Oracle Financial Services Regulatory Reporting for US Federal Reserve – Lombard Risk Integration Pack

User Guide

Release 8.0.4.0.0

June 2017

ORACLE
FINANCIAL SERVICES

Oracle Financial Services Regulatory Reporting for US Federal Reserve – Lombard Risk Integration User Guide, Release 8.0.4.0.0

Primary Author: Naveen Harry D'Cruz
Contributors: Raghavendra Patil, Krishna Arkasali

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

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

The objective of this user guide is to provide a comprehensive working knowledge on Oracle Financial Services Regulatory Reporting for US Federal Reserve – Lombard Risk Integration Pack, Release 8.0.4.0.0. This user guide is intended to help you understand the key features and functionalities of Oracle Financial Services Regulatory Reporting for US Federal Reserve – Lombard Risk Integration Pack (Oracle Financial Services Data Foundation (OFSDF) Interface with Lombard Risk for US FED) release 8.0.4.0.0 and details the process flow and methodologies used.

Intended Audience

Welcome to Release 8.0.4.0.0 of the Oracle Financial Services Regulatory Reporting for US Federal Reserve – 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.

Documentation Accessibility

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

Access to Oracle Support

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

Related Information Sources

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

- Oracle Financial Services Regulatory Reporting for US Federal Reserve – Lombard Risk Integration Pack Installation Manual Release 8.0.4.0.0
- Oracle Financial Services Data Foundation User Guide Release 8.0.4.0.0
- Oracle Financial Services Data Foundation Installation Manual Release 8.0.4.0.0
- Oracle Financial Services Analytical Applications Infrastructure User Guide Release 8.0.4.0.0 (present in the OHC documentation libaray)

How this Guide is Organized?

The OFSDF Interface with Lombard Risk for US FED User Guide includes the following topics:

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 • Process names • Code sample, including keywords and variables within text

1 Introduction

This chapter provides an understanding of the Oracle Financial Services Data Foundation (OFSDF) Interface with Lombard Risk for US FED application and its scope. It includes:

1.1 Overview

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

The OFS REG REP US FED solution enables financial services organizations to manage and execute regulatory reporting in a single integrated environment. It automates end-to-end processes from data capture through submission with industry-leading solutions. It leverages Oracle Financial Services Analytical Application (OFSAA) and Oracle Financial Services Data Foundation (OFSDF) for managing analytical application data. The AgileREPORTER in Regulatory Reporting (REG REP) Solution enables firms to automate the final mile of the reporting process. It provides pre-built integration to 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.

1.2 OFSAA Regulatory Reporting Architecture

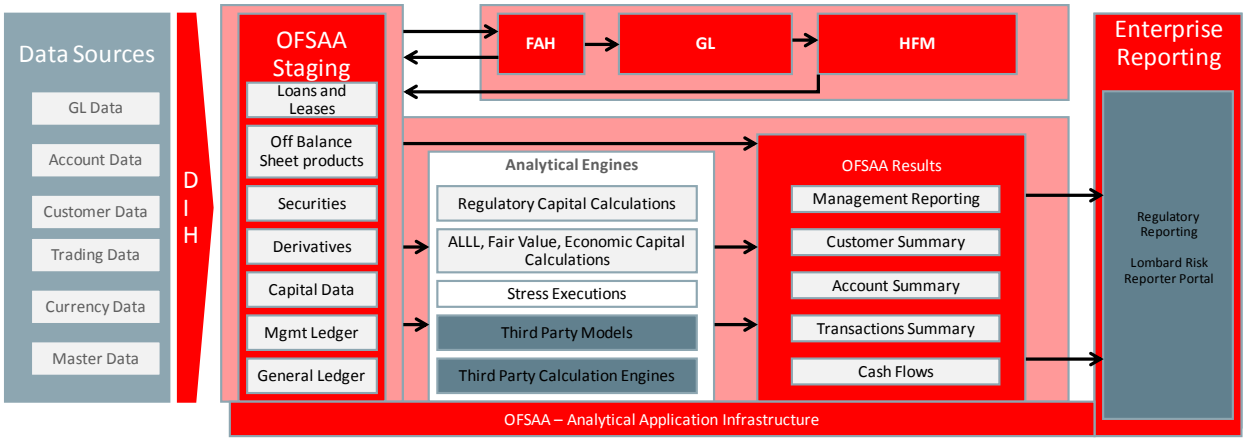


Figure 1: Regulatory Reporting (REG REP) Solution Architecture

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

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

AgileREPORTER is a 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. It provides features to explain and justify a number quickly, including links to OBIEE.

The solution provides a pre-built interface or integration between FSDF and AgileREPORTER. With this integration 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 US Federal Reserve – Lombard Risk Integration Pack covers the following regulatory reports for specified release as mentioned in the table:

Table 2: Scope

Report	Report Name	Released Version
FR Y-9C	Consolidated Financial Statements for Holding Companies	8.0.1
FR Y-20	Financial Statements for a Bank Holding Company Subsidiary Engaged in Bank-Ineligible Securities Underwriting and Dealing	8.0.1
FR Y-15	Banking Organization Systemic Risk Report	8.0.1
FFIEC-009	Country Exposure Report	8.0.1

Report	Report Name	Released Version
FFIEC-009A	Country Exposure Information Report	8.0.1
FR Y-11	Financial Statements of U.S. Nonbank Subsidiaries of U.S. Holding Companies	8.0.1
FR Y-11S	Abbreviated Financial Statements of U.S. Nonbank Subsidiaries of U.S. Holding Companies	8.0.1
FR-2314	Financial Statements of Foreign Subsidiaries of U.S. Banking Organizations	8.0.1
FR-2314S	Abbreviated Financial Statements of Foreign Subsidiaries of U.S. Banking Organizations	8.0.1
FR Y-14A	Capital Assessments and Stress Testing - Annual	8.0.1
FR Y-9LP	Parent Company Only Financial Statements for Large Holding Companies	8.0.1
FFIEC-031	Consolidated Reports of Condition and Income for a Bank with Domestic and Foreign Offices	8.0.2
FR Y-12	Consolidated Holding Company Report of Equity Investments in Nonfinancial Companies	8.0.1
FFIEC-041	Consolidated Reports of Condition and Income for a Bank with Domestic Offices Only	8.0.3
FR-2052A	Complex Institution Liquidity Monitoring Report	8.0.3
FR Y-7N	Financial Statements of U.S. Nonbank Subsidiaries Held by Foreign Banking Organizations	8.0.3
FR Y-7NS	Abbreviated Financial Statements of U.S. Nonbank Subsidiaries Held by Foreign Banking Organizations	8.0.3
FR-2644	Weekly Report of Selected Assets and Liabilities of Domestically Chartered Commercial Banks and U.S. Branches and Agencies of Foreign Banks	8.0.3
FR-2886B	Cash and Balances Due from Depository Institutions	8.0.3
FR-2900	Report of Transaction Accounts, Other Deposits, and Vault Cash (Commercial Banks)	8.0.3
FR Y-14Q	Schedule M.1 – Balances	8.0.3
FR Y-14Q	Schedule K – Supplemental	8.0.3
FR Y-14Q	Schedule A – Retail	8.0.3
FR Y-14Q	Schedule H – Wholesale Risk	8.0.3
FR Y-14M	Capital Assessments and Stress Testing Report - Monthly	8.0.3

Report	Report Name	Released Version
FFIEC-101	Regulatory Capital Reporting for Institutions Subject to the Advanced Capital Adequacy Framework	8.0.3
FDIC-8020	Statement of Deposits	8.0.3

The following table lists the detailed scope.

