# Oracle Financial Services Regulatory Reporting for European Banking Authority (EBA) – Lombard Risk Integration Pack

**User Guide** 

Release 8.0.8.0.0

Nov 2019



Financial Services



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#### 1 About the 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:

- Scope of the guide
- Intended Audience
- Documentation Accessibility
- Related Information Sources
- How This Guide is Organized
- Conventions Used

#### 1.1 Scope of the Guide

The objective of this user guide is to provide comprehensive working knowledge on Oracle Financial Services Regulatory Reporting for European Banking Authority (EBA) – Lombard Risk Integration Pack, Release 8.0.8.0.0. This user guide is intended to help you understand the key features and functionalities of Oracle Financial Services Regulatory Reporting for European Banking Authority (OFS REG REP EBA) – Lombard Risk Integration Pack release 8.0.8.0.0 and details the process flow and methodologies used.

#### 1.2 Intended Audience

Welcome to Release 8.0.8.0.0 of the Oracle Financial Services Regulatory Reporting for European Banking Authority (EBA) – Lombard Risk Integration Pack User Guide.

This guide is intended for:

- Regulatory Reporting Analyst who bears the responsibility to verify and submit the results.
  He/She 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.

#### 1.3 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc

#### 1.4 Access to Oracle Support

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

#### 1.5 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 European Banking Authority (EBA) – Lombard Risk Integration Pack Installation Manual Release 8.0.8.0.0

Oracle Financial Services Data Foundation User Guide Release 8.0.8.0.0

Oracle Financial Services Data Foundation Installation Manual Release 8.0.8.0.0

Oracle Financial Services Analytical Applications Infrastructure User Guide Release 8.0.8.0.0 (present in the OHC documentation library)

#### 1.6 How this guide is Organized

The OFS REG REP EBA User Guide includes the following topics:

- Chapter 2: Introduction
- Chapter 3: Getting Started
- Chapter 4: Regulatory Reporting Solution Data Flow
- Chapter 5: OFSAA Features
- Chapter 6: Executing Run through Run Management
- Chapter 7: Metadata Export Utility
- Chapter 8: Report Submission
- Chapter 9: Maintenance
- Chapter 10: Troubleshooting Guidelines

### 1.7 Conventions Used

Table 1 lists the conventions used in this guide.

**Table 1: Conventions Used in this Guide** 

Convention	Meaning
Italics	Names of books, chapters, and sections as references
Bold	<ul> <li>The object of an action (menu names, field names, options, button names) in a step-by-step procedure</li> <li>Commands typed at a prompt</li> <li>User input</li> </ul>
Monospace	<ul> <li>Directories and subdirectories</li> <li>File names and extensions</li> <li>Process names</li> <li>Code sample, including keywords and variables within a text</li> </ul>

#### 2 Introduction

This chapter provides an understanding of the OFS REG REP EBA application and its scope. It includes:

- Overview
- OFSAA Regulatory Reporting Architecture
- Scope

#### 2.1 Overview

With the onset of regulatory requirements from a variety of regulators around the globe, financial institutions are struggling to keep up with the constantly changing regulatory environment and the regulators themselves are finding it difficult to analyze a pile of reports. In turn, the European Banking Authority (EBA) introduced a common standard of reporting: one for Financial Reporting (FINREP) and one for Common Reporting (COREP). The two standards use a very structured way of gathering data, and also introduced the Data Point Model (DPM) along with the relational database to provide standard meaning to all reporting elements.

On the lines of common reporting requirements as stipulated by the EBA, the European Central Bank (ECB) also came out to collect detailed credit risk data pertaining to Non-Natural Persons in a harmonized manner. ECB issued a regulation on May 18, 2016, widely known as AnaCredit (Analytical Credit Dataset) Regulation, to collect granular credit and credit risk data with effect from reporting date September 30, 2018.

While on one hand, ECB ensures to harmonize reporting requirements and implementation practices, on the other hand, it gives discretionary powers to the National Central Banks (NCBs) either to collect additional data or to provide derogations for small resident reporting agents.

The RRS EBA solution addresses the reporting requirements of both the regulators, EBA and ECB. In addition, it addresses the reporting requirements with respect to AnaCredit as laid down by the Central Bank of Malta (CBM).

The RRS EBA 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 Solution (RRS) enables firms to automate the final mile of the reporting process. It provides pre-built integration to Lombard Risk 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.

#### Data Governance Studio Control Monitoring Issues and Action Plans Key Indicators Metadata Browser Enterprise **Data Sources** Reporting **OFSAA Staging OFSAA Results** Loans and Leases GL Data Off Balance Sheet Management Reporting Account Data products **Analytical Engines** Lombard Risk Reporter Portal Customer Summary Securities Regulatory Capital Calculations Customer Data Account Summary ALLL, Fair Value, Economic Capital Derivatives Trading Data Calculations Transactions Summary Capital Data Stress Executions Currency Data Cash Flows MømtLedger Third Party Models Master Data Third Party Calculation Eng General Ledger OBIEE

#### 2.2 OFSAA Regulatory Reporting Architecture

Figure 1: Regulatory Reporting Solution Architecture

This interface connects the Oracle FSDF to Lombard Risk. As one can see in the Architecture (Figure 1), Data flows from OFSAA to Lombard Risk.

OFSDF is an analytical data warehouse platform for the Financial Services industry. OFSDF 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 the universe (not just OFSAA Results). It provides automated repeated manual adjustments, variance analysis, and validation checks.

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

#### 2.3 Scope

Oracle Financial Services Regulatory Reporting for European Banking Authority (EBA) – Lombard Risk Integration Pack covers the following regulatory reports for specified release as mentioned in the table:

Report Name	Schedule Name / Description	Released Version
COREP - Capital Adequacy	C 01.00 - Own funds definition	8.0.8
COREP - Capital Adequacy	C 02.00 - Risk Exposure Amounts	8.0.8
COREP - Capital Adequacy	C 03.00 - Ratios	8.0.8
COREP - Capital Adequacy	C 04.00 - Memorandum Items	8.0.8
COREP - Capital Adequacy	C 05.01 - Transitional provisions: Summary & Grandfathered instruments not constituting State aid	8.0.8
COREP – Credit Risk	C 09.01 - Geographical breakdown of exposures by the residence of the obligor (SA exposures)	8.0.8
COREP – Credit Risk Standardised Approach	C 07.00 – Credit and counterparty credit risks and free deliveries: Standardized Approach to capital requirements	8.0.3
COREP – Operational Risk	C 17.00 – Operational risk: Losses and recoveries by business lines and event types in the last year	8.0.3
COREP – Large Exposures	C 26.00 – Large exposures limits	8.0.3
COREP – Large Exposures	C 27.00 – Identification of the counterparty	8.0.3
COREP – Large Exposures	C 28.00 – Exposures in the non-trading and trading book	8.0.3
COREP – Large Exposures	C 29.00 – Detail of the exposures to individual clients within groups of connected clients	8.0.3
COREP – Large Exposures COREP - Large Exposures	C 30.00 – Maturity buckets of the 10 largest exposures to institutions and the 10 largest exposures to unregulated financial entities	8.0.3
COREP – Large Exposures	C 31.00 – Maturity buckets of the 10 largest exposures to institutions and the 10 largest exposures to unregulated financial entities: detail of the exposures to individual clients within groups of connected clients	8.0.3
COREP – Leverage Ratio	C 40.00 – Alternative treatment of the Exposure Measure	8.0.4
COREP – Leverage Ratio	C 41.00 – On- and off-balance sheet items – additional breakdown of exposures	8.0.4
COREP – Leverage Ratio	C 42.00 – Alternative definition of capital	8.0.4
COREP – Leverage Ratio	C 43.00 – Breakdown of leverage ratio exposure measure components: Off-balance sheet items, derivatives, SFTs and trading book	8.0.4

Report Name	Schedule Name / Description	Released Version
COREP – Leverage Ratio	C 44.00 – General Information	8.0.4
COREP – Leverage Ratio	C 47.00 – Leverage ratio calculation	8.0.4
COREP – Stable Funding	C 60.00 - Items requiring stable funding	8.0.7
COREP – Stable Funding	C 61.00 - Items providing stable funding	8.0.7
COREP – Liquidity Coverage	C 72.00 – Liquidity Coverage. Liquid assets	8.0.3
COREP – Liquidity Coverage	C 73.00 – Liquidity Coverage. Outflows	8.0.4
COREP – Liquidity Coverage	C 74.00 – Liquidity Coverage. Inflows	8.0.5
COREP – Liquidity Coverage	C 75.00 – Liquidity Coverage. Collateral swaps	8.0.4
FINREP	F 01.00 – Balance Sheet Statement [Statement of Financial Position]	8.0.4
FINREP	F 02.00 – Statement of profit or loss	8.0.3
FINREP	F 03.00 – Statement of comprehensive income	8.0.5
FINREP	F 04.00 – Breakdown of financial assets by instrument and by counterparty sector	8.0.3
FINREP	F 05.00 – Breakdown of loans and advances by product	8.0.3
FINREP	F 06.00 – Breakdown of loans and advances to non-financial corporations by NACE codes	8.0.3
FINREP	F 07.00 – Financial assets subject to impairment that are past due or impaired	8.0.3
FINREP	F 08.00 – Breakdown of financial liabilities by product and by the counterparty	8.0.3
FINREP	F 09.00 – Off-balance sheet items subject to credit risk	8.0.3
FINREP	F 10.00 – Derivatives: Trading	8.0.3
FINREP	F 11.00 – Derivatives - Hedge accounting	8.0.3
FINREP	F 12.00 – Movements in allowances and provisions for credit losses	8.0.5
FINREP	F 13.00 – Breakdown of loans and advances by collateral and guarantees	8.0.3
FINREP	F 14.00 – Fair value hierarchy: financial instruments at fair value	8.0.3
FINREP	F 15.00 – Derecognition and financial liabilities associated with transferred financial assets	8.0.6
FINREP	F 16.00 – Interest income and expenses by instrument and counterparty	8.0.3.1

Report Name	Schedule Name / Description	Released Version
FINREP	F 17.00 – Reconciliation between IFRS and CRR scope of consolidation	8.0.5
FINREP	F 18.00 – Information on performing and non-performing exposures	8.0.3.1
FINREP	F 19.00 – Information on forborne exposures	8.0.3.1
FINREP	F 20.00 – Geographical breakdown	8.0.3.1
FINREP	F 21.00 – Tangible and intangible assets	8.0.5
FINREP	F 22.00 – Fee and commission income and expenses by activity	8.0.5
FINREP	F 30.00 – Geographical breakdown	8.0.5
FINREP	F 31.00 – Related parties	8.0.5
FINREP	F 40.00 – Group structure	8.0.6
FINREP	F 41.00 – Fair value hierarchy	8.0.5
FINREP	F 42.00 – Tangible and intangible assets	8.0.5
FINREP	F 43.00 – Provisions	8.0.5
FINREP	F 44.00 – Net defined benefit plan assets and liabilities	8.0.5
FINREP	F 45.00 – Gains and losses on financial assets and liabilities/ on de-recognition of non-financial assets	8.0.5
FINREP	F 46.00 – Statement of changes in equity	8.0.5
AnaCredit	AnaCredit – Central Bank of Malta (CBM) Regulatory Reporting	8.0.6

#### 3 Getting Started

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

- Prerequisites
- Assumptions
- Logging in to the OFSDF Interface with Lombard Risk for EBA
- Organization of the Interface for User Roles
- Metadata Browser

OFSDF interface with OFS REG REP EBA 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 detailed prerequisites and instructions on installing this Interim Release, see <u>Oracle Financial Services Regulatory Reporting for European Banking Authority – Lombard Risk Integration Pack Installation Guide Release 8.0.8.0.0.</u>

#### 3.2 Assumptions

OFSDF interface with OFS REG REP EBA is a reporting application and it does not perform any risk/stress calculations. The assumptions for the application are:

- 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 the 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 the regulator 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 a 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 overall functioning.
- For data provided as of date, such as the 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 the date in nature. 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.

- All percentage data are expected in decimal format meaning 9% must be provided as 9 and not 0.09.
- Account Balances such as End of Period Balances are expected to be provided as Net of (without) Unearned Income.
- For the purpose of CBM AnaCredit reporting, it is assumed that all the Observed Agents are
  under the purview of Capital Requirement Regulation. As a result, they will continue to report the
  default status at the counterparty level in the Counterparty Risk Dataset and not at the instrument
  level.
- For Counterparty Default Dataset and Counterparty Risk Dataset:
  - The Protection Provider is reported (apart from debtor acting as Protection Provider) on condition that they are at the same time the issuer of the protection (in particular, if the protection item is a financial guarantee as defined in the ITS).

However, it contradicts the Case 11.2 – Non-recourse factoring published by ECB as "AnaCredit\_Manual\_Part\_III\_Case\_studies.en", where PP8564235 is reported as Protection Provider even though it is not a "Debtor" and Type of Protection is not "financial guarantee as defined in the ITS". Currently, we are NOT filtering Protection Provider based on Type of Protection.

- In the COREP C61 Report, the following assumptions are made:
  - **a.** R70 to R100 and R140 to R170: The product is mapped as Secured lending transactions based on the line item description and instructions even though the Annotated Layout gives the main category as Deposits.
  - **b.** R70 to R100 and R140 to R170: In the annotated layout, liquidity requirements are given as "Non-qualifying for the treatment in Article 422(3) and (4)". This is applicable only for Deposits. Since the product for these line items is not Deposits, this is ignored.
  - **c.** R110 to R130: The line item description has wordings "liabilities reported in 1.2.2.2.1", but there is no such line item in the mapping and hence our assumption is that there is a mistake in the layout; so the reference is not considered and these rows are treated as independent line items.
  - **d.** R180 to R200: The line item description has wordings "liabilities reported in 1.2.3.2.1", but there is no such line item in the mapping and hence our assumption is that there is a mistake in the layout; so the reference is not considered and these rows are treated as independent line items.
- In COREP C75 Report, C90 to C120 is assumed that Collateral Derivatives have either collateral borrowed or collateral lent. Taking this into account, it is assumed that the collateral which is not present is assumed as a non-liquid asset and considered for that appropriate line item. For example, if a transaction has only Collateral borrowed as "Level 1 assets (excluding EHQ covered bonds)", then collateral lent is assumed as non-liquid and reported in R660C110. This assumption is done because there is no line item in the report which has collateral borrowed or collateral lent as "Not Applicable".
- COREP C05: Mapping has not been provided for few cells of columns 10, 20 & 30 where the adjustment happens only in 1 column (either CET1 or AT1 or T2). But the other columns are not greyed out in the report hence the other adjustments are populated as zero.

R150C020; R160C020; R180C020; R180C030; R210C020; R211C020; R221C010; R221C030; R231C010; R231C020; R260C020; R260C030; R270C020; R270C030; R290C010; R290C030; R300C010; R300C030; R320C010; R320C020; R330C010; R330C020; R350C020; R350C030; R360C010; R360C030; R370C010; R370C020; R400C020; R410C010; R410C030; R420C010; R420C020.

- The Banks must ensure that the download specification must confirm to the ECB Regulation changes related to Counterparty Identifier Reporting (to confirm with the list of values provided for International Organizations).
- The Banks must ensure that the download specification must conform to the ECB Regulation changes related to National Identifier Reporting.
- The custom reclassification must confirm to the ECB Regulation changes related to Legal Forms.
   The list of values is modified as per the Regulation in OFSAA Dimension (DIM\_REG\_ORG\_CONSTITUENT\_TYPE).

# 3.3 Logging in to the OFSDF Interface with Lombard Risk for EBA

After the application is installed and configured, to access the OFSDF Interface with Lombard Risk for EBA application you need to log in to the OFSAAI environment using the OFSAAI login page.

To access application follow these steps:

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

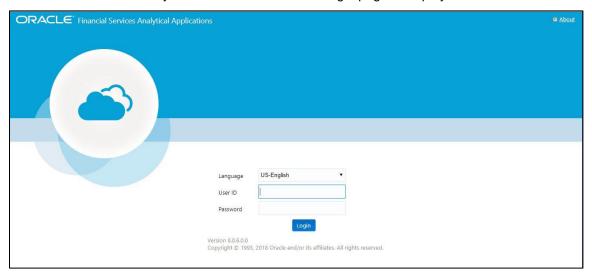


Figure 2: OFSAAI Log In

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

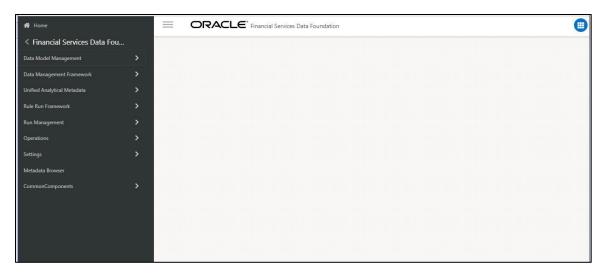


Figure 3: Landing Page

#### 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.

Data Analysts are expected to perform the following activities:

- 1. Marking Run as Final
- 2. Executing Batch to Refresh Derived Entities
- 3. Drill-down from AgileREPORTER to OFSDF

Reporting 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

#### 3.4.1 Marking Run as Final

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

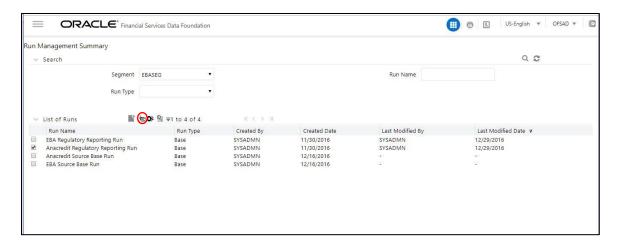


Figure 4: Run Management Summary Screen



Figure 5: Run Execution Summary Screen

#### 3.4.2 Executing Batch to Resave Derived Entities (EBA / ECR)

To execute the batch to refresh derived entities, perform the following steps:

- 1. Navigate to Financial Services Data Foundation → Operations → Batch Execution.
- Select the batch <<INFODOM>>\_REG\_REP\_EBA\_DE\_RESAVE to resave all the DEs used in EBA (ECR).

