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

User Guide

Release 8.0.5.1.0

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Financial Services

Oracle Financial Services Regulatory Reporting for European Banking Authority (EBA) – Lombard Risk Integration Pack User Guide, Release 8.0.5.1.0

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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

SCOPE OF THE GUIDE

The objective of this user guide is to provide a comprehensive working knowledge on Oracle Financial Services Regulatory Reporting for European Banking Authority (EBA) – Lombard Risk Integration Pack, Release 8.0.5.1.0. 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 8.0.5.1.0 and details the process flow and methodologies used.

INTENDED AUDIENCE

Welcome to Release 8.0.5.1.0 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 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.

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RELATED INFORMATION SOURCES

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

- Oracle Financial Services Regulatory Reporting for European Banking Authority (EBA) Lombard Risk Integration Pack Installation Manual Release 8.0.5.1.0
- Oracle Financial Services Data Foundation User Guide Release 8.0.5.1.0
- Oracle Financial Services Data Foundation Installation Manual Release 8.0.5.1.0
- Oracle Financial Services Analytical Applications Infrastructure User Guide Release 8.0.5.1.0 (present in the <u>OHC</u> documentation library)

How this guide is Organized?

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

- Chapter 1: Introduction
- Chapter 2: Getting Started
- Chapter 3: Regulatory Reporting Solution Data Flow
- ◆ Chapter 4: OFSAA Features
- ◆ Chapter 5: Report Submission
- ◆ Chapter 6: Maintenance
- Chapter 7: Troubleshooting Guidelines

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	Object of an action (menu names, field names, options, button names) in a step-by-step procedure	
	Commands typed at a prompt	
	• User input	

Monospace	•	Directories and subdirectories
	•	File names and extensions
	٠	Process names
	•	Code sample, including keywords and variables within text

1 Introduction

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

- Overview
- OFSAA Regulatory Reporting Architecture
- ♦ <u>Scope</u>

1.1 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 analyse 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.

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 Metadata Browser Key Indicators Enterprise Data Sources Reporting **OFSAA Staging OFSAA Results** Loans and Leases GL Data Regulatory Off Balance Sheet Management Reporting Reporting Account Data products Analytical Engines Lombard Risk 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 Management MgmtLedger Third Party Models Master Data General Ledger Third Party Calculation Er OBJEE

1.2 OFSAA Regulatory Reporting Architecture

Figure 1: Regulatory Reporting Solution Architecture

This interface connects the Oracle FSDF to Lombard Risk. As one can see in Architecture figure above, 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
- 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 forms 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 reliable and efficient infrastructure to compile, generate and submit regulatory reports. It collects data from a wide universe (not just OFSAA Results). It provides automated repeated manual adjustments, variance analysis and validation checks.

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

1.3 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 – 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

Report Name	Schedule Name / Description	Released Version
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
COREP – Leverage Ratio	C 44.00 General Information	8.0.4
COREP – Leverage Ratio	C 47.00 Leverage ratio calculation	8.0.4
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 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

Report Name	Report Name Schedule Name / Description	
FINREP	F12.00 Movements in allowances and provisions for credit losses	
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 16.00 Interest income and expenses by instrument and counterparty	8.0.3.1
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 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

2 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 purpose. 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.

2.1 Prerequisites

The prerequisites are:

- Oracle Financial Services Analytical Applications Infrastructure (AAI) is deployed and configured.
- Oracle Financial Services Data Foundation is deployed and configured.
- Processed data required for reports as per the release scope.
- Ensure that AgileREPORTER version **1.15.8-b31** is installed.
- Ensure that the report templates for AgileREPORTER (European Common Reporting (ECR)) Template version **1.28.0.7** is available in the AgileREPORTER.
- Knowledge of working with regulatory reports.

2.2 Assumptions

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

- Textual and other related portions of reports like person details, contact details, Yes / No choices must be updated on Report Portal directly and FSDF does not have placeholder for it.
- Data provided is post reconciliation to ensure that accuracy of data being reported (non-prescribed by regulators) are performed in OFSAA using various components – General Ledger (GL) reconciliation.

- Validity checks such as edit checks, cross-validation checks and so on prescribed by 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 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 impact on the overall functioning.
- All percentage data are expected in decimal format meaning 9% must be provided as 9 and not 0.09.
- For a data provided as of date, such as last day of the quarter of the reporting year: Quarterly and Year to Date (YTD) report for the given date displays same value for those measures which are of as of date in nature. For example, Annual and Quarterly Balance Sheet and BASEL reports generated as of 31-MAR show same values for all measures such as Account Balance.
- Account Balances such as End of Period Balances are expected to be provided as Net of (without)
 Unearned Income.

2.3 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 into 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.

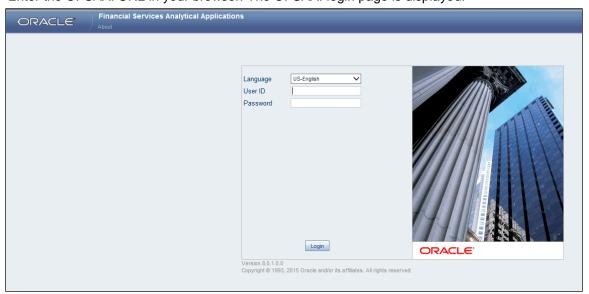


Figure 2: OFSAAI Log In

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

2.4 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 Analyst 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

2.4.1 Marking Run as Final

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

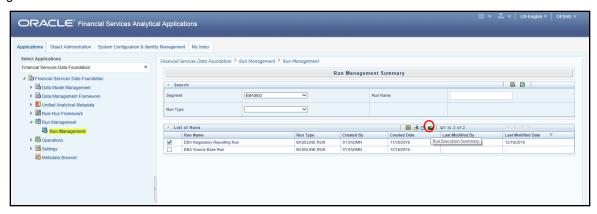


Figure 4: Run Management Summary Screen

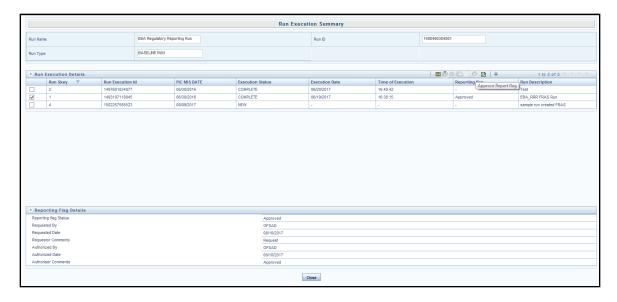


Figure 5: Run Management Summary Screen

2.4.2 Executing Batch to Resave Derived Entities

To execute the batch to refresh derived entities, follow the below steps:

- Navigate to Financial Services Data Foundation → Operations → Batch Execution
- 2. Select the batch <<INFODOM>>_REG_REP_EBA_DE_RESAVE to resave all the DEs used in EBA.

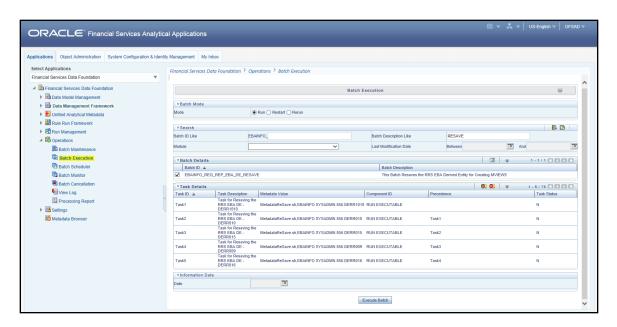


Figure 6: Batch Maintenance Screen

3. Monitor status of the batch using **Batch Monitor** link.

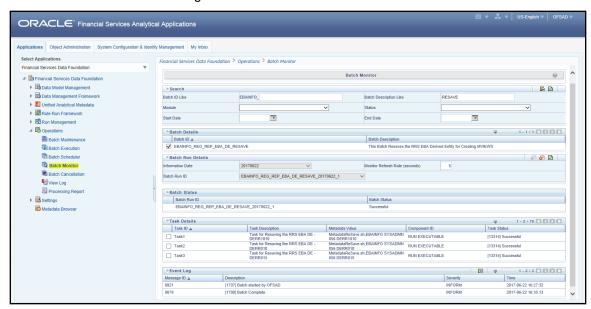


Figure 7: Batch Monitor Screen

2.4.3 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.

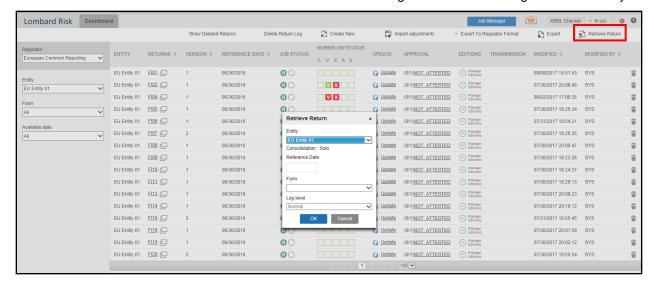


Figure 8: Retrieve Returns Page

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

Drill down functionality enables the user 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 9: AgileREPORTER Login page

2. The user can view the list of reports in the main page. Click any report name in the Returns column, for example, **FI04**.