Table 3: Detailed Scope

Sl. No.	Report Code	Schedule Code	Schedule Name
1	FDIC-8020	–	Statement of Deposits
2	FFIEC-009	C Part I	Claims on an Immediate Risk Basis
3	FFIEC-009	C Part II	Claims on an Ultimate Risk Basis and Memorandum Items
4	FFIEC-009	D	Claims from Positions in Derivative Contracts
5	FFIEC-009	L	Foreign-Office Liabilities
6	FFIEC-009	O	Off-Balance-Sheet Items
7	FFIEC-009A	A	Country Exposure Information Report Part A
8	FFIEC-009A	B	Country Exposure Information Report Part B
9	FFIEC-031	RC-S	Servicing, Securitization, and Asset Sale Activities
10	FFIEC-031	RC-V	Variable Interest Entities
11	FFIEC-031	RC	Balance Sheet
12	FFIEC-031	RC-A	Cash and Balances Due from Depository Institutions
13	FFIEC-031	RC-B	Securities(bugs)
14	FFIEC-031	RC-C	Loans and Lease Financing Receivables(bugs)
15	FFIEC-031	RC-D	Trading Assets and Liabilities
16	FFIEC-031	RC-E	Deposit Liabilities
17	FFIEC-031	RC-F	Other Assets
18	FFIEC-031	RC-G	Other Liabilities
19	FFIEC-031	RC-H	Selected Balance Sheet Items for Domestic Offices
20	FFIEC-031	RC-I	Assets and Liabilities of IBFs
21	FFIEC-031	RC-K	Quarterly Averages
22	FFIEC-031	RC-L	Derivatives and Off-Balance-Sheet Items

Sl. No.	Report Code	Schedule Code	Schedule Name
23	FFIEC-031	RC-M	Memoranda
24	FFIEC-031	RC-N	Past Due and Nonaccrual Loans, Leases, and Other Assets
25	FFIEC-031	RC-O	Other Data for Deposit Insurance and FICO Assessments
26	FFIEC-031	RC-P	1–4 Family Residential Mortgage Banking Activities in Domestic Offices
27	FFIEC-031	RC-Q	Assets and Liabilities Measured at Fair Value on a Recurring Basis
28	FFIEC-031	RC-R Part I	Regulatory Capital Components and Ratios
29	FFIEC-031	RC-R Part II	Risk-Weighted Assets
30	FFIEC-031	RC-T	Fiduciary and Related Services
31	FFIEC-031	RI	Income Statement
32	FFIEC-031	RI-A	Changes in Equity Capital
33	FFIEC-031	RI-B	Charge-offs and Recoveries and Changes in Allowance for Loan and Lease Losses
34	FFIEC-031	RI-C	Disaggregated Data on the Allowance for Loan and Lease Losses
35	FFIEC-031	RI-D	Income from Foreign Offices
36	FFIEC-031	RI-E	Explanations
37	FFIEC-041	RC	Balance Sheet
38	FFIEC-041	RC-A	Cash and Balances Due from Depository Institutions
39	FFIEC-041	RC-B	Securities
40	FFIEC-041	RC-C	Loans and Lease Financing Receivables
41	FFIEC-041	RC-D	Trading Assets and Liabilities
42	FFIEC-041	RC-E	Deposit Liabilities
43	FFIEC-041	RC-F	Other Assets
44	FFIEC-041	RC-G	Other Liabilities
45	FFIEC-041	RC-K	Quarterly Averages
46	FFIEC-041	RC-L	Derivatives and Off-Balance-Sheet Items
47	FFIEC-041	RC-M	Memoranda

Sl. No.	Report Code	Schedule Code	Schedule Name
48	FFIEC-041	RC-N	Past Due and Nonaccrual Loans, Leases, and Other Assets
49	FFIEC-041	RC-O	Other Data for Deposit Insurance and FICO Assessments
50	FFIEC-041	RC-P	1–4 Family Residential Mortgage Banking Activities
51	FFIEC-041	RC-Q	Assets and Liabilities Measured at Fair Value on a Recurring Basis
52	FFIEC-041	RC-R Part I	Regulatory Capital Components and Ratios
53	FFIEC-041	RC-R Part II	Risk-Weighted Assets
54	FFIEC-041	RC-S	Servicing, Securitization, and Asset Sale Activities
55	FFIEC-041	RC-T	Fiduciary and Related Services
56	FFIEC-041	RC-V	Variable Interest Entities
57	FFIEC-041	RI	Income Statement
58	FFIEC-041	RI-A	Changes in Bank Equity Capital
59	FFIEC-041	RI-B	Charge-offs and Recoveries and Changes in Allowance for Loan and Lease Losses
60	FFIEC-041	RI-C	Disaggregated Data on the Allowance for Loan and Lease Losses
61	FFIEC-041	RI-E	Explanations
62	FFIEC-101	–	Advanced Capital Adequacy Framework
63	FR Y-11	BS	Balance Sheet
64	FR Y-11	BS-A	Loans and Lease Financing Receivables
65	FR Y-11	BS-M	Memoranda
66	FR Y-11	IS	Income Statement (calendar year-to-date)
67	FR Y-11	IS-A	Changes in Equity Capital
68	FR Y-11	IS-B	Changes in Allowance for Loan and Lease Losses
69	FR Y-11S	List	Detailed Listing of Subsidiaries
70	FR Y-12	A	Type of Investments
71	FR Y-12	B	Type of Security
72	FR Y-12	C	Type of Entity within the Banking Organization

Sl. No.	Report Code	Schedule Code	Schedule Name
73	FR Y-12	D	Non-financial Investment Transactions During Reporting Period
74	FR Y-14AOR	–	Operational Risk
75	FR Y-14ARCI	–	Regulatory Capital Instruments
76	FR Y-14ARCT	–	Regulatory Capital Transitions
77	FR Y-14ASCENR	–	Scenario
78	FR Y-14ASUMM	–	Summary
79	FR Y-14M	–	Capital Assessments and Stress Testing Report
80	FR Y-14M	A-1	Domestic First Lien Closed-end 1-4 Family Residential Loan Data - Loan Level Table
81	FR Y-14M	A-2	Domestic First Lien Closed-end 1-4 Family Residential Loan Data - Portfolio Level Table
82	FR Y-14M	B-1	Domestic Home Equity Loan and Home Equity Line - Loan Level Table
83	FR Y-14M	B-2	Domestic Home Equity Loan and Home Equity Line - Portfolio Level Table
84	FR Y-14M	C-1	Address Matching Loan Level Data
85	FR Y-14M	D-1	Domestic Credit Card Data - Loan Level Table
86	FR Y-14M	D-2	Domestic Credit Card Data - Portfolio Level Table
87	FR Y-14QA1	–	Retail
88	FR Y-14QBAL	M	Balances
89	FR Y-14QCIL	H.1	Corporate Loan Data
90	FR Y-14QCRE	H.2	Commercial Real Estate
91	FR Y-14QFVOHFS	J	Retail Fair Value Option/Held for Sale (FVO/HFS)
92	FR Y-14QMSR	I	MSR Valuation
93	FR Y-14QOpsriskBL	E.2	Business Line
94	FR Y-14QOpsriskMS	E.1	Operational Loss History
95	FR Y-14QOpsriskRFR	E.5	Legal Reserves Frequency
96	FR Y-14QOpsriskTH	E.4	Threshold Information
97	FR Y-14QOpsriskUOM	E.3	Unit-0f-Measure
98	FR Y-14QPPNR	G	Pre-Provision Net Revenue

Sl. No.	Report Code	Schedule Code	Schedule Name
99	FR Y-14QRCI	C	Regulatory Capital Instruments
100	FR Y-14QRCT	D	Regulatory Capital Transitions
101	FR Y-14QRetailAuto	A.2	US Auto Loan
102	FR Y-14QRetailIntauto	A.1	International Auto Loan
103	FR Y-14QRetailIntcard	A.3	International Credit Card
104	FR Y-14QRetailIntfm	A.5	International First Lien Mortgage
105	FR Y-14QRetailINTHE	A.4	International Home Equity
106	FR Y-14QRetailIntlothcons	A.6	International Other Consumer Schedule
107	FR Y-14QRetailIntsb	A.8	International Small Business
108	FR Y-14QRetailStudent	A.10	Student Loan
109	FR Y-14QRetailUSothcons	A.7	US Other Consumer
110	FR Y-14QRetailUssb	A.9	US Small Business
111	FR Y-14QSEC	B	Securities
112	FR Y-14QSUPMNT	K	Supplemental
113	FR Y-14QTRADING	F	Trading
114	FR Y-15	–	Banking Organization Systemic Risk Report
115	FR Y-15	A	Size Indicator
116	FR Y-20	–	Financial Statements for a Bank Holding Company Subsidiary Engaged in Bank-Ineligible Securities Underwriting and Dealing
117	FR Y-7N	–	Financial Statements of U.S. Nonbank Subsidiaries Held by Foreign Banking Organizations
118	FR Y-7N	IS	Income Statement
119	FR Y-7N	IS-A	Changes in Equity Capital
120	FR Y-7N	IS-B	Changes in Allowance for Loan and Lease Losses
121	FR Y-7N	BS	Balance Sheet
122	FR Y-7N	BS-A	Loans and Lease Financing Receivables
123	FR Y-7N	BS-M	Memoranda
124	FR Y-7NS	–	Abbreviated Financial Statements of U.S. Nonbank Subsidiaries Held by Foreign Banking Organizations