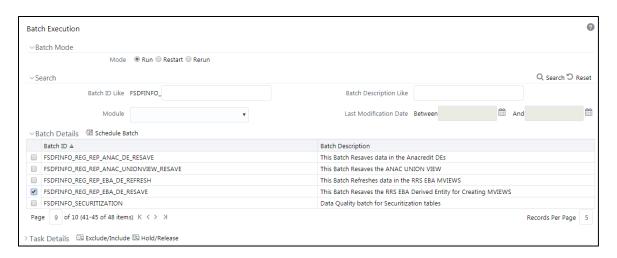


Figure 6: Batch Execution Screen

3. Monitor the status of the batch using the Batch Monitor (Financial Services Data Foundation → Operations → Batch Monitor).

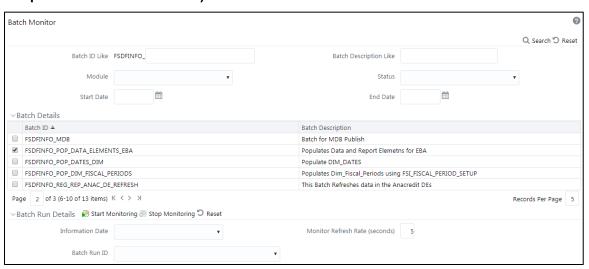
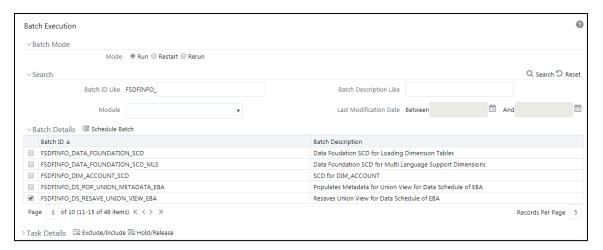


Figure 7: Batch Monitor Screen

- 4. Navigate to Financial Services Data Foundation → Operations → Batch Execution
- Select the batch <<INFODOM>>\_DS\_RESAVE\_UNION\_VIEW\_EBA to resave all the Views used in EBA / ECR.



6. Monitor the status of the batch using the **Batch Monitor** (Financial Services Data Foundation → Operations → Batch Monitor).

#### 3.4.3 Executing Batch to Resave Derived Entities (AnaCredit / ECB)

To execute the batch to refresh derived entities, perform the following steps:

- 1. Navigate to Financial Services Data Foundation → Operations → Batch Execution
- Select the batch <<INFODOM>>\_REG\_REP\_ANAC\_DE\_RESAVE to resave all the DEs used in ECB (AnaCredit).

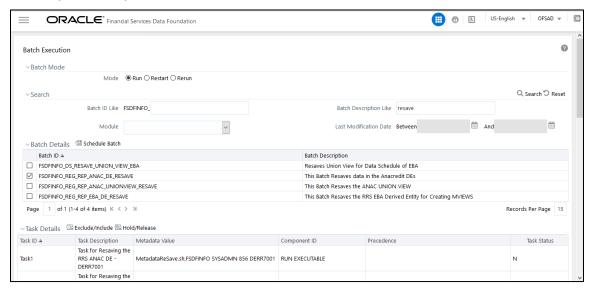


Figure 8: Batch Execution Screen

3. Monitor the status of the batch using the Batch Monitor (Financial Services Data Foundation → Operations → Batch Monitor).

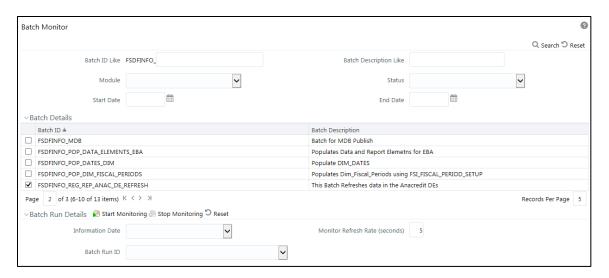
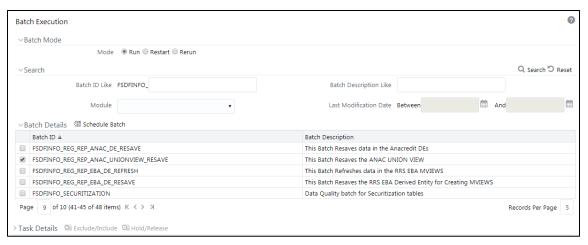


Figure 9: Batch Monitor Screen

- 4. Navigate to Financial Services Data Foundation → Operations → Batch Execution
- Select the batch <<INFODOM>>\_REG\_REP\_ANAC\_UNIONVIEW\_RESAVE to resave all the Views used in ECB.



6. Monitor the status of the batch using the Batch Monitor (Financial Services Data Foundation → Operations → Batch Monitor).

#### 3.4.4 Logging to AgileREPORTER to Retrieve the Returns

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.

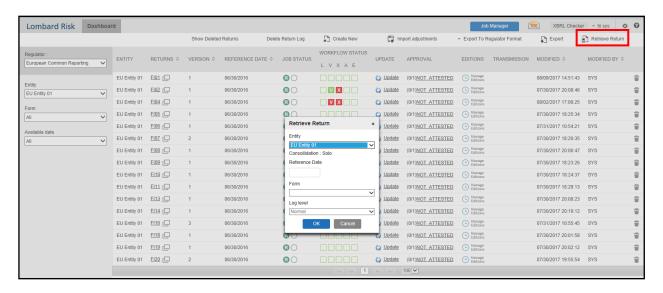


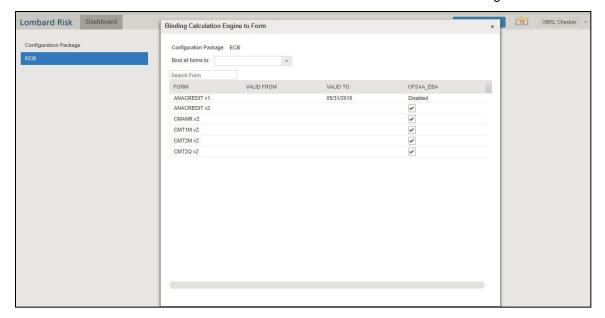
Figure 10: Retrieve Returns Page

#### 3.4.4.1 AgileREPORTER for AnaCredit Data Schedules

The Retrieve Return functionality in AgileREPORTER for AnaCredit (ECB) is performed as follows:

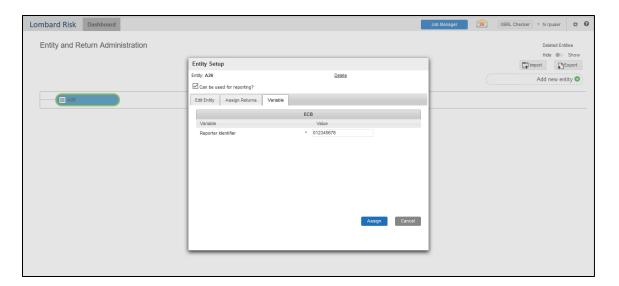
1. Navigate to Settings → Administration → Config Package Binding → Binding Calculation Engine To Form.

Ensure that all the AnaCredit data schedule boxes are selected as shown in the figure.

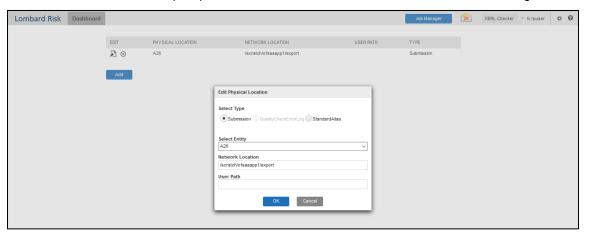


2. Navigate to Settings → Entity Setup.

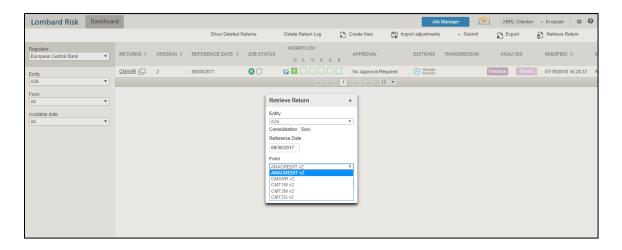
In **Entity Setup**, assign a Reporting identifier.



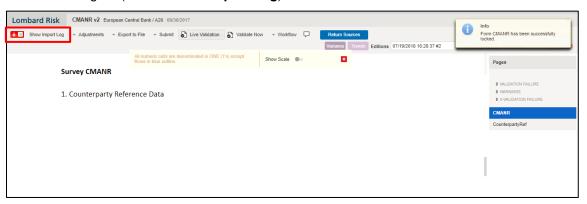
- 3. Navigate to Settings → Administration → Setup Network Files Location.
- 4. Create a folder from the WinSCP server under Linux user (/scratch/ofsaaapp1/export).
- 5. Select Add and enter the export path for the Data Schedule XML files as shown in the figure.



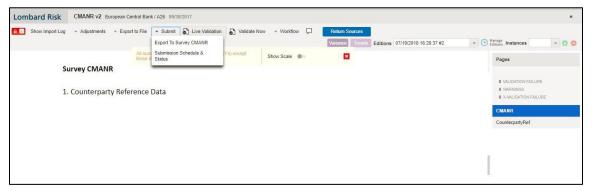
**6.** Select Retrieve Return. Enter the required details to retrieve the Data Schedule report as the usual procedure.



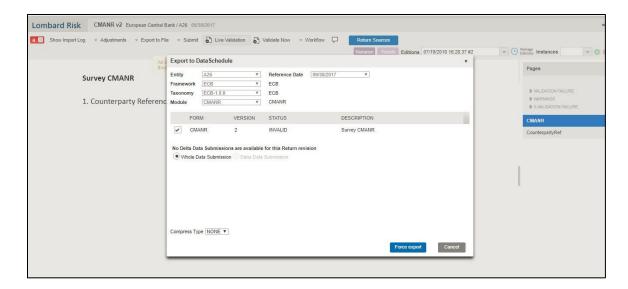
7. Open the generated report and lock the report for export with the option at the top left column as shown in the figure (next to **Show Import Log**).



8. Now go to submit option in the taskbar which you can see in the below snapshot and select **Export To <required data schedule>** (in this case, **Survey CMANR**) as shown in the figure.



9. Export the data by selecting the required **Forms** and then **Force export** as shown in the figure.



**10.** The XML file is generated in the location mentioned in Step 3.

## 3.4.5 Report Verification – Drill-down from AgileREPORTER to OFSAA Results Area

The 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 11: 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, **FI04**.

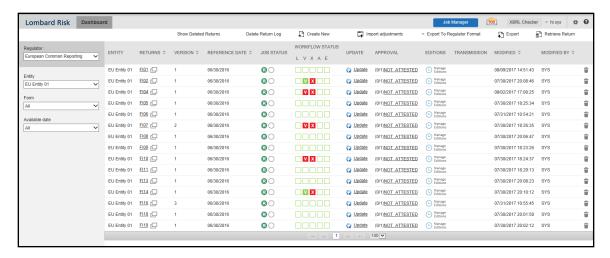


Figure 12: AgileREPORTER Main Page

3. The schedule list is displayed on the right-hand side. Click any **schedule name**, for example, **Table 4.1**.

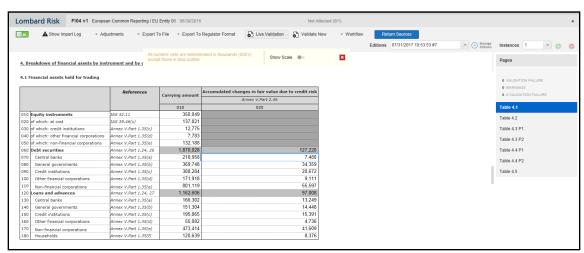


Figure 13: AgileREPORTER Page Displaying List of Schedules

**4.** Click any cell to drill-down. Figure 14 displays drill-down for the cell. The **OFSAA icon** is displayed.

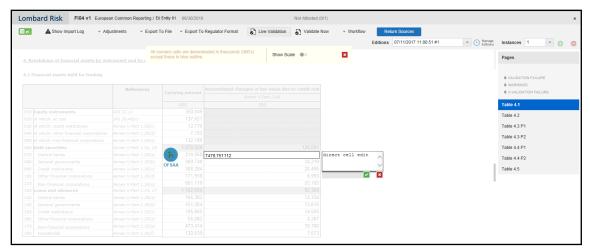


Figure 14: AgileREPORTER Drill-down (OFSAA Icon)

Click the OFSAA icon, to view how this cell was populated (provides information about the amounts reported in a cell) from OFSAA results. You are redirected to the OFSAA drill-down page.

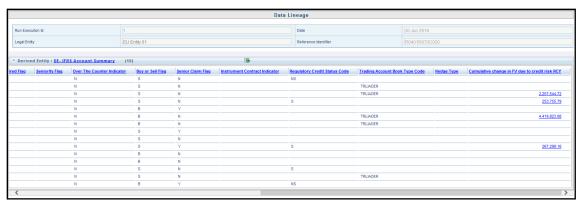


Figure 15: AgileREPORTER Drill-down

6. This cell is populated from the derived entity mentioned in the grid header DE – IFRS Account Summary. The value in the derived entity grid 7479.751112 (rounded to 7,480) is the sum of the Cumulative change in FV due to credit risk RCY must match with that of the cell in the report. The 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 is displayed with data. Click the Derived Entity link in the grid header.

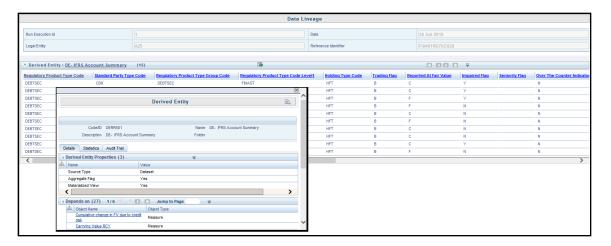


Figure 16: Data Trace Browser / OFSAA Report Drill-down Screen

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.

7. Double-click any figure in the screen to drill-down to the fact tables. The below grid displays the detailed granular rows of fact data that comprises the derived entity aggregate. Scroll to the right in the second grid to view the values.

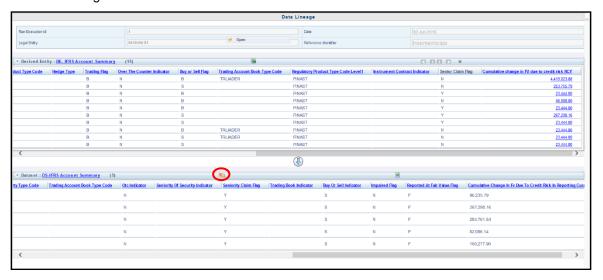
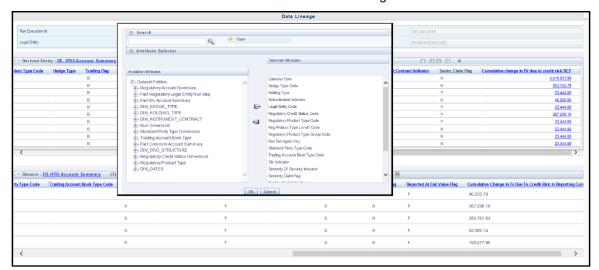


Figure 17: Derived Entity MDB View



8. Click the Attribute Selector icon on the header of the second grid.

Figure 18: Drill-down Attribute Selector 1

9. Expand Data Entities and select Attribute to be shown in the drill-down. Click OK.

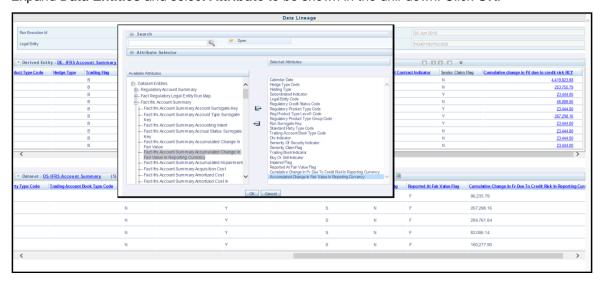


Figure 19: Drill-down Attribute Selector 2

NOTE

Select the required Data Source, from the

Available list and click the icon. You can
press the Ctrl key for multiple selections. To
map all the listed Data Sources to the
application, click the icon.

**10.** If **Accumulated Charge in Fair Value** details is required, scroll and click the column header. The details are displayed in a separate window.

Figure 20: Drill-down Columns

#### 3.5 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 trace 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 Application, 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 View), 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 it can be 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.

To use MDB for schedule-wise metadata, and to use MDB for metadata wise schedule, perform the following steps.

- 1. To use MDB for schedule-wise metadata, for a given schedule, identify the metadata used.
  - a. You can verify the data for related data elements in results using this information. Navigate to path Objects → OFSAA Data Model → Reporting Metadata → Reports. The Left Hand Side (LHS) displays the list of reports. For example, Figure 21 refers to the Fl0401 report.



Figure 21: MDB - Reporting Metadata - Schedule View 1

b. Click the object view FI04-FI0401. The Report Details page is displayed.

