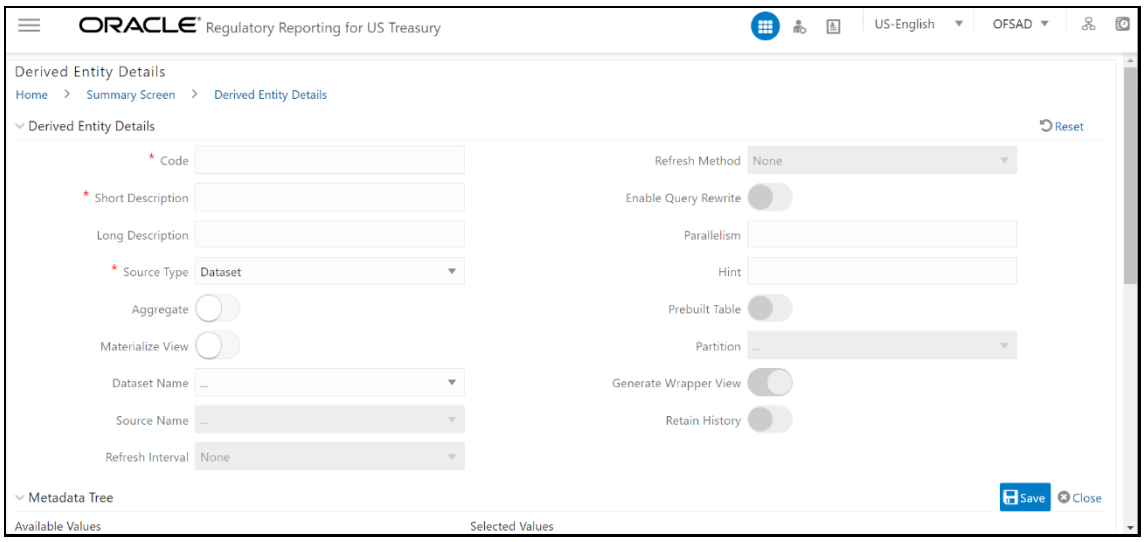
Derived Entities must have AS_OF_DATE and LEGAL_ENTITY as the mandatory dimensions. The rest of the structure of the derived entity can vary depending on the dimensions present. A metadata configuration table is present in AgileREPORTER to link the name of the column in the derived entity and dimension that is referred to in the dimension mapping process.

Derived entities have data for the 'Final Reporting Run' only, which is reported to the Regulatory, and are refreshed for the latest hand-off date.

A metadata configuration table is maintained within AgileREPORTER to capture the derived entities that supply data for each schedule.

2. Click **Add** to create a new Derived Entity.

Figure 74: Derived Entity User Interface



5.3.1 Creation of Derived Entity

Derived Entities must have **Code, Short Description,** and **Source Type** mandatory dimensions. The rest of the structure of the derived entity can vary depending on the dimensions present. A metadata configuration table is present in AgileREPORTER to link the name of the column in the derived entity and dimension that is referred to in the dimension mapping process.

Derived entities have data for the *Final Reporting Run* only, which is reported to the Regulatory, and are refreshed for the latest hand-off date.

A metadata configuration table is maintained within AgileREPORTER to capture the derived entities that supply data for each schedule.

See the OFS Analytical Applications Infrastructure User Guide for more information on creating a derived entity.

5.3.2 Refreshing Derived Entities

The complete Derived Entities can be refreshed as a whole or incrementally for selected periods. Refer to *OFS_DE_INCREMENTAL_MV_REFRESH* in (OHC) documentation library for detailed steps to incrementally refresh derived entities.

5.4 Rules Framework Features

OFSDF Interface with Lombard Risk for US Treasury uses the following Rules Framework of OFSAA. For more information about the features, see the OFS Analytical Applications Infrastructure User Guide.

- **Rules**: Financial institutions require constant monitoring and measurement of risk to conform to prevalent regulatory and supervisory standards. Such measurement often entails significant computations and validations with an organization's data. Data must be transformed to support such measurements and calculations. The data transformation is achieved through a set of defined rules.

REG REP uses Rules for the reclassification of dimensions.

- **Process**: A set of Rules collectively form a Process. A Process definition is represented as a Process Tree. The Process option in the Rules Run Framework provides a framework that facilitates the definition and maintenance of a Process. By defining a Process, you can logically group a collection of Rules that pertain to a functional process.

5.5 Dimension Mapping

Each cell reference is mapped to a set of dimensions and measures. This mapping is documented in excel and then converted to a Decision table through an offline utility provided by AgileREPORTER. A decision table is a metadata object within AgileREPORTER that stores the criteria for deriving value for each cell reference. The metadata is packaged for a regulatory report as part of the OFS Risk Regulatory Solution. The decision table process within AgileREPORTER reads the metadata and derived entity published by OFSAA to populate data required for returns for the specified date and legal entity.

The following table is an example of dimension mapping. Each cell reference is mapped to a set of dimension members and measures. If a dimension is left empty for a cell reference, it indicates that it is not participating in the mapping process. If there are multiple mappings for a cell reference, then the value of this cell can come from any of these criteria.

The decision mapping table is processed against the contents of the derived entity to reporting data. Each record of the derived entity is matched against the criteria specified in the decision table to identify the cell reference and derive return data (such as cell reference and cell value).

Table 14: Dimension Mapping Example 1

Cell References	Is Derived?	Product Type	Customer Type	Branch Country	Measure
L42102C04	No	Loan	Foreign Bank	Non-US	Outstanding Principal Balance
L42102C06	No	Repurchase agreements	Not Foreign Bank	Non-US	End of the Period Balance
L83003C07	Yes				
L42102C02	No	Short term non-negotiable securities	Foreign Official Institutions	Non-US	Face Value
L81337C05	No	Non-Negotiable deposits	Non-Banking Financial Institutions	Non-US	Outstanding Principal Balance
L81337C06	No	Overdraft	Non-Banking Financial Institutions	Non-US	Outstanding Principal Balance

The following table is derived after converting the dimension member and measure names into corresponding dimension member codes (not surrogate keys) and measure codes. This decision table mapping is provided for each decision table in excel format as per the template. AgileREPORTER converts the decision table mapping present in excel into configuration entries within their schema.

Table 15: Dimension Mapping Example 2

Cell References	Is Derived?	Product Type	Customer Type	Branch Country	Measure
L83003C01	No	Non-Negotiable Foreign deposits	Foreign Bank	Non-US	Outstanding Principal Balance
L81337C09	No	Repurchase agreements	Non-Banking Financial Institutions	Non-US	End of the Period Balance
L81329C06	Yes				
L81337C05 8	No	Resale Agreements	Non-Banking Financial Institutions	Non-US	End of the Period Balance
L83003C03	No	Commercial Paper	Not Foreign Bank	Non-US	Face Value
L81108C02	No	Negotiable Certificate of Deposit	Foreign Bank	Non-US	Face Value

NOTE All the dimension member codes that are used in the decision table are pre-seeded by OFSAA and cannot be modified. Therefore, if you have other member codes in the dimension, then you must reclassify them by using the reclassification rule post load, or value-code mapping during load.

Decision tables must be prepared closer to the report submission period. In some cases, reclassification of multiple dimensions that result in a single unified reporting dimension must be performed to address the complexity of the decision table. The reclassification rule is defined in OFSAA and packaged as part of the OFSAA Risk Regulatory Reporting (REG REP) Solution.

In some cases, certain sections of the schedule or the entire schedule can be a list of data rows without any mapping to a fixed set of dimension members. For example, Top 20 counterparties, List of Available for Sale (AFS) – securities. In such cases, since there are no cell references, decision table mapping specifies the names of dimensions and measures of derived entities in the *sheet* column or *row*-column of the template.

NOTE As a part of the solution, metadata exists as ready-to-use or preconfigured with the installer.

6 Executing Run through Process Modelling Framework in OFS REG REP US Treasury

Process Modeling Framework (PMF) is a design and execution framework that enables the Process Pipeline developers to implement various Pipelines modeled by the Business Analysts. The Process Pipeline developers use the framework to orchestrate the Business Pipelines and the Run Pipelines within OFSAA and to design the artifacts that participate in the Pipelines to complete their implementation.

This chapter provides information about the usage of the Process Modeling Framework (PMF) feature in the Oracle Financial Services Regulatory Reporting for US Treasury (OFS REG REP US Treasury) application.

> **NOTE** For more information about the Process Modeling Framework (PMF) feature in OFSAA, see the Process Modelling Framework Orchestration Guide.

This chapter includes the following topics:

- Overview
- Designing a Pipeline in OFS REG REP US Treasury
- Verifying the Execution Logs

6.1 Overview

In OFS REG REP US Treasury, Process Modelling Framework (PMF) is used to create a Run definition in a Run process. The visual representation of the Run is enabled through PMF by the construction of a Run Pipeline. PMF is a feature in parallel to the Run Management feature. Through the PMF, you can execute the following two Ready-to-use Runs for data loading:

- Financial Services Regulatory Reporting for US Treasury Integration Pack (OFS REG REP US Treasury) Sourced Run
- Financial Services Regulatory Reporting for US Treasury Integration Pack (OFS REG REP US Treasury) Execution Run

6.2 Designing a Pipeline in OFS REG REP US Treasury

You can design the process flow diagrams for both the processes (Business Process Pipeline and Run Pipeline). This is an example of a process flow diagram for a Run Pipeline (for OFS REG REP US Treasury Sourced Run).

After you create, design, and define the process in the process flow diagram, you must assign values to the Run parameters, and execute the Run. You can execute a Run Pipeline from the UI or using a command-line utility called `wfExecExternal.sh`.

This section includes the following topics that describe the Run Pipeline execution from the UI:

- Selecting the Run Parameters and Executing the Run

- Verifying the Run Execution
- Verifying the Execution Logs

> **NOTE** For more information about executing the Run Pipeline using a command-line utility, see the section *Using Command Line Utility* in the Process Modelling Framework Orchestration Guide.

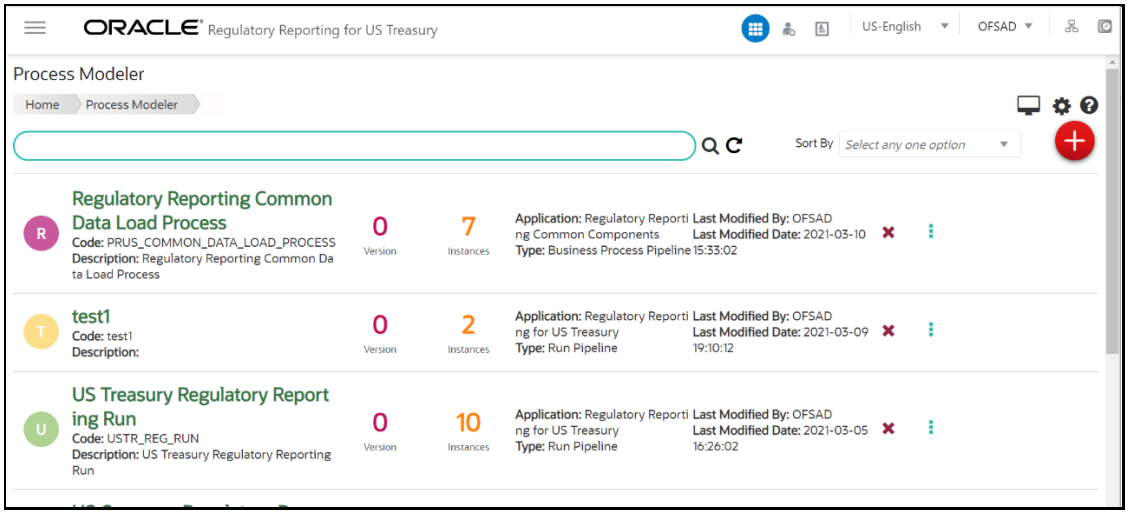
6.2.1 Selecting the Run Parameters and Executing the Run

After designing and saving the process flow diagram, the Process is listed on the *Process Modeler* page.

To select the Run parameters and execute the Run, follow this procedure:

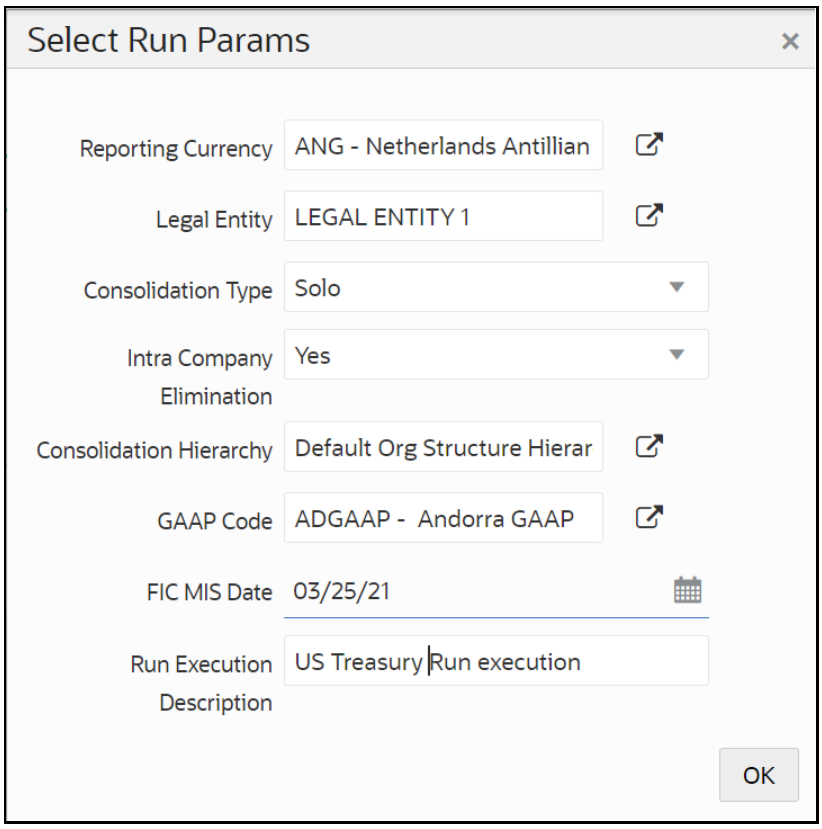
1. On the ***Process Modeler*** page, click the **More** icon ⋮ corresponding to the Run Pipeline that must be executed.