Sl. No.	Report Code	Schedule Code	Schedule Name
125	FR Y-9C	–	Consolidated Financial Statements for Holding Companies
126	FR Y-9C	HI	Consolidated Income Statement
127	FR Y-9C	HI-A	Changes in Holding Company Equity Capital
128	FR Y-9C	HI-B	Charge-Offs and Recoveries on Loans and Leases and Changes in Allowance for Loan and Lease Losses
129	FR Y-9C	HI-C	Disaggregated Data on the Allowance for Loan and Lease Losses
130	FR Y-9C	HC	Consolidated Balance Sheet
131	FR Y-9C	HC-B	Securities
132	FR Y-9C	HC-C	Loans and Lease Financing Receivables
133	FR Y-9C	HC-D	Trading Assets and Liabilities
134	FR Y-9C	HC-E	Deposit Liabilities1
135	FR Y-9C	HC-F	Other Assets
136	FR Y-9C	HC-G	Other Liabilities
137	FR Y-9C	HC-H	Interest Sensitivity
138	FR Y-9C	HC-I	Insurance-Related Underwriting Activities (Including Reinsurance)
139	FR Y-9C	HC-K	Quarterly Averages
140	FR Y-9C	HC-L	Derivatives and Off-Balance-Sheet Items
141	FR Y-9C	HC-M	Memoranda
142	FR Y-9C	HC-N	Past Due and Nonaccrual Loans, Leases, and Other Assets
143	FR Y-9C	HC-P	1–4 Family Residential Mortgage Banking Activities in Domestic Offices
144	FR Y-9C	HC-Q	Assets and Liabilities Measured at Fair Value on a Recurring Basis
145	FR Y-9C	HC-R	Regulatory Capital
146	FR Y-9C	HC-S	Servicing, Securitization, and Asset Sale Activities
147	FR Y-9C	HC-V	Variable Interest Entities
148	FR Y-9LP	–	Parent Company Only Financial Statements for Large Holding Companies
149	FR Y-9LP	PI	Parent Company Only Income Statement

Sl. No.	Report Code	Schedule Code	Schedule Name
150	FR Y-9LP	PI-A	Cash Flow Statement
151	FR Y-9LP	PC	Parent Company Only Balance Sheet
152	FR Y-9LP	PC-A	Investments in Subsidiaries and Associated Companies
153	FR Y-9LP	PC-B	Memoranda
154	FR-2052A	–	Complex Institution Liquidity Monitoring Report
155	FR-2314	–	Financial Statements of Foreign Subsidiaries of U.S. Banking Organizations
156	FR-2314	IS	Income Statement (calendar year-to-date)
157	FR-2314	IS-A	Changes in Equity Capital
158	FR-2314	IS-B	Changes in Allowance for Loan and Lease Losses
159	FR-2314	BS	Balance Sheet
160	FR-2314	BS-A	Loans and Lease Financing Receivables
161	FR-2314	BS-M	Memoranda
162	FR-2314S	–	Abbreviated Financial Statements of Foreign Subsidiaries of U.S. Banking Organizations
163	FR-2644	–	Weekly Report of Selected Assets and Liabilities of Domestically Chartered Commercial Banks and U.S. Branches and Agencies of Foreign Banks
164	FR-2886B	RI-A	Changes in Equity Capital
165	FR-2886B	RC-B	Securities
166	FR-2886B	RC	Balance Sheet
167	FR-2886B	RC-C	Loans and Lease Financing Receivables
168	FR-2886B	RC-M	Claims on and Liabilities to Related Organizations
169	FR-2886B	RC-N	Past Due and Nonaccrual Loans, Leases, and Other Assets
170	FR-2886B	RC-R	Regulatory Capital
171	FR-2886B	RI	Income Statement
172	FR-2886B	RI-B	Changes in Allowance for Loan and Lease Losses
173	FR-2886B	RC-A	Cash and Balances Due from Depository Institutions
174	FR-2886B	RC-L	Derivatives and Off-Balance Sheet Items
175	FR-2900	–	Report of Transaction Accounts, Other Deposits, and Vault Cash

2 Getting Started

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

OFSDF interface with Lombard Risk for US FED 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 the report templates for AgileREPORTER **ARforFED_v1.9.0.7.zip** is available in the AgileREPORTER.
- Ensure that AgileREPORTER version **1.15.2.1** is installed.
- Knowledge of working with regulatory reports.

2.2 Assumptions

OFSDF interface with Lombard Risk for US FED 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 monetory 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.
- In FR-2052A, for PIDs I.O.9 and 0.0.22 there is no OOTB rule provided by OFSAA to identify these PIDs. The accounts which must be reported under PIDs is purely Reporter's Discretion. So a Custom Rule can be built by the user to report these PIDs.
- Reporting currency identification in FR-2052A must be done by populating setup_master table, in which **V_COMPONENT_CODE = 'ENTITY_REPORTING_CD'** that is defaulted to '**N**', must be changed to '**Y**' if the Reporting entity has greater than $700 billion in total consolidated assets and greater than $10 trillion in assets under custody.
- Data load for FR Y-14M Report must include all the loans closed from the previous month.
- In FR-2052A, few Processing Dimension tables like DIM_ASSET_LEVEL, DIM_RESULT_BUCKET are used. These tables contain values other than the ones required by Lombard Field Structures template provided by Lombard as they are consumed by the processing application too. For example: Seeded Script of DIM_ASSET_LEVEL has node values not to be considered for FR-2052A. Only following values must be considered for FR-2052A execution from DIM_ASSET_LEVEL table.

V_ASSET_LEVEL_CODE
A-0-Q
A-1-Q
A-2-Q
A-3-Q
A-4-Q
A-5-Q
S-1-Q
S-2-Q
S-3-Q

V_ASSET_LEVEL_CODE
S-4-Q
G-1-Q
G-2-Q
G-3-Q
S-5-Q
S-6-Q
S-7-Q
IG-1-Q
E-1-Q
E-2-Q
S-8
G-4
E-3
E-4
IG-2-Q
IG-3
IG-4
IG-5
IG-6
IG-7
N-1
N-2
N-3
N-4
N-5
N-6
N-7
L-1
L-2
L-3
L-4
L-5
L-6
L-7
L-8
L-9
L-10
L-11
Y-1
Y-2
Y-3

V_ASSET_LEVEL_CODE
C-1
Z-1
S-7
G-3
G-2
E-2
A-3
A-0
S-2
IG-1
S-6
S-5
A-2
S-3
A-5
E-1
G-1
S-1
A-4
A-1
S-4
IG-2

- For FR-2052A for DIM_RESULT_BUCKET, values under v_bucket_type = 'FRY2052A' should be considered, rest of the values can be ignored as they are consumed by the processing application.
- For FR-2900, deposit data is expected to be provided on net or reciprocol basis in applicable cases as per regulatory instructions.
- For FR-2900, regulatory template needs to update the CEN Code 1, 2, 3 or Blank for each branch.
    a. Code 3 is for non deposit office, 2 is for consolidation office and 1 is for estimated deposits. For actual dpeosits, code should be left blank.
    b. Integration Pack handles code 2 and code 3. Assuming all deposits are actual since this is been sourced from granular data, this code is left blank by default. For some branches, if you want to make it as estimated deposits, code 1 must be added manually in AgileREPORTER.

2.3 Logging in to the OFSDF Interface with Lombard Risk for US FED

After the application is installed and configured, to access the OFSDF Interface with Lombard Risk for US FED 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.

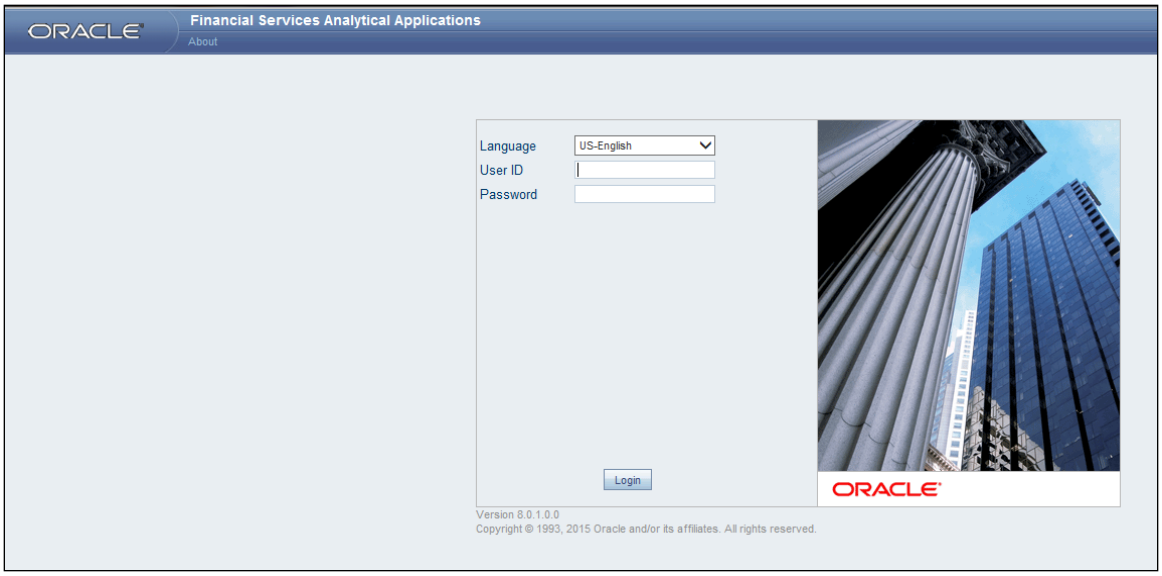


Figure 2: OFSAAI Log in

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 dsplayed.