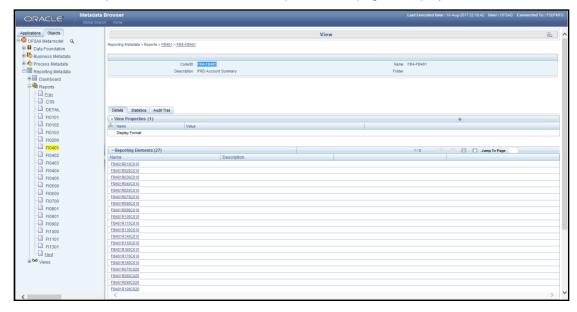
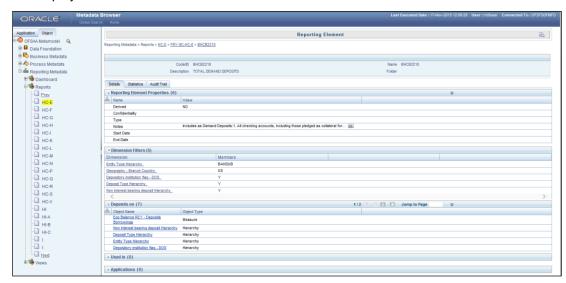


Figure 22: MDB - Reporting Metadata - Schedule View 2

You can view the below information in the Details tab:

- Reporting Elements: This section displays the line items in a report with regulatory references.
- **Depends On**: This section displays the metadata used in a given schedule.
- **Used In**: This section displays the Reports in which this schedule is used.
- Applications: This section displays the applications in which this schedule is used.



**c.** Click any Reporting Element. For example, FI0401R140C010. The following page is displayed.

Figure 23: MDB - Reporting Metadata - Schedule View 3

You can view the following information on this page:

• **Reporting Element Properties**: It provides information on line items or cell references in regulatory reports.

Fields	Description
Derived	Provides information on whether the cell is derived/computed using other elements.
Confidentiality	Refers to regulator specific interpretation.
Туре	Refers to regulator specific interpretation.
Notes	Refers to regulator specific interpretation.
Start Date	Refers to regulator specific interpretation.
End Date	Refers to regulator specific interpretation.

Table 2: Fields and their Descriptions in Reporting Element Properties

- **Dimension Filters**: This section displays the dimensions and node value filters used to derive a particular cell.
- **Depends on**: This section displays all the hierarchies (dimensions, filters) and business measures used for arriving at a particular cell / MDRM code.
- Used In: This section displays the Objects in which this schedule is used.
- Applications: This section displays the applications in which this schedule is used.

- 2. Starting from common metadata used across the application, you may want to know the list of reports/ derived entities this metadata has used. Let us take an example of a measure. To identify how value has been computed, follow these steps to trace it back to the metadata:
  - a. To view the measures, navigate to path Objects → OFSAA Data Model → Business Metadata → Measures. The LHS displays the list of measures. For example, Figure 24 refers to ALM EOP Balance RCY.

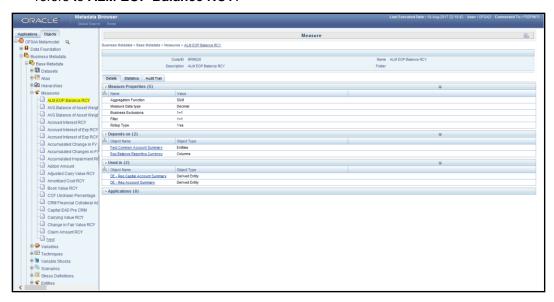


Figure 24: MDB - Business Metadata - Measure View

You can view the below information in this page:

- **Measure Properties**: It provides information on the properties of Business measures. For example aggregation function, Measure Data Type, Business Exclusions, Filter and Rollup Type.
- Depends on: This section displays all the object names and their types, such as Entities, Columns and so on.
- **Used In**: This section displays the Objects in which this schedule is used.
- **Applications**: This section displays the applications in which this schedule is used.

Follow these steps to view the derived entities used in a given schedule:

NOTE The similar steps as below are applicable for other metadata such as Business Metadata (Hierarchies, Measures, Variables and so on) and Derived Metadata (Dimensions, Filters and so on).

To view the schedule-wise derived entities, navigate to path **Objects** → **OFSAA Data Model** → **Derived Metadata** → **Derived Entities**. The LHS displays the list of Schedules. For example, Figure 25 displays the derived entities used in the **FCT IFRS Account Summary** table.

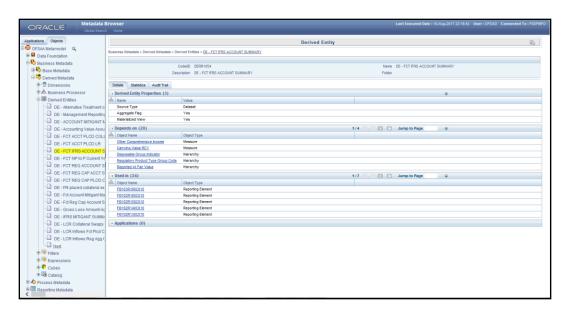


Figure 25: MDB - Business Metadata - Derived Entity

You can view the following information on this page:

- **Derived Entity Properties**: It provides information on properties of derived entities, such as Source Type, Aggregate Flag, and Materialized View.
- **Depends on**: This section displays all the object names and their types, such as Measure, Hierarchy, and so on.
- **Used In**: This section displays the Objects in which this schedule is used.
- **Applications**: This section displays the applications in which this schedule is used.

## 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.

#### It includes:

- <u>Data Preparation</u>
- Mapping of Results to Line Items in Reporting
- AgileREPORTER: Submission

#### 4.1 Data Preparation

This section explains the input data preparation from OFSAA. It includes:

- Assumptions for Data Preparation
- Run/Execution Expectations
- Projection Data
- 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
- Dimension Tables/Entities

#### 4.1.1 Assumptions for Data Preparation

- 1. RRS is a reporting solution, which uses data from underlying fact tables directly for reporting. The end-user is expected to prepare the load for the required data in the reporting area accordingly. Although this has a thin processing layer to reclassify to 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 RRS data sourcing.
- **3.** Baseline and stress data must be populated with appropriate codes. Inaccurate mappings may lead to inaccurate results. For details please refer to Relationship between Run and Stress.
- **4.** 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 for the purpose of reporting 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.
- 5. 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).
- **6.** For the purpose of AnaCredit reporting, default status, if any, is expected at a counterparty level and not at the instrument level.
- 7. For the purpose of AnaCredit reporting, the interest rate curve is expected as a concatenation of interest rate curve plus currency plus tenor. For instance, LIBOR in USD corresponding to 1 Month is expected as LIBOR USD 1M.

**8.** Data for the Attribute "Type of Identifier" is a direct download from the reporting institution (@stg\_party\_identification\_doc. v\_doc\_type\_code) and it is not seeded by FSDF. So the reporting institution has to provide the download in sync with the regulatory requirements and periodic updates, as applicable.

#### 4.1.2 EBA RUN CHART

Oracle Financial Services Regulatory Reporting for EBA – Lombard Risk Integration Pack provides the EBA RUN Chart listing the tasks required for the population of data for EBA 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
- EBA Specific Data Population and Transformation
- Derived Entity Refresh
- Download the OFS REG REP EBA 8.0.8.0.0 RUN Chart from the MOS.

## 4.1.3 Run/Execution Expectations

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

- 1. Current Data / Execution
  - b. Reporting month-end data
  - c. Projection Data
- 2. Historical (trend/vintage) Data
  - **d.** Yearly
  - e. Quarterly
- 3. Stressed Data

#### **NOTE**

- < For Movement measures data is not carried from one reporting period to another. For example, Profit or Loss. Where General ledger balances such as loan outstanding are carried forward from one year to another, profit and loss are period specific.
- Therefore, unlike End of Period (EoP) balance, movement values for quarter actuals must be derived for reporting. For historical data, net sales for quarter 3 is the difference between the sales figure as of the end of quarters 2 and 3. You do not need to provide this difference as a download. Movement data for actual is identified through different runs and the respective values is summed up.
- Only those records, whose corresponding runs fall between the fiscal month start date and end date of the reporting quarter are selected for summation. Each Run has an associated date, and runs can be performed daily. Assuming that runs are performed daily in a given quarter (90 days), RRS sums up data points across all 90 days to arrive at a quarter-end movement figure.
- However, when the projection of net sales for quarter 2 next year is to be performed, no derivation is required.
   Projections data for the said quarter can be directly downloaded in the respective Fact table(s) for reporting.

# 4.1.4 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 *Data Integration Hub (DIH) User Guide* in OHC Documentation Library for details. DIH enables to load 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.

## 4.1.5 Data Flow from Staging to Results Area

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

#### 4.1.5.1 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/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.

#### 4.1.5.2 Derived / Transformed Data and Reclassifications

OFSDF Interface with Lombard Risk for EBA requires specific hierarchies and data to be transformed and reclassified to regulator specific values.

**Table 3: Data Transformation Example** 

Source Hierarchy		Target Hierarchy	
Maturity Date	As-of-Date	DIM EBA Remaining Maturity	

This rule uses the bank-specific data coming at the account level, such as the maturity date. The difference between the maturity date and the as-of-date is computed to arrive at the remaining maturity band. However, these values are bank-specific and must be converted or reclassified to a regulatory specific set of values such as DIM EBA Remaining Maturity Band 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 available for reporting directly.

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

## 4.1.5.3 Re-classified to Regulatory Classifications

After transformation, the regulatory data is reclassified as follows:

**Table 4: Data Reclassification Example 1** 

Source	Attribute	Interim Target	Target
DIM PRODUCT	Withdrawable Reserve	DIM STANDARD PRODUCT	DIM REG PRODUCT
Checking Accounts	= N	CASA	Current Accounts

Table 5: Data Reclassification Example 2

FCT REG ACCOUNT SUMMARY					
Account Number	REG PROD Classification	Remaining Maturity Band	Delinquency Band		
1	OTHER TERM LOAN	1	3		

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

- Regulatory Product Classification
- Regulatory Instrument Classification
- Trading Account Book Type Classification

The additional transformations that are performed are:

- Remaining Time to Maturity Band
- · Regulatory Delinquency Band

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 Out-of-Box rule can differ from what you have. Such rules are very few and restricted to:

- 1. Standard Product Type Reclassification
- 2. Standard Party Type Reclassification
- 3. Standard Mitigant Type Reclassification
- 4. Regulatory Industry Reclassification
- 5. Regulatory Credit Status Reclassification
- 6. Regulatory Loan Purpose Reclassification

AnaCredit Reclassification Rules are as follows.

SI. No.	Rule Name	Rule Type	Source Table	Source Column	Target Table	Target Column
1	Standard Product Reclass – DIM_PRODUCT_TYPE to DIM_STANDARD_PRODUCT_TYPE	CUSTOM	FCT_REG_ACCOUNT _SUMMARY	N_PROD_TYPE_SKEY	FCT_REG_ACCOUNT_ SUMMARY	N_STANDARD_PROD UCT_TYPE_SKEY
			FCT_REG_ACCOUNT _SUMMARY	N_PARTY_TYPE_SKEY	FCT_REG_ACCOUNT_ SUMMARY	
2	Standard Party Reclass – DIM_PARTY_TYPE to DIM_STANDARD_PARTY_TYPE	CUSTOM	[Party granule] DIM_PARTY	[Party granule] V_PARTY_TYPE	FCT_REG_ACCT_JOIN T_LIABILITY	N_STANDARD_PART Y_TYPE_SKEY
			[Joint Liability granule] DIM_PARTY	[Joint Liability granule] V_PARTY_TYPE	FCT_REG_PARTY_DET AILS	
3	Standard Mitigant Reclass – DIM_MITIGANT_TYPE to DIM_STD_MITIGANT_TYPE	CUSTOM	FCT_MITIGANTS	N_MITIGANT_TYPE_SK EY	FCT_MITIGANTS	N_STD_MITIGANT_ TYPE_SKEY
4	Encumbrance Source – DIM_REG_ENCUMB_SOURCES – DIM_ENCUMBRANCE_SOURCES	CUSTOM	FCT_COMMON_ACC OUNT_SUMMARY	N_ENCUMBRANCE_SO URCE_SKEY	FCT_REG_ANAC_INST _ACCT_FIN_DS	N_REG_ENCUMB_ SRC_SKEY

5	Legal Proceeding Status – DIM_REG_LEGAL_PROCEDING_ STATUS - DIM_LEGAL_PROCEDING_STATUS	CUSTOM	FCT_REG_PARTY_D ETAILS	N_LEGAL_PROCEEDIN G_STS_SKEY	FCT_REG_ANAC_CNT RPRTY_REF_DS	N_REG_LEGAL_PRO CEDING_STS_SKEY
6	Type of Protection Value – DIM_REG_PROTECTION_VALUE_ TYPE - FCT_MITIGANTS	CUSTOM	FCT_MITIGANTS	V_TYPE_OF_PROTECT ION_VALUE	FCT_REG_ANC_PRTN_ RCD_DS	N_REG_PROTECT_ VALUE_TYPE_SKEY
7	Forbearance Status – FCT_REG_ACCOUNT_SUMMARY - FCT_COMMON_ACCOUNT_SUMM ARY	CUSTOM	FCT_COMMON_ACC OUNT_SUMMARY	N_FORBORNE_STATU S_SKEY	FCT_REG_ANAC_INST _ACCT_FIN_DS	N_REG_FORBORNE_ STATUS_SKEY
8	Account Purpose – DIM_REG_ACCOUNT_PURPOSE - DIM_ACCOUNT_PURPOSE	CUSTOM	FCT_COMMON_ACC OUNT_SUMMARY	N_ACCOUNT_PURPOS E_SKEY	FCT_REG_ANAC_INST _ACCT_FIN_DS	N_REG_ACCT_PURP OSE_SKEY
9	Industry Type – DIM_REG_INDUSTRY - DIM_INDUSTRY	CUSTOM	DIM_PARTY	V_INDUSTRY_CODE	FCT_REG_ANAC_CNT RPRTY_REF_DS	N_REG_INDUSTRY_ SKEY
10	Organization Constituent Type – DIM_REG_ORG_CONSTITUTENT_ TYPE – DIM_PARTY	CUSTOM	DIM_PARTY	V_ORG_CONSTITUENT _TYPE	FCT_REG_ANAC_CNT RPRTY_REF_DS	N_REG_ORG_CONS T_TYPE_SKEY
11	Securitization Type- DIM_REG_SECURITIZATION_TYPE (CUSTOM)	CUSTOM	FCT_COMMON_ACC OUNT_SUMMARY	N_SECURITIZATION_T YPE_SKEY	FCT_REG_ANAC_INST _ACCT_FIN_DS	N_REG_SECURITIZA TION_TYPE_SKEY
12	Accounting Classification – DIM_REG_ACCT_CLASSIFICATION - DIM_HOLDING_TYPE	OUT-OF- BOX	_	_	_	_
13	Default Status – DIM_REG_DEFAULT_STATUS - FCT_PARTY_DETAILS and FCT_COMMON_ACCOUNT_SUMM ARY	OUT-OF- BOX	_	_	_	
14	Enterprise Classification – DIM_REG_ENTPRISE_CLASSIFICTI ON - DIM_PARTY and FCT_PARTY_FINANCIAL_DETAIL	OUT-OF- BOX	_	_	_	

15	Interest Rate Reset Frequency – DIM_REG_FREQUENCY_TYPE - FCT_COMMON_ACCOUNT_SUMM ARY	OUT-OF- BOX	_	_	_	_
16	Payment Frequency – FCT_REG_ACCOUNT_SUMMARY - FCT_COMMON_ACCOUNT_SUMM ARY	OUT-OF- BOX	_	_	_	_
17	Amortization Type – DIM_REG_AMORTIZATION_TYPE - DIM_AMORTIZATION_TYPE	OUT-OF- BOX	_	_		_
18	Regulatory Product type – FCT_REG_ACCOUNT_SUMMARY – DIM_STANDARD_PRODUCT_TYPE	OUT-OF- BOX	_	_	ı	_
19	Protection Valuation Method - DIM_REG_VALUATION_METHOD - DIM_VALUATION_METHOD	OUT-OF- BOX	_	_		_
20	Institutional Sector – DIM_REG_PARTY_TYPE - DIM_STANDARD_PARTY_TYPE	OUT-OF- BOX	_	_	ı	_
21	Credit Status – DIM_REG_CREDIT_STATUS - DIM_CREDIT_STATUS	OUT-OF- BOX	_	_	_	_
22	Mitigant Type – DIM_REG_MITIGANT_TYPE - DIM_STD_MITIGANT_TYPE	OUT-OF- BOX	_	_	_	
23	GL Account to Reporting Line Mapper Maintenance	OUT-OF- BOX	_	_	_	_

See <u>Business Metadata</u> for details on these reclassifications.

## 4.1.6 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/schemas within the processing area.

The processing area tables/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.

## 4.1.7 Data Flow from Processing to Results Area

This step is similar to <u>Data Flow from Staging to Results Area</u>. It involves either pass through data from processing to results or loading directly to results (refer <u>Section 3.1.8</u>). This is mostly due to processing measures such as Fair Value, Risk-Weighted Assets, and so on.

# 4.1.8 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 implementation use cases in the regulatory reporting space where the customer can not have licensed any of the OFSAA application 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, it is imperative for the custom data flow design to 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  $\rightarrow$  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.

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 below options to maintain consistency in terms of data lineage in Metadata browser as the configured metadata can be made available in the meta-model via 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

#### 4.1.8.1 DIH Connectors

For customers that have licensed DIH to source data from external systems into OFSAA, this probably is the easiest approach to load data into the result area table. Source data could either reside in a relational structure or in a file structure. Mappings maintained in DIH are logical in nature while physical implementation is managed internally. Dimensional lookups work seamlessly without the need for any additional configuration in the connector mapping as this too is managed internally by DIH. See the DIH User Guide for details on how to load data into a result area table.



Figure 26: DIH Connectors

#### 4.1.8.2 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 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 OFS AAI User Guide for more details on configuring a T2T.

### 4.1.8.3 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 in 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 OFS AAI User Guide for more details on configuring an F2T.