Figure 75: Process Modeler Screen



2. When you click **Execute Run**, the ***Select Run Params*** window is displayed.

Figure 76: Select Run Parameter Screen



3. Select or enter the required values for each field as follows.

Table 16: Run Parameter Fields and Descriptions

Field Name	Description or Instruction
Reporting Currency	Enter the Reporting Currency Code used to calculate the amount during the data population in the target table.
Legal Entity	Select the Legal Entity Code to identify the legal entity used for the Run.
Consolidation Type	Select the Consolidation Type of legal entity on a solo or consolidation basis. In a Solo Run, only the selected legal entity is used. In a Consolidated Run, along with the selected legal entity, all its child legal entities are also used.
Intra Company Elimination	Select the Intra Company Elimination type to eliminate (YES) or skip the elimination (NO) of Intra Company Accounts during a Consolidated Run.
Consolidation Hierarchy	Enter the Legal Entity Hierarchy used for the consolidated run. This parameter is not required for the Solo Run.
GAAP Code	Enter the required accounting standard.
FIC MIS Date	Select the extraction date.
Run Execution Description	Enter a longer description of the Run.

4. When you click **OK**, the Run execution begins. The ***Select Run Params*** window closes.

> **NOTE** The execution of the Run Pipeline is triggered using the selected FIC MIS DATE. The Run SKey is generated and inserted into the DIM_RUN table. For the Run SKey generated, the corresponding user-selected Run parameters are inserted into the RUN_EXE_PARAMETERS table.

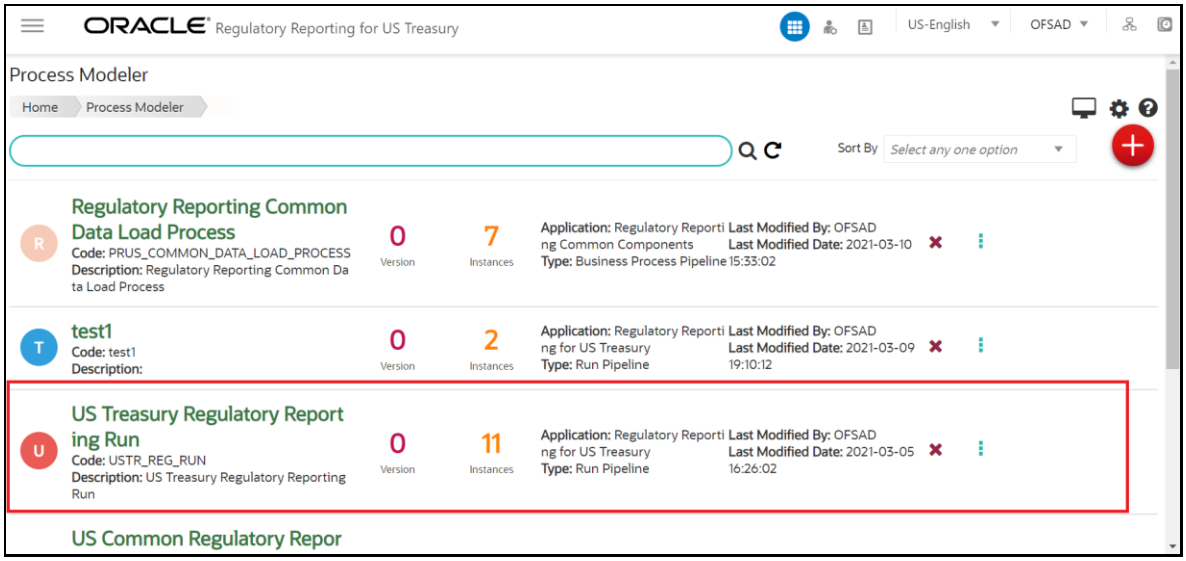
6.2.2 Verifying the Run Execution

After selecting the Run parameters and beginning the Run execution, verify the progress of the Run.

To verify the Run execution progress, follow this procedure:

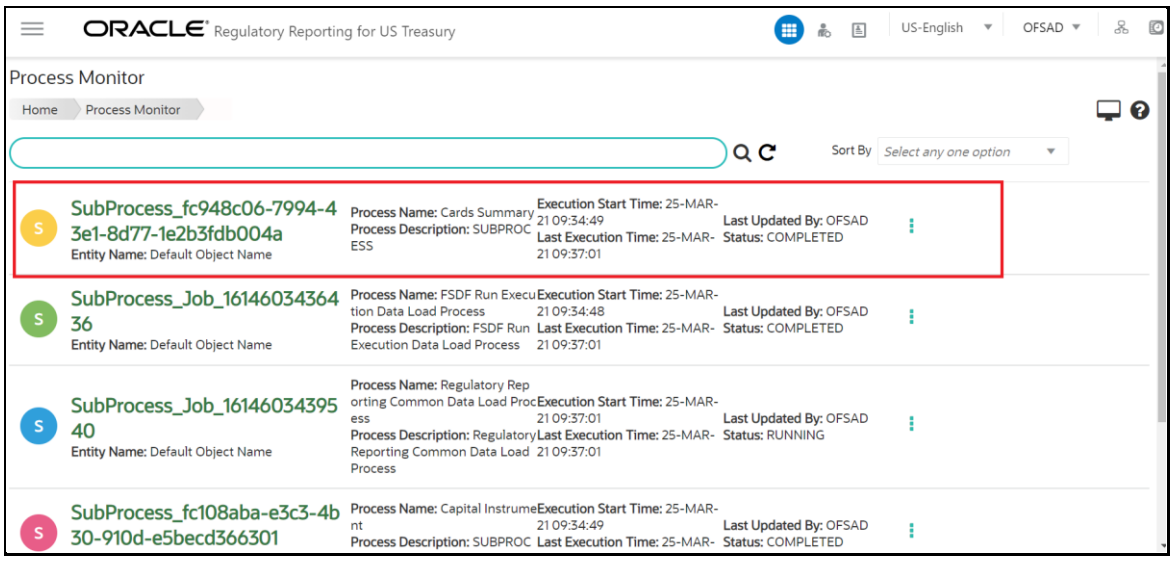
1. On the ***Process Modeler*** page, click the **More** icon ⋮ corresponding to the Run Pipeline that must be verified. Click **Process Flow Monitor**.

Figure 77: Process Modeler Run Execution Screen



2. The ***Process Monitor*** window is displayed. You can see the generated process flow ID, the Run execution timestamp, and the status of the Run execution. To verify the Run execution status at the Pipeline level, click the corresponding process flow ID.

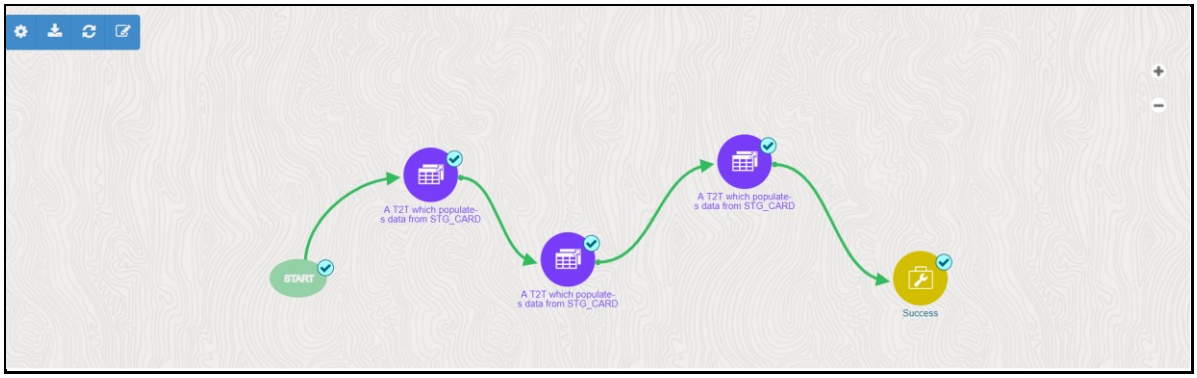
Figure 78: Process Monitor Screen



3. The process flow diagram window is displayed. The icon at each Sub Pipeline indicates that the Run execution is successful.

> **NOTE** The icon at each Sub Pipeline indicates that the Run execution is unsuccessful.

Figure 79: Run Pipeline Process Flow Diagram



6.2.3 Verifying the Execution Logs

You can access the execution logs to verify the details of the Run.

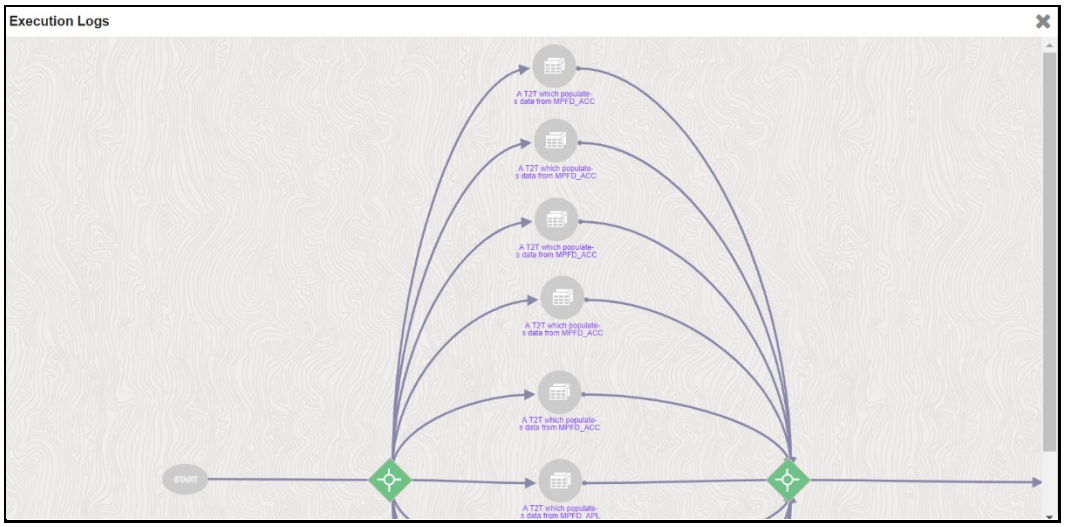
To verify the execution log, follow these steps:

1. In the ***Process Monitor*** window, click the required process flow ID. The process flow diagram is displayed in a new window. Hover on the required Sub Pipeline. Four icons appear. Click the log Icon.

Figure 80: Sub Pipeline

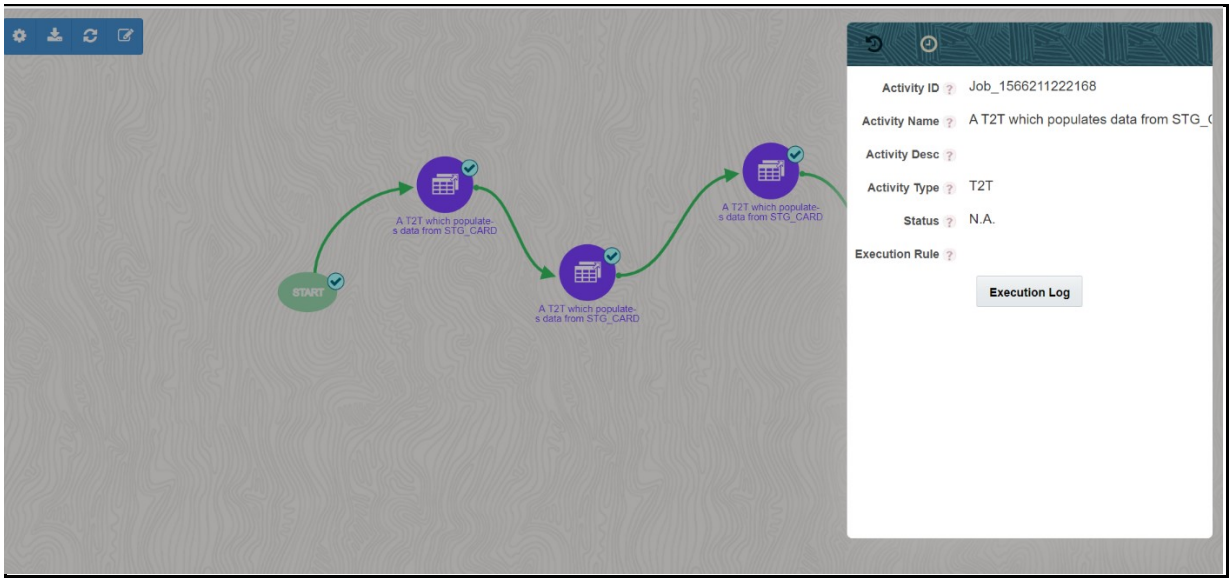
2. The ***Execution Logs*** window is displayed. Click the required metadata to verify the execution log.

Figure 81: Execution Logs



3. The Activity window is displayed. Click **Execution Log**.

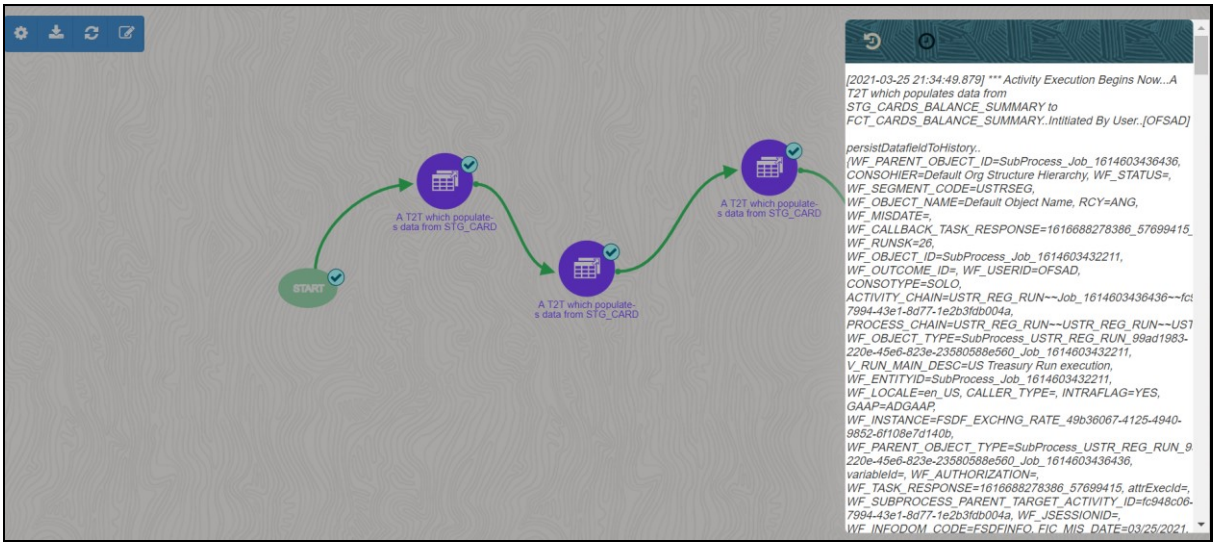
Figure 82: Activity Logs



4. The Run execution log details are listed in a separate window.

Alternatively, to verify the execution logs, click the  icon in the Process flow diagram window. The log details of the Run execution are displayed in a new window.

Figure 83: Run Execution Logs



For detailed information about the complete functioning of the PMF, see the Process Modelling Framework Orchestration Guide.