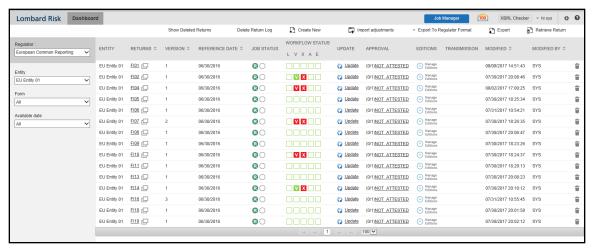


Figure 10: AgileREPORTER Main Page

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

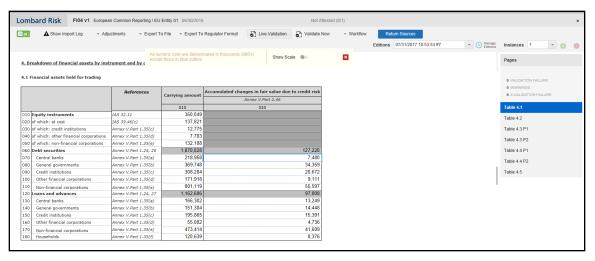


Figure 11: AgileREPORTER Page Displaying List of Schedules

4. Click any cell to drill down. Figure 12 displays drill down for the cell. The **OFSAA icon** is displayed.

Figure 12: AgileREPORTER Drill-down (OFSAA Icon)

5. 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.

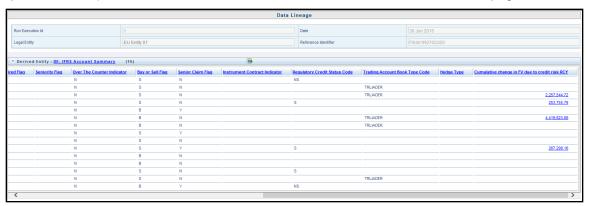


Figure 13: AgileREPORTER Drill-down

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 sum of the Cumulative change in FV due to credit risk RCY must match with that of the cell in the report. Derived entity is an aggregate built on top of OFSAA results model to serve regulatory template requirements. It is built using dimensions, measures and business processors. The dimensions

that participates in determining the cell value is displayed with data. Click the **Derived Entity** link in the grid header.

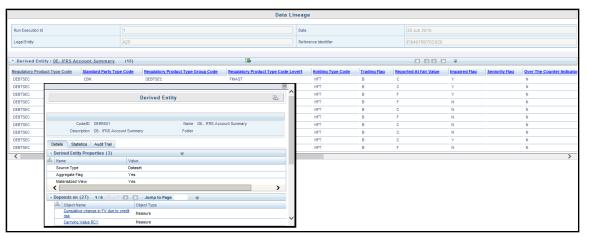


Figure 14: Data Trace Browser / OFSAA Report Drill-down Screen

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 second grid to view the values.

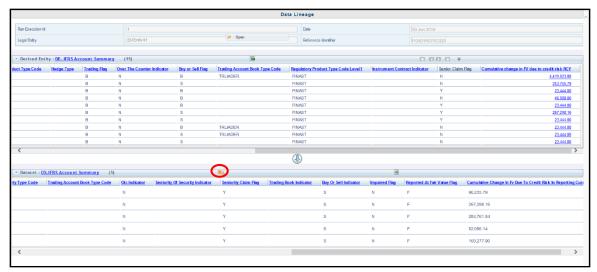


Figure 15: Derived Entity MDB View

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

Figure 16: Drill-down Attribute Selector 1

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

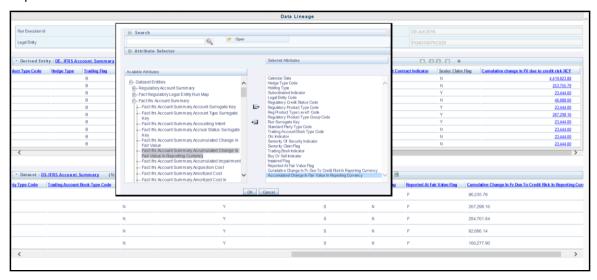


Figure 17: Drill-down Attribute Selector 2

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

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

Figure 18: Drill-down - Columns

2.5 Metadata Browser

This section helps you to navigate through 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 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 work flow of the application and understand the usage of objects within the application.

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

- 1. To use MDB for schedule wise metadata, for a given schedule, identify the metadata used.
 - a) User 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 19 refers to *Fl0401* report.



Figure 19: MDB - Reporting Metadata - Schedule View 1

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

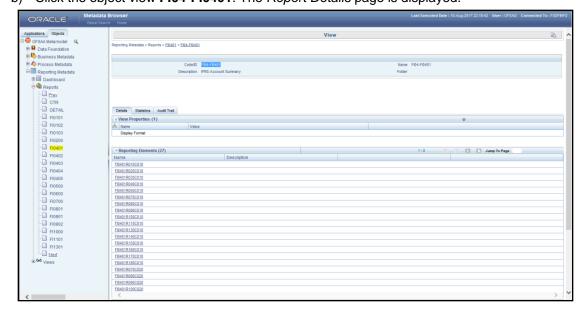


Figure 20: MDB - Reporting Metadata - Schedule View 2

You can view the below information in the Details tab:

- Reporting Elements: This section displays the line items in 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.

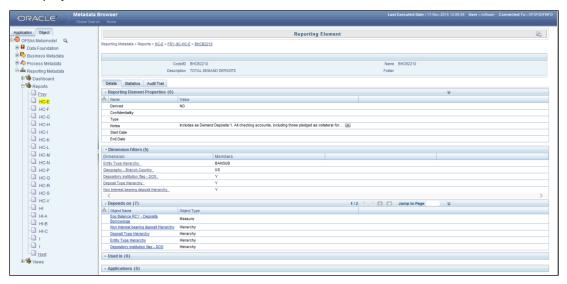


Figure 21: MDB - Reporting Metadata - Schedule View 3

You can view the following information in this page:

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

Table 2: Fields and their Descriptions in Reporting Element Properties

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.

- 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 measure 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 a common metadata used across application, you may want to know the list of reports/ derived entities this metadata has used. Let us take an example of measure. To identify how a 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 22 refers to ALM EOP Balance RCY.

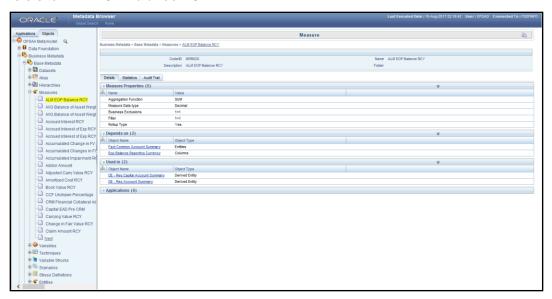


Figure 22: MDB - Business Metadata - Measure View

You can view the below information in this page:

- Measure Properties: It provides information on 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).

a) To view the schedule wise derived entities, navigate to path Objects → OFSAA Data Model → Derived Metadata → Derived Entities. The LHS displays list of Schedules. For example, Figure 23 displays the derived entities used in FCT IFRS Account Summary.

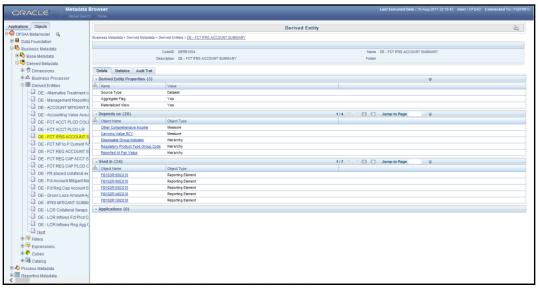


Figure 23: MDB - Business Metadata - Derived Entity

You can view the following information in 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.

3 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:

- Data Preparation
- Mapping of Results to Line Items in Reporting
- ◆ AgileREPORTER: Submission

3.1 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

3.1.1 Assumptions for Data Preparation

- 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 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 results area of the respective processing application, and any change in the underlying processing can disturb the RRS data sourcing.
- Baseline and stress data must be populated with appropriate codes. Inaccurate mappings may lead to inaccurate results. For details please refer to <u>Relationship between Run and Stress</u>.
- 4. For usage of consolidation dimension (which has values like Actual, Budged, 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.
- All processing reporting requirements requiring cash flows, integration package expects bucketed cash flow as a input (meaning a time bucket for cash flow and cash flow amount is expected as input).

3.1.2 EBA RUN CHART

Oracle Financial Services Regulatory Reporting for EBA – Lombard Risk Integration Pack provides the EBA RUN Chart listing the tasks required for 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 EBA 8.0.5.0.0 RUN Chart from the MOS.

3.1.3 Run/Execution Expectations

Run refers to execution. It is assumed that at different time periods, 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
 - a. Reporting month end data
 - b. Projection Data
- 2. Historical (trend/vintage) Data
 - a. Yearly
 - b. 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 is period specific.
- Therefore, unlike End of Period (EoP) balance, movement values for quarter actuals must be derived for reporting. For a historical data, net sales for quarter 3 is the difference between sales figure as of 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 projection of net sales for quarter 2 next year is to be performed, no derivation is required. Projections data for said quarter can be directly downloaded in the respective Fact table(s) for reporting.

3.1.4 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 <u>Data Integration Hub (DIH) User Guide</u> in OTN 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.