# 4.1.9 FSDF Entity Information

## 4.1.9.1 Dimension Tables/Entities

**Table 6: Dimension Seeded Tables/Entities** 

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
1	DIM_ACCOUNT_CLASSIFICATION	Account Classification Dimension	This entity stores the account classifications according to different regulations.
2	DIM_ASSET_LEVEL	Liquidity Asset Level	This table stores the various Assent Level that can be assigned to the account. Under Basel Accord an account can be either Level 1 Asset or Level 2 Asset or Other Asset.
3	DIM_BANDS	Bands Dimension	This table stores 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_BANKING_ARRANGEMENT	Banking Arrangement Dimension	This table stores the banking arrangement codes.
5	DIM_BASEL_ASSET_CLASS	Basel Asset Class	This table stores the Basel defined Asset classes used to arrive at the relevant risk weight category or calculation formula.
6	DIM_BASEL_BANK_ROLE	Basel Bank Roles	This table stores the Bank Role type as defined by the Basel Accord.
7	DIM_BASEL_CREDIT_RATING	Basel Credit Ratings Dimension	This table stores the Basel defined Credit Ratings
8	DIM_BASEL_METHODOLOGY	Basel Methodology Dimension	This table stores the Approach Methodology as defined by Basel
9	DIM_BASEL_PRODUCT_TYPE	Basel Product Types Dimension	This table stores the product type as defined by Basel.
10	DIM_BOOLEAN_FLAGS	Boolean Flag Dimension	This table stores the list of the Boolean Flags.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
11	DIM_CLEARED_TXN_BANK_ROLE	Cleared Transaction Bank Role Dimension	This table stores the role of the financial institution in the transactions cleared by central counterparties. For example: Clearing Member, Clearing Member Client.
12	DIM_CONSOLIDATION	Consolidation Dimension	This entity stores details of various kinds of values to be analyzed like actual or budget.
13	DIM_COUNTRY	Country Dimension	This table stores country dimension data.
14	DIM_CREDIT_LINE_PURPOSE_CAT	Credit Line Purpose Category Dimension	This entity stores the purpose category of credit line which is available for liquidity, credit, both or other. This may have four values: LIQ (=Liquidity), CRT (=Credit), BOT (=Both Liquidity and Credit), OTH (Others).
15	DIM_CREDIT_RATING	Credit Rating Dimension	This table stores the credit rating information.
16	DIM_CURRENCY	Currency Dimension	The table stores the currency information.
17	DIM_DELQCY_WORKOUT_PROGRAM	Delinquency Workout Program Dimension	This table stores the loss/delinquency workout program associated with loans. The workout program is defined generally as: if a particular program is a deferment, forbearance, term changes, rate changes, and so on.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
18	DIM_DEPOSIT_PRIM_PURPOSE	Deposit Primary Purpose Dimension	This table stores the primary purpose of the deposit. The list of Values are:  (1) PAYREMIT = Payment remittance;  (2) SAFEKEEPING = Administration of payments and cash flows related to the safekeeping of investment assets, Not including the purchase or sale of assets;  (3) PAYROLLADMIN = Payroll administration and control over the disbursement of funds;  (4) PYMNTORDER = Transmission, reconciliation, and confirmation of payment orders;  (5) DAYOVERDRAFT = Daylight overdraft;  (6) INTRADAYSETTLEMNT = Determination of intra-day and final settlement positions;  (7) SECTRNS = Settlement of securities transactions;  (8) CAPDSTBN = Transfer of capital distributions and recurring contractual payments;  (9) SUBSCREDEMNS = Customer subscriptions and redemptions;  (10) ESCFNDTRNSFR = Escrow, funds transfer, stock transfer, and agency  11) CUSTFNDDISTRBN = Scheduled distribution of customer funds;  (12) ESCFNDTRNSFRPAYSET = Escrow, funds transfer, stock transfer, and agency services, including payment and settlement services, payment of fees, taxes, and other expenses; and  (13) FNDCOLL = Collection and aggregation of funds.  (14) OTH = Others
19	DIM_EXPOSURE_UNDERLYING_TYPE	Exposure Underlying Type	This table stores the various underlying type for the exposures.
20	DIM_GAAP	Generally Accepted Accounting Principles Dimension	This entity stores the details of Generally Accepted Accounting Practice.
21	DIM_HOLDING_TYPE	Holding Type Dimension	This table stores the Holding Type of security.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
22	DIM_INSTRUMENT_TYPE	Instrument Type Dimension	This entity stores the details of all instrument types that are supported by Reveleus Market Risk.
23	DIM_LCR_CAP_CASH_FLOWS	LCR cap dimension	This table stores the cap on cash flows for liquidity reporting.
24	DIM_MATURITY_BUCKETS	Maturity Bucket Dimension	This table stores the bucket ranges for the maturity dates of an account.
25	DIM_METHODOLOGIES	Methodologies Master	This entity stores the different methodologies available for different applications.
26	DIM_OR_STATUS	Operation Risk Status Dimension	This table stores information about Status like Open, Close, Complete, and so on.
27	DIM_PRODUCT_BOOK	Product Book Dimension	This table stores exposure details whether it is a Banking book or Trading book (if info is not available it is under the Missing category).
28	DIM_REG_CAP_EXEMPTION_CRITERIA	Regulatory Capital Exemption Criteria Dimension	This table stores the various exemption criteria as specified under the regulatory capital guidelines. This exemption criterion is applicable for any exposures to be exempted from the regulatory calculation like leverage ratio or large exposures. These criteria are unique and are not overlapping for the exposures in a specific run.
29	DIM_REG_CONSTITUTED_FORM	Regulatory Dimension for Company Constitution Form	This table stores the list of all constituted forms of the establishment of an entity for various jurisdictions like Jointstock, Mutual/cooperative, Other non-joint stock, and so on.
30	DIM_REG_DEPOSIT_TYPE	Regulatory Deposit Type Dimension	This table stores details of various deposit types like Demand deposits and NOW accounts.
31	DIM_REG_ENTITY_TYPE	Regulatory Dimension for Entity Type	This table stores the list of all regulatory entity types to be reported in various jurisdictions like Universal banking, Retail/commercial banking, Investment banking, Specialised lender, and so on.

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SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
51	DIM_IFRS9_STAGES	Dimension Table For Ifrs9 Stages	This table stores the stages into which an account can be classified based on IFRS9 final guidelines.
52	DIM_CREDIT_PARTCPN_TYPE	Credit Participation Type Dimension	This table stores the various Credit Participation types. This table contains pre-seeded values.
53	DIM_CREDIT_PARTCPTION_TYPE	Credit Participation Contract Type Dimension	This table stores the type of contract identifiers for the main participation or syndication contract.
54	DIM_INTEREST_TYPE	Interest Type Dimension	This table stores the Interest Type.
55	DIM_CREDIT_STATUS	Credit Status Dimension	This entity stores the credit status codes for the customer account along with the descriptions for each status code. For example: current, delinquent, and foreclosed.
56	DIM_REG_ACCOUNT_PURPOSE	Regulatory Account Purposes Dimension	This table stores the classification of instruments according to their purpose. As a general rule, the value of the attribute "purpose" refers to the contract running at the reporting reference date. In particular, if the initial contract has been changed, then a new account for the altered purpose is made. Possible values can be:  Debt financing Residential real estate purchase Margin lending Other purposes Working capital facility Imports Construction investment Commercial real estate purchase Exports
57	DIM_REG_ACCT_CLASSIFICATION	Regulatory Account Classifications Dimension	This dimension table stores the Accounting portfolio where the instrument is recorded in accordance with the accounting standard. on is stipulated in the AnaCredit Regulation. This is a seeded dimension table. An accounting portfolio is a classification of IFRS or GAAP.
58	DIM_REG_AMORTIZATION_TYPE	Regulatory Amortization Type	This table stores information regarding various regulatory amortization types.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
59	DIM_REG_INDUSTRY	Reg Industry Type	This table store the standard industry codes such as NAICS, NACS, SIC, and so on.
60	DIM_REG_LEGAL_PROCEDING_STATUS	Regulatory Legal Proceeding Status Dimension	This table stores the Categories describing the status of the legal proceedings initiated against the counterparty for the recovery of the dues. This is stipulated in the AnaCredit Regulation. The following list of legal proceeding scenarios can be held in the table:  Other legal measures Under judicial administration, receivership or similar measures Bankruptcy / insolvency No legal actions are taken
61	DIM_REG_MITIGANT_TYPE	Regulatory Mitigant Type Dimension	This entity stores the regulatory mitigant types. These are derived based on Standard Mitigant type and few other mitigant attributes.
62	DIM_REG_ORG_CONSTITUENT_TYPE	Regulatory Organization Constituent Type Dimension	This table stores the Regulatory values for the Party's Legal Organization constituent type in the country of incorporation. This is stipulated in the AnaCredit Regulation. The list of values is: Private Persons, General partnership, Limited partnership, Mutual Insurance, Corporation Owner Association, and so on.
63	DIM_REG_PARTY_ROLE_RANKING	Regulatory Party Role Ranking Dimension	This table stores the ranking list/order in which a party can be ranked based on the role associated with the accounts. In CBM's AnaCredit a counterparty might have n number of roles associated with n number of accounts. Since the counterparty appears only once in "Counterparty Reference Dataset", this ranking is used to stamp the highest rank against the counterparty. Indicative values for CBM's AnaCredit are: 31 for Reporting agent – MT, 29 for Creditor – MT, 27 for Head office undertaking – MT, 26 for Immediate parent undertaking – MT, and so on.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
64	DIM_REG_PARTY_TYPE	Regulatory Party Type Dimension	This entity stores the regulator specific party types.
65	DIM_REG_CREDIT_STATUS	Regulatory Credit Status Dimension	This table stores the regulatory credit status as prescribed by the regulator.
66	DIM_REG_DEFAULT_STATUS	Regulatory Default Status Of Instrument And Counterparty Dimension	This dimension table stores the Default Status of Instrument and Counterparty. This is stipulated in the AnaCredit Regulation. The following list of values is expected:  Not in default Default because unlikely to pay
67	DIM_REG_FORBORNE_STATUS	AnaCredit Forborne Status Dimension	This table stores the AnaCredit Specific Forbearance Statuses.
68	DIM_REG_ENCUMB_SOURCES	Regulatory Encumbrance Sources Dimension	This table stores the type of product which is used as a source of encumbrance. For the purpose of AnaCredit, an asset is treated as encumbered if it is pledged or if it is subject to any form of arrangement to secure, collateralize or pledging.  Encumbered securities mean the securities that are owned by one entity but subject to a legal claim by another. List of values are:  CBF DEPNOTREPO OTCDER NOENCUMB DSNOTCBABS DSABS DEPREPONOTCB ETDER DSCB OTHER
69	DIM_REG_ENTPRISE_CLASSIFICTION	Regulatory Enterprise Classification Dimension	This table stores the classification of enterprises by size. As per the criteria provided in the AnaCredit regulation, the enterprise size is decided by the following factors: Number of employees Turnover Value of the company
70	DIM_VALUATION_METHOD	Valuation Method Dimension	This table stores the list of all methods used for valuation purposes.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
71	DIM_REG_FREQUENCY_TYPE	Regulatory Frequency Type Dimension	This table stores the frequency types. And in AnaCredit, it is used for Payment frequency (Frequency of payments due, either of principal or interest, that is, number of months between payments) and Interest Rate Resetting (frequency at which the interest rate is calculated on the principal amount).
72	DIM_REG_PROTECTION_VALUE_TYPE	Regulatory Protection Value Type Dimension	This table stores the protection type value. This is stipulated in the AnaCredit Regulation. The following list of values is expected: Notional amount, Fair value, Market value, Long-term sustainable value.
73	DIM_REG_SECURITIZATION_TYPE	Regulatory Type Of Securitization Dimension	This table stores the regulatory list of values for securitization type as expected in AnaCredit regulation. This is stipulated in the AnaCredit Regulation. The following list of values is expected: Traditional or Synthetic
74	DIM_STANDARD_CENTRAL_BANKS	Standard Central Banks Dimension	This table stores the names of various central banks across the world.

## 4.1.10 Fact Tables/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 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

**Table 7: Fact Seeded Tables/Entities** 

SI. No.	Seeded Table	Table/Entity Logical Name	Table/Entity Description	Data Flow Type
1	FCT_IFRS_ACCOUNT_SUMM ARY	Fact IFRS Account Summary	This table holds the measures related to the account that are computed by IFRS application.	Processing
2	FCT_COMMON_ACCOUNT_S UMMARY	Fact Common Account Summary	This table stores common account level information that usually comes as input through staging.	Staging
3	FCT_CREDIT_LINE	Fact Credit Facility	This table stores the credit facility data. The credit facility is a committed line of credit given to a customer who can have multiple draws/exposures out of a given credit line.	Staging, Processing
4	FCT_CREDITRISK_ACCOUNT _SUMMARY	Fact Credit Risk Account Summary	This entity captures different measures of exposures pertaining to Credit Risk Analytics.	Staging
5	FCT_IFRS_MITIGANTS_SUMM ARY	Fact IFRS Mitigants Summary	This table stores the IFRS mitigants summary.	Processing
6	FCT_LCR_CAP_WEIGHT_SPE CS	Fact Cap On Flows And Weight Specification For LCR	This table stores the inputs for the cap on cash flows and applicable weight that is the haircut, which is used in Liquidity Coverage Ratio reporting as stipulated in the Delegated Act on Liquidity issued by the European Commission.	Processing
7	FCT_LEGAL_ENTITY_DETAIL S	Fact Legal Entity Details	This table stores the legal entity details.	Staging
8	FCT_LLFP_ACCOUNT_SUMM ARY	Fact Loan Loss Forecasting And Provision Account Summary	This entity stores loan loss forecasting and provision account summary. This table is an input from loan loss forecasting and provision (LLFP) application.	Processing
9	FCT_LRM_ACCOUNT_SUMMA RY	Fact LRM Account Summary	This table stores the Account Derived details in Liquidity Risk Management (LRM) solution.	Processing
10	FCT_LRM_ACCT_PLCD_COL_ MAP	Fact LRM Account Placed Collateral Map	This entity stores the details of the account and the placed collateral.	Processing
11	FCT_LRM_PLACED_COLLATE RAL	Fact LRM Placed Collateral	This entity stores the LRM Placed Collateral details.	Processing
12	FCT_MGMT_REPORTING	Fact Management Reporting	This table stores management reporting data related to organization and product profitability/income statement/balance sheet.	Processing

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SI. No.	Seeded Table	Table/Entity Logical Name	Table/Entity Description	Data Flow Type
23	FCT_REG_CAP_PARTY_GRP_ MMBR_MAP	Fact Member Map for Party-Party Relationship	This table stores the mapping between the member and the group head and the type of relation. Members are determined from both party dimension and party-party relationship entity.	Processing
24	FCT_REG_CAP_PLCD_COLL_ SUMMARY	Fact Regulatory Capital Placed Collateral Summary	This table stores the information of all exposures to a bank which is placed collateral. The placed collateral is collateral placed by the bank for either default fund contribution or for other OTC transactions, with a central counterparty. It is generally used for cleared transactions and default fund contributions.	Processing
25	FCT_REG_LARGE_EXP_CP_LI MITS	Fact Regulatory Large Exposure Counter Party Limits Details	This table stores the values of Large Exposure Limits.	Processing
26	FCT_REG_CP_CAPITAL_SUM MARY	Fact Regulatory Counterparty Capital Summary	This table stores all the regulatory capital-related information of a counterparty. Some of the risk parameters in this table are the probability of default and internal and external rating for the counterparty. This table is generally used for CVA calculations and default fund calculations.	Processing
27	FCT_REG_PLACED_COLLATE RAL	Fact Regulatory Placed Collateral	This table stores the cash flow groups required for EBA Reporting.	Processing
28	FCT_SIGNIFICANT_CURRENC Y	Fact Significant Currency	This table stores significant currency value. It is a currency that is held in significant quantities by governments and financial institutions as part of their foreign exchange reserves. This table is used for LCR reports.	Processing
29	FCT_SWAP_MITGT_PLCD_CO LL_MAP	Fact Collateral Swap Account Map for Collateral Lent and Mitigant Received	This table stores the mapping between the collateral lent and mitigant received on a proportionate basis for a Collateral Swap account.	Staging
30	FCT_LOAN_ACCOUNT_SUMM ARY	Fact Loan Summary	This table stores the details of loans. This table includes mortgage, vehicle loans.	Staging

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SI.	Seeded Table	Table/Entity Logical	Table/Entity Description	Data Flow
No. 31	FCT_FIXED_ASSETS	Name Fact Fixed Assets	This fact table stores measures pertaining to assets. Fixed assets are physical assets such as Buildings, Land, Machinery, Automobiles, Gold bullion, and so on. They can be sold and appropriate profit/loss can be recognized based on appropriate accounting principles.	Type Staging
32	FCT_ACCOUNT_MITIGANT_M AP	Fact Account Mitigant Map	Processing entity to capture account to mitigant mapping. It supports more than one mitigant to be mapped to an account.	Staging
33	FCT_ACCT_FAIRVALUE_ATTR IBUTION	Fact For Fair Value Gain Loss Values	This fact table stores the FV gain- loss value taken to equity or profit/loss.	Processing
34	FCT_ACCT_PLACED_COLL_M AP	Fact Account Placed Collateral Map	This table stores account to placed collateral mapping. It is an intersection table to denote a placed collateral that can be used in multiple accounts and an account contains multiple collaterals.	Staging
35	FCT_REG_RUN_LEGAL_ENTI TY_MAP	Fact Regulatory Legal Entity Run Map	This table stores a reporting entity identifier for every regulatory reporting run.	Processing
36	FCT_REG_FIXED_ASSETS	Fact Reg Fixed Assets	This fact table stores measures pertaining to the assets required for regulatory reporting. Fixed assets are physical assets such as Buildings, Land, Machinery, Automobiles, Gold bullion, and so on. They can be sold and appropriate profit/loss can be recognized based on appropriate accounting principles.	Processing
37	FCT_CREDIT_PARTCPTION_C ONTRACT	Fact Credit Participation Contract	This table stores the contract identifiers and other attributes for the main participation or syndication contract. Banks can open one default or multiple tranches under a given main contract.	Staging