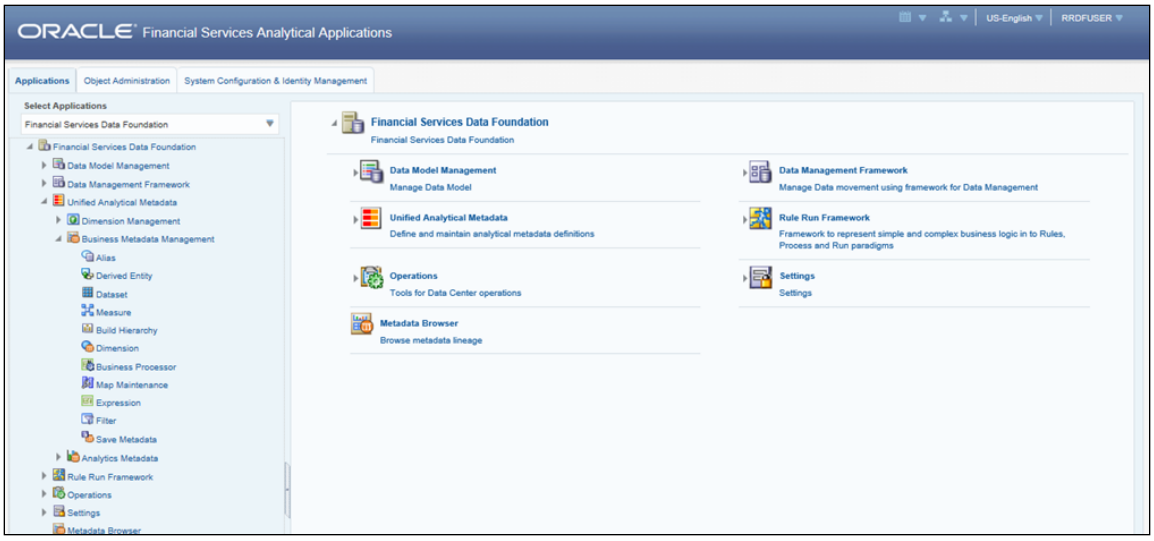


Figure 3: Landing Page

2.4 Organization of Interface for User Roles

This section explains the various features used by a 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.

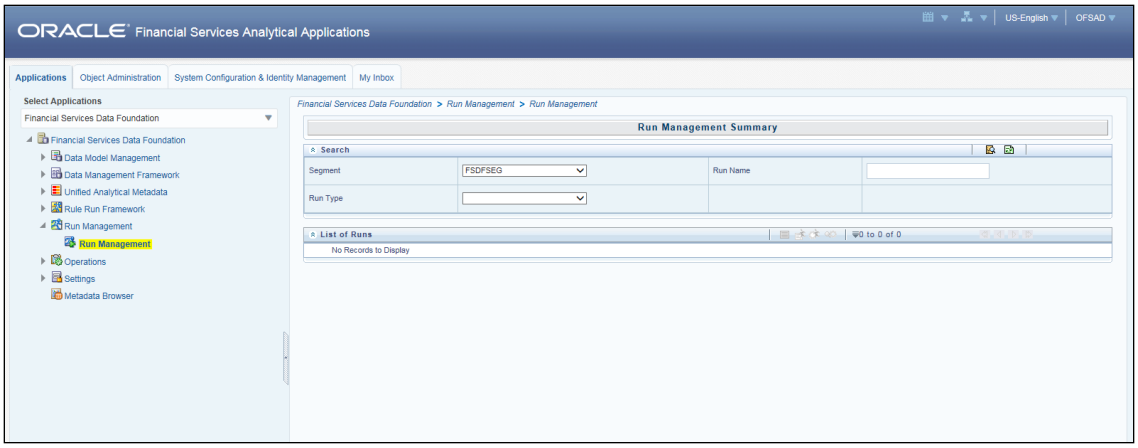


Figure 4: Run Management Summary Screen

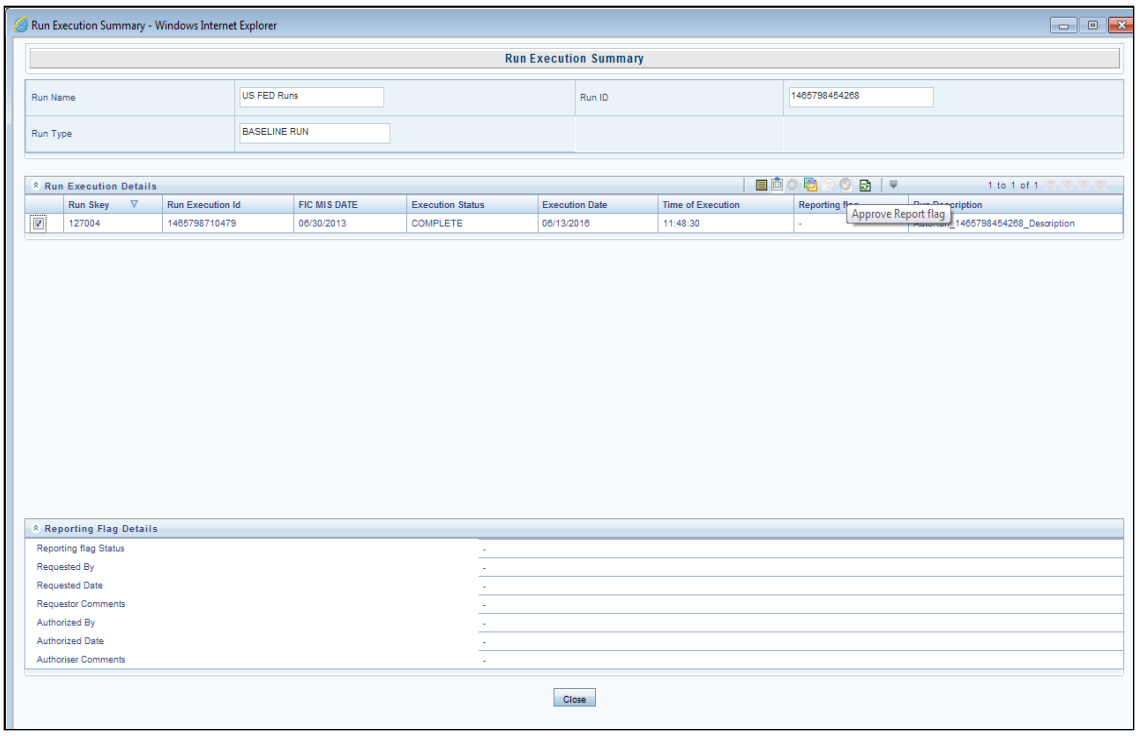


Figure 5: Run Management Summary Screen

2.4.2 Executing Batch to Resave Derived Entities

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

1. Navigate to ***Financial Services Data Foundation → Operations → Batch Execution***
2. Select the batch <<INFODOM>>_USFED_FFIEC031_RESAVEDE to resave all the DEs used in FFIEC 031.
3. Similarly "<<INFODOM>>_USFED_FR2314_RESAVEDE", "<<INFODOM>>_USFED_FRY11_RESAVEDE" can be used to resave DEs related to 2314,11 respectively.