7 Data Extracts

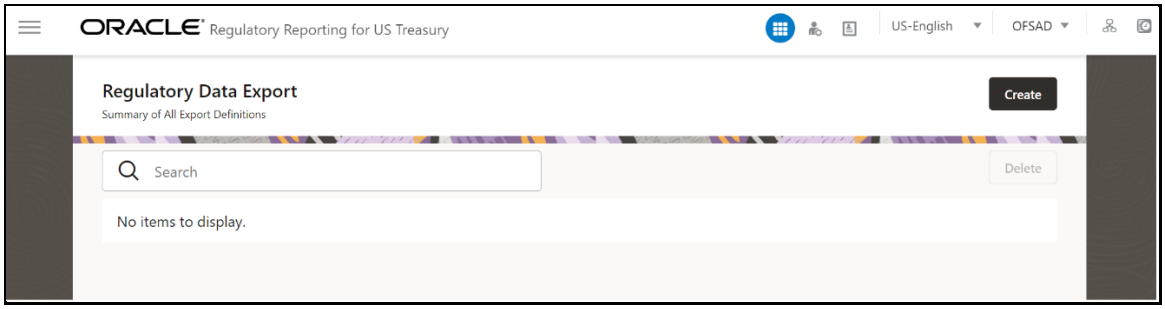
This chapter provides information on creating and executing data extract definitions to export the regulatory reporting data into .csv files. It allows you to export data for a specific report, or cells and schedules. You can also export the data from a Derived Entity.

7.1 Create an Export Definition

To create an export definition, perform the following steps:

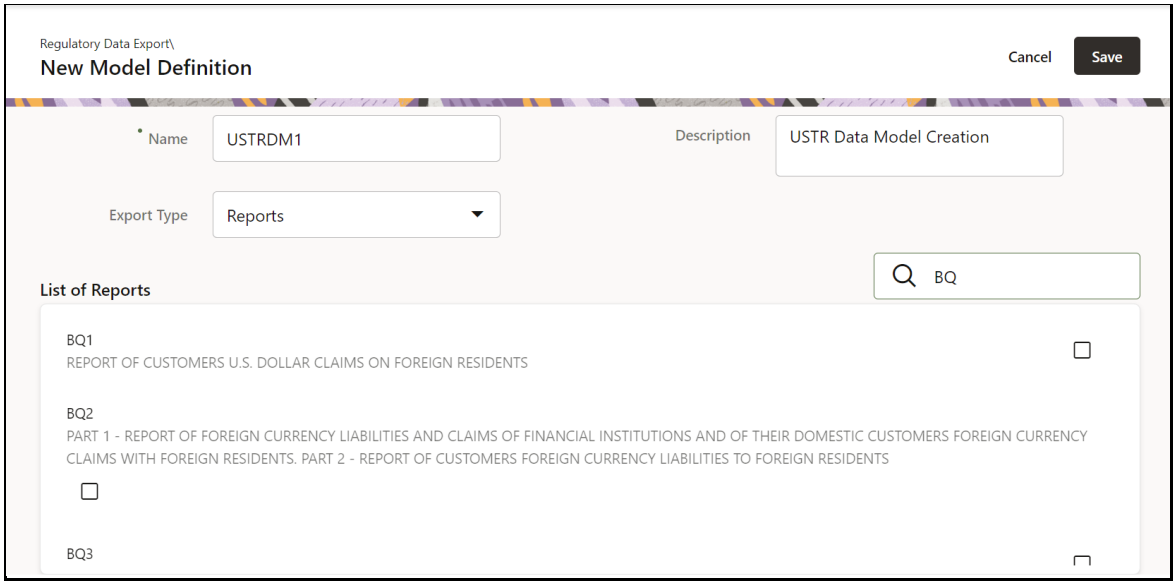
1. After logging into the OFSAAI applications page, navigate to **Regulatory Reporting for US Treasury,** select **Data Extracts** and then select **Regulatory Data Extracts.**

Figure 84: Regulatory Data Export page



2. Click **Create**. The New Model Definition page is displayed.

Figure 85: New Model Definition page



3. Select or enter the required values for each field as follows.

Table 17: Model Export Definition Fields and Descriptions

Field Name	Description or Instruction
Name	Enter the name of the new model definition.
Description	Enter the new model definition description.
Export Type	Select the Export Type of the model from the dropdown list.
Report	This field is displayed only when the Export Type is either Schedule or Reporting Lines. Select the appropriate report from the drop-down list.
Search	Search for a specific object from the available list.

4. Select the required objects from the list by marking the checkbox.
5. Click **Save** to complete the Export definition creation.
   On successful creation of the Export Definition, the Regulatory Data Export Definitions Summary page is displayed.

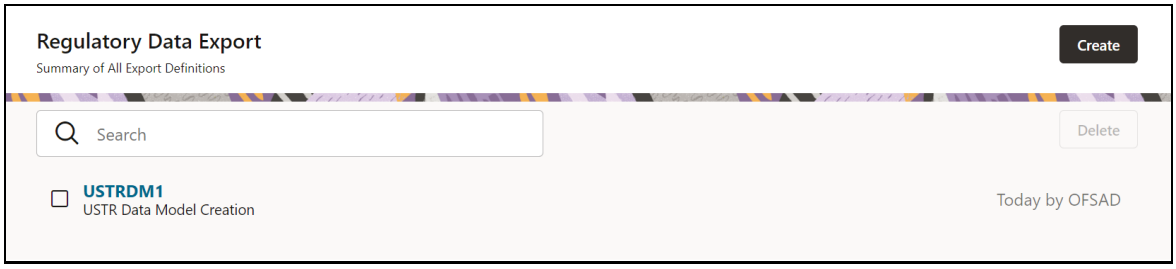
Figure 86: Regulatory Data Export Definitions Summary page

7.2 Edit and View an Export Definition

To edit and view an export definition, perform the following steps:

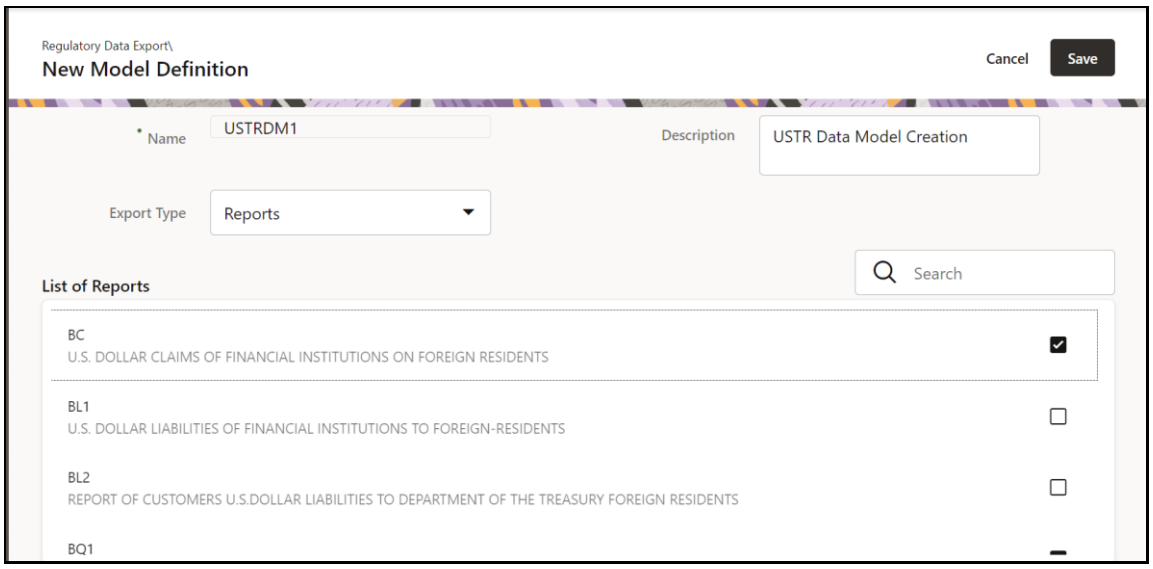
1. Click on the **Export Definition** that you wish to edit or view from the Export Definitions Summary page.

Figure 87: Regulatory Data Export Definitions Summary page



The Edit or View Export Definition page appears.

Figure 88: Edit or View Export Definition page



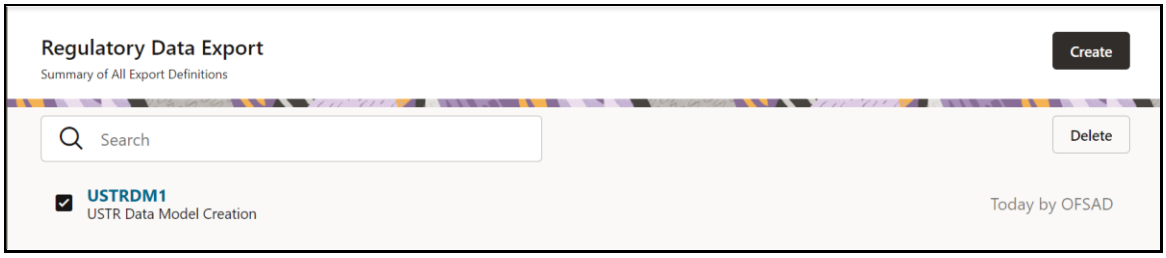
2. You can update the existing information if required and click **Save** to save the changes in the Export Definition or click **Cancel** to cancel if there is no modification in the Export Definition.

7.3 Delete an Export Definition

To delete an export definition, perform the following steps:

1. Select a **Model Export Definition** from the Export Definitions Summary page.

Figure 89: Delete Regulatory Data Export Definition page



2. Click **Delete** to delete the Export Definition.

7.4 Executing the Regulatory Data Export Definition through Process Modelling Framework

After the Export Definition has been created, a process must be created in the Run Pipeline and must be executed through the Process Modelling Framework.

8 Metadata Lineage

This section helps you to navigate through the Metadata Lineage and guides you in tracing the Metadata Lineage tools such as Metadata Browser, Metadata Report, and Data elements.

8.1 Metadata Browser

This section helps you to navigate through the Metadata Browser and guides you in tracing the source of the metadata. The Metadata Browser function allows you to view and analyze all aspects of the metadata used in the OFSAAI. It provides extensive browsing capabilities of metadata, helps in tracking the impact of changes to metadata, and traces through to the source of originating data.

Metadata Browser (Object and Application View) provides a common repository of metadata objects created in OFSAAI and applications hosted in OFSAAI. Using this view, you can identify the usage of base objects in higher-level objects and the mapping of Objects to Applications, thus enabling traceability. It also allows you to view the data flow and the workflow of the application and understand the usage of objects within the application.

The new visualization of Metadata Browser (MDB) supports the Application view and Object view. In the Application view, you can browse through the metadata created using the applications hosted in OFSAAI. In the Object view, you can view the metadata created in OFSAAI.

To access the Metadata Browser (Object and Application Views), your role must be mapped to the SCR_MDB function.

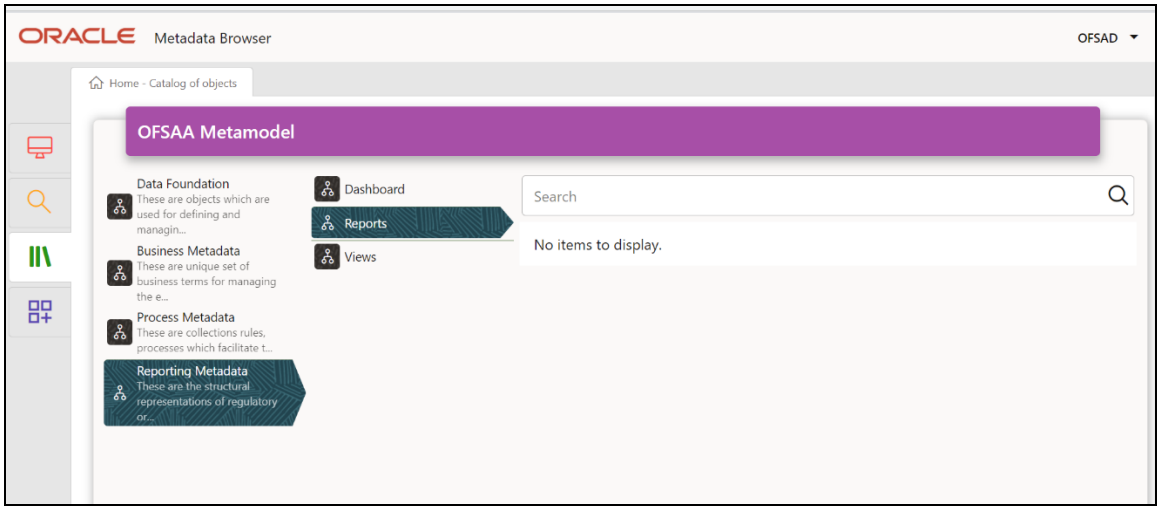
Analysts review the metadata used for a particular report schedule to verify the data. Data verification may require looking for metadata used in a given schedule or schedules in which particular metadata is used. Data Analysts and Reporting Analysts perform the report verification. Metadata refers to business measures, hierarchies, data sets, derived entities used for a given schedule.

8.1.1 Reporting Metadata

To use MDB for schedule-wise metadata, and to use MDB for metadata wise schedule, identify the metadata used, perform the following steps:

1. You can verify the data for related data elements in results using this information. Navigate to **Lineage**, select **Metadata Browser**, select **Catalog of Objects, select OFSAA Metamodel, select Reporting Metadata, and then select Reports**. The MDB Reporting Metadata screen is displayed.

Figure 90: MDB - Reporting Metadata Page



8.1.2 Business Metadata

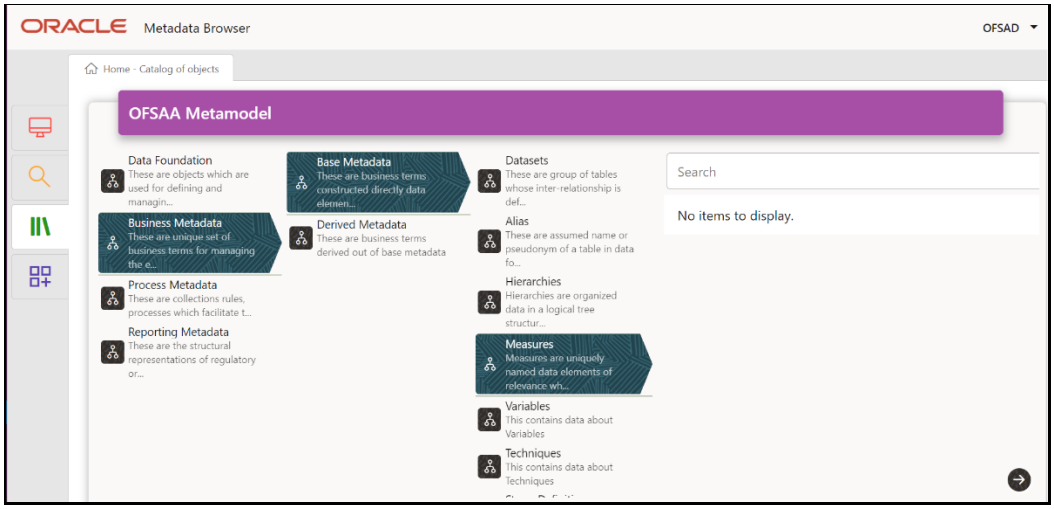
This section provides information on the Business metadata objects which include Base Metadata and Derived Metadata.