SI. No.	Seeded Table	Table/Entity Logical Name	Table/Entity Description	Data Flow Type	
38	FCT_FORECAST_REG_CAP_S UMMARY	Fact Forecasted Regulatory Capital Summary	This table stores the forecasted information of all exposures to a bank, at an aggregated category level based on the regulatory asset class and the exposure type. This is applicable across the forecast dates and the various scenarios. The aggregated category can be based on a product type, party type combination, or can have more detailed category specifications.	Processing	
39	FCT_HEDGED_ACCT_MAP	Fact Hedged Account Map	This table stores the mapping between the account which is the hedged item and the Hedge ID.	Processing	
40	FCT_HEDGING_INSTRU_MAP	Fact Hedging Instrument Map	This table stores the mapping between the account which is the hedging instrument and the Hedge ID.	Processing	
41	FCT_LOAN_SERVICED_MITIG ANT_MAP	Fact Loans Serviced Mitigant Map	This entity stores the loans serviced to mitigant mapping. It supports more than one mitigant to be mapped to a loan serviced account.	Staging	
42	FCT_MR_VAR_PORTFOLIO_S UMMARY	Fact Market Risk Var Portfolio Summary	This table stores the information about the market risk VaR at a portfolio level. The VaR is calculated under the Advanced Approach of Market Risk. The VaR portfolios are defined, and then the VaR is computed at a portfolio level.	Processing	
43	FCT_MR_VAR_SUMMARY	Fact Market Risk Var Summary	This table stores the information about the market risk VaR at an entity level. The VaR is calculated across the various portfolios under the Advanced Approach of Market Risk. These values are aggregated to form the entity level VaR values.	Processing	
44	FCT_PARTY_ACCOUNT_ROL E_MAP	Fact Party Account Role Map	This table stores the role played by the party against an account.	Staging	
45	FCT_REG_ACCT_JOINT_LIABI LITY	Fact Regulatory Account Joint Liabilities	This table stores the attributes with respect to joint liability accounts. Here, liability means customer liability to the bank.	Processing	

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SI. No.	Seeded Table	Table/Entity Logical Name	Table/Entity Description	Data Flow Type
46	FCT_REG_CAP_POOL_SUMM ARY	Fact Regulatory Capital Pool Summary	This table stores the information of all exposures to a bank, which are at a pool level. Some of the pool identified for this table are OTC nettable pool, Retail pools. This table stores the regulatory capital information related to these pools.	Processing
47	FCT_REG_DEREG_ASSETS_S OLD_SUMM	Fact Regulatory Derecognized Assets Sold Summary	This fact table stores the regulatory summary data of entirely derecognized assets sold over a period of time.	Processing
48	FCT_REG_HEDGE_SUMMARY	Fact Regulatory Hedge Summary	This table stores the summary of hedged portfolio set which includes an effective and ineffective portion of gain and loss, hedged notion amount, IRC used, and so on.	Processing
49	FCT_REG_LE_CAPITAL_SUM MARY	Fact Regulatory Legal Entity Capital Summary	This table stores the regulatory capital-related information for the legal entity. This table stores all information from the GL related to the capital structure processing and the various levels of capital computations processed and computed by the application. This stores information at the granularity of the capital line item, for each capital component group. Some of the line items stored are Tier 1 Capital, Tier 2 Capital, Total Capital, and Capital Ratio.	Processing
50	FCT_REG_MARKET_RISK_EX POSURES	Fact Regulatory Market Risk Exposures	This table stores Basel Processing output for Market Risk Exposures for Regulatory Reporting.	Processing
51	FCT_REG_MITIGANTS_SUMM ARY	Fact Regulatory Mitigants Summary	This table stores the cashflow groups required for FR 2052A reporting.	Processing
52	FCT_REG_SEC_POOL_SUMM ARY	Fact Regulatory Securitization Pool Summary	This table holds the information of the securitization pool, to be used for the regulatory reporting purpose.	Processing

SI. No.	Seeded Table	Table/Entity Logical Name	Table/Entity Description	Data Flow Type
53	FCT_REG_OR_CAPITAL_SUM MARY	Fact Regulatory Operational Risk Capital Summary	This table stores the operational risk capital summary information. This represents the information at the LoB level for the entity. This represents the operational risk for each LoB based on the different indicator types. Some of the different indicators used for the LoB risk calculations are gross income, loans and advances, and so on.	Processing
54	FCT_REG_POOL_MITIGANT_ MAP	Fact Regulatory Nettable Pool Mitigant Mapping	This table stores the mitigant mapping information for each nettable pool.	Processing
55	FCT_REG_SER_LN_JOINT_LI ABILITY	Fact Regulatory Loans Serviced Joint Liabilities	This table stores the attributes with respect to joint liability accounts of loans being serviced. Here, liability means customer liability to the bank.	Processing
56	FCT_MR_CAPITAL_SUMMARY	Fact Market Risk Capital Summary	This table stores the information about the market risk capital calculations at a portfolio level. Some of the portfolios used for market risk reporting are Equity, Commodity, and Currency. The portfolios are defined by the bank, and then the market risk general risk charge is calculated at this portfolio level.	Processing
57	FCT_CUST_IDENTIFICATION_DOC	Fact Customer Identification Document	This table stores the information regarding identification documents provided by customers for the purpose of Know Your Customer (KYC) identity verification when opening an account or for the Foreign Account Tax Compliance Act (FATCA).  There should be a physical document associated with each Customer Identification Document record. Various documents submitted by the customer are identified by document type as BC - Certificate of Birth, BL - Business License, VR - Vehicle Registration Card/Title, VRC - Voter's Registration Card, and so on.	Results

# 4.2 Mapping of Results to Reporting Requirements of Lombard Risk

Figure 27 explains the flow of data between OFSAA and AgileREPORTER.

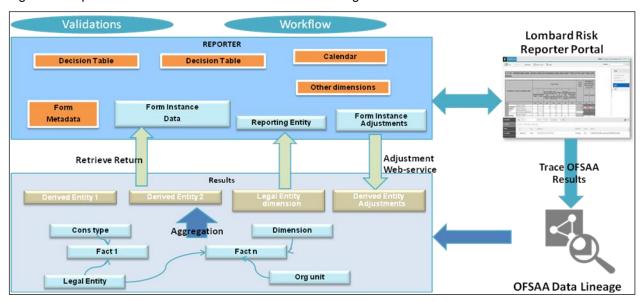


Figure 27: Data Flow between OFSAA and AgileREPORTER

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.

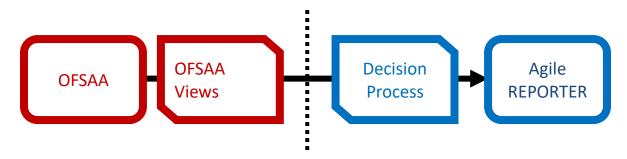


Figure 28: Decision Process in AgileREPORTER

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 Out-of-Box / preconfigured from OFSAA. You need not perform any mapping for the reports. However, this information can be useful for maintenance or extensions when Out-of-Box pack is not available.

# 4.3 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 as forms/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. It includes:

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

Regulatory Reporting Solution (RRS) configures the data handoff 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.

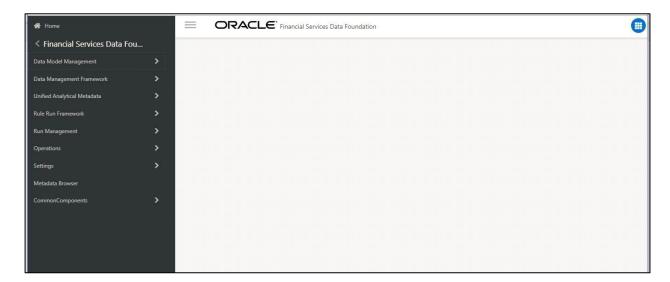


Figure 29: Landing Page

### 5.2 Business Metadata

In addition to Derived Entity, RRS uses the following OFSAA features to create the business metadata. For details on the features, see <a href="OFS Analytical Applications Infrastructure User Guide">OFS Analytical Applications Infrastructure User Guide</a> in the <a href="OHC">OHC</a> documentation library.

- 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 vs. Liability vs. 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 OFSDF Interface with Lombard Risk for EBA. Regulatory Reporting Solution uses Derived Entity to create a physical materialized view which is then queried by Lombard using pre-set data hand-off 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 Data Set or a Source Application. An Entity can be used to define other Business Metadata such as measures, hierarchies, dimensions, data sets, 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.

Navigate to path Financial Services Data Foundation → Unified Analytics Metadata →
Business Metadata Management → Derived Entity. The existing derived entities summary
screen is displayed. You can Add a new derived entity and Edit, View, Delete, or Copy an existing
derived entity.

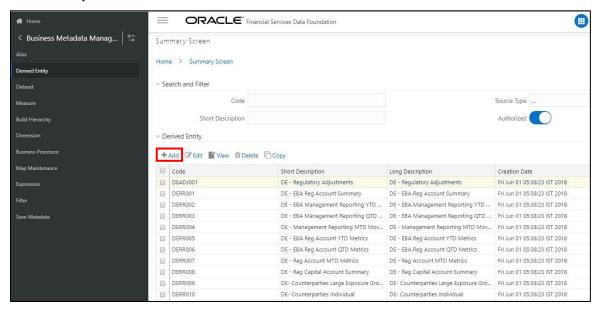


Figure 30: Derived Entity Summary Screen

2. Click the Add button to create a new Derived Entity.

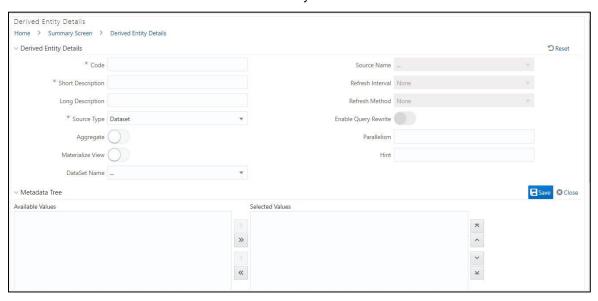


Figure 31: Derived Entity User Interface

## 5.3.1 Creation of Derived Entity

Derived Entities must have **Code**, **Short Description** and **Source Type** mandatory dimensions as shown in Figure 31. 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.

Refer to OFS Analytical Applications Infrastructure User Guide in (OHC) documentation library for detailed steps on creating a derived entity.

#### 5.3.2 User Roles

Following are the user roles for derived entity:

- Reporting Analyst: This user can create, modify, and delete a derived entity.
- Data Analyst: This user can view the derived entities.

## 5.4 Rules Run Framework Features

OFSDF Interface with Lombard Risk for EBA uses the following Rules Run Framework of OFSAA. For details on the features refer to OFS Analytical Applications Infrastructure User Guide in OHC documentation library.

Rules: Financial institutions require constant monitoring and measurement of risk in order 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.

RRS uses Rules for 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.
- Run: The Run feature in the Rules Run Framework helps you to combine various components and/or processes together and execute them with different underlying approaches. Further, run conditions and/or job conditions can be specified while defining a run.

# 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).

#### 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 re-classify them by using re-classification 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 in order to address the complexity of the decision table. Reclassification rule is defined in OFSAA and packaged as part of the OFSAA Risk Regulatory Reporting 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 out of box / pre-configured with the installer.

# 6 Executing Run through Run Management

Starting from OFSDF 8.0.3.1.0 release, we are packaging two out-of-the-box Runs for data loading. The same can be executed through the Run Management screen. The following are the two runs that are packaged as part of the Installer.

- Financial Services Data Foundation Sourced Run: This Run can be executed once per day for Data Movement from Staging Area to Results Area for Non-RUN SKEY tables.
- OFS REG REP EBA Run: This Run can be executed any number of times per day with each unique RUN SKEY for Data Movement in Run enabled tables.

# 6.1 Summary and Details Page

Upon initially navigating to **Run Management** → **Run Management**, a summary page is displayed showing all the defined Runs. By selecting a Run or by using search criteria, you can control the set of Runs that are displayed. This page displays the list of runs defined in the Run Rule Framework (RRF) except those with Immediate Execution Option Yes in the grid.

# 6.2 Navigation within the Summary Page

When you first navigate to the Run Management summary page, the Runs defined in the RRF are presented in a summary grid. The Run Management summary page has two sections:

- Search
- List of Runs

#### 6.2.1 Search Section

Among other properties, each Run possesses a segment, a Run Name, and a Run Type. You may search on any of these properties in the Search section.

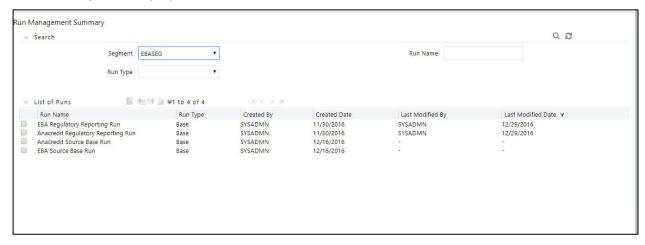


Figure 32: Run Search Section

#### 6.2.2 List of Runs Section

The List of Runs section presents a grid containing all of the Runs that meet your search criteria. This summary grid offers several icons that allow you to perform different functions when a Run is selected.

To select a Run, click the checkbox in the first column of the grid.

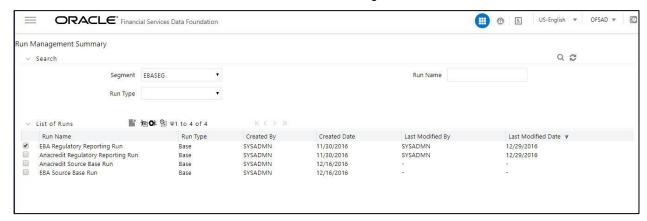


Figure 33: Run Selection

- View (): Selecting a single row out of the grid enables you to view the detailed definition of a Run on a read-only basis. The View icon is only enabled when a single Run is selected.
- Run Default Parameters ( ): Selecting a single row out of the grid enables you to define the default parameters of a Run.
- Run Execution Parameters ( ): Selecting a single row out of the grid enables you to define the execution parameters of a Run.
- Run Execution Summary (): Selecting a single row out of the grid enables you to view the status of the Run executed in the Run Execution parameters window.

## 6.2.2.1 List of Runs Summary Grid

The following columns categorize each Run in the summary grid:

- Run Name: Displays the short name of the Run.
- Run Type: Displays the type of Run, Simulation or Baseline Run.
- Created By: Displays the name of the user who defined the Run.
- Creation Date: Displays the date on which the Run was created.
- Last Modified By: Displays the name of the user who has performed any modifications to the Original Run details.
- Last Modified Date: Displays the date on which the Original Run details were modified.

# 6.2.3 Navigation within Run Default Parameters Window

Click **Run Default Parameters** icon on the navigation bar of the Run Management Summary Window to input the Run level parameters. The Run Parameters Window is displayed.

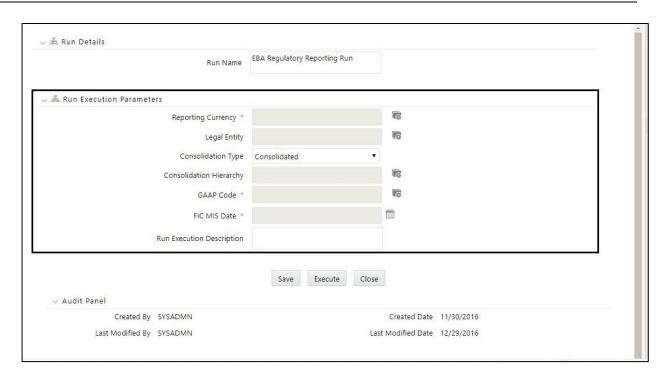


Figure 34: Run Default Parameters Window

**NOTE** 

To modify or view the parameters the Modify Run Parameters role should be mapped to that relevant user profile.

This window consists of two sections Run Details and Run Execution Parameters.

#### 6.2.3.1 Run Details Section

This section displays the name of the Run which is a read-only value.

#### 6.2.3.2 Run Execution Parameters Section

In this section, you can update the following:

- Reporting Currency: Reporting Currency Code parameter is used for the calculation of amounts in Reporting Currency during Data Population.
- Legal Entity: Legal Entity Code parameter is used for identifying the legal entity, which is used for the Run.
- Consolidation Type: Consolidation Type parameter is used for selecting legal entities on a solo or consolidation basis. In a solo run, only the selected legal entity will be used. In a consolidated run, along with the selected legal entity, all its child legal entities are also used.
- **Consolidation Hierarchy:** Legal Entity Hierarchy is used for selecting the required hierarchy for the consolidated run. This parameter is not required for a solo run.
- GAAP Code: Enter the required GAAP code for the Run.
- FIC MIS Date: Enter the extraction date in this field.
- Run Execution Description: Enter a longer description of the Run.

Before proceeding further, to ensure that you do not lose the updated data, click Save.

#### **NOTE**

To get the values for the Reporting Currency parameter and Legal Entity parameter, you need to save the following hierarchies under the Save Metadata screen:

- Legal Entity Code for Run (HSFDF001)
- Reporting Currency Code for Run (HSFDF002)
- Legal Entity Hierarchy for Run (HSFDF003)

For further details on Save Hierarchy, refer to Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack 8.0.8.0.0 User Guide on OHC.

The values selected for reporting currency and Legal entity for the selected Run is shown as the default selected value in the Run Execution Parameters screen.

### 6.2.3.3 Run Details Section

This section displays the name of the Run which is a read-only value.

### 6.2.3.4 Run Execution Parameters Section

The following Run execution parameters can be updated:

- **Reporting Currency**: Reporting Currency Code parameter is used for the calculation of amounts in Reporting Currency during Data Population.
- Legal Entity: Legal Entity Code parameter is used for identifying the legal entity, which is used for the Run.
- Consolidation Type: Consolidation Type parameter is used for selecting legal entities on a solo or consolidation basis. In a solo run, only the selected legal entity will be used. In a consolidated run, along with the selected legal entity, all its child legal entities are also used.
- **Consolidation Hierarchy:** Legal Entity Hierarchy is used for selecting the required hierarchy for the consolidated run. This parameter is not required for a solo run.
- GAAP Code: Enter the required GAAP code for the Run.
- FIC MIS Date: Enter the extraction date in this field.
- Run Execution Description: Enter a longer description of the Run.