3.1.5 Data Flow from Staging to Results Area

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

3.1.5.1 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. Common example of this category includes various monetary amounts, dates and so on.

3.1.5.2 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 account level, such as 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 regulatory specific set of value such as DIM EBA Remaining Maturity Band as mentioned above.

Reporting derived entities use this 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.

3.1.5.3 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 source is customer specific values. In such cases, these rules must be validated and updated as required by end user because Out of Box rule may differ from what end user has. 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

Refer to **Business Metadata** for details of these reclassifications.

3.1.6 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 consist of 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 has 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.

3.1.7 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.

3.1.8 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 T2T's 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 customer may not have licensed any of 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 highlight 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 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 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 keys for a given value of 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 → 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 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 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

3.1.8.1 DIH Connectors

For customer's 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 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.

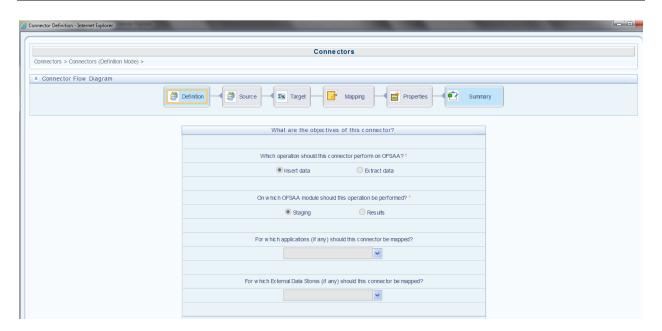


Figure 24: DIH Connectors

3.1.8.2 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 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.

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

If the source data is available in file structures, OFSAA F2T component can be used to bring the data in the OFSAA eco system. As lookups cannot be configured in a F2T, this component must be used in conjunction with 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 least recommended approach as there is need for interim table structure in data model and involves multiple data hops which add to the overhead.

See the OFS AAI User Guide for more details on configuring a F2T.

3.1.9 FSDF Entity Information

3.1.9.1 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 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

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
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.
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. Workout program are defined generally as: if particular program is deferment, forbearance, term changes, rate changes, and so on.

SI.	List of Seeded Tables	Table/Entity Logical	Table/Entity Descriptions
No.		Names	
No. 18	DIM_DEPOSIT_PRIM_PURPOSE	Deposit Primary Purpose Dimension	This table stores the primary purpose of 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,

SI.	List of Seeded Tables	Table/Entity Logical	Table/Entity Descriptions
No.		Names	
			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 the security.
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 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 Banking book or Trading book (if info is not available it is under Missing category).

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
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 criteria is applicable for any exposures to be exempted from the regulatory calculation like leverage ratio or large exposures. These criteria is unique and is 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 establishment of an entity for various jurisdictions like Joint stock, 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.
32	DIM_REG_INSTR_CLASSIFICATION	Regulatory Instrument Classification	This table stores data for different Instrument Classified defined by Regulators.
33	DIM_REG_LOAN_PURPOSE	Regulatory Loan Purpose Dimension	This table stores the description for the regulatory loan purpose / utilization of loan amount. Values expected are: 1 = Purchase 4 = Rate / Term Refinance 5 = Cash-Out Refinance 6 = Other Refinance

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
			7 = Home Improvement 8 = Debt Consolidation 9 = Education A = Medical Y = Other U = Unknown
34	DIM_REG_PARTY_RELATIONSHP_TYPE	Regulatory Party Relationship Type Dimension	This table stores the relationship types defined by the Regulators. The table is used to determine the regulatory relationship type between two parties. This can also be used for relationship type between an entity and a party, wherein the entity is represented.
35	DIM_REG_PRODUCT_CLASSIFICATION	Regulatory Product Classification Dimension	This tables stores the classification of loans underlying Mortgage Servicing Rights into Regulatory classes as required for reports. Example: FHLMC/ FNMA, FHA loans, and so on.
36	DIM_REG_PRODUCT_TYPE	Regulatory Product Type	This table stores regulatory product types. This is used for regulatory reporting purpose and contains values like Auto Loans, Credit Cards, other consumer loans, and so on.
37	DIM_RISK_TYPE	Risk Type Dimension	This table stores the Risk Types. For example: Price Risk, Volatility Risk, and so on.
38	DIM_RISK_WEIGHT	Risk Weight Dimension	This table stores the various Risk Weight assigned under Basel Accord.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
39	DIM_STANDARD_ACCT_HEAD	Standard Accounting Head Dimension	This entity lists the various standard accounting heads (Equity, Reserves and Surplus, and so on) under which a bank classifies its GL sources of accounting capital.
40	DIM_STANDARD_EVENT_TYPE	Standard Loss Event Type Dimension	This entity stores the master list of Operational Loss Event Types as prescribed by the Regulator.
41	DIM_STANDARD_PARTY_TYPE	Standard Party Type Dimension	This table stores the standard party type, party here could be customer, issuer and guaranator, and so on.
42	DIM_STANDARD_PRODUCT_TYPE	Standard Product Type Dimension	This table stores the list of all product types specified by regulator for risk computations.
43	DIM_STD_MITIGANT_TYPE	Standard Mitigant Type Dimension	This entity stores the standard mitigant type.
44	DIM_TRADING_ACCT_BOOK_TYPE	Trading Account Book Type	This table stores the trading assets and liabilities. Along with Holding type as held for trading at times regulator has an additional criteria like positive fair value for identification of trading assets and negative fair value for trading liabilities.
45	DIM_UNDRLYNG_ASST_POOL_TYPE	Underlying Asset Pool Type Table	This table stores the underlying asset pool type for derivative instruments. For example: Student Loan ABS means an asset backed security backed by student loans. In this case, this table stores Student Loan.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
46	DIM_REG_FIXED_ASSETS	Reg Fixed Assets Dimension	This table stores the data related to reg fixed assets. Reg 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.
47	DIM_REG_VALUATION_METHOD	Regulatory Valuation	This table stores the Regulatory valuation method used to calculate the mitigant value.
48	DIM_FV_CLASSIFICATION_TYPE	Fairvalue Classification Type For Dimension	This table stores list of all the fair value option classification types.
49	DIM_CASH_FLOW_TYPE	Cash Flow Type Dimension	This table contains the cash flow types like principal, interest, and so on.

3.1.10 Fact Tables/Entities

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

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

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

Table 7: Fact Seeded Tables/Entities

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
1	FCT_IFRS_ACCOUNT_SUMM ARY	Fact IFRS Account Summary	This table holds the measures related to 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 an input through staging.	Staging
3	FCT_CREDIT_LINE	Fact Credit Facility	This table stores the credit facility data. Credit facility is 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 cap on cash flows and applicable weight that is haircut, which is used in Liquidity Coverage Ratio reporting as stipulated in the Delegated Act on Liquidity issued by the European Commission.	Processing

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
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 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
13	FCT_MITIGANT_REG_CAPITA	Fact Mitigant Regulatory Capital	This table stores the regulatory capital information related to mitigants.	Processing
14	FCT_MITIGANTS	Fact Mitigants	This entity stores the consolidated details of all the mitigants.	Staging
15	FCT_OPERATIONAL_LOSS	Fact Operational Loss	This entity stores the Operational Losses as reported by the Financial Institution or the Operational Loss Data Consortium.	Staging
16	FCT_OPSLOSS_DATA_THRES HOLD	Fact Operation Loss Threshold	This table stores the threshold for the operational loss recording for a given combination of Line of Business and every type.	Staging
17	FCT_PARTY_PARTY_RELATI ONSHIP	Fact Party To Party Relationship	This table stores the relationship between the parties.	Staging

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
18	FCT_PLACED_COLLATERAL	Fact Placed Collateral	This stores the details of collateral which are placed against an account.	Staging
19	FCT_REG_ACCOUNT_SUMMA RY	Fact Regulatory Account Summary	This table stores the regulatory reclassifications and other information as required for regulatory reporting. Note:	Results
			Since the F_NCA_DISPOSAL_GRP_FLAG value is not directly available in bank's source system, this flag must be updated separately post stage data loading. The bank can choose any method (that is, rule/ excel/ query population, and so on) to populate this column.	
20	FCT_REG_ACCT_MITIGANT_ MAPPING	Fact Regulatory Account Mitigant Mapping	This table stores the account mitigant mapping information.	Processing
21	FCT_REG_AGG_CASH_FLOW S	Fact Regulatory Aggregated Cash flows	This entity stores the Aggregated Cash flows for regulatory reporting.	Processing
22	FCT_REG_CAP_ACCOUNT_S UMMARY	Fact Regulatory Capital Account Summary	This table stores regulatory capital for each account. This table is an input from Basel application.	Processing
23	FCT_REG_CAP_PARTY_GRP_ MMBR_MAP	Fact Member Map for Party-Party Relationship	This table stores the mapping between member and the group head and the type of relation. Members are determined from both party dimension and partyparty relationship entity.	Processing

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
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 are placed collateral. The placed collateral are 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 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 the 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

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
29	FCT_SWAP_MITGT_PLCD_CO	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
31	FCT_FIXED_ASSETS	Fact Fixed Assets	This fact table stores measures pertaining to assets. Fixed assets are physical assets such as Buildings, Land, Machinary, Automobiles, Gold bullion etc. They can be sold and appropriate profit/loss can be recognized based on appropriate accounting principles.	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 can be used in multiple account & an account contains multiple collateral.	Staging