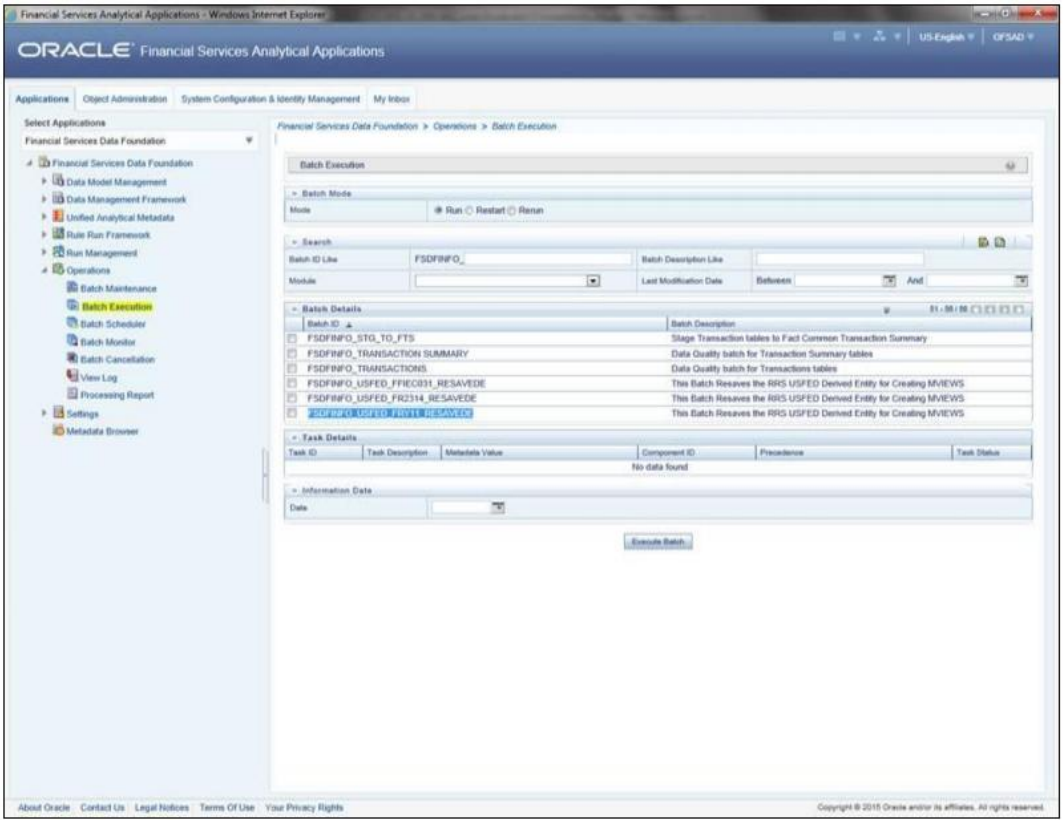


Figure 6: Batch Maintenance Screen

4. Monitor status of the batch using **Batch Monitor** link.
5. The batches available for this release are:
    a. batch_resave_de_usfed_ffiec031

        This batch saves the Derived Entities of FFIEC 031 report.

    b. batch_resave_de_usfed_fr2314

        This batch saves the Derived Entities of FR 2314 report.

    c. batch_resave_de_usfed_fry11

        This batch saves the Derived Entities of FR Y-11 report.

    d. batch_resave_de_usfed_fry2052a

        This batch saves the Derived Entities of FR 2052A report.

    e. batch_resave_de_usfed_fry2644

        This batch saves the Derived Entities of FR 2644 report.

    f. batch_resave_de_usfed_fry2900

        This batch saves the Derived Entities of FR 2900 report.

g. batch_resave_de_usfed_fdic_8020

This batch saves the Derived Entities of FDIC 8020 report.

h. batch_resave_de_usfed_fry9C

This batch saves the Derived Entities of FR Y-9C report.

i. batch_resave_de_usfed_fry14m

This batch saves the Derived Entities of FR Y-14M report.

j. batch_resave_de_usfed_fry14q_H1H2

This batch saves the Derived Entities of FR Y-14Q_H1H2 report.

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.

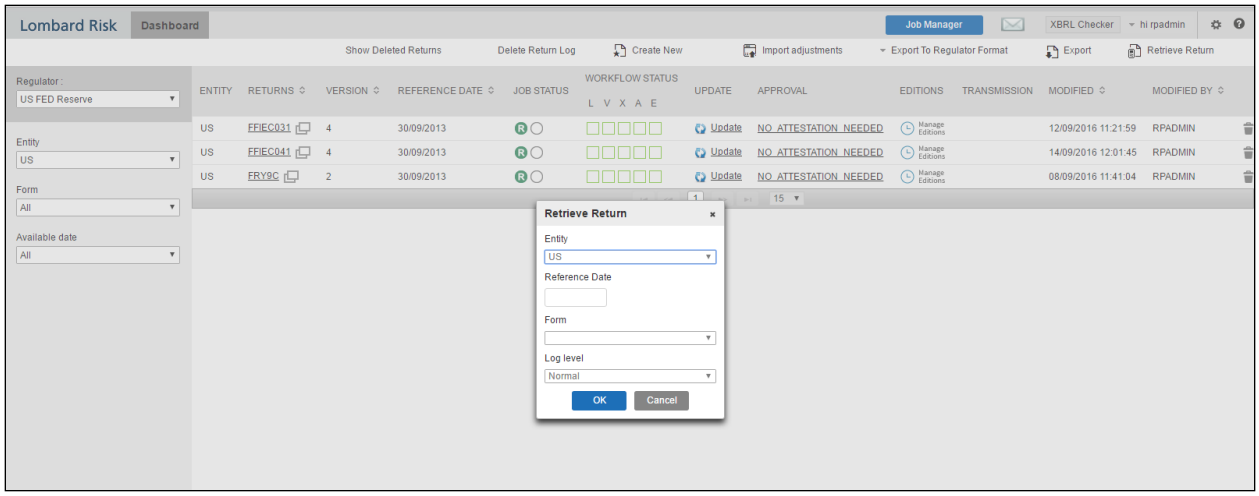


Figure 7: Retrieve Returns Page

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.

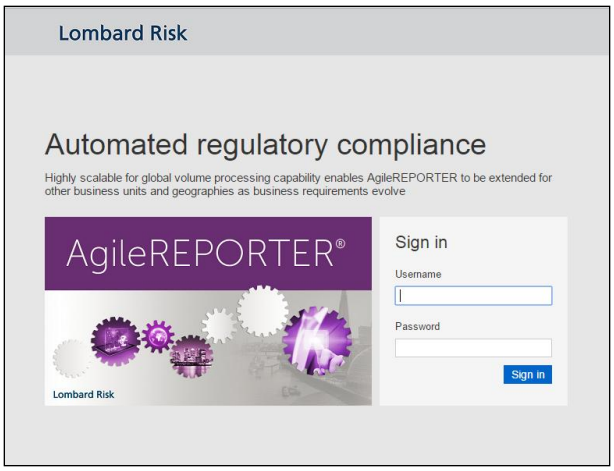


Figure 8: AgileREPORTER Login page

2. The user can view the list of reports in the main page. Click any report name in the Returns column, for example, **FRY9C**.