#### NOTE

To get the values for the Reporting Currency parameter and Legal Entity parameter, you need to save the following hierarchies under the Save Metadata screen:

- Legal Entity Code for Run (HFSDF001)
- Reporting Currency Code for Run (HFSDF002)
- Legal Entity Hierarchy for Run (HSFDF003)

Click the Save button to create a batch with the defined Run execution parameters. The batch created can be executed from the Batch Execution screen.

Click the Execute button to create and execute a batch with the defined Run execution parameters immediately. Status of the executed run can be seen in the Batch Monitor screen or Run Execution Summary page.

NOTE

For further details on Save Hierarchy and Batch Execution, refer to Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack 8.0.8.0.0 User Guide on OHC. To execute a Run, the execute run role should be mapped to your user profile. Currently, the users mapped under FSDF Admin or FSDF Operator User Groups automatically have this role.

## 6.2.4 Navigation within Run Execution Summary Page

Select a Run from the Run Management Summary page and click Run Execution Summary icon to display the Run Execution Summary page where the following sections are displayed.

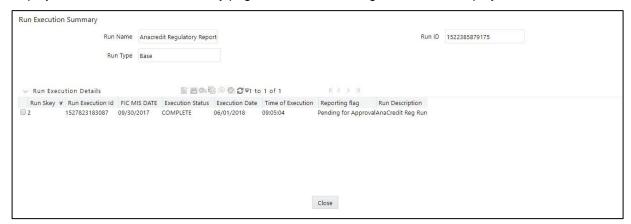


Figure 35: Run Execution Summary

This section consists of the two sections Run Execution Summary and Run Execution Details.

### 6.2.4.1 Run Execution Summary Section

The Run Execution Summary displays the following details:

- Run Name: Displays the name of the Run.
- Run Type: Displays the type of Run, Baseline or Simulation.
- Run ID: Displays the Run Execution ID.

### 6.2.4.2 Run Execution Details Section

The Run Execution Details section presents a grid containing all of the executions of Run and status of a particular execution of the Run. The menu bar in this grid offers several icons that allow you to perform different functions when a Run Execution is selected. To select a Run Execution, click the checkbox in the first column of the grid. More than one Run Execution can be selected at a time but this will cause some of the icons to become disabled.

 Parameter Details ( ): Click this icon to view the Run execution and Run default parameter details in read-only mode.

- Copy ( ): Click Copy icon, to copy the parameters as defined in the Run Execution Parameter window to create a new batch.
- Execute ( ): Click Execute icon to trigger the batch which has been created from the Run Execution Parameter window. The status of the triggered batch is displayed. In the Execution Summary page, multiple selections of the execution IDs are available to trigger a batch.
- Request Report Flag ( ): To request a Report Flag, select a Run Execution ID in the Run Execution Summary page and click Request for Reporting Execution icon. A dialog box appears to input your comments. Click Submit and the status of this Run is displayed in the Report 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.
- Override Report Flag ( ): Any reporting execution can be overwritten with another execution. Select a successfully triggered batch in the Run Execution Summary page. The Override Report Flag icon is enabled if the execution is already marked as a Report Flag. You can override the execution by updating your comments. This should be approved by the approver and the procedure is similar to the procedure detailed in the Approve Report Flag section.
- Approve Report Flag ( ): After submitting the Reporting Run in the earlier section, the Approve Report Flag icon is enabled. After clicking the icon, a dialog box with the User Comments and Approver Comments is displayed. The Approver can update the comments in the Approver Comments field and then click Approve or Reject button accordingly.
- Reload ( C): Click this icon to refresh/reload the Run Execution Summary details.

### 6.2.4.3 Run Execution Grid

The Run Execution Details displays the following details:

- Run Skey: Displays the Run Skey of individual execution.
- Run Execution ID: Displays the execution ID of the Run.
- FIC MIS DATE: Enter the extraction date in this field.
- Execution Status: Displays the status of the execution which is failed or complete.
- Execution Date: Displays the date when the Run was executed.
- Time of Execution: Displays the time when the Run was executed.
- Report Flag: Displays the flag type used when the Run was executed.

# 7 Metadata Export 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-in 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 his application point of view.

## 7.1 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 USER tablespace has a minimum of 150 GB available
    - ii. Ensure that the TEMP tablespace has 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;
```

iii. 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

iv. 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;
```

v. 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\_EBA

**NOTE** 

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

### Parameters used in DATA\_ELEMENTS 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\_EBA** batch are:

### Task1 (METADATA PARSER)

SI. No.	Parameter	Description	List of Values	Default Value
1	P_FULL_PARSE	Full Parser Flag	Y/N	Ύ'
2	P_INFODOM_NAME	Infodom Name	##INFODOM##	<value eba="" infodom="" installed="" is="" of="" the="" where="">. For example: 'FSDFINFO'</value>

### Task2 (REPORT PARSER)

SI. No.	Parameter	Description	List of Values	Default Value
1	P_JURISDICTION	Jurisdiction Code	EBA	'EBA'
2	P_INFODOM_NAME	Infodom Name	##INFODOM##	<value eba="" infodom="" installed="" is="" of="" the="" where="">. For example: 'FSDFINFO'</value>

### Execution Types for METADATA Parsing in <INFODOM>\_POP\_DATA\_ELEMENTS\_EBA Batch

- 1. **Full METADATA Parsing [Default Mode]** (if the P\_FULL\_PARSE parameter is 'Y', then the parsing happens for 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 Applications → Financial Services Data Foundation → Operations → Batch Maintenance
- c. Select Batch Name (<INFODOM>\_POP\_DATA\_ELEMENTS\_EBA)
- d. Select Task1 and click the Edit button. The Edit Task Definition Window is displayed.
- e. Modify the Parameter List field as applicable.

NOTE

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\_EBA Batch:**

1. **EBA Jurisdiction REPORT Parsing [Default Mode]** (if the P\_JURISDICTION parameter is 'EBA', then the parsing happens for EBA Reports enabled in FSI\_DE\_POP\_REPORT\_LIST table in the Atomic Schema).

NOTE

Even if the P\_JURISDICTION parameter in <INFODOM>\_POP\_DATA\_ELEMENTS\_EBA 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 Applications → Financial Services Data Foundation → Operations → Batch Maintenance
- c. Select Batch Name (<INFODOM>\_POP\_DATA\_ELEMENTS\_EBA)
- **d.** (OPTIONAL) Select **Task2** and click the **Edit** button. The Edit Task Definition Window is displayed.
- e. Modify the Parameter List field as applicable.

**NOTE** 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. Trigger the following Runs in order.

RUN NAME	INCLUDE RUN
EBASOURCERUN	Υ
EBAREGRUN	Υ

### **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 EBA Jurisdiction.

SI. No.	DASHBOARD ID	REPORT CODE	JURISDICTION CODE	INCLUDES REPORT
1	5001	FI0200	EBA	Υ
2	5002	FI0405	EBA	Υ
3	5002	FI040401	EBA	Υ
4	5002	FI040201	EBA	Υ
5	5002	FI040202	EBA	Υ
6	5002	FI0404	EBA	Υ
7	5002	FI0402	EBA	Υ
8	5002	FI0401	EBA	Υ
9	5002	FI040301	EBA	Υ
10	5002	FI0403	EBA	Υ
11	5003	FI0701	EBA	Υ
12	5003	FI0700	EBA	Υ

21.11				
SI. No.	DASHBOARD ID	REPORT CODE	JURISDICTION CODE	INCLUDES REPORT
40	5004	Floor		
13	5004	F10802	EBA	Y
14	5004	FI0801	EBA	Y
15	5005	C30.00	EBA	Y
16	5005	C29.00	EBA	Y
17	5005	C28.00	EBA	Υ
18	5005	C31.00	EBA	Υ
19	5005	C26.00	EBA	Υ
20	5005	C27.00	EBA	Υ
21	5006	FI0501	EBA	Υ
22	5006	FI0500	EBA	Υ
23	5007	FI0601	EBA	Υ
24	5007	FI0600	EBA	Υ
25	5008	FI0902	EBA	Υ
26	5008	FI090101	EBA	Υ
27	5008	FI0901	EBA	Υ
28	5009	C17.00	EBA	Υ
29	5010	FI1400	EBA	Υ
30	5011	FI1000	EBA	Υ
31	5012	FI1104	EBA	Υ
32	5012	FI1103	EBA	Υ
33	5012	FI1101	EBA	Υ
34	5013	FI1303	EBA	Υ
35	5013	FI1301	EBA	Υ
36	5013	FI1302	EBA	Υ
37	5014	FI1900	EBA	Υ
38	5015	C07.00	EBA	Υ
39	5016	C75.00	EBA	Υ
40	5016	C74.00	EBA	Υ
41	5016	C72.00	EBA	Υ
42	5016	C73.00	EBA	Υ
43	5017	FI2005	EBA	Υ
44	5017	FI2006	EBA	Υ
45	5017	FI200701	EBA	Υ
46	5017	FI2007	EBA	Υ
47	5017	FI2004	EBA	Υ

<b>a.</b>				
SI. No.	DASHBOARD ID	REPORT CODE	JURISDICTION CODE	INCLUDES REPORT
40	5047	Floor		
48	5017	FI2001	EBA	Y
49	5017	FI2002	EBA	Y
50	5017	FI2003	EBA	Υ
51	5018	FI1602	EBA	Υ
52	5018	FI1601	EBA	Υ
53	5018	FI1605	EBA	Υ
54	5018	FI1606	EBA	Υ
55	5018	FI1607	EBA	Υ
56	5018	FI1603	EBA	Υ
57	5018	FI1604	EBA	Υ
58	5018	FI160401	EBA	Υ
59	5019	FI1800	EBA	Υ
60	5020	C41.00	EBA	Υ
61	5020	C43.00	EBA	Υ
62	5020	C44.00	EBA	Υ
63	5020	C40.00	EBA	Υ
64	5020	C47.00	EBA	Υ
65	5021	FI0102	EBA	Υ
66	5021	FI0101	EBA	Υ
67	5021	FI0103	EBA	Υ
68	5022	FI1703	EBA	Υ
69	5022	FI1701	EBA	Υ
70	5022	FI1702	EBA	Υ
71	5023	FI2100	EBA	Υ
72	5024	FI4101	EBA	Υ
73	5024	FI4102	EBA	Υ
74	5024	FI4103	EBA	Υ
75	5025	FI4200	EBA	Υ
76	5026	FI4300	EBA	Υ
77	5027	FI4600	EBA	Υ
78	5028	FI4501	EBA	Υ
79	5028	FI4502	EBA	Υ
80	5028	FI4503	EBA	Υ
81	5029	FI0300	EBA	Υ
82	5030	FI3002	EBA	Υ

SI. No.	DASHBOARD ID	REPORT CODE	JURISDICTION CODE	INCLUDES REPORT
83	5030	Fl3001	EBA	Υ
84	5031	Fl3102	EBA	Υ
85	5031	Fl3101	EBA	Υ
86	5032	FI4403	EBA	Υ
87	5032	FI4402	EBA	Υ
88	5032	FI4401	EBA	Υ
89	5033	Fl2202	EBA	Υ
90	5033	Fl2201	EBA	Υ
91	5034	FI1202	EBA	Υ
92	5034	FI1201	EBA	Υ
93	5035	FI1500	EBA	Υ
94	5036	FI4002	EBA	Υ
95	5036	FI4001	EBA	Υ
96	5037	C60.00	EBA	Υ
97	5037	C61.00	EBA	Υ
98	5038	C01.00	EBA	Υ
99	5038	C02.00	EBA	Υ
100	5038	C03.00	EBA	Υ
101	5038	C04.00	EBA	Υ
102	5038	C05.00	EBA	Υ
103	5039	C09.00	EBA	Υ
104	5050	Instrument Dataset	ECB	Υ
105	5050	Financial Dataset	ECB	Υ
106	5050	Instrument-protection Received Dataset	ECB	Υ
107	5050	Protection Received Dataset	ECB	Υ
108	5050	Joint Liabilities Dataset	ECB	Υ
109	5050	Counterparty Risk Dataset	ECB	Υ
110	5050	Counterparty Instrument Dataset	ECB	Υ
111	5050	Counterparty Reference Dataset	ECB	Υ
112	5050	Accounting Dataset	ECB	Υ
113	5050	Counterparty Default Dataset	ECB	Υ

**NOTE** 

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/disabling the "Include Report Column".

### Executing SELECTED tasks of <INFODOM>\_POP\_DATA\_ELEMENTS\_EBA Batch

By Default, the **<INFODOM>\_POP\_DATA\_ELEMENTS\_EBA** 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.

## 7.1.1 Verifying Logs

Data Elements logs are generated in Atomic Schema under the FSI\_MESSAGE\_LOGS table.

Flag	Batch Run ID	Indication
Task1 (METADATA Parsing)	REGISTER_ELEMENTS_ <batch_r un_id=""></batch_r>	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 &gt;</batch 	Processes Report Parsing. The message "Completed REPORT_TO_ELEMENTS" indicates that all the Report parsing is completed.