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
35	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, Machinary, Automobiles, Gold bullion etc. They can be sold and appropriate profit/loss can be recognized based on appropriate accounting principles.	Processing
36	FCT_REG_RUN_LEGAL_ENTI TY_MAP	Fact Regulatory Legal Entity Run Map	This table stores reporting entity identifier for every regulatory reporting run.	Processing

3.2 Mapping of Results to Reporting Requirements of Lombard Risk



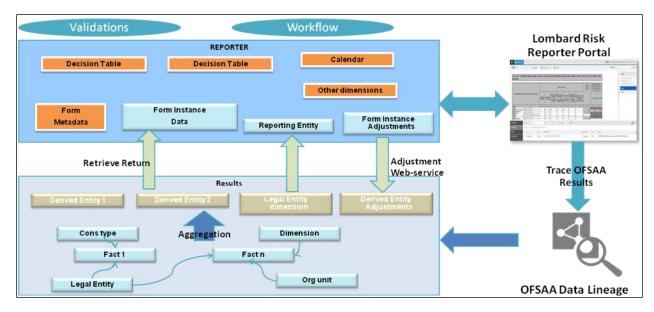


Figure 25: Data Flow between OFSAA and AgileREPORTER

OFSAA provides the data to AgileREPORTER in the form of derived entities. 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.

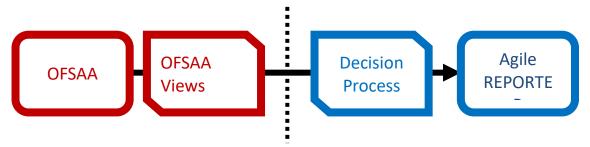


Figure 26: Decision Process in AgileREPORTER

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, 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 ware house configuration pack provided Out-of-Box / pre-configured 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.

3.3 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.

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

4.1 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 depends on your logon privileges and on the OFSAA modules that are installed for your environment.

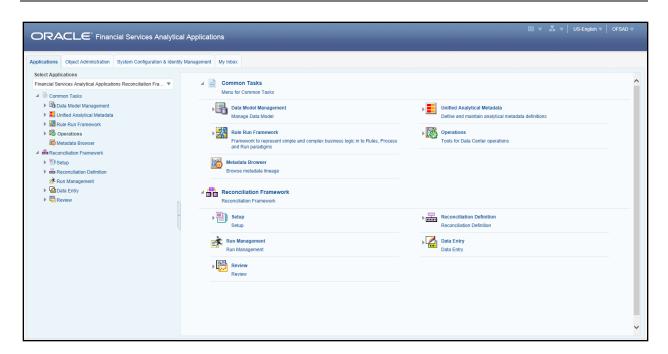


Figure 27: Landing Page

4.2 Business Metadata

In addition to Derived Entity, RRS uses the following OFSAA features to create the business metadata. For details on the features, see <u>OFS Analytical Applications Infrastructure User Guide</u> in <u>OHC</u> 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 which 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 which 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 on
 a data warehouse for a large number of functions and to generate reports.

4.3 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 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 which 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.

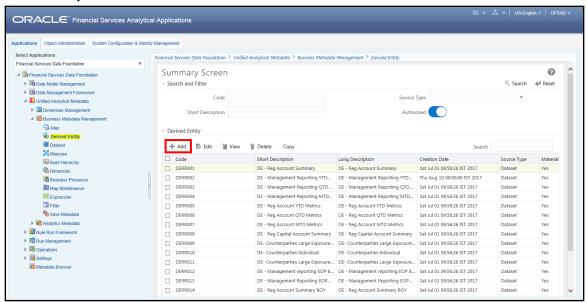
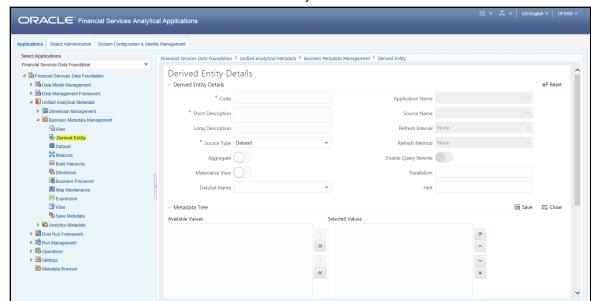


Figure 28: Derived Entity Summary Screen



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

Figure 29: Derived Entity User Interface

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

4.3.1 Creation of Derived Entity

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

4.3.2 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.

4.4 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 <u>OFS Analytical Applications Infrastructure User Guide</u> in <u>OHC</u> 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.

4.5 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. Decision table is a metadata object within AgileREPORTER that stores the criteria for deriving value for each cell reference. The metadata is packaged for regulatory report as part of the OFS Risk Regulatory Solution. 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 measure. 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.

Decision mapping table is processed against the contents of 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: Note: All the dimension member codes that are used in the decision table are preseded 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 which result in a single unified reporting dimension must be performed in order to address the complexity of decision table. Reclassification rule is defined in OFSAA and packaged as part of 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 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 'sheet' column or 'row' column of the template.

NOTE: As a part of the solution, metadata exists as out of box / pre-configured with installer.

5 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. Same can be executed through the Run Management screen. The following are the two runs that are packaged as part of 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.

5.1 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.

5.2 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

5.2.1 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.

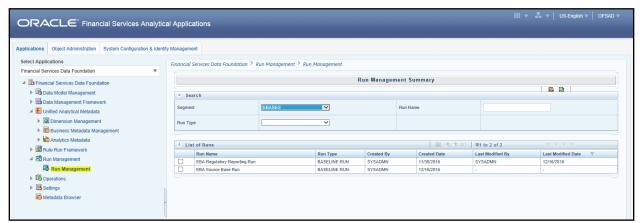


Figure 30: Run Search Section

5.2.2 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 check box in the first column of the grid.



Figure 31: 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.

5.2.2.1 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.

5.2.3 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.

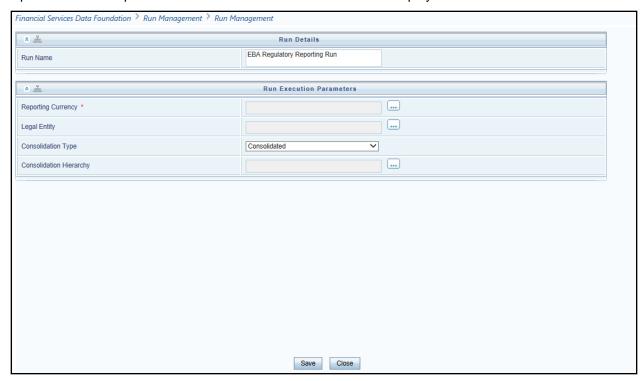


Figure 32: Run Default Parameters Window

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.

5.2.3.1 Run Details Section

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

5.2.3.2 Run Execution Parameters Section

In this section, you can update the following:

- Reporting Currency: Reporting Currency Code parameter is used for 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 solo run.

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

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

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

NOTE: For further details on Save Hierarchy, refer to *Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack 8.0.5.0.0 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.

5.2.4 Navigation within Run Execution Parameters Window

Click **Run Execution Parameters** icon on the navigation bar of the *Run Management Summary* window. The *Run Execution Parameter* window allows you to enter and save the Run execution parameters.

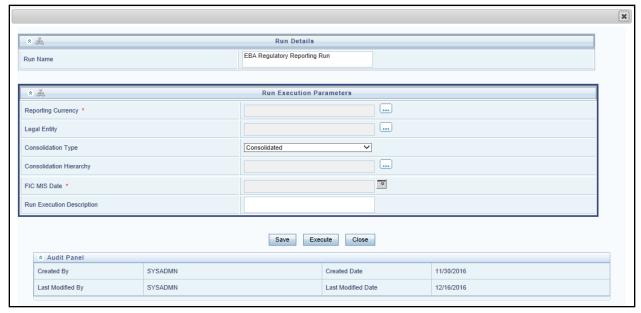


Figure 33: Run Execution Parameters Window

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

5.2.4.1 Run Details Section

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

5.2.4.2 Run Execution Parameters Section

The following Run execution parameters can be updated:

- Reporting Currency: Reporting Currency Code parameter is used for 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 solo 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 Reporting Currency parameter and Legal Entity parameter, you need to save the following hierarchies under Save Metadata screen:

Legal Entity Code for Run (HFSDF001)

Reporting Currency Code for Run (HFSDF002)

By clicking the Save button; a batch with the defined Run execution parameters is created. The batch created can be executed from the Batch Execution screen.

By clicking the Execute button, a batch with the defined Run execution parameters is created and executed immediately. Status of the executed run can be seen in 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 8.0.5.0.0 User Guide* on <u>OHC</u>. 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.

5.2.5 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 34: Run Execution Summary

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

5.2.5.1 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.

5.2.5.2 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 check box 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 for 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 an 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.

5.2.5.3 Run Execution Grid

The Run Execution Details displays the following details:

- Run Skey: Displays the Run Skey of an 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.