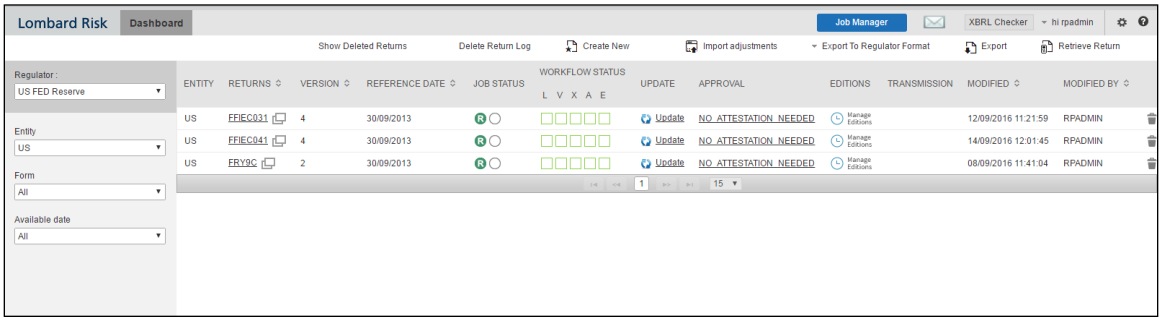


Figure 9: AgileREPORTER Main Page

3. The schedule list is displayed in the left hand side. Click any schedule name, for example **Schedule HC-E**.

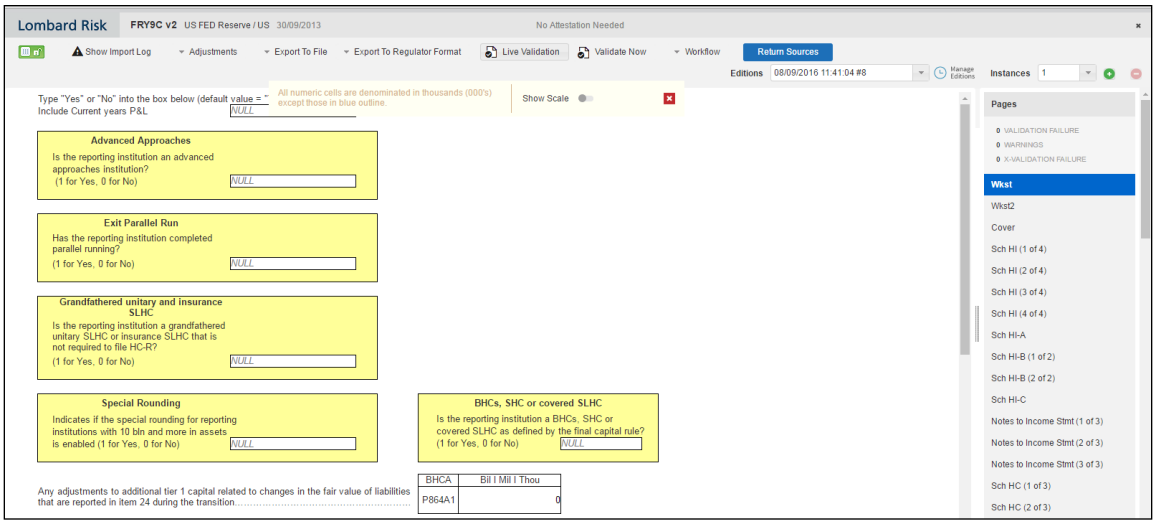


Figure 10: AgileREPORTER Page Displaying List of Schedules

4. Click any cell to drill down.

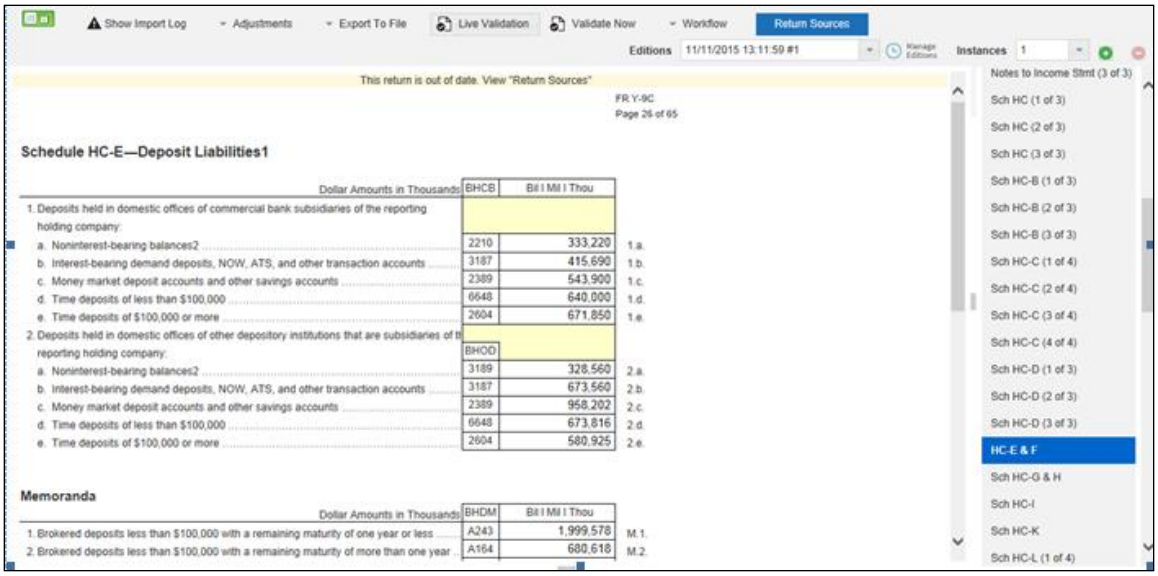


Figure 11: AgileREPORTER Schedule Details Page

5. Figure 12 displays drill down for the first cell in Column A. The **OFSAA icon** is displayed. It provides information about the amounts against different MDRM codes here. In the figure, the first MDRM code – BHCB 2210 indicates the amount of deposits held by the bank that are of non-interest bearing variant. Click the cell, and the OFSAA icon, to view how this cell was populated from OFSAA results. You are redirected to the OFSAA drill down page.

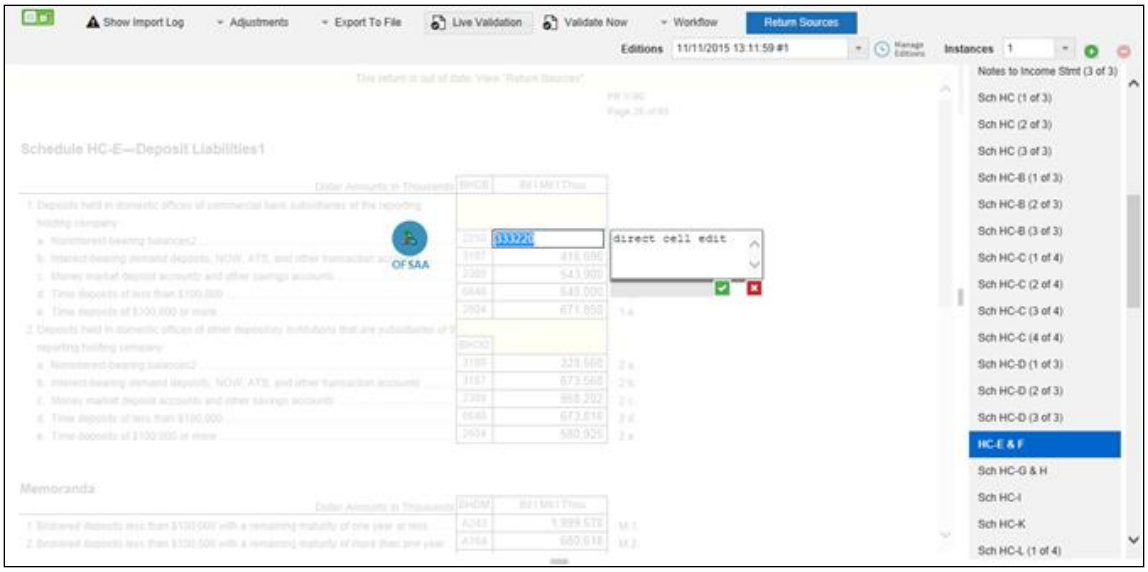


Figure 12: AgileREPORTER Drill Down

6. This cell is populated from the derived entity mentioned in the grid header *DE – Deposit Liabilities – Schedule HC-E*. The value in the derived entity grid 333,220.00 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.

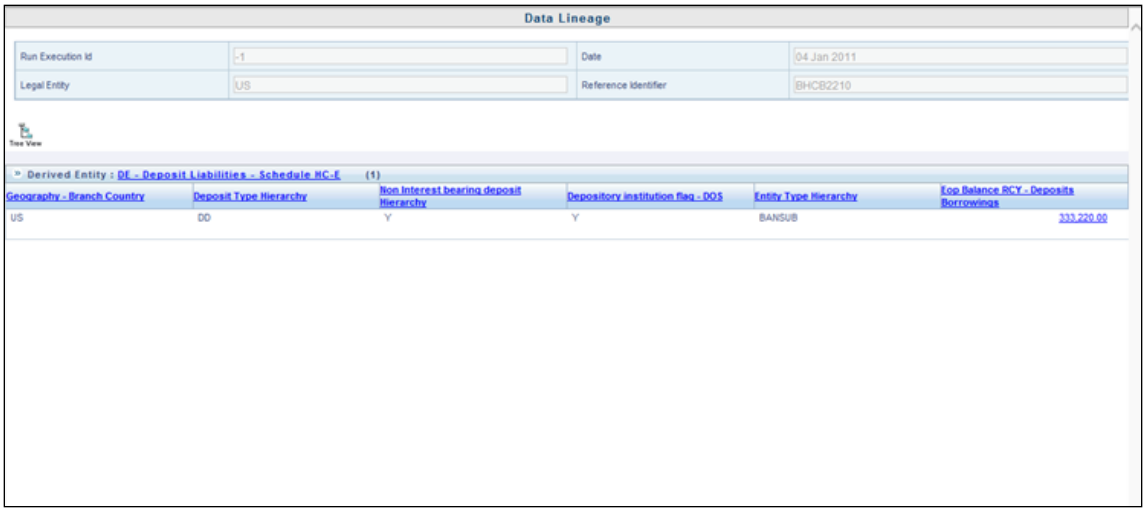


Figure 13: Data Trace Browser/ OFSAA Report Drill-down Screen

7. Derived entity details are displayed in the Metadata Browser within the page. Scroll to view complete details such as Datasets, Hierarchies, Measures and so on. Click the measure value in the derived entity row, for example **333,220.00**.