8.1.2.1 Base Metadata

The following are the steps to perform to view the Base metadata details. For example, Measures.

1. To view the measures, navigate to Catalog of **Objects, select OFSAA Metamodel, select Business Metadata,** select **Base Metadata,** and then select **Measures**. The MDB Business Metadata page is displayed.

Figure 91: MDB - Business Metadata - Measure View Page



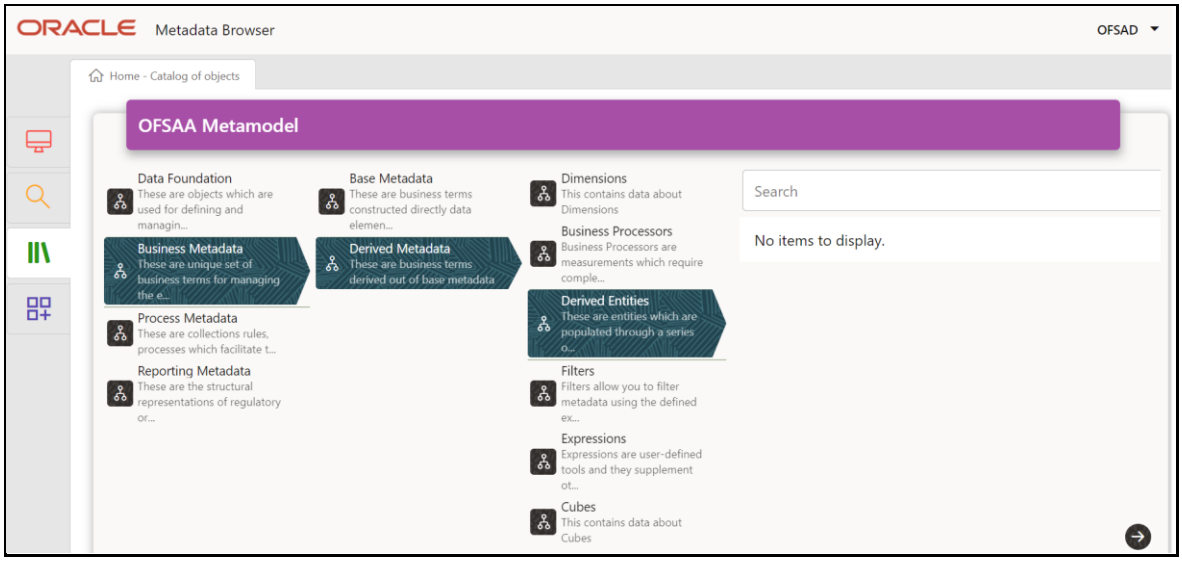
NOTE The similar steps as mentioned in this section are applicable for other metadata such as Business Metadata (Hierarchies, Measures, Variables, and so on) and Derived Metadata (Dimensions, Filters, and so on), Process Metadata (Process, Rules, and so on) and Data Foundation (Target Model, Sources, Connectors, and so on).

8.1.2.2 Derived Metadata

The following are the steps to perform to view the Derived Metadata details. For example, Derived Entities.

1. To view the schedule-wise derived entities, navigate to Catalog of **Objects, select OFSAA Metamodel,** select **Business Metadata,** select **Derived Metadata,** and then select **Derived Entities**.

Figure 92: MDB - Business Metadata – Derived Entity Page



For more information about the Metadata and its usage, see the OFSAA Metadata Browser User Guide.

8.2 Metadata Report Utility

The Metadata Export Utility helps you to export OFSAA metadata into Excel Sheet. This feature helps to get a view of OFSAA metadata and its dependencies. It is a template-based approach where you create templates and select Metadata Objects that must be extracted. The extraction process is supported only for Excel Sheet. While defining the template, you are expected to have prior knowledge of the OFSAA Metadata objects that are relevant from this application point of view.

8.2.1 Prerequisites

The following executions must be performed before using the Metadata Export Utility:

1. Before executing MDB Publish and Data Elements Wrapper Batch, ensure the following:
   a. Tablespace Requirement:

i. Ensure that the **USERS** tablespace have a minimum of **150 GB** available

ii. Ensure that the **TEMP** tablespace is a minimum of **45 GB** available

b. Execute the following **Gather Stat** command for the mentioned tables:

```
BEGIN
DBMS_STATS.GATHER_TABLE_STATS(USER, 'TABLE_NAME');
END;
```

i. **Atomic Schema**:

- FSI_M_CELL_DEFN
- FSI_M_CELL_DETAILS
- FSI_M_CELL_DIM_VAL
- FSI_DE_SEEDED_DIMENSIONS
- FSI_DE_TABLE_APPLICATION_MAP
- FSI_DE_PP_TABLE_LIST
- FSI_DE_METADATA_SEEDED_VW_MAP
- FSI_DE_PP_TABLE_REPORT_MAP

ii. **Config Schema**:

- AAI_OBJECT_B
- AAI_OBJECT_TL
- AAI_DMT_DEFINITION
- AAI_DMT_DEF_SOURCE_ENTITY
- AAI_DMT_MAPPING_DETAILS
- PR2_RULES_B
- PR2_RULE_MAP
- PR2_RULE_OBJECT
- PR2_RULE_OBJECT_MEMBER
- PR2_OBJECT_TL
- PR2_OBJECT_TRACE
- BATCH_MASTER
- BATCH_TASK_MASTER
- BATCH_PARAMETER_MASTER
- METADATA_MASTER
- METADATA_ELEMENT_MASTER
- METADATA_LOCALE_MASTER
- METADATA_TYPE_MASTER

- METADATA_ATTRIBUTE_MASTER

2. **MDB Publish**: Execute the batch, **INFODOM_MDB**
3. After Executing MDB Publish and Data Element Wrapper Batch, ensure the following:
   a. Execute the following **Gather Stat** command for the mentioned tables:

```
BEGIN
DBMS_STATS.GATHER_TABLE_STATS(USER, 'TABLE_NAME');
END;
```

   i. **Atomic Schema**:
   - FSI_DE_REPORT_LINEAGE_BASE
   - FSI_DE_REPORT_LINEAGE_DETL
   - FSI_DE_METADATA_TGT_MEMBER
   - FSI_DE_METADATA_SRC_MEMBER
   - FSI_DE_REPORT_TARGET_MEMBER
   - FSI_DE_REPORT_SOURCE_MEMBER
4. **Logs**: MDB logs are generated under deployed area **`/Context_Name/logs/MDB_XXXX.log`**
5. **Data Elements Wrapper Execution**: After MDB Publish is completed successfully with the message "Metadata publishing is finished." in the **`/Context_Name/logs/MDB_XXXX.log`**, you must execute the Data Elements Utility with the following seeded batch to get the Data Lineage for each Metadata in OFSAA:

   `<INFODOM>_POP_DATA_ELEMENTS_USTR`

   This execution requires adequate tablespace. Ensure that your Atomic Schema is having enough table space in TEMP and USERS.

   Parameters used in `<INFODOM>_POP_DATA_ELEMENTS_USTR` Batch

   The batch can be executed in different modes according to each requirement. The following are the parameters used for executing the batch.

   The default parameters used in the **<INFODOM>_POP_DATA_ELEMENTS_USTR** batch are:

Table 18: Task1 (METADATA PARSER)

Sl. No.	Parameter	Description	List of Values	Default Value
1	P_FULL_PARSE	Full Parser Flag	Y/N	'Y'
2	P_INFODOM_NAME	Infodom Name	##INFODOM##	<Value of the Infodom where US Treasury is installed>. For example: 'FSDFINFO'

Table 19: Task2 (REPORT PARSER)

Sl. No.	Parameter	Description	List of Values	Default Value
1	P_JURISDICTION	Jurisdiction Code	USTR	'USTR'
2	P_INFODOM_NAME	Infodom Name	##INFODOM##	<Value of the Infodom where US Treasury is installed>. For example: 'FSDFINFO'

Execution Types for METADATA Parsing in **<INFODOM>_POP_DATA_ELEMENTS_USTR** Batch

1. **Full METADATA Parsing [Default Mode]** (if the P_FULL_PARSE parameter is 'Y', then the parsing happens for the entire METADATA and Run Elements for the Run(s) enabled in FSI_DE_POP_RUN_LIST table in the Atomic Schema).
2. **Incremental METADATA Parsing [Optional Mode. Batch Parameter to Be Modified]** (if the P_FULL_PARSE parameter is 'N', then the parsing happens for changed METADATA and Run Elements for the Run(s) enabled in FSI_DE_POP_RUN_LIST table in the Atomic Schema).

   You can edit the parameters by accessing the Batch Maintenance screen.

   a. Log in to Oracle Financial Services Analytical Applications interface with your credentials.
   b. Navigate to **Regulatory Reporting for US Treasury**, select **Process and Operations**, select **Operations,** and then select **Batch Maintenance**
   c. Select Batch Name (**<INFODOM>_POP_DATA_ELEMENTS_USTR**)
   d. (OPTIONAL) Select **Task1** and click the **Edit** button. The *Edit Task Definition* Window is displayed.
   e. Modify the **Parameter List** field as applicable.

The values must be in single quotes and comma-separated for each value. Follow the same order as in the table.

Execution Types for REPORT Parsing in **<INFODOM>_POP_DATA_ELEMENTS_USTR** Batch:

1. **US Treasury Jurisdiction REPORT Parsing [Default Mode]** (if the P_JURISDICTION parameter is 'USTR', then the parsing happens for US Treasury Reports enabled in FSI_DE_POP_REPORT_LIST table in the Atomic Schema).

   Even if the P_JURISDICTION parameter in **<INFODOM>_POP_DATA_ELEMENTS_USTR** Batch is loaded, the Dashboards which get parsed depend on the FSI_DE_POP_REPORT_LIST table in the Atomic Schema.
2. **All Jurisdictions REPORT Parsing [Optional Mode. Batch Parameter to Be Modified]** (if the P_JURISDICTION parameter is NULL, that is, ('') or two Single Quotes, then the parsing happens for entire Reports enabled in FSI_DE_POP_REPORT_LIST table in the Atomic Schema).

You can edit the parameters by accessing the Batch Maintenance screen.

   a. Log in to Oracle Financial Services Analytical Applications interface with your credentials.

b. Navigate to **Regulatory Reporting for US Treasury**, select **Process and Operations**, select **Operations,** and then select **Batch Maintenance**

c. Select Batch Name (**<INFODOM>_POP_DATA_ELEMENTS_USTR**)

d. (OPTIONAL) Select **Task2** and click the **Edit** button. The *Edit Task Definition* Window is displayed.

e. Modify the **Parameter List** field as applicable.

The values must be in single quotes and comma-separated for each value. Follow the same order as in the table.

Enabling Run for METADATA Parsing

Every execution for METADATA Parsing requires a minimum of one Run to be enabled in the FSI_DE_POP_RUN_LIST table in the Atomic Schema. By default, RGRNUSTR is enabled.

Table 20: Run Names for Metadata Parser

RUN NAME	INCLUDE RUN
RGRNUSTR	Y

Enabling Reports for REPORT Parsing

Every execution for REPORT Parsing requires a minimum of one Report to be enabled in the FSI_DE_POP_REPORT_LIST table in the Atomic Schema. By default, the following Reports are enabled for US Treasury Jurisdiction.

Table 21: Report Codes for Report Parser

DASHBOARD_ID	JURISDICTION_CODE	REPORT_CODE	INCLUDE_REPORT
1	USTR	SHLA	Y
2	USTR	SHCA	Y

By default, All Dashboards are enabled and if you wish to parse particular Dashboards, modify the FSI_DE_POP_REPORT_LIST table in the Atomic Schema by enabling or disabling the “Include Report Column”.

Executing SELECTED tasks of `<INFODOM>_POP_DATA_ELEMENTS_USTR` Batch

By default, the `<INFODOM>_POP_DATA_ELEMENTS_USTR` Batch contains both the tasks, that is, METADATA Parsing and REPORT Parsing. You can use the platform feature of the EXCLUDE / INCLUDE Batch Task for the Optional execution of required tasks.

Topics:

- Verifying Logs
- Validating Lineage Outputs

8.2.2 Verifying Logs

Data Elements logs are generated in Atomic Schema under the **FSI_MESSAGE_LOGS** table.

Table 22: Data Element Logs

Tasks	Batch Run ID	Indication
Task1 (METADATA Parsing)	REGISTER_ELEMENTS_<Batch_ Run_ID>	Processes Metadata Parsing. The message "Completed REISTER_ELEMENTS" indicates that the Metadata parsing is completed with Registration.
Task2 (REPORT Parsing)	REPORT_TO_ELEMENTS_ <Batch_Run_ID >	Processes Report Parsing. The message "Completed REPORT_TO_ELEMENTS" indicates that all the Report parsing is completed.

8.2.3 Validating Lineage Outputs

In Atomic Schema, you must verify that data is present in the following tables and ensure that the table is populated:

- FSI_DE_RUN_LINEAGE_METADATA
- MDR_LINEAGE_METADATA
- FSI_DE_REPORT_LINEAGE_BASE
- FSI_DE_REPORT_LINEAGE_DETL

It is recommended that the following SQL statement must be executed in Config Schema if this INDEX is not created:

```
CREATE INDEX index_mdr_mod_parent_child
CREATE INDEX index_mdr_mod_parent_child
ON mdb_object_dependencies (parent_object_def_id,child_object_def_id)
COMPUTE STATISTICS
/
```

8.2.4 User Access

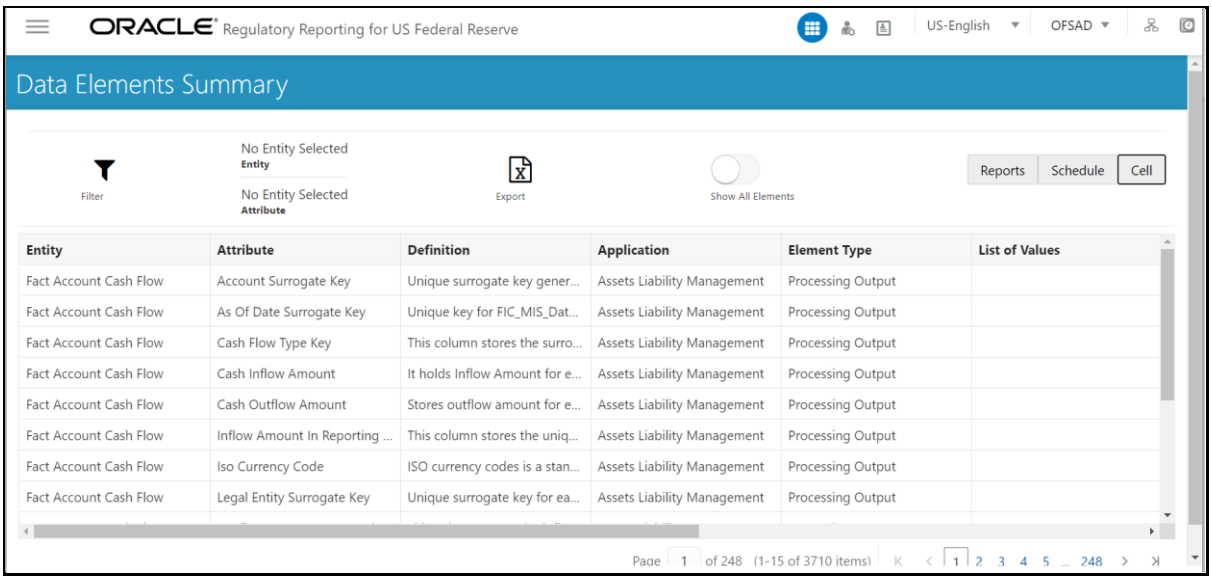
The following user groups are pre-seeded in the component that helps you get access to the Metadata Report Extract screen.