6 Metadata Export Utility

The Metadata Export Utility helps the user 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 user creates templates and selects Metadata Objects that need to be extracted. The extraction process is supported only for Excel Sheet. While defining the template, user is expected to have prior knowledge of the OFSAA Metadata objects that are relevant from his application point of view.

6.1 Prerequisites

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

- MDB Publish: Execute the batch, INFODOM_MDB
- 2. Logs: MDB logs are generated under deployed area /Context_Name/logs/MDB_XXXX.log
- 3. Data Elements Wrapper Execution: After MDB Publish is completed successfully with 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 USERS.

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.

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

- a. Login 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 EditTask 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 this table.

SI. No.	Parameter	Description	List of Values	Default Value
1	P_METADATA_FLAG	Metadata Parser Flag	Y/N	'Y'
2	P_REPORT_FLAG	Report Parser Flag	Y/N	Ύ
3	P_MDR_USAGE_FLAG	Usage Parser Flag	Y/N	'N'

SI. No.	Parameter	Description	List of Values	Default Value
4	P_MDR_MD_DF_FLAG	Metadata to Data Flow Flag	Y/N	'N'
5	P_INFODOM_NAME	Infodom Name	##INFODOM##	<value eba="" infodom="" installed="" is="" of="" the="" where="">. For example: 'EBAINFO'</value>
6	P_SEGMENT_CODE	Segment Code	##SEGMENT##	<value code="" eba="" installing="" is="" of="" segment="" used="" which="" while="">. For example: 'EBASEG'</value>
7	P_REG_APP_ID	Application Identifier	##APPID##	Application ID for EBA. For example: 'OFS_REG_REP_EBA'

- Metadata Parser Flag (P_METADATA_FLAG): By enabling this flag, the data elements utility parses all the Business Metadata like Business Hierarchies, Business Measures, Business Processes, Derived Entities, Datasets, Aliases and its lineage between them. It also parses Data Flow Metadata like T2Ts, SCDs, Rules, and the lineage between them.
- Report Parser Flag (P_REPORT_FLAG): By enabling this flag, the data elements
 utility parses all the Dashboards, Reports, Schedules, Views, and join these outputs
 with the Metadata which are already parsed through the Metadata Parser Flag
 (P_METADATA_FLAG).

NOTE: Even if this flag is enabled, the Dashboards which get parsed depend on the FSI_DE_POP_REPORT_LIST table in Atomic Schema. By default, all Dashboards are enabled and if you wish to parse particular Dashboards, modify the FSI_DE_POP_REPORT_LIST table by enabling / disabling the "Include Report Column". The following are the default Dashboards packaged.

SI. No.	DASHBOARD ID	REPORT CODE	JURISDICTION CODE	INCLUDES REPORT
1	5001	FI0200	EBA	Υ
2	5002	FI0401	EBA	Υ
3	5002	FI0402	EBA	Υ
4	5002	FI0403	EBA	Υ
5	5002	FI0404	EBA	Υ
6	5002	FI0405	EBA	Υ
7	5003	FI0700	EBA	Υ
8	5004	FI0801	EBA	Υ
9	5004	FI0802	EBA	Υ
10	5005	C26.00	EBA	Υ
11	5005	C27.00	EBA	Υ
12	5005	C28.00	EBA	Υ
13	5005	C29.00	EBA	Υ
14	5005	C30.00	EBA	Υ
15	5005	C31.00	EBA	Υ
16	5006	FI0500	EBA	Υ
17	5007	FI0600	EBA	Υ
18	5008	FI0901	EBA	Υ
19	5008	FI0902	EBA	Υ
20	5009	C17.00	EBA	Υ
21	5010	FI1400	EBA	Υ
22	5011	FI1000	EBA	Υ
23	5012	FI1101	EBA	Υ
24	5012	FI1103	EBA	Υ
25	5013	FI1301	EBA	Υ
26	5013	FI1302	EBA	Υ
27	5013	FI1303	EBA	Υ

SI. No.	DASHBOARD ID	REPORT CODE	JURISDICTION CODE	INCLUDES REPORT
28	5014	FI1900	EBA	Υ
29	5015	C07.00	EBA	Υ
30	5016	C72.00	EBA	Υ
31	5016	C73.00	EBA	Υ
32	5016	C74.00	EBA	Υ
33	5016	C75.00	EBA	Υ
34	5017	FI2001	EBA	Υ
35	5017	FI2002	EBA	Υ
36	5017	FI2003	EBA	Υ
37	5017	FI2004	EBA	Υ
38	5017	FI2005	EBA	Υ
39	5017	FI2006	EBA	Υ
40	5017	FI2007	EBA	Υ
41	5018	FI1601	EBA	Υ
42	5018	FI1602	EBA	Υ
43	5018	FI1603	EBA	Υ
44	5018	FI1604	EBA	Υ
45	5018	FI1605	EBA	Υ
46	5018	FI1606	EBA	Υ
47	5018	FI1607	EBA	Υ
48	5019	FI1800	EBA	Υ
49	5020	C40.00	EBA	Υ
50	5020	C41.00	EBA	Y
51	5020	C43.00	EBA	Y
52	5020	C44.00	EBA	Y
53	5020	C47.00	EBA	Y
54	5021	FI0101	EBA	Y

SI. No.	DASHBOARD ID	REPORT CODE	JURISDICTION CODE	INCLUDES REPORT
55	5021	FI0102	EBA	Υ
56	5021	FI0103	EBA	Υ
57	5022	FI1701	EBA	Υ
58	5022	FI1702	EBA	Υ
59	5022	FI1703	EBA	Υ
60	5023	FI2100	EBA	Υ
61	5024	FI4101	EBA	Υ
62	5024	FI4102	EBA	Υ
63	5024	FI4103	EBA	Υ
64	5025	FI4200	EBA	Υ
65	5026	FI4300	EBA	Υ
66	5027	FI4600	EBA	Υ
67	5028	FI4501	EBA	Υ
68	5028	FI4502	EBA	Υ
69	5028	FI4503	EBA	Υ
70	5029	FI0300	EBA	Υ
71	5030	FI3001	EBA	Υ
72	5030	FI3002	EBA	Υ
73	5031	FI3101	EBA	Υ
74	5031	FI3102	EBA	Υ
75	5032	FI4401	EBA	Υ
76	5032	FI4402	EBA	Υ
77	5032	FI4403	EBA	Υ
78	5033	FI2201	EBA	Υ
79	5033	Fl2202	EBA	Υ
80	5034	FI1201	EBA	Υ
81	5034	FI1202	EBA	Υ

NOTE: After the Metadata Parsing is completed and if there are no further changes in Business Metadata and Data Flow Metadata, you can execute the batch by disabling the Metadata Parser Flag (P_METADATA_FLAG). Now, the Metadata is not parsed again, but the Report newly enabled through FSI_DE_POP_REPORT_LIST table is parsed. If there is a change in Business Metadata and Data Flow Metadata, you need to enable the Metadata Parser Flag (P_METADATA_FLAG) and parse once again.

- Usage Parser Flag (P_MDR_USAGE_FLAG): By enabling this flag, the data elements utility parses all the Entities and joins these outputs with the Metadata which are already parsed through Metadata Parser Flag (P_METADATA_FLAG).
- Metadata to Data Flow Flag (P_MDR_MD_DF_FLAG): By enabling this flag, the
 data elements utility joins all the Business Metadata parsed output with Data Flow
 parsed output for all applications.
- ◆ Infodom Name (P_INFODOM_NAME): This is the value of the Infodom where OFS_REG_REP_EBA is installed. No need to modify this value.
- ◆ Segment Code (P_SEGMENT_CODE): This is the value of the Segment Code which is used while installing OFS_REG_REP_EBA. No need to modify this value.
- Application Identifier (P_REG_APP_ID): This is the application identifier of the product (OFS_REG_REP_EBA). No need to modify this value.

6.1.1 Verifying Logs

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

Flag	Batch Run ID	Indication
P_METADATA_FLAG	METADATA_ELEMENTS	Processes Business Metadata.
		The message "Completed Over ALL
		Metadata" indicates that the Business
		Metadata parsing is complete.
P_METADATA_FLAG	ULTIMATE_METADATA_ELEME	Calculates Ultimate Table/Column for
	NTS	Business Metadata.
		The message "Completed
		ULTIMATE_METADATA_ELEMENTS"
		indicates that the Business Metadata
		Ultimate elements parsing is complete.

Flag	Batch Run ID	Indication
P_METADATA_FLAG	DATA_FLOW_ELEMENTS	Processes Data Flow Metadata. The message "Completed Elements for DATA_FLOW_ELEMENTS" indicates that the Data Flow Metadata parsing is complete.
P_METADATA_FLAG	ULTIMATE_DATA_FLOW_ELEM ENTS	Calculates Ultimate Source Table/Column for Data Flow Metadata. The message "Completed ULTIMATE_DATA_FLOW_ELEMENTS" indicates that the Data Flow Metadata Ultimate elements parsing is complete.
P_METADATA_FLAG	POP_MDR_LINEAGE_METADAT A	Links Data Flow Metadata Lineage with Metadata Browser. The message "Completed MDR_METADATA Data Flow" indicates that the Metadata Lineage parsing is complete.
P_REPORT_FLAG	REPORT_ELEMENTS_OFS_RE G_REP_EBA	Processes Dashboard Elements from FSI_M_CELL_DIM_VAL and FSI_M_CELL_DEFN. The message "Completed REPORT_ELEMENTS for OFS_REG_REP_EBA" indicates that the Dashboard Metadata parsing is complete.
P_REPORT_FLAG	REPORT_TO_TARGET_MAP_O FS_REG_REP_EBA	Processes Dashboard with Processed Business Metadata. The message "Completed REPORT_TO_TARGET_MAP for OFS_REG_REP_EBA" indicates that the Dashboard to Business Metadata parsing is complete.