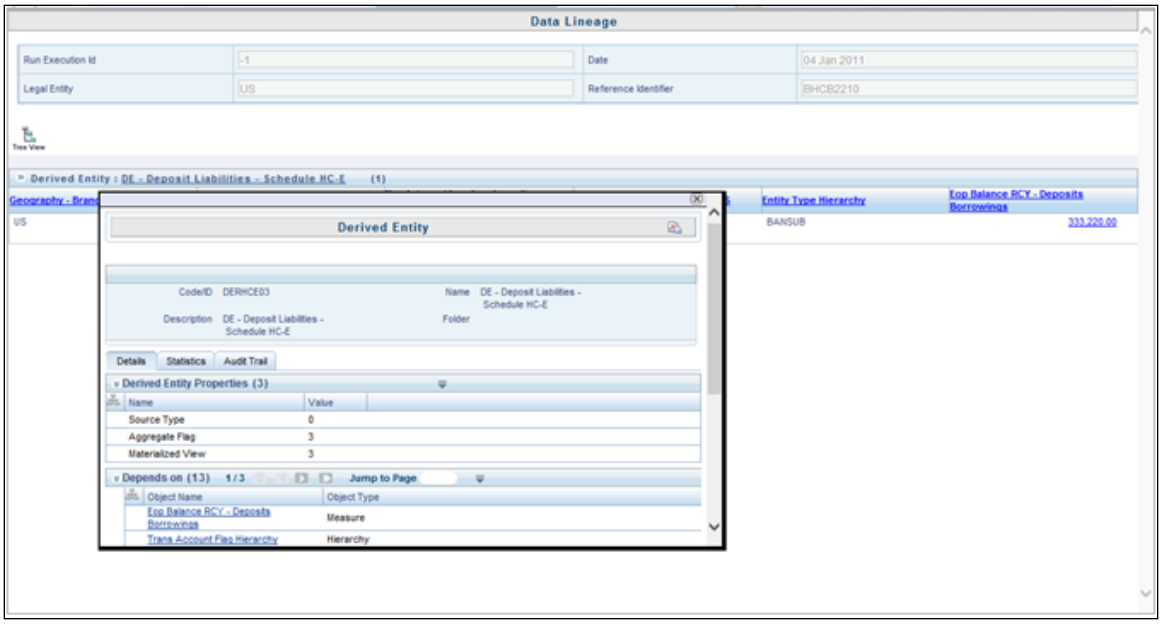


Figure 14: Derived Entity MDB View

8. 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. The number 333220 is now seggregated down to 10 records with different balances. Scroll to the right in second grid to view measure values.