1. MDR View Group: To see Metadata Report Extract with View permissions.
2. MDR Owner Group: To create templates in Metadata Report Extract.

8.3 Viewing Data Elements Summary

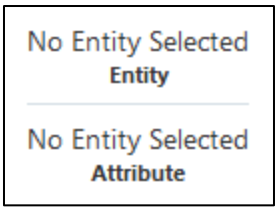
Select **Data Elements Summary** from the main navigation menu to view all the Data Elements.

Figure 93: Data Elements Summary



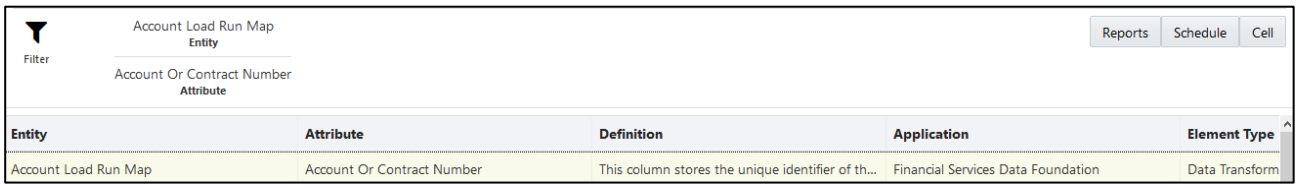
By default, the page displays all the data elements.

Figure 94: Selection Panel



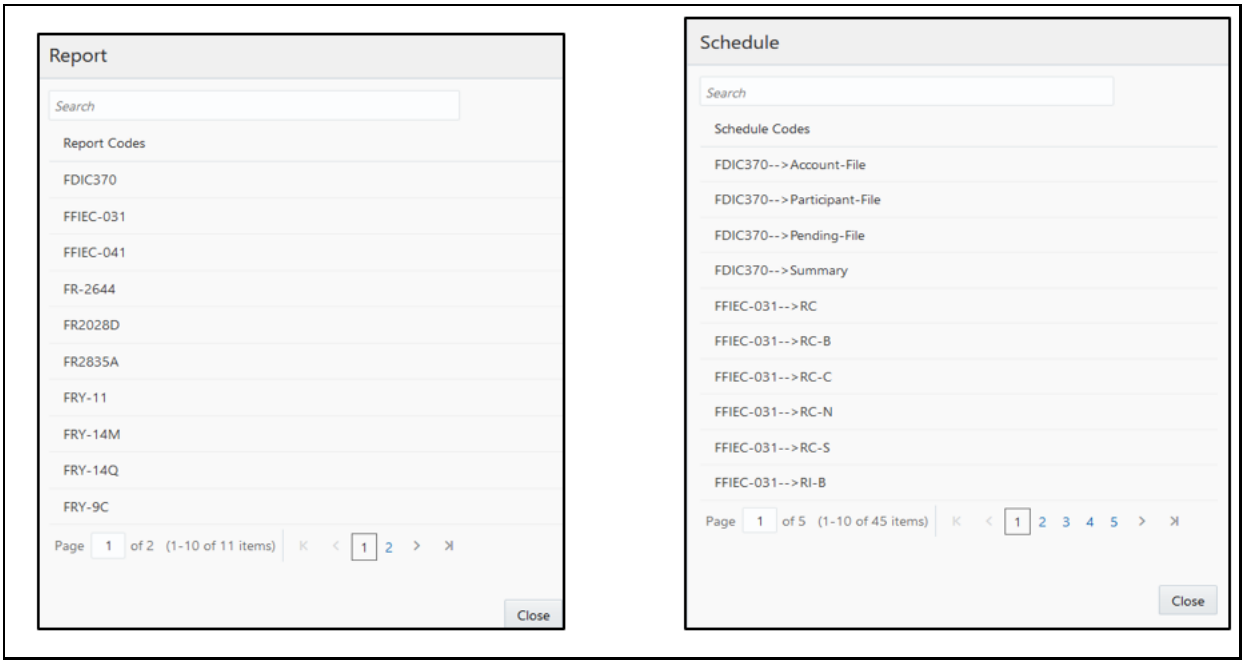
Click a row and the selection panel displays the selected entity and attribute.

Figure 95: Selected Entity



The tabs on the right can be used to view reports, schedules, and cells as shown in Figure 95, which are utilized for the selected data element.

Figure 96: Report or Schedule View



NOTE For Viewing Data Elements and Viewing Data Elements Summary, Data Elements batch execution is required for the screen to function.

9 Report Submission

This chapter provides an understanding of the report submission process.

Topics:

- Report Submission: AgileREPORTER to Regulator
- Edit Checks or Validity Check or Quality Checks
- Report Templates to be used in AgileREPORTER
- Supported Report Template Version and Activation Date

9.1 Report Submission: AgileREPORTER to Regulator

After OFSAA has prepared and hands off the data as required to Lombard Risk, the subsequent activities are performed within the AgileREPORTER.

Lombard takes care of the report format as per the regulatory requirement which may be eXtensible Business Reporting Language (XBRL), XML, Excel, Data, and so on.

9.2 Edit Checks or Validity Check or Quality Checks

The OFSAA UI carries out the report level or submission check comprising Edit Checks or Validity Checks, or Quality Checks as provided by the regulator.

> **NOTE** See Validation or Edit Checks and also the AgileREPORTER user documentation provided by VERMEG (Lombard Risk), for details of activities within the AgileREPORTER.

9.3 Report Templates to be used in AgileREPORTER

The report templates to be used in AgileREPORTER are listed as follows:

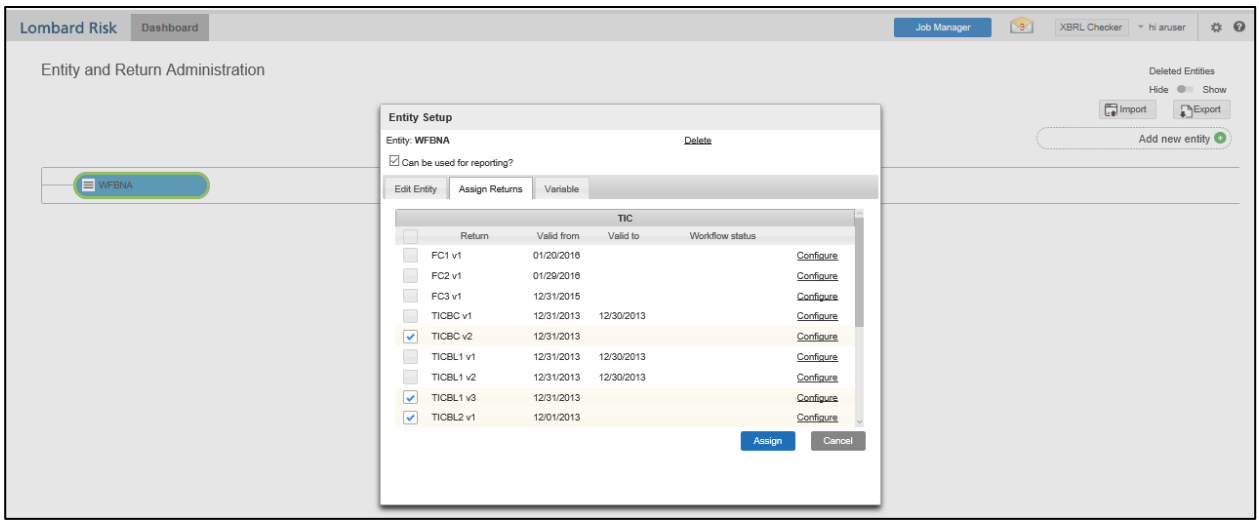
Table 23: Report Templates for AgileREPORTER

Report or Schedule Name	Report Template
SHLA	TICSHLA v1
SHCA	TICSHCA_v1

9.4 Supported Report Template Version and Activation Date

The AgileREPORTER contains the details of the Report template version and the activation date of the same. This can be accessed by selecting the Entity setup option in the Settings menu which enables you to Add, Modify, and Delete Entities. Click on an existing Entity to access report templates according to version and the activation date, and assign the necessary privileges as required.

Figure 97: AgileREPORTER Entity Setup



Click on a created Entity to access report templates according to version and the activation date, and assign the necessary privileges as required.

See AgileREPORTER user documentation for details.

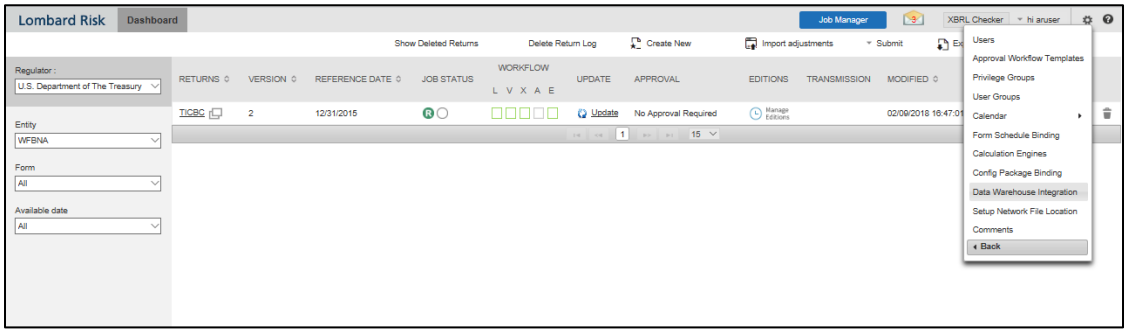
10 Maintenance

This chapter provides an understanding of the maintenance process for the regulatory templates.

Changes to the regulatory template are one of the most common and continuous activities. The following steps help to assess the impact (You can replace the measure, dimension for existing data warehousing configuration pack using the following process):

1. Choosing different execution as a final. After report verification, if the requirement is to change the execution, then you must visit the Process Execution Summary section. After making these changes you must refresh Derived Entities. Then AgileREPORTER also needs to retrieve returns so that revised data is reflected on AgileREPORTER.
2. If Executing Batch to resave Derived Entities is not working, you can look for Batch Operation Log files. For file path, OFS Analytical Applications Infrastructure Installation and Configuration Guide.
3. To apply a revised patch, refer to the **ReadMe** file for instructions to be followed.
4. To update the revised data warehouse configuration pack, perform the following instructions.
   a. Navigate to **Settings,** select **Administration,** and then select **Data Warehouse Integration**.

Figure 98: Data Warehouse Integration



   b. Click **Add** to add a contextual button.
   c. Enter details of the contextual button.

Name: The text needs to be displayed in the contextual button.

URL Pattern: Replace `<<OFSAA_HOST>>`, `<<OFSAA_PORT>>` and `<<OFSAA_CONTEXT>>` with host, port and web context of the environment where OFSAA is installed. Replace `<<OFSAA_HOST>>` with the name of information domain.

http://<<OFSAA_HOST>>:<<OFSAA_PORT>>/<<OFSAA_CONTEXT>>/drilldown/USTR/${formCode}/${cellId}/${formVersion}/${referenceDate}/${run}/${entityCode}

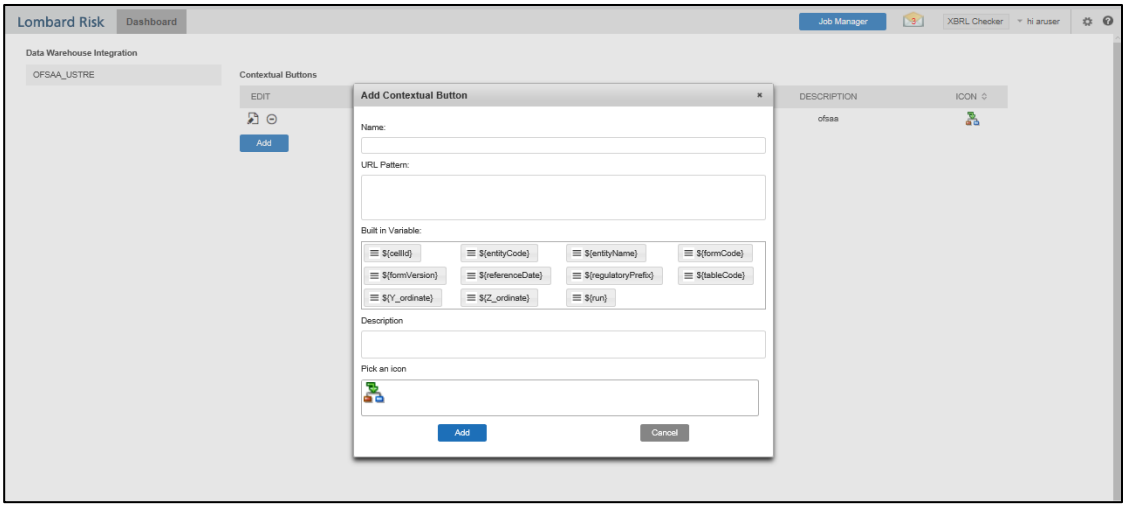
Example:

http://127.0.0.1:8080/ofsaa/OFSAADrilldown/drilldown.jsp?cellid=${cellId}&infodom=OFSFSDFINFO&legalentity=${entityCode}&run=${run}&date=${referenceDate}

   i. Use http or HTTPS depending on the protocol configured for OFSAA.
   ii. Select an icon.

   d. Click **Add** to save the details.

Figure 99: Adding Contextual Button



5. After the data ware configuration pack is updated, the Lombard Configuration pack must reflect this.

NOTE

- See AgileREPORTER user documentation for details.

11 Validation or Edit Checks for Data Schedules

This chapter explains the validation or edits checks for various data schedules supported within the Regulatory Reporting application.