## 7.1.2 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

#### NOTE

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
/
```

## 7.2 User Access

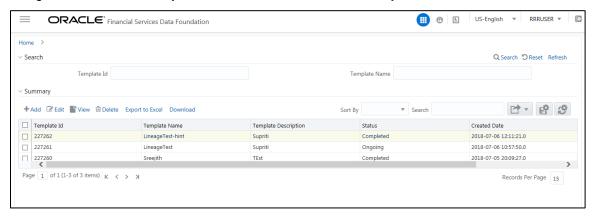
The following user groups are pre-seeded in the component that grants access to the Metadata Report Extract screen.

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

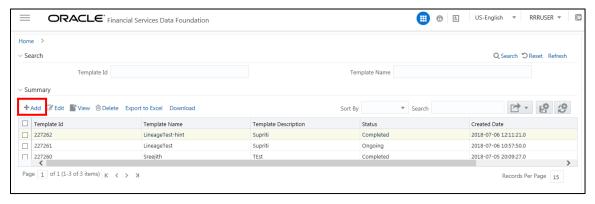
# 7.3 Create and Export Metadata Report Templates

Perform the following steps to create and export the Metadata Report Templates:

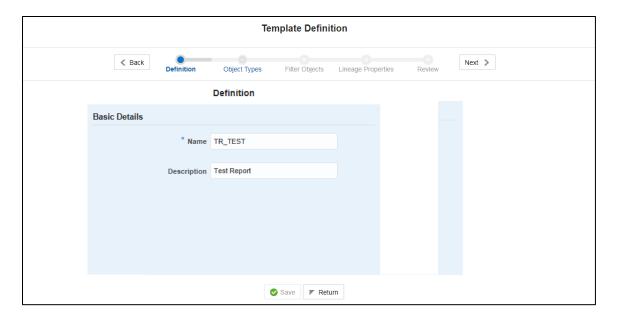
1. Navigate to Common Components → Utilities → Metadata Report.



2. Click Add icon, in Summary screen, to create a new Metadata Report Template.



3. Provide the Name and Description for the new template in the Template Definition page.



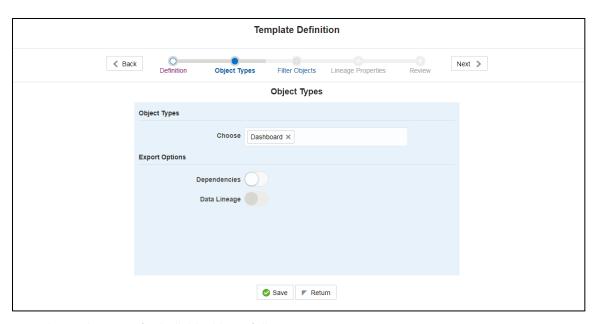
**4.** Select the desired object from the **Object Type** dropdown to be exported.

**Individual** report generates only the basic properties of the object selected, that is, name and description. The relational report generates detailed information up to the Entities level if Dependencies is chosen; and up to the Staging Columns level, if Data Lineage is selected along with Dependencies.

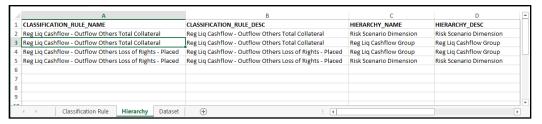
**Dependencies**: Metadata object is dependent on several other metadata objects. Metadata object is also used (that is, consumed) in several other metadata objects. Dependency or usage tree can be of any depth. For example, a rule can be dependent on a hierarchy, business processor, and dataset. Further, each of these metadata objects can be dependent on other metadata objects. Metadata Export Utility exports all the dependent or used metadata objects for all paths in the dependency or usage tree if this option is selected.

**Lineage**: Data is loaded from source systems to staging and then moved across to processing/reporting. Lineage traces the data element as it moves across different layers of OFSAA: staging, processing, and reporting. Metadata Export Utility exports the lineage of each of the reporting area data element that is identified by dependencies.

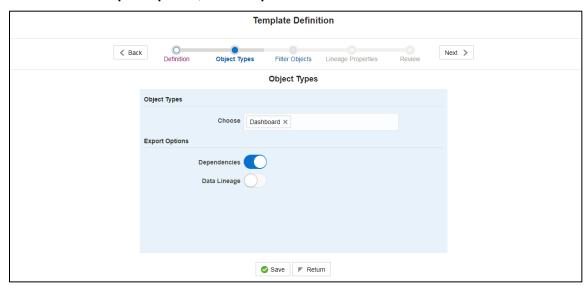
For Individual: In the Export Options, do not select Dependencies or Data Lineage.



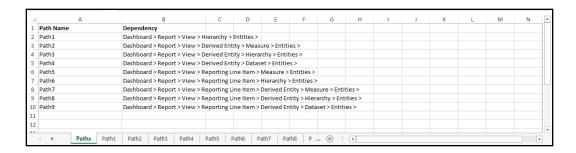
The exported sample report for Individual is as follows:



For Relational: In the Export Options, select Dependencies.



The exported sample report for Relational is as follows:



The first sheet shows the different Paths and their Dependencies up to the Entities level. Select the required **Path** sheet at the bottom to view the dependencies.

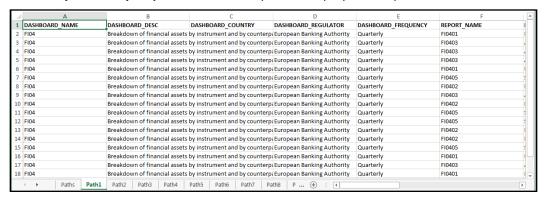
Each path tells how the dependency/usage is derived from dashboard to entity or vice versa involving various OFSAA object types like Derived Entity, Hierarchies, Datasets, Measures, and so on.

These paths are generated by the system using data already published in MDB dependency tables as part of the OFSAA MDB object publish.

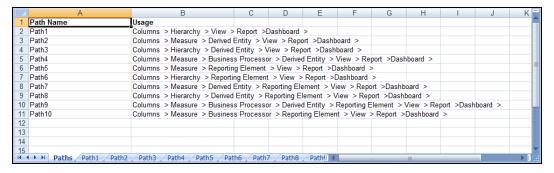
For every dependent object type displayed in each path sheet, the following columns are displayed:

- Object type name
- Object type description
- One or many Object-specific properties (optional)

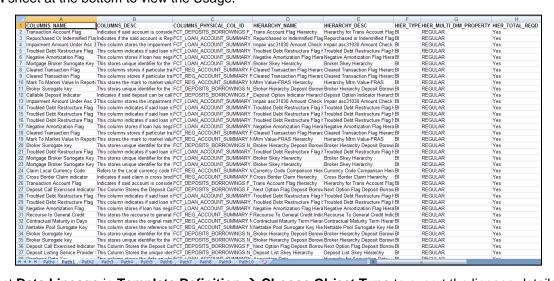
For example: In Path1, Dashboard is the first Object type, the dependencies generated are Dashboard Name, Dashboard Description, and Dashboard properties: Dashboard Country, Dashboard Regulator and so on. Similarly, Report is the next Object type in Path1 and the dependencies generated are Report Name, Report Description, Views Name, Views Description, View Display Format and so on. Then followed by Hierarchy Objects name, description, and properties up to the Entities level.



The Usage sample report (generated by default when Dependencies is selected) is as follows:



The first sheet shows the different Paths and their Usage up to the Dashboard level. Select the required **Path** sheet at the bottom to view the Usage.

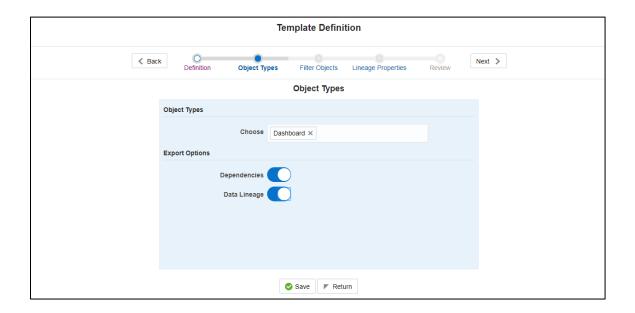


Select **Data Lineage** in **Template Definition \rightarrow Choose Object Type** to export the lineage details up to the Staging Columns level.

#### NOTE

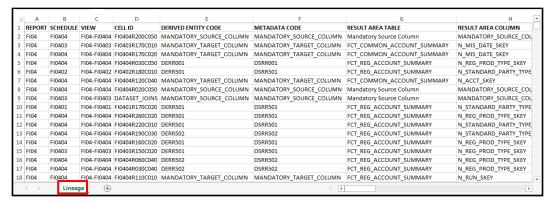
**Data Lineage** can be selected only if **Dependencies** option is selected.

The minimum memory settings to run lineage reports should be export JAVA\_OPTS="-Xms1024m -Xmx8192m".



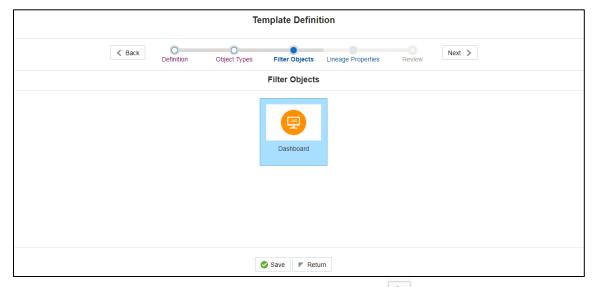
NOTE

**Data Lineage** is generated as a separate sheet in the generated Relational report along with the **Dependencies**. Select the **Lineage** sheet to view the **Data Lineage** (up to Staging column level).



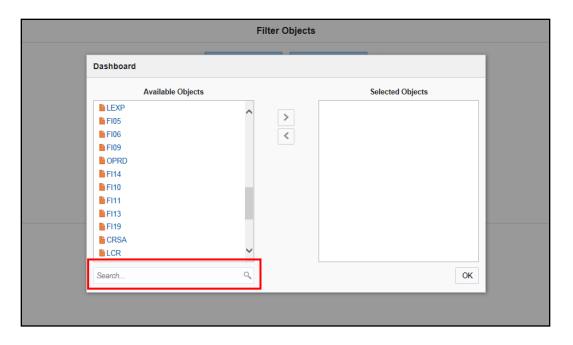
Select Filter Objects to see the selected objects.

Object.



Select one Filter Object from the Available Objects and Click to add a Selected Object.

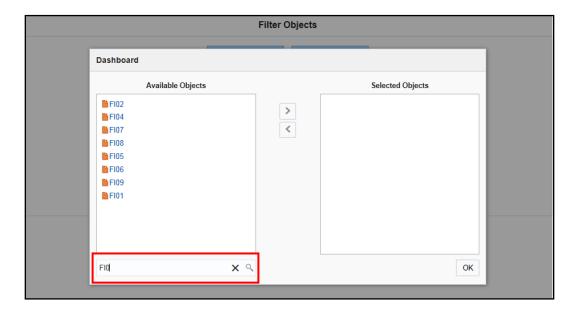
Select one Selected Object from the Available Objects and click to remove a Filter



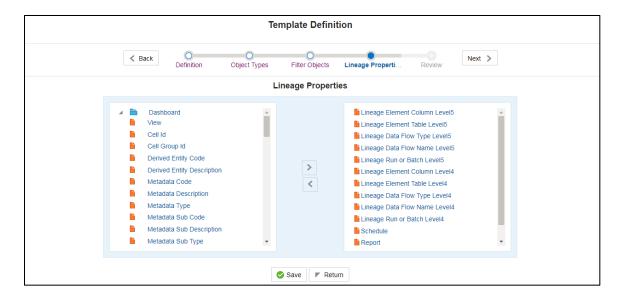
When the object list is huge, use the Search option as shown above. Type first three letters of the Filter Object name and the relevant Filter Objects are displayed.

NOTE

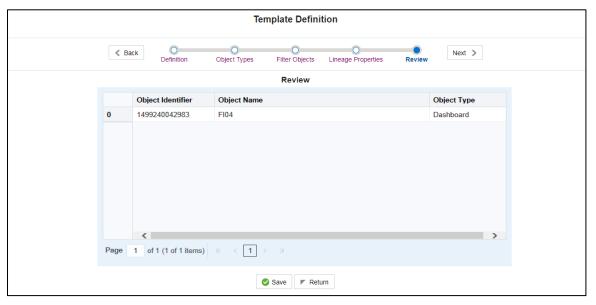
You can type the complete Filter Object name to select and add to the Selected Objects.



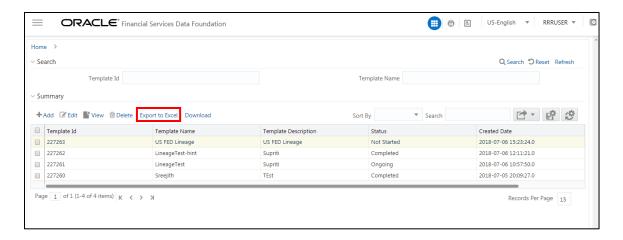
6. Select the Lineage Properties required to be generated.



7. Review the **Template Definition** once and click **Save**.



8. Click Return to go to the Summary page.

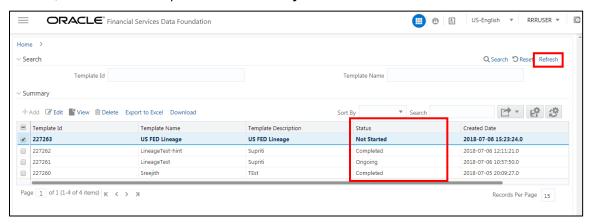


Select a Template in the Template List in the Summary screen and click Export to Excel to export the desired objects in Excel Sheet format.

NOTE

MDB Publish must be triggered before executing the **Export to Excel** option.

**10.** The Report Generation function is an asynchronous action and to check the status of the export function, use the **Refresh** option in the **Summary** screen.



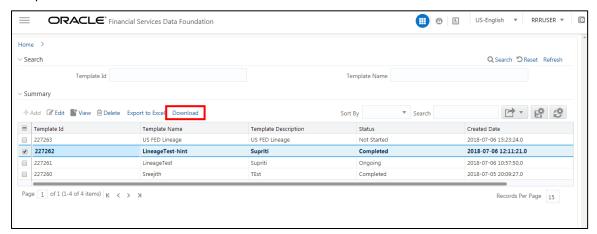
- For Excel Export, the following are the Status values:
  - Not Started: The Report Generation is yet to start, but the function has triggered the action in the background.
  - Ongoing: The Report Generation is started and in process.
  - Completed: The Report Generation is completed and ready to view or download.
  - Failed/Partially Completed: The Report Generation encountered an issue and the process is partially completed or failed.

#### NOTE

The export logs are generated and placed in the path /Context\_Name/logs/MDB.log.

Log files give the following information:

- 1. All Paths query
- 2. Query for each path and if data present for this path
- 3. Lineage query
- 4. Status of excel output creation
- 5. Exceptions and errors, if any
- 11. Select a Template in the Template List in Summary screen and click Download to save a copy of the generated Metadata Report Templates excel sheet, after the export status shows as completed.



#### **User Access**

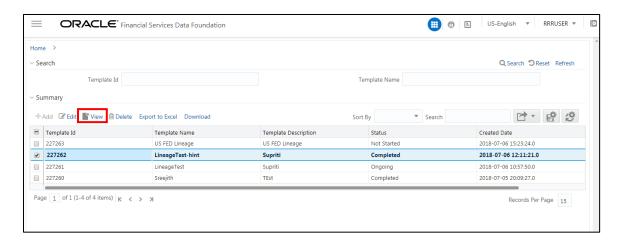
The following user groups are pre-seeded in the component that helps you to get access to the Metadata Report Extract screen.

- MDR View Group: Helps you to see Metadata Report Extract with View permissions.
- MDR Owner Group: Helps you to create templates in Metadata Report Extract.

## 7.4 View Metadata Report Templates

Perform the following steps to view the Metadata Report Templates:

- 1. Select a **Template** in the **Template List** in the **Summary** screen.
- 2. Click **View** icon to view the generated Metadata Report Templates excel report (after the export status shows as completed).



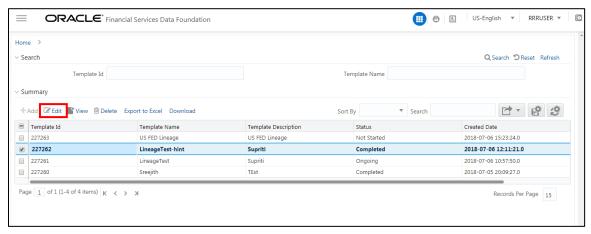
**NOTE** 

 The Metadata Report Templates excel report is opened in view-only mode.

# 7.5 Modify/Edit Metadata Report Templates

Perform the following steps to edit or modify the Metadata Report Templates:

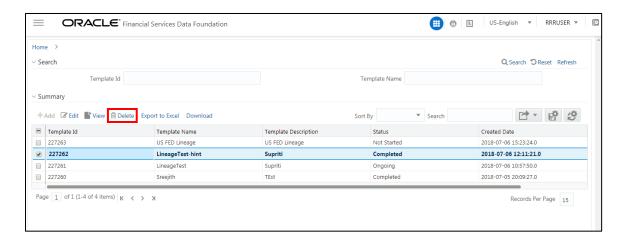
- 1. Select a **Template** in the **Template List** in the **Summary** screen.
- Click Edit icon to modify the generated Metadata Report Templates excel report (after the export status shows as completed).



# 7.6 Delete Metadata Report Templates

Perform the following steps to delete the Metadata Report Templates:

- 1. Select a Template in the Template List in the Summary screen.
- 2. Click Delete icon to delete the Metadata Report Templates.



# 8 Report Submission

This chapter provides an understanding of the report submission process. It includes:

Report Submission: AgileREPORTER to Regulator

Edit Checks/ Validity Check/ Quality Checks

Report Templates to be used in AgileREPORTER

# 8.1 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/ XML and so on.

# 8.2 Edit Checks/ Validity Check/ Quality Checks

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

## 8.2.1 Executing Edit Check Batch for AnaCredit CBM

To execute the edit check batch for AnaCredit CBM, perform the following steps:

- 1. Navigate to Financial Services Data Foundation → Operations → Batch Execution
- Select the batch <<INFODOM>>\_ANACREDIT\_EDIT\_CHECK\_CBM to execute all the tasks in CBM.

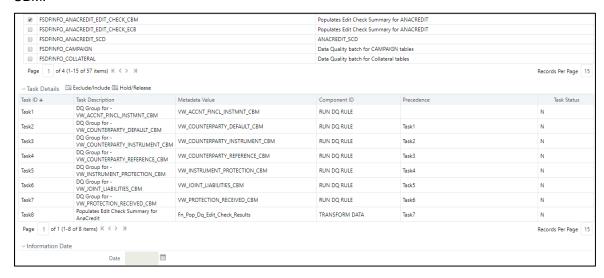


Figure 36: Edit Check (ANACREDIT CBM) Batch Execution Screen

Monitor the status of the batch using the Batch Monitor (Financial Services Data Foundation → Operations → Batch Monitor).

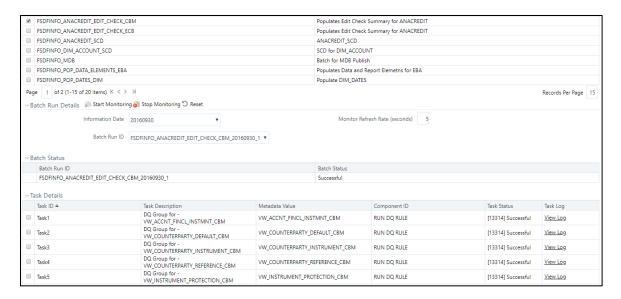


Figure 37: Edit Check (ANACREDIT CBM) Batch Monitor Screen

## 8.2.2 Executing Edit Check Batch for AnaCredit ECB

To execute the edit check batch for AnaCredit ECB, perform the following steps:

- 1. Navigate to Financial Services Data Foundation → Operations → Batch Execution
- Select the batch <<INFODOM>>\_ANACREDIT\_EDIT\_CHECK\_ECB to execute all the tasks in ECB.

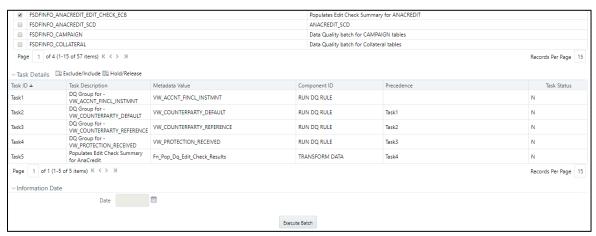
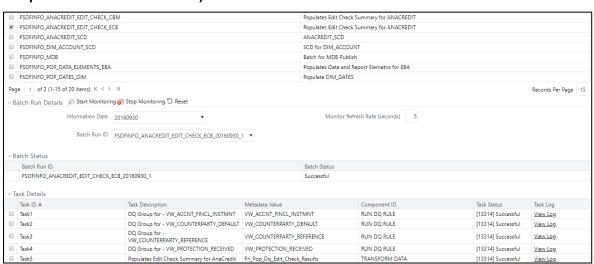


Figure 38: Edit Check (ANACREDIT ECB) Batch Execution Screen



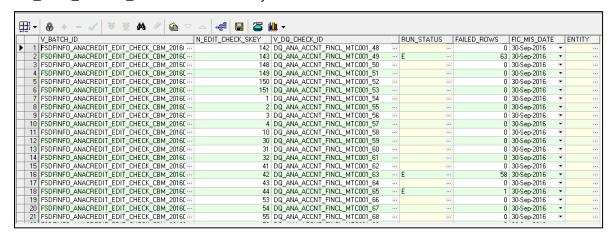
3. Monitor the status of the batch using the Batch Monitor (Financial Services Data Foundation → Operations → Batch Monitor).

Figure 39: Edit Check (ANACREDIT ECB) Batch Monitor Screen

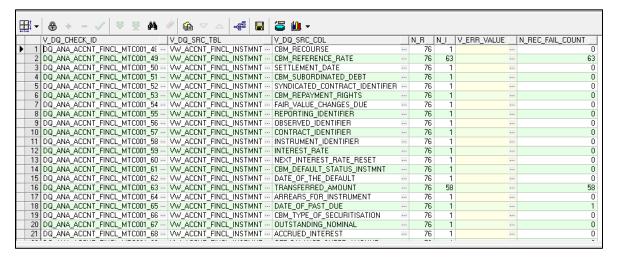
### 8.2.3 Edit Check Validation Results

The Edit Check Validation results will be available in the following tables under the ATOMIC SCHEMA after the batches are successfully executed:

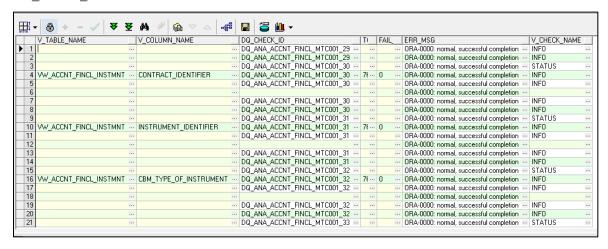
1. FSI\_EDIT\_CHECK\_SUMMARY: Summary results



#### 2. DQ\_RESULT\_SUMM\_MASTER: Detailed results



#### 3. DQ\_AUDIT\_TRAIL: Record level details



# 8.3 Report Templates to be used in AgileREPORTER

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

Report / Schedule Name	Report Template
AnaCredit Summary	ANACREDIT_v2
CMANR	CMANR_v2
CMT1M	CMT1M_v2
CMT2M	CMT2M_v2
CMT2Q	CMT2Q_v2
CRSA07A	CRSA_v6
CRSA07B	CRSA_v6
C1701C17001	OPRD_v2