Flag	Batch Run ID	Indication			
P_REPORT_FLAG	REPORT_TO_SOURCE_MAP_O FS_REG_REP_EBA	Processes Dashboard with Processed MDR Lineage. The message "Completed REPORT_TO_SOURCE_MAP for OFS_REG_REP_EBA" indicates that the Dashboard to Data Flow Metadata parsing is complete.			
P_REPORT_FLAG	POP_FINAL_ELEMENTS_OFS_ REG_REP_EBA	Processes Final Data Elements for EBA. The message "Completed POP_FINAL_ELEMENTS for OFS_REG_REP_EBA" indicates that all the Dashboard related Metadata parsing is complete.			
P_MDR_USAGE_FLAG	DATA_FLOW_USAGE	Processes Data Flow Usage. The message "Completed Elements for DATA_FLOW_USAGE" indicates that the Data Flow Usage Metadata parsing is complete.			
P_MDR_USAGE_FLAG	ULTIMATE_DATA_FLOW_USAG E	Calculates Ultimate Table/Column Usage for Data Flow Metadata. The message "Completed ULTIMATE_DATA_FLOW_USAGE" indicates that the Data Flow Ultimate Usage Metadata parsing is complete.			
P_MDR_USAGE_FLAG	POP_MDR_LINEAGE_METADAT A	Links Data Flow Usage Lineage with Metadata Browser. The message "Completed MDR_METADATA Data Flow" indicates that the Data Flow Usage MDB Metadata parsing is complete.			
P_MDR_MD_DF_FLAG	METADATA_TO_DATAFLOW	Processes Parsed Business Metadata joined with Parsed Data Flow Metadata. The message "Completed METADATA_TO_DATAFLOW" indicates that the Business Metadata to Data Flow Metadata parsing is complete.			