11.1 Overview of Edit Check Process

As per regulatory references, edit checks are used during regulatory report submission to verify and improve overall data quality and communicate key structural features of the collection. "DATA COLLECTED" for the Regulator is "DATA SUBMITTED" for a reporting entity.

For template reports, edit checks are exclusively handled in VERMEG (Lombard Risk) AgileREPORTER and are not covered in the OFSAA application.

11.2 Configuration Steps

Perform the following configurations to validate / edit check for the data schedules before the Edit Check execution:

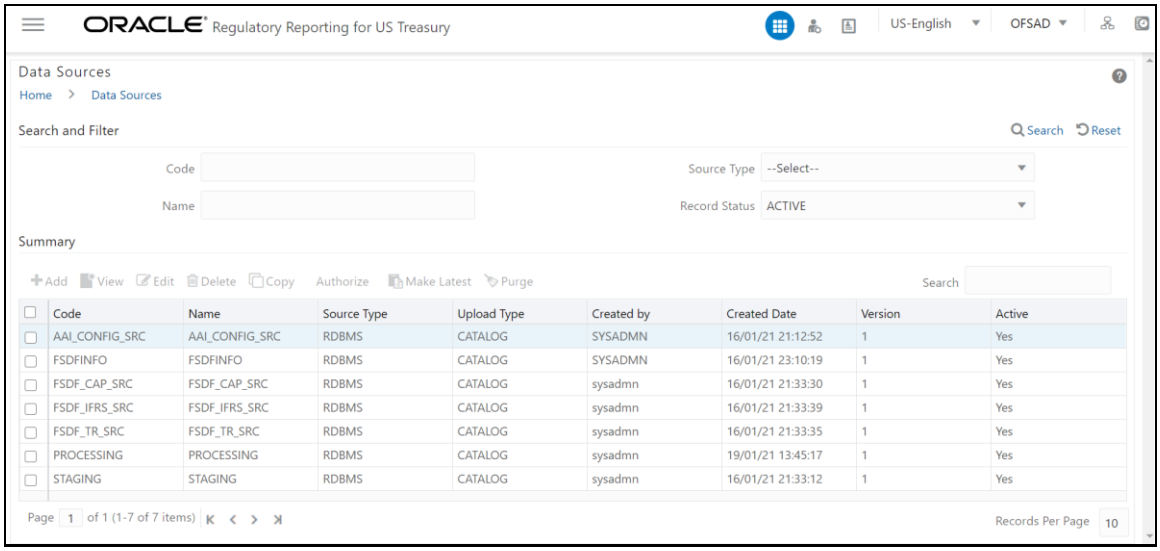
11.2.1 Source Model Generation

1. After logging into the OFSAAI applications page, navigate to **Regulatory Reporting for US Treasury** application**.**

Figure 100: Regulatory Reporting US Treasury page

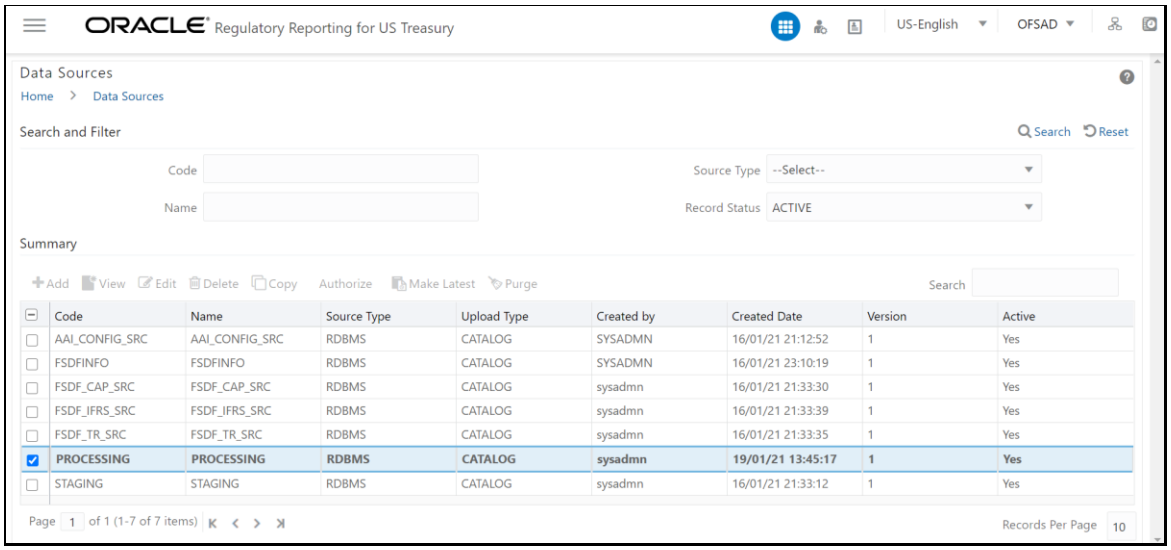
2. Navigate to **Data Management Framework** and select **Data Sources**. A new window is displayed as follows.

Figure 101: Data Sources page



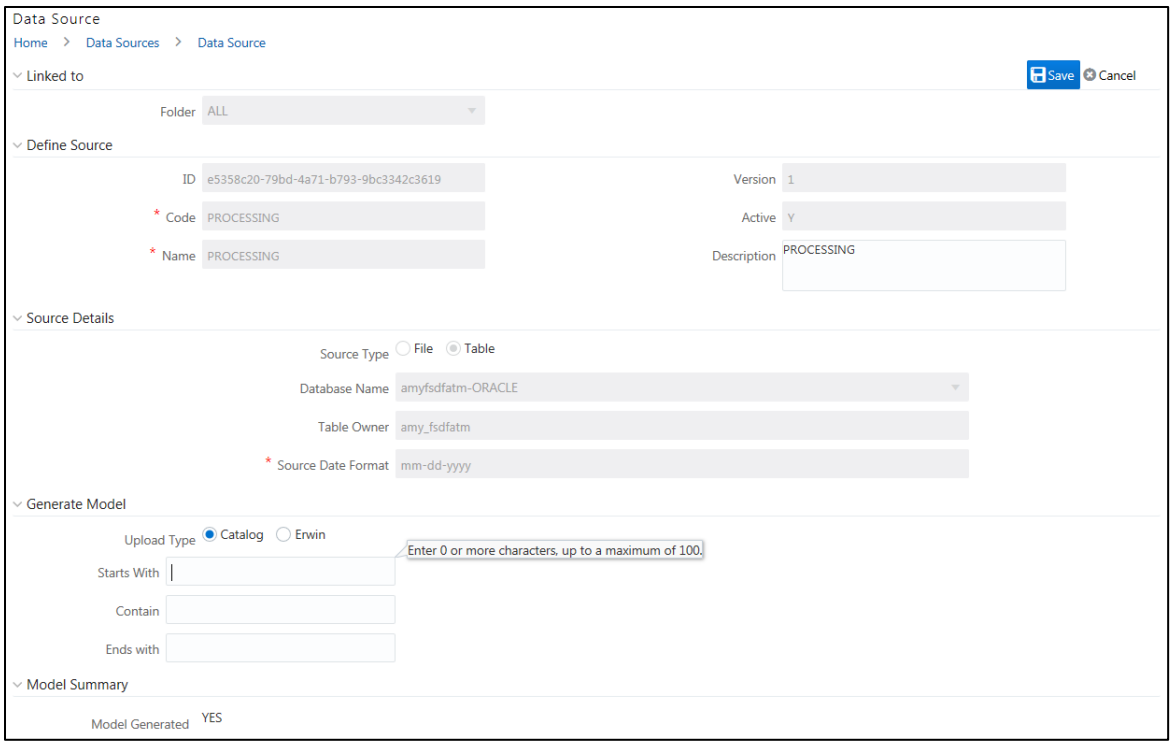
3. In the *Summary* pane, select **PROCESSING** and click the **Edit** icon. A new edit pane is displayed.

Figure 102: Data Sources Edit page



4. Select **Catalog** and enter the required details.

Figure 103: Generate Model Catalog Details page



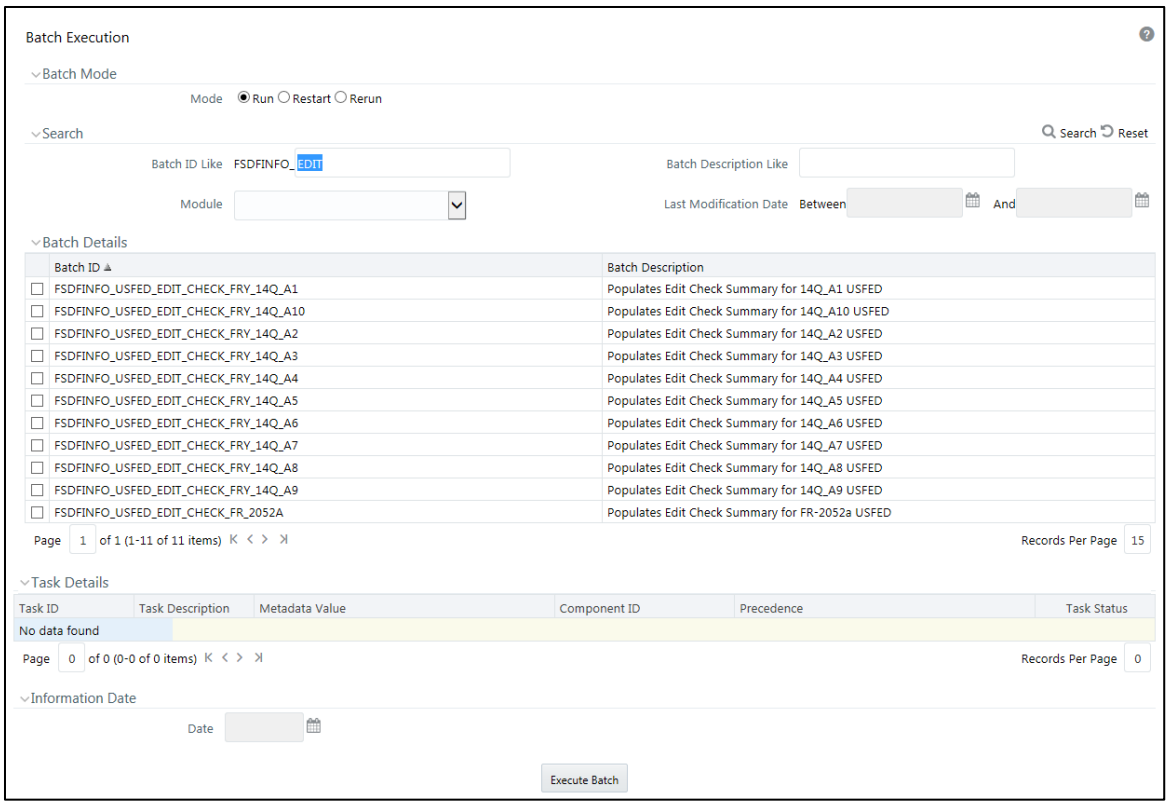
5. Click **Save** to complete the configuration.

11.3 How to Execute the Batches?

Perform the following steps to complete the Edit Check Batch execution:

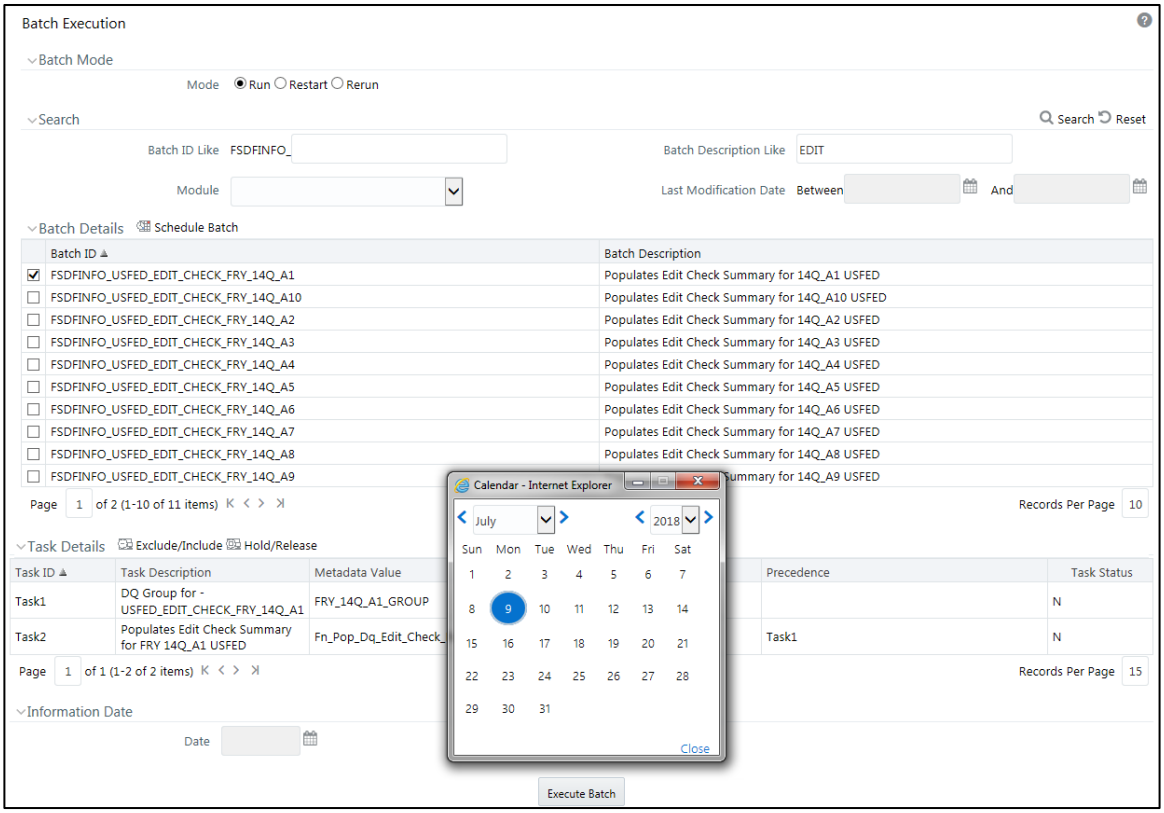
1. Log in to OFSAA application GUI.
2. Navigate to **Regulatory Reporting for US Treasury**, select **Operations**, and then select **Batch Execution**. The Batch Execution window is displayed as follows.

Figure 104: Batch Execution page



3. Enter the edit check name in **Batch ID Like** and click **Search**. The **Batch ID** is displayed in the *Batch Details* pane.

Figure 105: Batch Details page



4. Select the **Batch ID**, click the **Date** icon to choose the batch execution run date, and click **Execute Batch**.

12 Troubleshooting Guidelines

This section covers troubleshooting guidelines for the users of Oracle Financial Services Regulatory Reporting Integration with AgileREPORTER, called Integration.