Report / Schedule Name	Report Template
C1701C17004	OPRD_v2
C1702C17002	OPRD_v2
C1703C17003	OPRD_v2
C27GRP	LEXP_v4
C28GRP	LEXP_v4
C29	LEXP_v4
C30GRP	LEXP_v4
C31INDGP	LEXP_v4
C41	LR_v4
C43AA	LR_v4
C47	LR_v4
C72	LCR_v1
C73	LCR_v1
C74	LCR_v1
C75	LCR_v1
FI0101	FI01_v2
FI0102	FI01_v2
FI0103	FI01_v2
FI02	FI02_v3
FI03	FI03_v2
FI0401	FI04_v2
FI0402.1	FI04_v2
FI0402.2	FI04_v2
FI0403.1	FI04_v2
FI0404.1	FI04_v2
FI0405	FI04_v2
FI05	FI05_v2
FI06	FI06_v2
FI07	FI07_v3
FI0801	FI08_v2
FI0802	FI08_v2
FI0901	FI09_v2
FI0902	FI09_v2
FI10	FI10_v2

Report / Schedule Name	Report Template
FI1101	FI11_v2
FI1103	FI11_v2
FI1104	FI11_v2
FI1201	FI12_v3
FI1202	FI12_v3
FI1301	FI13_v2
FI1302	FI13_v2
FI1303	FI13_v2
FI14	FI14_v2
FI15	FI15_v2
FI1601	FI16_v4
FI1602	FI16_v4
FI1603	FI16_v4
FI1604	FI16_v4
FI1604.1	FI16_v4
FI1605	FI16_v4
FI1606	FI16_v4
FI1607	FI16_v4
FI1701	FI17_v2
FI1702	FI17_v2
FI1703	FI17_v2
FI18	FI18_v2
FI19	FI19_v2
FI2001	FI20_v3
FI2002	FI20_v3
FI2003	FI20_v3
FI2004	FI20_v3
FI2006	FI20_v3
Fl2007.1	FI20_v3
FI21	Fl21_v1
FI2201	Fl22_v1
FI2202	Fl22_v1
FI3001	Fl30_v2
Fl3002	Fl30_v2

Report / Schedule Name	Report Template
FI3101	Fl31_v2
FI3102	Fl31_v2
F14001	FI40_v3
F14002	FI40_v3
FI4101	FI41_v2
FI4102	FI41_v2
FI42	FI42_v1
FI43	FI43_v2
FI4401	FI44_v1
FI4402	Fl44_v1
FI4403	FI44_v1
FI4501	FI45_v2
FI4502	FI45_v2
FI4503	FI45_v2
FI46	FI46_v3
LCR1	LCR_v1
LR	LR_v4
LR4	LR_v4
SECA	LEXP_v4
NSF	NSF_v4
CAR	CAR_v9
CRGB	CRGB_v8

# 8.4 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.

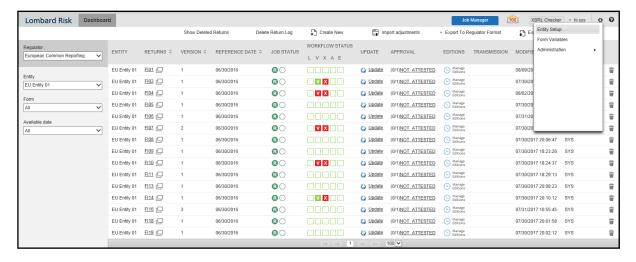


Figure 40: AgileREPORTER Entity Setup 1

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

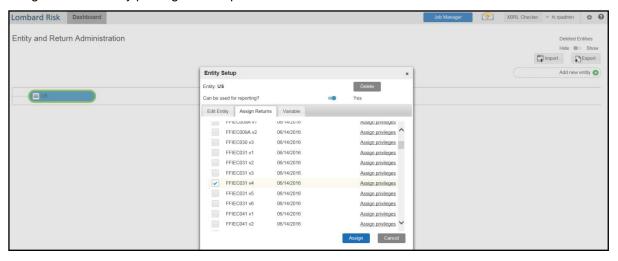


Figure 41: AgileREPORTER Entity Setup 2

See the OFS AgileREPORTER Application User Guide for more details.

## 9 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 activity. The following steps help to assess the impact (You can replace the measure, dimension for existing data warehousing configuration pack using the below process):

- Choosing different execution as a final. After report verification, if the requirement is to change
  the execution, then you must visit Marking Run as Final section. After making these changes you
  must refresh Derived Entities (Executing Batch to Resave 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, refer to OFS Analytical Applications Infrastructure Installation Manual in OHC documentation library and search for **ficdb/log**.
- 3. To apply the 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.
  - i. Click Settings → Administration → Data Warehouse Integration.

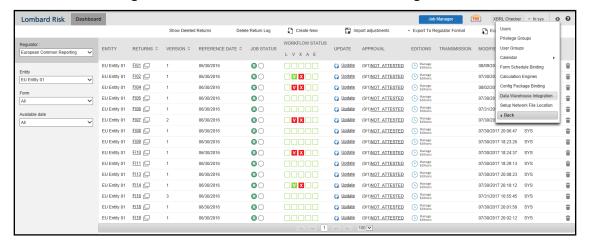


Figure 42: Data Warehouse Integration

- ii. Click Add to add a contextual button.
- iii. Enter details of the contextual button.

Name: It is the text that 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>>/OFSAADrilldown/drilldownrep ort.jsp?cellid=\${cellId}&infodom=<<INFODOM>>&legalentity=\${entityCode}&run=\${run}&date=\${referen ceDate}

#### Example:

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

Use http or https depending on the protocol configured for OFSAA.

- iv. Select an icon.
- v. Click **Add** to save the details.

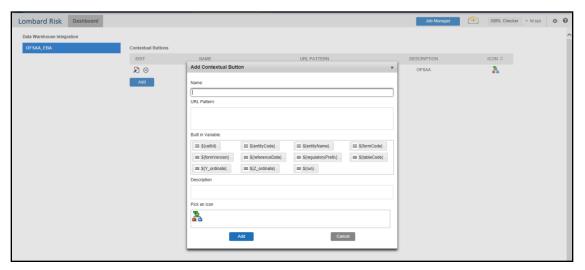


Figure 43: Adding Contextual Button

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

**NOTE** Refer to AgileREPORTER user documentation for details.

# 10 Troubleshooting Guidelines

This section covers troubleshooting guidelines for the users of Oracle Financial Services Regulatory Reporting Integration with AgileREPORTER, hereafter 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 / Editing of this aggregated data.

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

## 10.1 Prerequisites

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

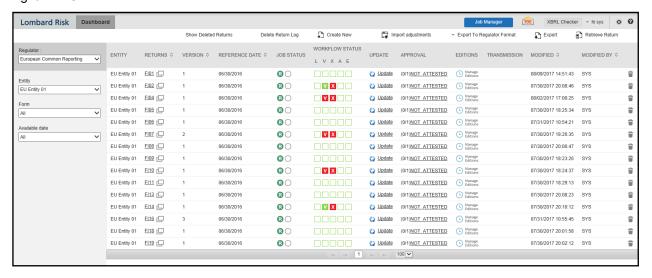


Figure 44: AgileREPORTER

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 purpose and the actual name depends on the integration pack licensed.

# 10.2 Troubleshooting Use Cases

# 10.2.1 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/date combination, then you must refer to 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 report list is not available then you are requested to log in the bug/service request with Lombard Risk.

## 10.2.2 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 unable to generate the report.

## 10.2.2.1 Fetching Null or 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.

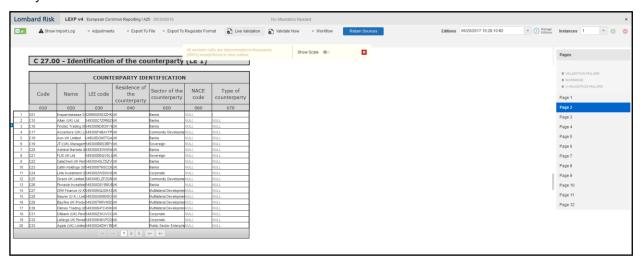


Figure 45: Fetching Null Values

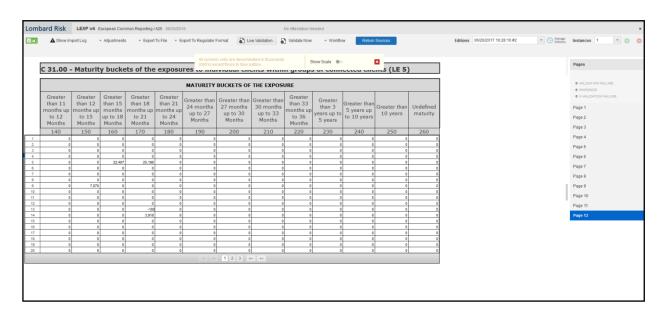


Figure 46: Fetching Zero Values

You must validate as:

- 1. Derived Entity has data:
  - **a.** Execute the Derived Entity / Materialized views to check if Derived Entity has data or not.

- **b.** If Derived Entity / materialized view has data but not showing in AgileREPORTER, you must log a Bug / Service Request with Lombard Risk.
- 2. Derived Entity does not have data:
  - a. Execute the Derived Entity / Materialized views to check if Derived Entity has data or not.
  - **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 / 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 / Service Request with Oracle Support.

## 10.2.3 Data Available in AgileREPORTER but Not as Expected

This use case where you are able to 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 Schedule 4.1 from the FI04 report of EBA. Particular cell referred here is FI0401R070C020:

060 Debt Securities:

070 Central banks

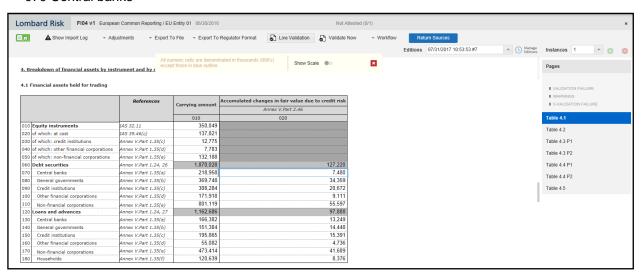


Figure 47: Schedule 4.1 from FI04 Report

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 highlighted. It shows the OFSAA data lineage icon on clicking as shown in Figure 48.

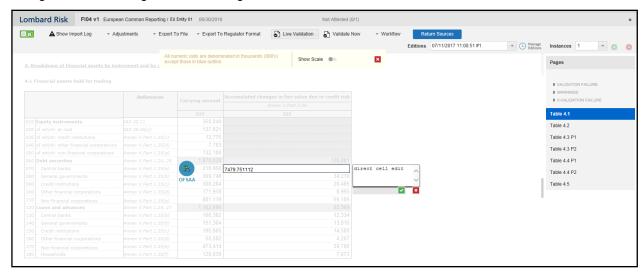


Figure 48: Data Lineage OFSAA Icon

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

- If you are not already logged in, clicking here opens the OFSAA infrastructure login window.
   Log in using appropriate credentials and come back to Report Portal and click the same Data Lineage icon again.
- If you are already logged in to OFSAA Infrastructure, the Data Lineage first page opens as shown in Figure 49.

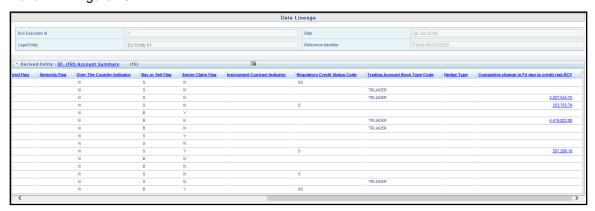


Figure 49: AgileREPORTER Drill-down

The top block 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. Date: This refers to AS OF DATE selected for a given report.
- Legal Entity: This refers to the OFSAA Legal Entity for whom the report is generated.
- **4.** Reference Identifier: This is the cell reference for which data drill-down / 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 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 50:

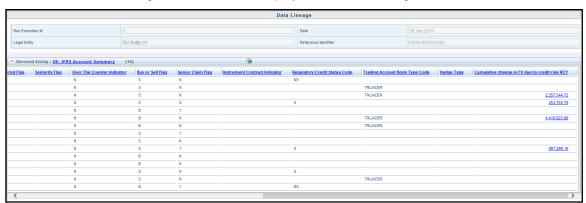


Figure 50: Measure Values

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.

### 10.2.3.1 Using Drill-down with Data Lineage View

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

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

Any deviation from expectations can be then checked back for:

- If the measure is stage pass through, then validate using T2T to verify if stage data is as expected or must be corrected.
- 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 sequence 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 / Service Request with <u>Oracle Support Services</u>.

## 10.2.3.2 Data Lineage View is not available

If the second block does not show any data, then data analysts/you are advised to refer to the data set worksheet of Business Metadata.



Figure 51: Data Lineage Unavailable

There can be a few reasons why the second block does not show the data:

- Internet connection is timed out or broken down in this case clicking Data Lineage on AgileREPORTER results in a blank second block. To rectify this, re-login to OFSAA infrastructure and AgileREPORTER.
- **2.** Data Lineage view works after Metadata is published using OFSAA Infrastructure. To validate if Metadata is properly published or not.
- 3. If Metadata is properly published and the second block still does not show the data, then start with Derived Entity code shown at the beginning of the second block. This Derived Entity code is available even if data is not available.
- **4.** Using this Derived Entity code data analysts are advised to refer to OFSAA Business metadata with worksheet name as 'Derived Entity'. Sample Business Metadata excel is shown in Figure 52:

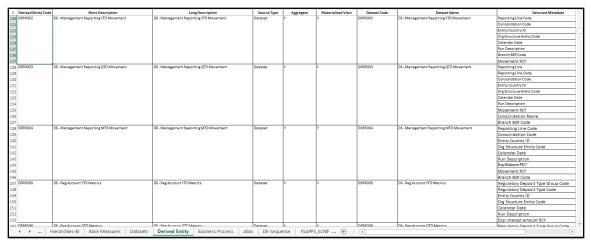


Figure 52: Business Metadata-1

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

1	Source Type	Aggregate	Materialised View	Dataset Code	Dataset Name	Selected Metadata	Selected Metadata Code	
120	Dataset	Y	Y		DS - Management Reporting YTD Movement	Reporting Line Code	HRR004	
121						Consolidation Code	HRR003	
						Entity Country ID	HRR006	
122 123 124 125 126						Org Structure Entity Code	HIREG004	
124						Calendar Date	HIREG001	
125						Run Description	HIREG002	
126						Branch BSR Code	HRR009	
127						Movement RCY	MRR002	
	Dataset	Υ	Υ	DSRR003	DS - Management Reporting QTD Movement	ReportingLine	HRR2021	
129						Reporting Line Code	HRR004	
130						Consolidation Code	HRR003	
131						Entity Country ID	HRR006	
131 132						Org Structure Entity Code	HIREG004	
133						Calendar Date	HIREG001	
134						Run Description	HIREG002	
134 135 136						Movement RCY	MRR002	
136						Consolidation Name	HRR010	
137						Branch BSR Code	HRR009	
138	Dataset	Υ	Υ	DSRR004	DS - Management Reporting MTD Movement	Reporting Line Code	HRR004	
139						Consolidation Code	HRR003	
140						Entity Country ID	HRR006	
141 142 143						Org Structure Entity Code	HIREG004	
142						Calendar Date	HIREG001	
143						Run Description	HIREG002	
144						Eop Balance RCY	MRR001	
145						Movement RCY	MRR002	
146						Branch BSR Code	HRR009	
	Dataset	Y	Υ	DSRR005	DS - Reg Account YTD Metrics	Regulatory Deposit Type Group Code	HRR007	
148						Regulatory Deposit Type Code	HRR034	
149						Entity Country ID	HRR006	
150						Org Structure Entity Code	HIREG004	
150 151 152						Calendar Date	HIREG001	
						Run Description	HIREG002	
153	Dataset			DSRR006		Eop Interest amount RCY	MRR003	
		Hierarchies-BI			Perived Entity Business Process Alias	DE-Sequence FSAPPS_SCRIF (+)	HPP007	
	•	mierai chies-BI	pase Measures	Datasets	business Process Alias	DE-Sequence   FSARPS_SCRIF (+)		

Figure 53: Business Metadata-2

The Dataset ANSI Joins provides valuable information on how various entities are joined/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 / Service Request with <a href="Oracle Support">Oracle Support</a>.

## **OFSAAI Support Contact Details**

- Contact Infrastructure support at <a href="https://flexsupp.oracle.com">https://flexsupp.oracle.com</a> if you have installed ERM and FCCM applications.
- Raise an SR in <a href="https://support.oracle.com">https://support.oracle.com</a> if you have any queries related to EPM applications.

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