6.1.2 Validating Lineage Outputs

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

- ◆ MDR_LINEAGE_METADATA
- FSI_DE_REPORT_SOURCE_DETL_MAP
- MDR_USAGE_METADATA (Optional, data is populated only if P_MDR_USAGE_FLAG is enabled.)
- FSI_DE_METADATA_SOURCE_DETAILS (Optional, data is populated only if P_MDR_MD_DF_FLAG is enabled.)

```
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)

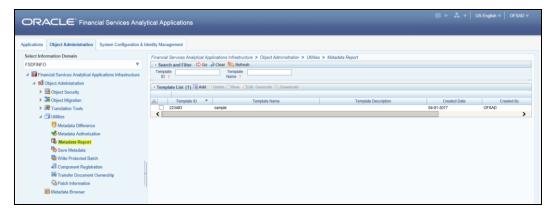
COMPUTE STATISTICS

/

6.2 Create and Export Metadata Report Templates

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

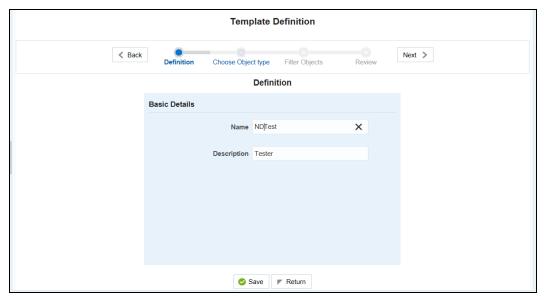
1. Navigate to **Object Administration** → **Utilities** → **Metadata Report**.



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 Template Definition page.



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

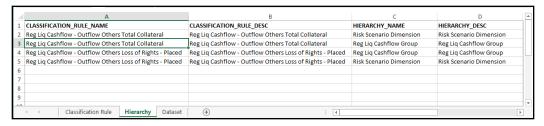
Individual report generates only the basic properties of the object selected, that is, name and description. **Relational** report generates detailed information up to the Entities level, if Dependencies is chosen; and up to the Staging Columns level, if Data Lineage is selected along with Dependencies.

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.

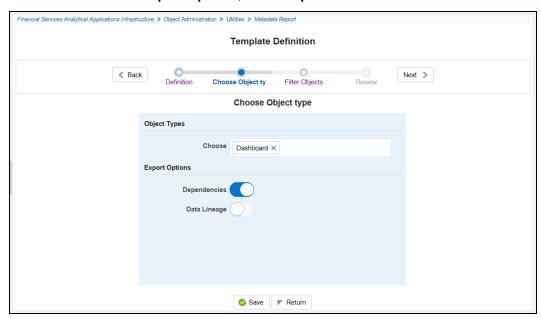
Lineage: Data is loaded from source systems to staging and then moved across to processing / reporting. Lineage traces the data element as it moves across different layers of OFSAA: staging, processing, and reporting. Metadata Export Utility exports the lineage of each of the reporting area data element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

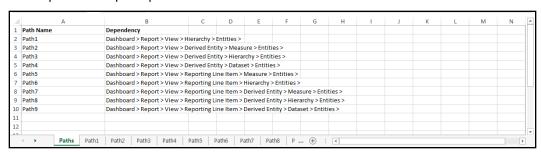
For Individual: In the Export Options, do not select Dependencies or Data Lineage.

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.

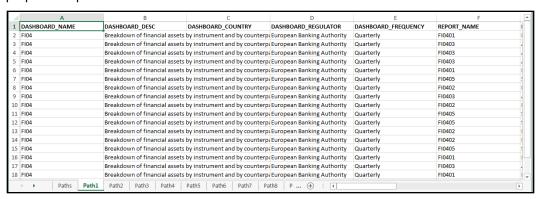
Each path tells how the dependency/usage is derived from dashboard to entity or vice versa involving various OFSAA object types like Derived Entity, Hierarchies, Datasets, Measures, and so on

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

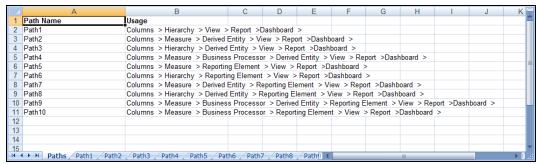
For every dependent object type displayed in each path sheet, the following columns are displayed:

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

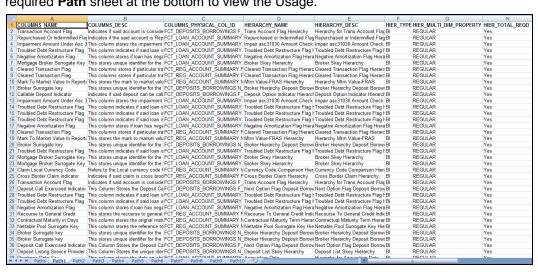
For example: In Path1, Dashboard is the first Object type, the dependencies generated are Dashboard Name, Dashboard Description, and Dashboard properties: Dashboard Country, Dashboard Regulator and so on. Similarly, Report is the next Object type in Path1 and the dependencies generated are Report Name, 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:

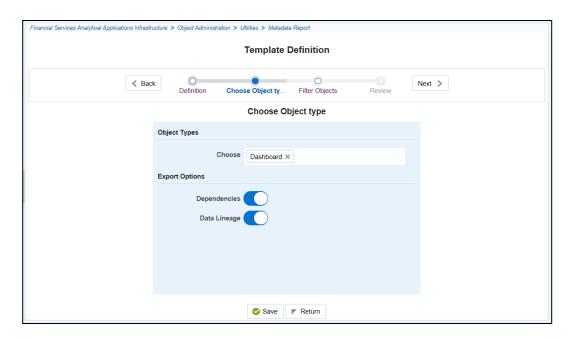


The first sheet shows the different Paths and their Usage up to the Dashboard level. Select the required **Path** sheet at the bottom to view the Usage.

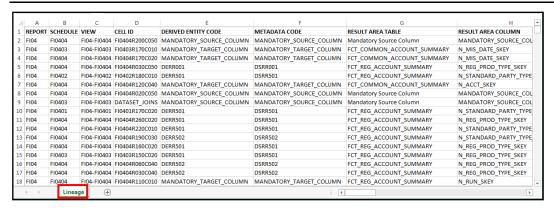


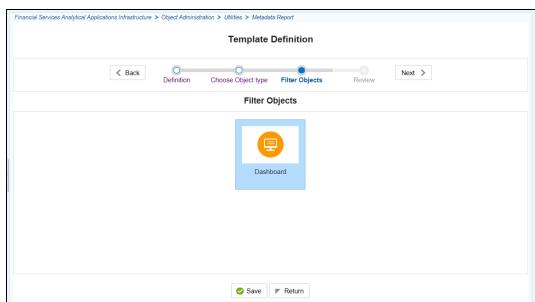
Select **Data Lineage** in **Template Definition** → **Choose Object Type** to export the lineage details up to the Staging Columns level.

NOTE: Data Lineage can be selected only if **Dependencies** is opted.



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).

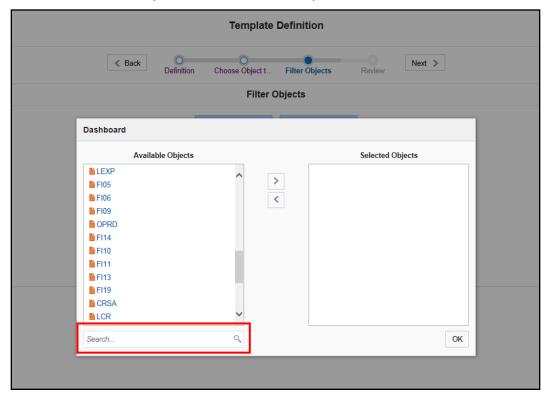




5. Select Filter Objects to see the selected objects.

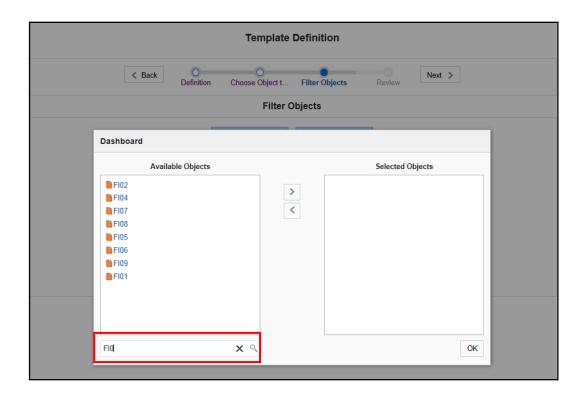
6. Select one Filter Object from the Available Objects and Click to add a Selected Object.

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



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 is displayed.

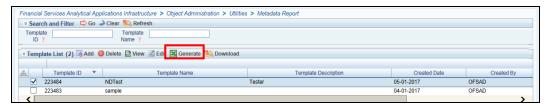
NOTE: You can type the complete Filter Object name to select and add to the Selected Objects.



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



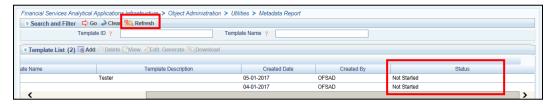
8. Click **Return** to go to the **Summary** page.



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

NOTE: MDB Publish must be triggered before executing the Generate option.

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

- a) All Paths query
- b) Query for each path and if data present for this path
- c) Lineage query
- d) Status of excel output creation
- e) 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

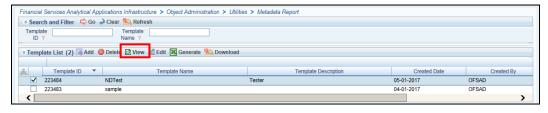
The following user groups are pre-seeded in the component that helps user to get access to the Metadata Report Extract screen.

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

6.3 View Metadata Report Templates

Perform the following steps to view the Metadata Report Templates:

- 1. Select a Template in the Template List in 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.

6.4 Modify/Edit Metadata Report Templates

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

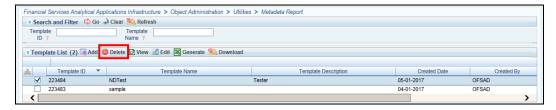
- 1. Select a **Template** in the **Template List** in **Summary** screen.
- 2. Click **Edit** icon to modify the generated Metadata Report Templates excel report (after the export status shows as completed).



6.5 Delete Metadata Report Templates

Perform the following steps to delete the Metadata Report Templates:

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



7 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

7.1 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.

7.2 Edit Checks/ Validity Check/ Quality Checks

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

Note: Refer to the AgileREPORTER user documentation provided by Lombard Risk, for details of activities within the AgileREPORTER.

7.3 Report Templates to be used in AgileREPORTER

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

Report / Schedule Name	Report Template			
CRSA07A	CRSA_v6			
CRSA07B	CRSA_v6			
C1701C17001	OPRD_v2			
C1701C17004	OPRD_v2			
C1702C17002	OPRD_v2			
C1703C17003	OPRD_v2			
C27GRP	LEXP_v4			
C28GRP	LEXP_v4			
C29	LEXP_v4			
C30GRP	LEXP_v4			
C31INDGP	LEXP_v4			

Report / Schedule Name	Report Template				
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 FI04_v2				
FI0403.1					
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	Fl09_v2				
FI10	FI10_v2				
FI1101	FI11_v2				

Report / Schedule Name	Report Template				
FI1103	FI11_v2				
FI1201	FI12_v2				
FI1202	FI12_v2				
FI1301	FI13_v2				
FI1302	FI13_v2				
FI1303	FI13_v2				
FI14	FI14_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	Fl20_v3				
FI2007.1	FI20_v3				
FI21	Fl21_v1				

Report / Schedule Name	Report Template				
FI2201	Fl22_v1				
FI2202	FI22_v1				
Fl3001	Fl30_v2				
Fl3002	Fl30_v2				
FI3101	FI31_v2				
Fl3102	Fl31_v2				
FI4101	Fl41_v2				
FI4102	FI41_v2				
FI42	FI42_v1				
FI43	FI43_v2				
FI4401	FI44_v1				
FI4402	FI44_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				

7.4 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 the user to Add, Modify, and Delete Entities.

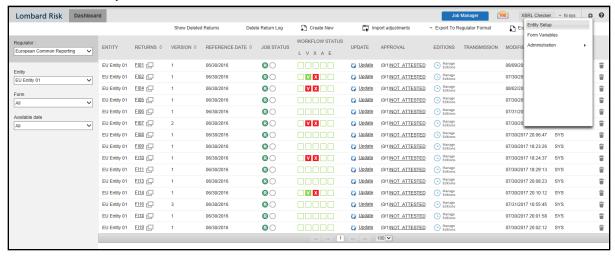


Figure 35: AgileREPORTER Entity Setup 1

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

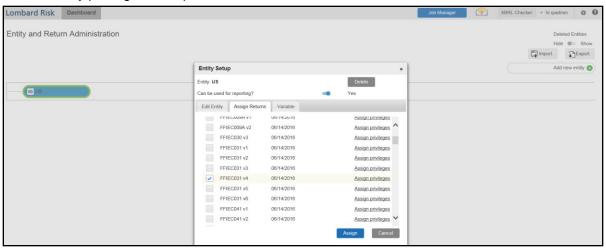


Figure 36: AgileREPORTER Entity Setup 2

Refer to the OFS AgileReporter Application User Guide for more details.

8 Maintenance

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

Changes to regulatory template is 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 requirement is to change the
 execution, then you must visit <u>Marking Run as Final</u> section. After making these changes you must
 refresh Derived Entities (<u>Executing Batch to Resave Derived Entities</u>). Then AgileREPORTER also
 needs to retrieve returns so that revised data is reflected on AgileREPORTER.