Integration users provide the data inputs through the OFSDF where data is loaded, processed and results are made available for reporting purposes. The integration package then makes this data available in required formats to AgileREPORTER. In AgileREPORTER, this data is then aggregated according to the reporting requirements, and end-users view this from AgileREPORTER User Interfaces designed for the Viewing or Editing of this aggregated data.

This section provides detailed guidelines on how to troubleshoot the data issues tracing back the data flow from AgileREPORTER.

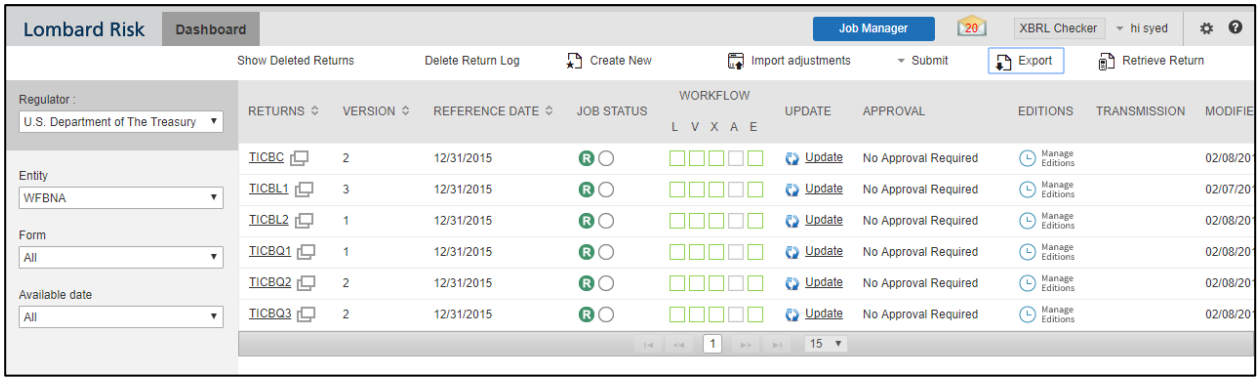
Topics:

- Prerequisites
- Troubleshooting Use Cases

12.1 Prerequisites

It is assumed that you can log in and see the following menus and respective reports in AgileREPORTER.

Figure 106: AgileREPORTER



This means configurations activities for the AgileREPORTER and OFSAA are completed. Set up activities for Entity is done and reports templates, as shown above, are available for viewing. Report Names shown in the figure are for illustration purposes and the actual name depends on the integration pack licensed.

12.2 Troubleshooting Use Cases

This section provides information about the various troubleshooting use cases in AgileREPORTER.

Topics:

- Unable to Generate Report
- Invalid Filter Combination for the Given Return
- Data Unavailable in AgileREPORTER
- Data Available in AgileREPORTER but Not as Expected

12.2.1 Unable to Generate Report

If you are unable to generate reports, meaning none of the derived entities referred to in the report has rows for the LE or date combination, then you must see the Installation Manuals of AgileREPORTER or OFSAA Integration pack for further instructions and steps to be followed.

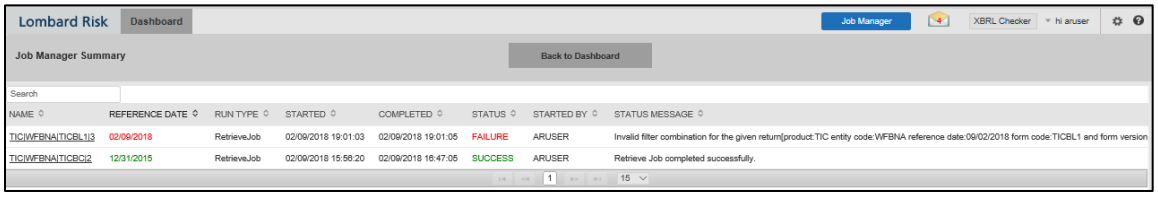
If the process mentioned in Installation Manual is correctly followed and still the report list is not available, then you are requested to log in to the bug or service request with VERMEG (Lombard Risk).

12.2.2 Invalid Filter Combination for the Given Return

If you are unable to generate reports and if you get the "Invalid filter combination for the given return" error, then there can be two possibilities for this failure:

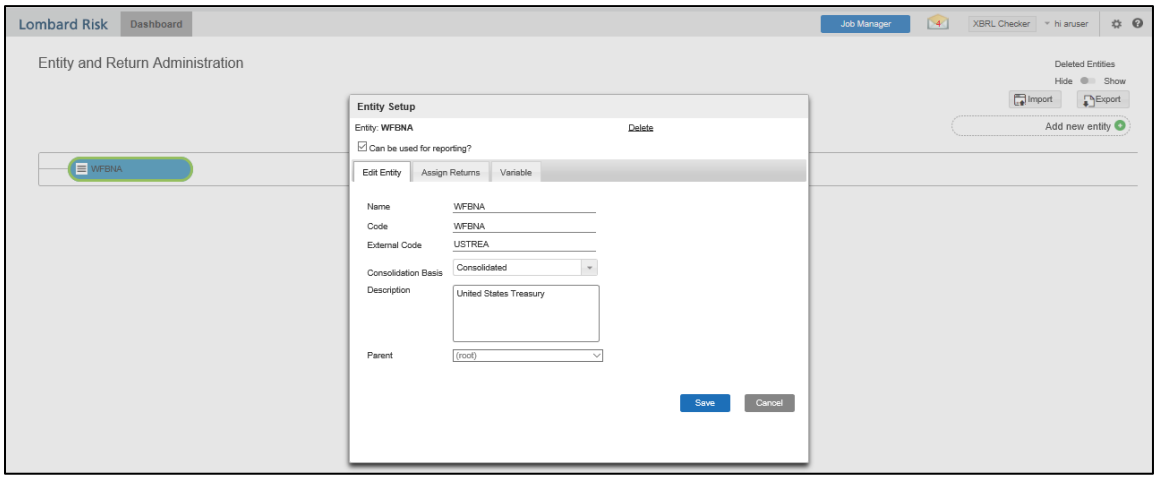
1. Data in the RUNEXESUMM view in the Atomic Schema is not matching with the Lombard retrieval that includes Date, Run, Entity, or Entity's Consolidation Type.

Figure 107: Data in RUNEXESUMM View



2. External Code is not matching with the Code for Entity as per OFSAA.

Figure 108: Code for Entity



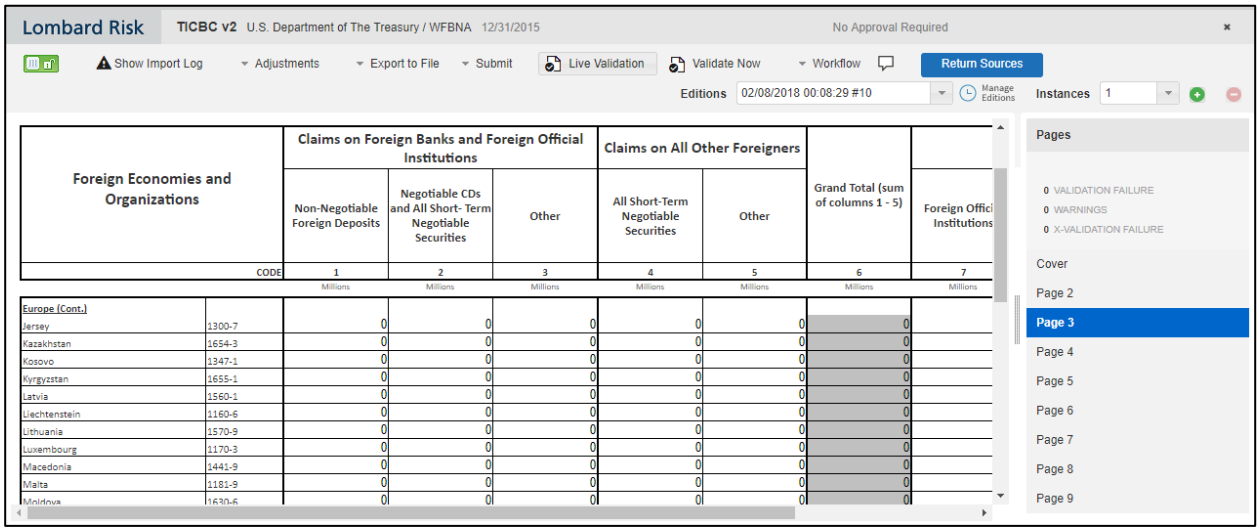
12.2.3 Data Unavailable in AgileREPORTER

This is a use case where you are logged in to AgileREPORTER and selected particular regulatory reports for an appropriate entity and As-of-Date but are unable to generate the report.

12.2.3.1 Fetching Zero Values

AgileREPORTER is showing either Zero or Null values. It indicates that Derived Entities has data (however, all required filer conditions are not matching and resulting in zero value output) or Derived Entity does not have data at all.

Figure 109: Fetching Zero Values



You must validate as:

1. Derived Entity has data:
   a. Execute the Derived Entity or Materialized views to check if the Derived Entity has data or not.
   b. If the Derived Entity or materialized view has data but not showing in AgileREPORTER, you must log a Bug or Service Request with VERMEG (Lombard Risk).
2. Derived Entity does not have data:
   a. Execute the Derived Entity or Materialized views to check if the Derived Entity has data.
   b. If Derived Entity does not have data, then check the Business Metadata excel for a given schedule.
   c. Check Worksheet titled *Derived Entity* in Business Metadata excel. Get all the derived entities for a given schedule.
   d. Get dataset for each derived entity.
   e. Execute datasets in OFSAA FSDF Atomic Schema to check if data is available for a given dataset joins.
   f. If data is available in dataset queries, you must log a Bug or Service Request with AgileREPORTER.
   g. If data is not available in the dataset, then check if the selection of Entity, Available Date (as of date) is appropriate and required executions are available. If Entity, As-of-Date, and Run executions are correct and still data is not available, then you must log a Bug or Service Request with My Oracle Support.

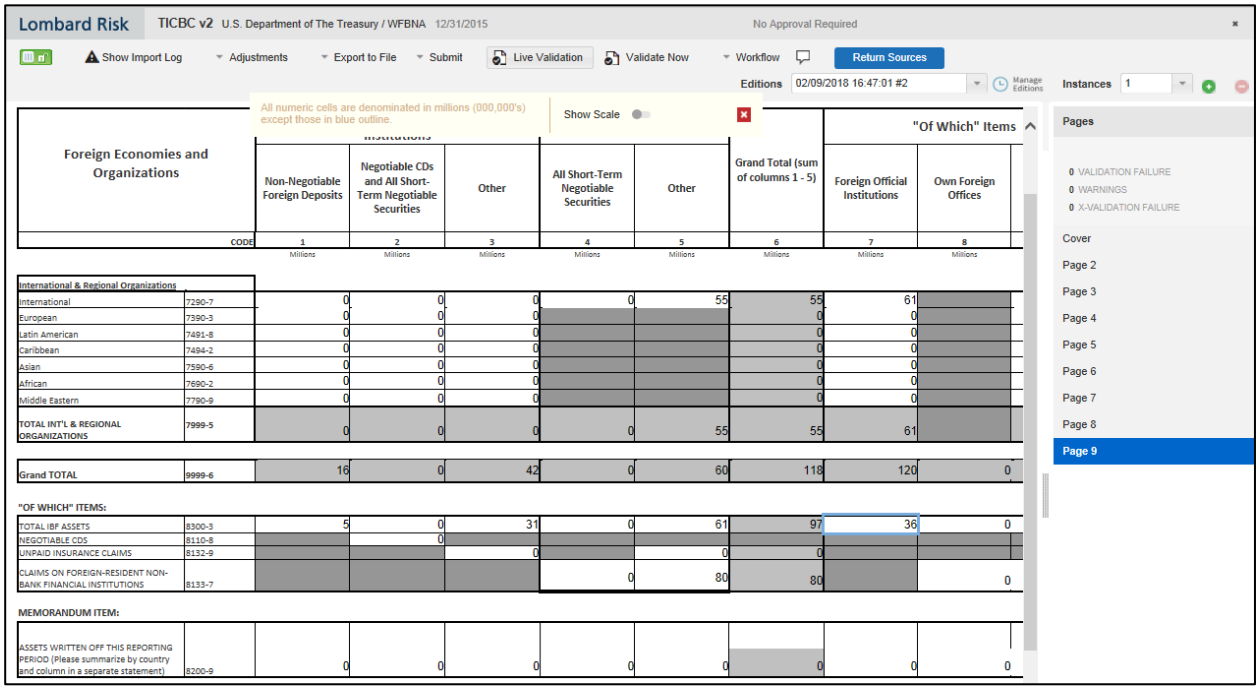
12.2.4 Data Available in AgileREPORTER but Not as Expected

This use case is where you can reference data for a required cell of a schedule in AgileREPORTER; however, the value shown differs from the expected value.

Let us take the following example to illustrate the steps to be followed. This refers to Report BC. A particular cell referred to here is L83003C07 of

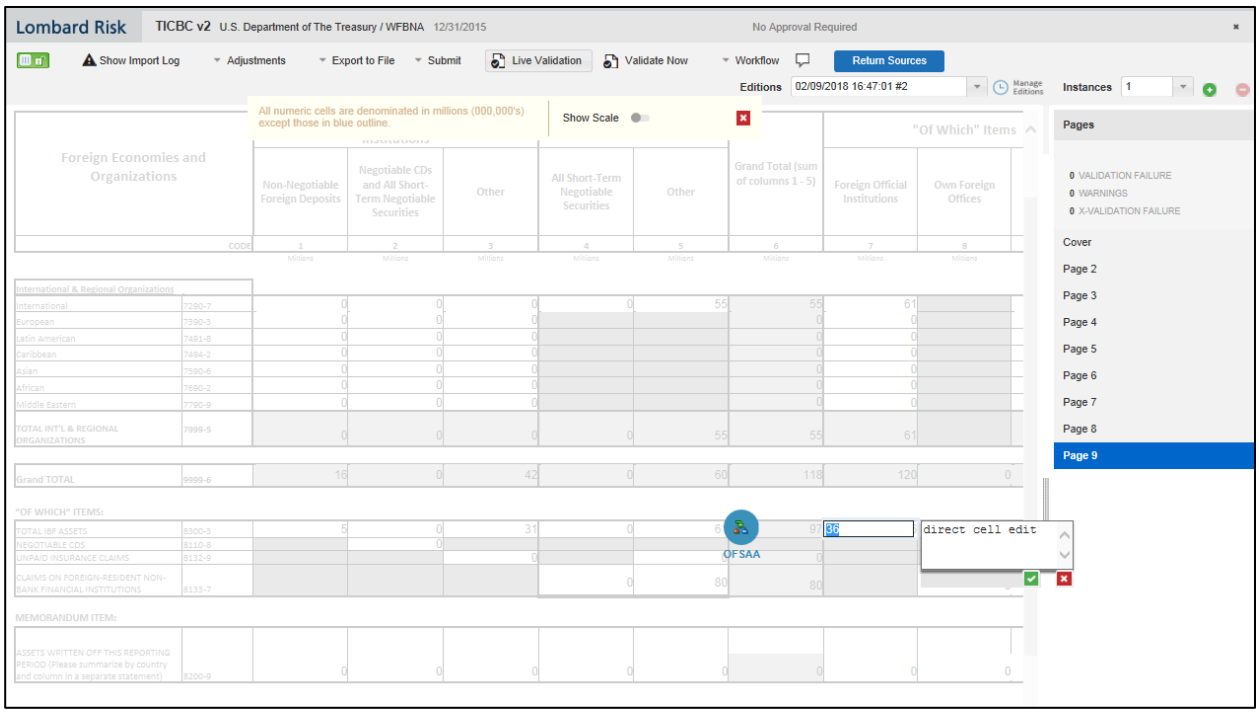
- TOTAL IBF ASSETS under
- OF WHICH ITEMS of
- Foreign Official Institutions

Figure 110: TICBC V2 Report



You can Drill down for each cell to check the details of data as to what is included in the aggregation. To Drill down, click the value of a particular cell, and it is shown as highlighted. It shows the OFSAA data lineage icon on clicking as shown in Figure 111.