- If <u>Executing Batch to Resave Derived Entities</u> is not working, you can look for Batch Operation Log files. For file path, refer to *OFS Analytical Applications Infrastructure Installation Manual* in <u>OHC</u> documentation library and search for **ficdb/log**.
- 3. To apply revised patch, refer to the **ReadMe** file for instructions to be followed.
- 4. To update revised data warehouse configuration pack, perform the following instructions.
 - i. Click Settings → Administration → Data Warehouse Integration.

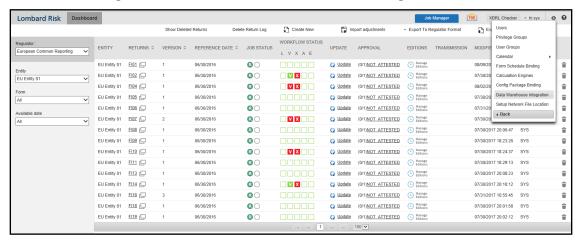


Figure 37: Data Warehouse Integration

- 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>>/OFSAADrilldow n/drilldownreport.jsp?cellid=\${cellId}&infodom=<<INFODOM>>&legalentity=\${entityCode} &run=\${run}&date=\${referenceDate}

Example:

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

- i. Use http or https depending on the protocol configured for OFSAA.
- ii. Pick an icon.
- iv. Click **Add** to save the details.

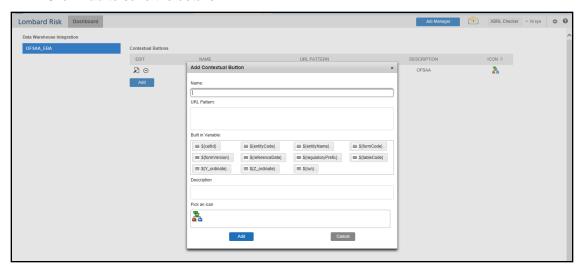


Figure 38: Adding Contextual Button

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

Note: Refer to *AgileREPORTER* user documentation for details.

9 Troubleshooting Guidelines

This section covers troubleshooting guidelines for user of Oracle Financial Services Regulatory Reporting Integration with AgileREPORTER, hereafter called as Integration.

Integration users provide the data inputs through the OFSDF where data is loaded, processed and results are made available for reporting purposes. 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.

9.1 Prerequisites

It is assumed that user can login and see following menus and respective reports in AgileREPORTER.

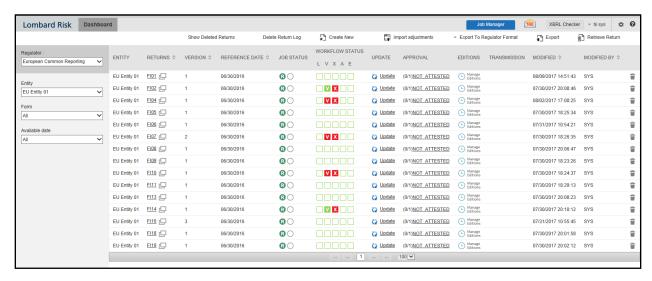


Figure 39: AgileREPORTER

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 actual name depends on the integration pack licensed.

9.2 Troubleshooting Use Cases

9.2.1 Unable to Generate Report

If you are unable to generate reports, meaning none of the derived entities referred 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 login the bug / service request with Lombard Risk.

9.2.2 Data Unavailable in AgileREPORTER

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

9.2.2.1 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.

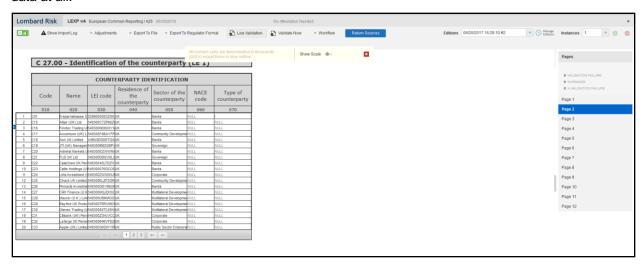


Figure 40: Fetching Null Values

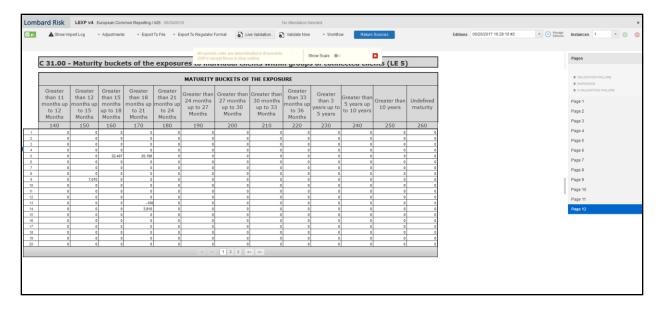


Figure 41: Fetching Zero Values

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.
 - 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 dataset, then check if 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.

9.2.3 Data Available in AgileREPORTER but Not as Expected

This use case where you are able to refer data for a required cell of a schedule in AgileREPORTER; however, value shown differs from expected value.

Let us take following example to illustrate the steps to be followed. This refers to Schedule 4.1 from FI04 report of EBA. Particular cell referred here is **FI0401R070C020**:

060 Debt Securities:

070 Central banks

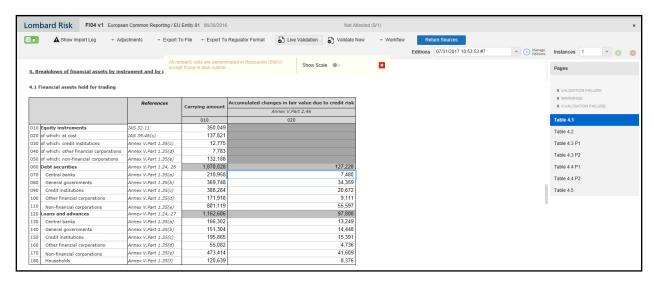


Figure 42: Schedule 4.1 from FI04 Report

You can drill down for each cell to check details of data as what is included in aggregation. To drill down, click the value of particular cell and it is shown highlighted. It shows OFSAA data lineage icon on clicking as shown in Figure 43.

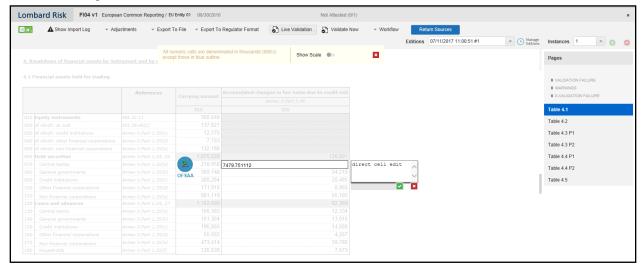


Figure 43: Data Lineage OFSAA Icon

Make sure that you are logged in to OFSAA infrastructure before clicking 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 44.

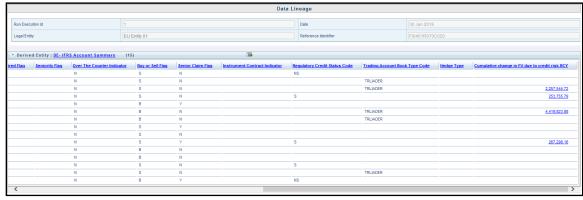


Figure 44: AgileREPORTER Drill-down

Top block of this screen shows following information which helps to connect the AgileREPORTER aggregated data to OFSAA references.

- 1. Run Execution ID: This refers to OFSAA Execution ID chosen for a given report.
- 2. **Date**: This refers to AS OF DATE selected for a given report.
- 3. 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.

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

To refer the measure values, scroll rightwards using horizontal scroll bar at bottom of second block. On extreme right, measures are displayed as shown in Figure 45:

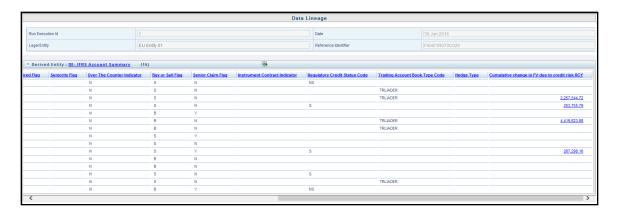


Figure 45: Measure Values

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

9.2.3.1 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 aggregation
- 3. Measures / Monetary amounts at account granularity are as expected.

Any deviation from expectations can be then checked back for:

- 1. If measure is stage pass through, then validate using T2T to verify if stage data is as expected or must be corrected.
- If measure is processed, then validate using T2T to verify processing measure is correctly moved to 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 result area is now showing unexpected output, then log a Bug / Service Request with <u>Oracle Support Services</u>.

9.2.3.2 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 46: Data Lineage Unavailable

There can be few reasons why 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.
- If Metadata is properly published and second block still does not show the data, then start with Derived Entity code shown at the beginning of 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 47:

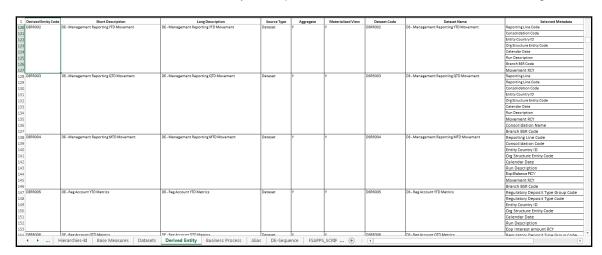


Figure 47: Business Metadata

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.

	се Туре	Aggregate	Materialised View	Dataset Code	Dataset Name	Selected Metadata	Selected Metadata Code			
20 Dataset		Aggregate	Materialised view		DS - Management Reporting YTD Movement	Reporting Line Code	HRR004		_	
	.	'	'	Dannouz	D3 - Management Reporting 110 Movement	Consolidation Code	HRR003			
121						Entity Country ID	HRR005			
122						Org Structure Entity Code	HIREG004			
123						Calendar Date	HIREGOON			
						Run Description	HIREGOO2			
125						Branch BSR Code	HRR009			
127						Movement RCY	MRR002			
28 Dataset		,	v	DSRR003	DS - Management Reporting QTD Movement	Reporting Line	HRR2021			
129	.	'		Dakkous	bs - Management Reporting Q15 Movement	Reporting Line Code	HRR004			
						Consolidation Code	HRR003			
130						Entity Country ID	HRR006			
131 132 133						Ore Structure Entity Code	HIREG004			
132						Calendar Date	HIREGOOT			
124						Run Description	HIREGO02			
134 135 136						Movement RCY	MRR002			
196						Consolidation Name	HRR010			
137						Branch BSR Code	HRR009			
38 Dataset		v	v	DSRR004	DS - Management Reporting MTD Movement	Reporting Line Code	HRR004			
139		.			The state of the s	Consolidation Code	HRR003			
140						Entity Country ID	HRR006			
141						Org Structure Entity Code	HIREG004			
142						Calendar Date	HIREG001			
142 143						Run Description	HIREG002			
144						Eop Balance RCY	MRR001			
145						Movement RCY	MRR002			
146						Branch BSR Code	HRR009			
47 Dataset	t i	Y	Y	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			
151						Calendar Date	HIREG001			
150 151 152						Run Description	HIREG002			
153						Eop Interest amount RCY	MRR003			
54 Dataset	, ,	v I	Y	DSRR006	DS - Reg Account OTD Metrics	Penulaton Denocit Tune Group Code	HPPNN7			
4 >	← ► Hierarchies-BI Base Measures Datasets Derived Entity Business Process Alias DE-Sequence FSAPPS_SCRIF ⊕									

Figure 48: Business Metadata

The Dataset ANSI Joins provide 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 Oracle Support.



Oracle Financial Services Regulatory Reporting for European Banking Authority (EBA) - Lombard Risk Integration Pack 8.0.5.1.0 User Guide

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