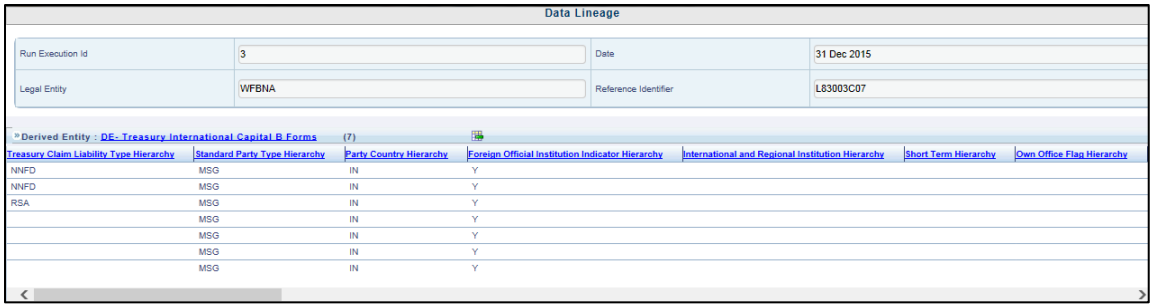
Figure 111: Drill Down OFSAA Icon



Make sure that you are logged into to OFSAA infrastructure before clicking the Data Lineage icon.

- If you are not logged in, click on this icon to open the OFSAA infrastructure login window. Log in using appropriate credentials and return to the Report Portal and click the same Data Lineage icon again.
- If you are logged in to OFSAA Infrastructure, the Data Lineage first page opens.

Figure 112: AgileREPORTER Drill Down



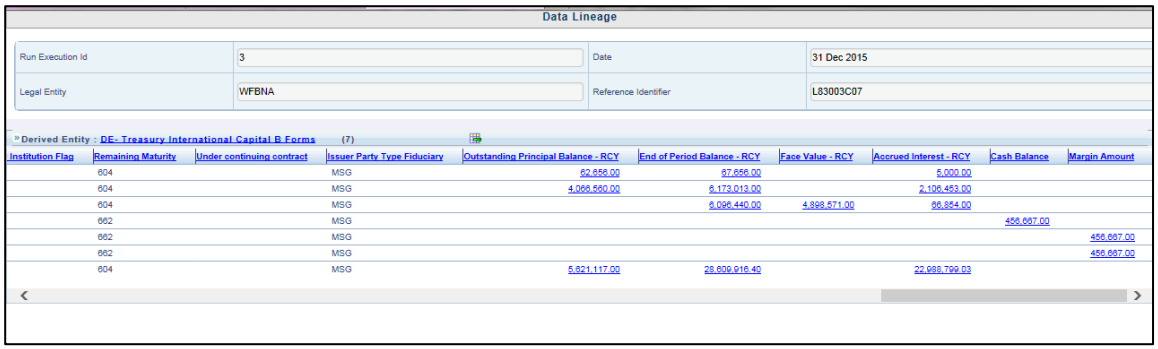
The top pane of this screen shows the following information which helps to connect the AgileREPORTER aggregated data to OFSAA references.

1. **Run Execution ID**: This refers to the OFSAA Execution ID chosen for a given report.
2. **Calendar Date:** This refers to AS OF DATE selected for a given report.
3. **Legal Entity**: This refers to the OFSAA Legal Entity for which the report is generated.
4. **Reference Identifier:** This is the cell reference for which data Drill down or lineage is being checked.

The second block displays all hierarchies with values used in a given Derived Entity and measures aggregated for a given combination of hierarchy values.

To refer to the measure values, scroll rightwards using the horizontal scroll bar at bottom of the second block. On the extreme right, measures are displayed as shown in Figure 113:

Figure 113: Measure Values



Only measure values are hyperlinked indicating that they can be drilled down further. On clicking the amount, second-level Drill down shows the lowest granularity data available for a given cell reference.

Topics:

- Using Drill Down with Data Lineage View
- Data Lineage View is Unavailable

12.2.4.1 Using Drill down with Data Lineage View

Data Analysts or you can then compare these accounts and their respective monetary amounts with expected values. You can check the following:

1. All required accounts are shown in aggregation.
2. Unwanted accounts are not included in the aggregation.
3. Measures or Monetary amounts at account granularity are as expected.

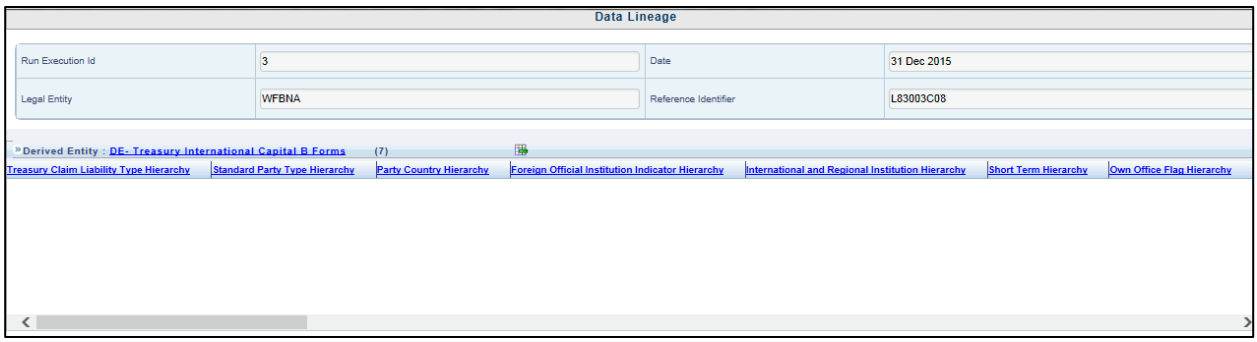
Any deviation from expectations can be then checked back for:

1. If the measure is stage pass through, then validate using T2T to verify if stage data is as expected or must be corrected.
2. If the measure is processed, then validate using T2T to verify processing measure is correctly moved to the result area.
3. If reclassified hierarchies are showing unexpected values, check Rules and source hierarchies of rules. This use case needs close verification to ensure that all source hierarchies have required values or Rule sequences which can lead to overwriting the values.
4. If all the source data is as expected and the result area is now showing unexpected output, then log a Bug or Service Request with My Oracle Support.

12.2.4.2 Drill Down View is Unavailable

If the second block does not show any data, then data analysts or you are advised to see the Dataset worksheet of Business Metadata.

Figure 114: Drill Down Data Unavailable



There can be a few reasons why the Drill down screen does not show the data:

1. Internet connection is timed out or broken down - in this case clicking Data Lineage on AgileREPORTER results in a Drill down the page. To rectify this, re-login to OFSAA infrastructure and AgileREPORTER.
2. Drill down data view works after Metadata is published using OFSAA Infrastructure to validate if Metadata is properly published or not.
3. If Metadata is published and the Drill down screen still does not show the data, then start with the Derived Entity code shown at the beginning of the Drill down screen. This Derived Entity code is available even if data is unavailable.
4. Using this Derived Entity code, data analysts are advised to see the OFSAA Business Metadata document with the worksheet name as *Derived Entity*. Sample Business Metadata excel is shown in the following Figure 115:

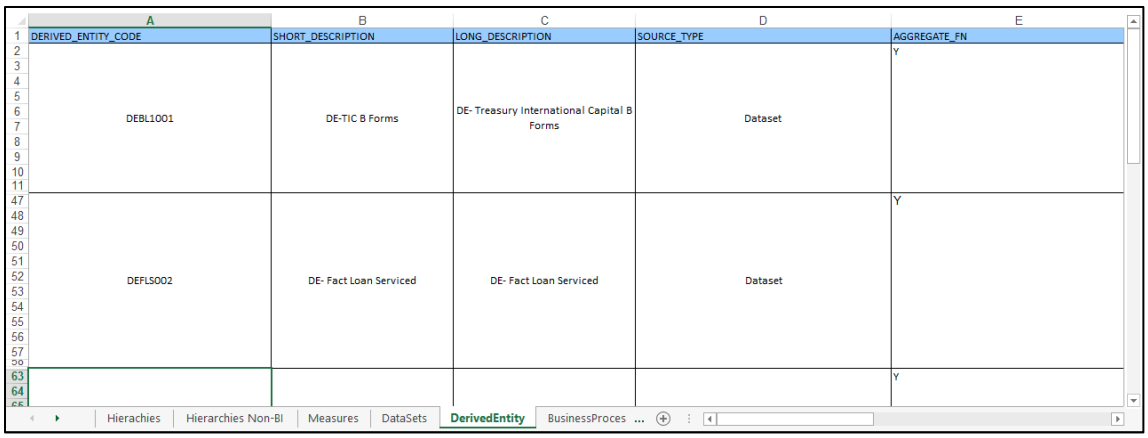
Figure 115: Business Metadata-1

	A	B	C	D	E
1	HIERARCHY_CODE	HIERARCHY_TYPE	SHORT_DESCRIPTION	COMMENTS	ENTITY_NAME
2	HIBL1001	BI	Treasury Claim Liability Type Hierarchy	Treasury Claim Liability Type Hierarchy	DIM_TRS_CLAIM_LIABILITY_TYPE
3	HIBL1002	BI	Standard Party Type Hierarchy	Standard Party Type Hierarchy	DIM_STANDARD_PARTY_TYPE
4	HIBL1003	BI	Party Country Hierarchy	Party Country Hierarchy	A_DIM_COUNTRY_CUST
5	HIBL1004	BI	Foreign Official Institution Indicator Hierarchy	Foreign Official Institution Indicator Hierarchy	A_REG_CUST_FOREIGN_OFF_IND
6	HIBL1005	BI	International and Regional Institution Hierarchy	International and Regional Institution Hierarchy	DIM_REG_INTL_ORG
7	HIBL1010	BI	Short Term Hierarchy	Short Term Hierarchy	A_DIM_BANDS_CONTRACTUAL
8	HIBL1011	BI	Own Office Flag Hierarchy	Own Office Flag Hierarchy	A_REG_ACC_OWN_OFF_IND
9	HIBL1012	BI	Ownership Type Hierarchy	Ownership Type Hierarchy	FCT_COMMON_ACCOUNT_SUMMA
10	HIREG001	BI	Calendar Date	Calendar Date	DIM_DATES
11	HIREG002	BI	Run Description	Run Description	DIM_RUN
12	HIREG004	BI	Org Structure Entity Code	Org Structure Entity Code	DIM_ORG_STRUCTURE
13	HIBL1016	BI	Non Interest Bearing Deposit Hierarchy	Non Interest Bearing Deposit Hierarchy	DIM_PRODUCT
14	HIBL1018	BI	Claim Liability Identifier	Claim Liability Identifier	DIM_TRS_CLAIM_LIABILITY_IDEN
15	HIBL1019	BI	Currency Code	Currency Code	DIM_CURRENCY
16	HIBL1020	BI	IBF Branch Indicator Hierarchy	IBF Branch Indicator Hierarchy	A_COMM_ACC_IBF_ACC_IND
17	HIBL1021	BI	Reg Org Region Group Code	Regulatory Organization Region Group Code	DIM_REG_ORGN_REGION_GROUP
18	HIRUN547	BI	Org Structure Entity Name	Org Structure Entity Name	DIM_ORG_STRUCTURE
19	HIRUN548	BI	Consolidation Description	Consolidation Description	A_RUN_PARAMETERS_LOV_CONSL
20	HIRUN549	BI	Reporting Currency	Reporting Currency	A_RUN_PARAMETERS_LOV_RCY
21	HIRUN550	BI	Run Exec ID	Run Exec ID	DIM_RUN
22	HIRUN551	BI	Run Status	Run Status	DIM_RUN
23	HIBL1022	BI	Issuer Country Hierarchy	Issuer Country Hierarchy	A_DIM_COUNTRY_ISSUER
24	HIBL1023	BI	Custodian Identification	Custodian Identification	DIM_FIDUCIARY_SERVICE_TYPE
25	HIBL1024	BI	Depository Institution Flag	Depository Institution Flag	A_DIM_PARTY_DEPOSITORY_FLAG

Hierachies | Hierarchies Non-BI | Measures | DataSets | DerivedEntity | BusinessProces ...

5. By referring to the Business Metadata document, you can get complete information on Derived Entity such as dataset, Fact tables, measures, hierarchies defined under particular Derived Entity.

Figure 116: Business Metadata-2



	A	B	C	D	E
1	DERIVED_ENTITY_CODE	SHORT_DESCRIPTION	LONG_DESCRIPTION	SOURCE_TYPE	AGGREGATE_FN
2	DEBL1001	DE-TIC B Forms	DE- Treasury International Capital B Forms	Dataset	Y
47	DEFLS002	DE- Fact Loan Serviced	DE- Fact Loan Serviced	Dataset	Y
63					Y

Hierachies | Hierarchies Non-BI | Measures | DataSets | DerivedEntity | BusinessProces ...

The Dataset ANSI Joins provides valuable information on how various entities are joined or linked together. By executing these Joins, you can confirm if data is available for given filters and conditions. If data is fetched using Dataset Joins and Data Lineage does not show data, you must log a Bug or Service Request with My Oracle Support.

OFSAA Support

Raise a Service Request (SR) in My Oracle Support (MOS) for queries related to the OFSAA applications.

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- Did you find any errors?
- Is the information clearly presented?
- Do you need more information? If so, where?
- Are the examples correct? Do you need more examples?
- What features did you like most about this manual?

If you find any errors or have any other suggestions for improvement, indicate the title and part number of the documentation along with the chapter/section/page number (if available) and contact the Oracle Support.

Before sending us your comments, you might like to ensure that you have the latest version of the document wherein any of your concerns have already been addressed. You can access My Oracle Support site that has all the revised/recently released documents.