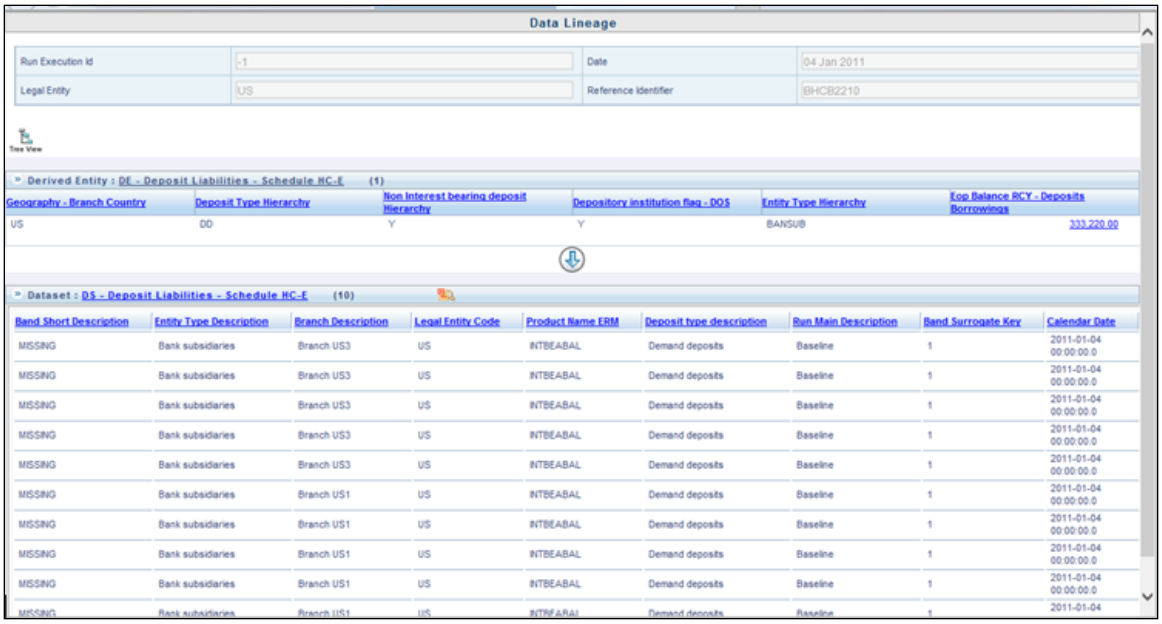


Figure 15: Drill Down Page

9. Click **Attribute Selector** icon on the header of the second grid.

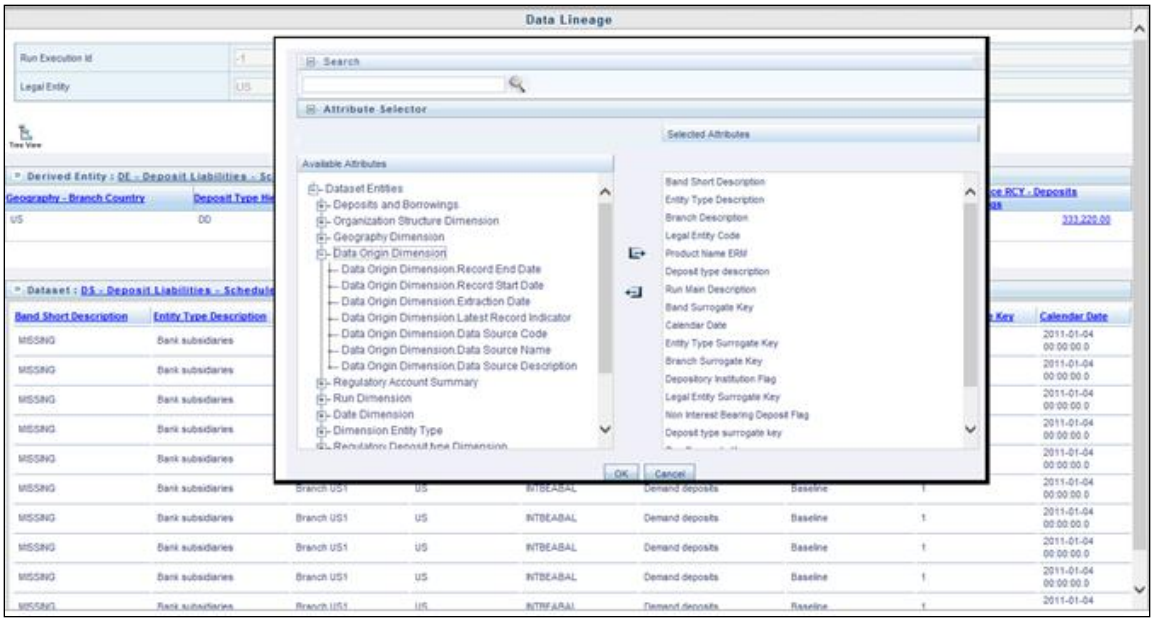


Figure 16: Drill Down Attribute Selector 1

10. Expand **Data Origin Dimension** and select **Data Source name**. Click **OK**.

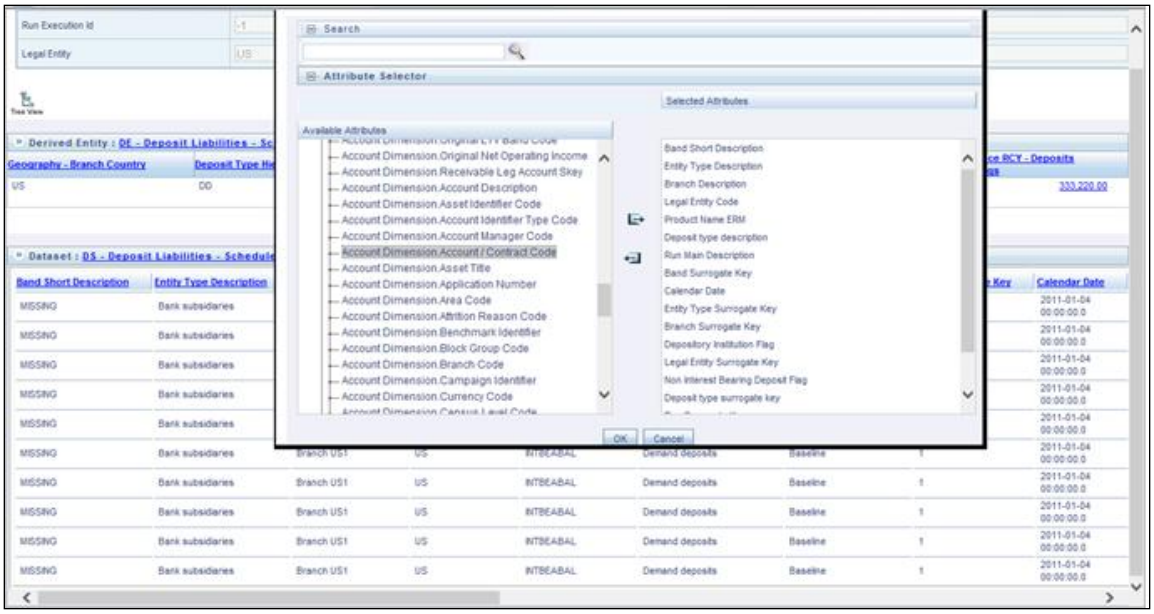


Figure 17: US FED Drill Down Attribute Selector 2

11. If account number is required, scroll and expand the account dimension. Select **account number/contract code** and click **OK**. Data source and account / contract code is displayed in the drill down grid.

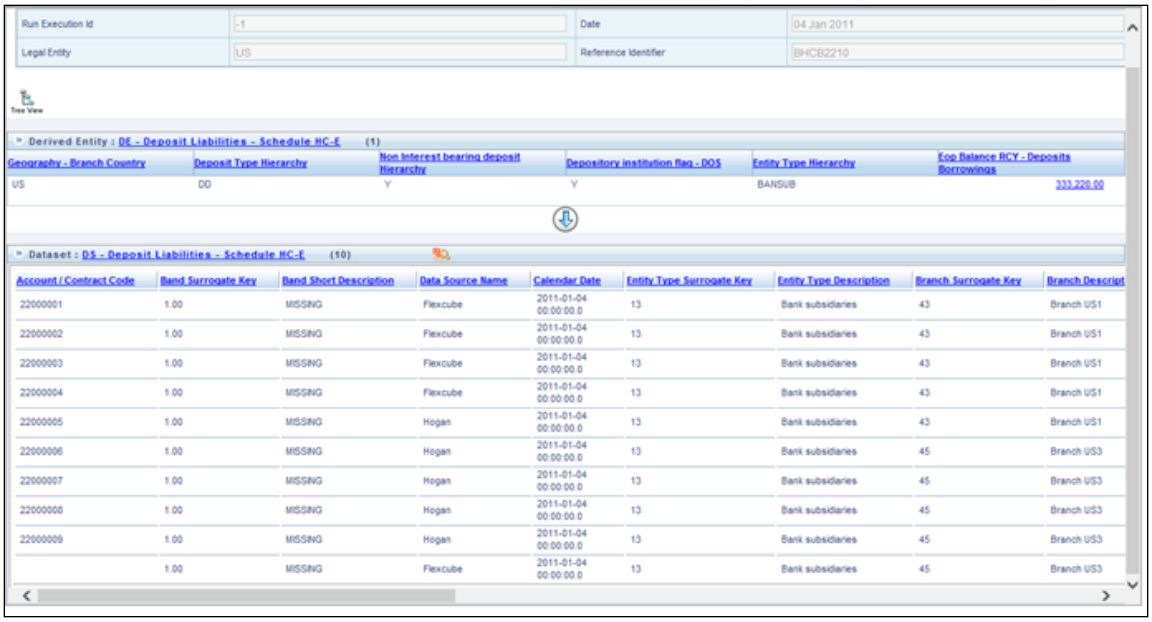


Figure 18: Drill Down - Granular

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 *HC-E Schedule* of FRY9C report.

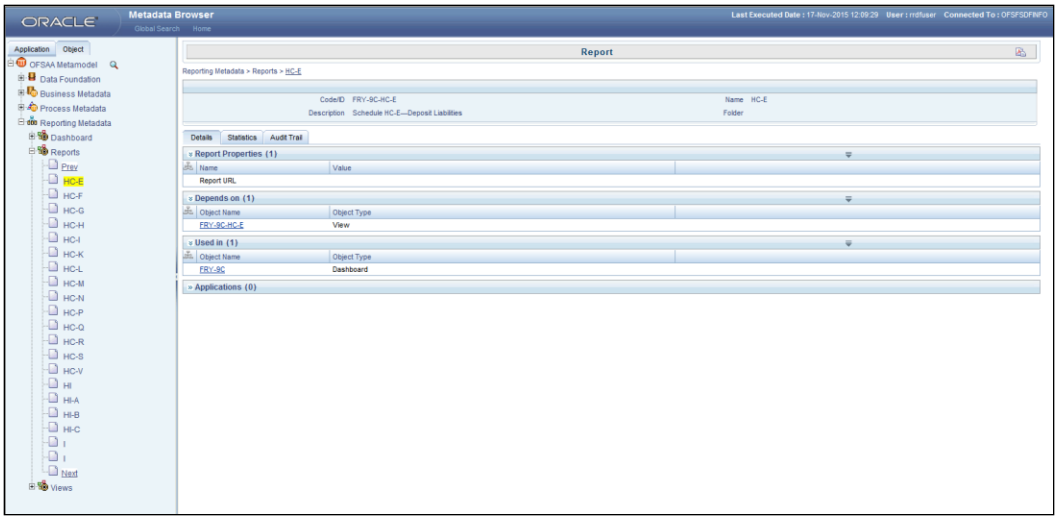


Figure 19: MDB - Reporting Metadata - Schedule View 1

b) Click the object view **FRY-9C-HC-E**. The *Report Details* page is displayed.

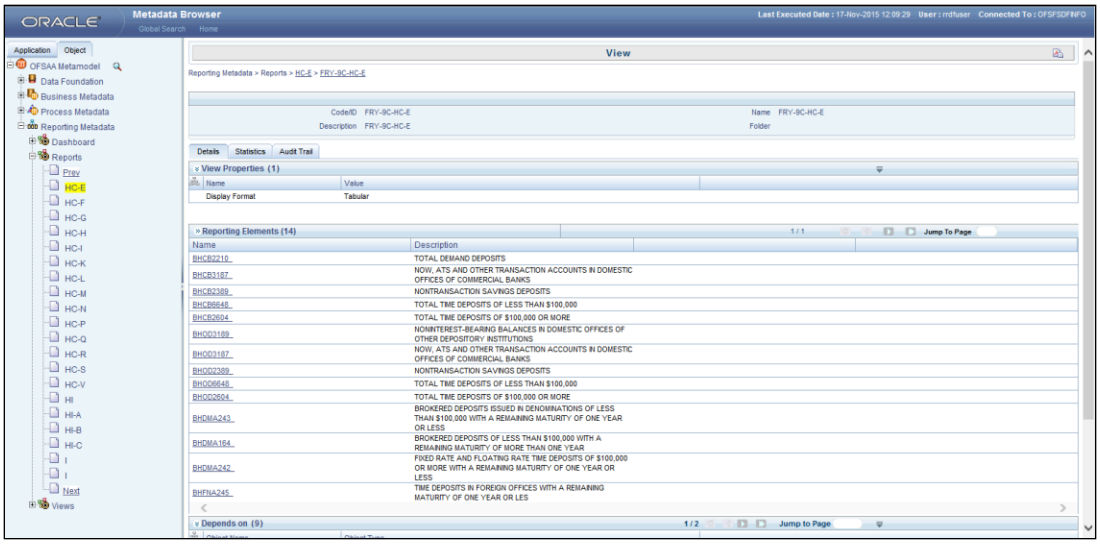


Figure 20: MDB - Reporting Metadata - Schedule View 2

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.

c) Click any Reporting Element. For example, **BHCB2210**. The following page is displayed.

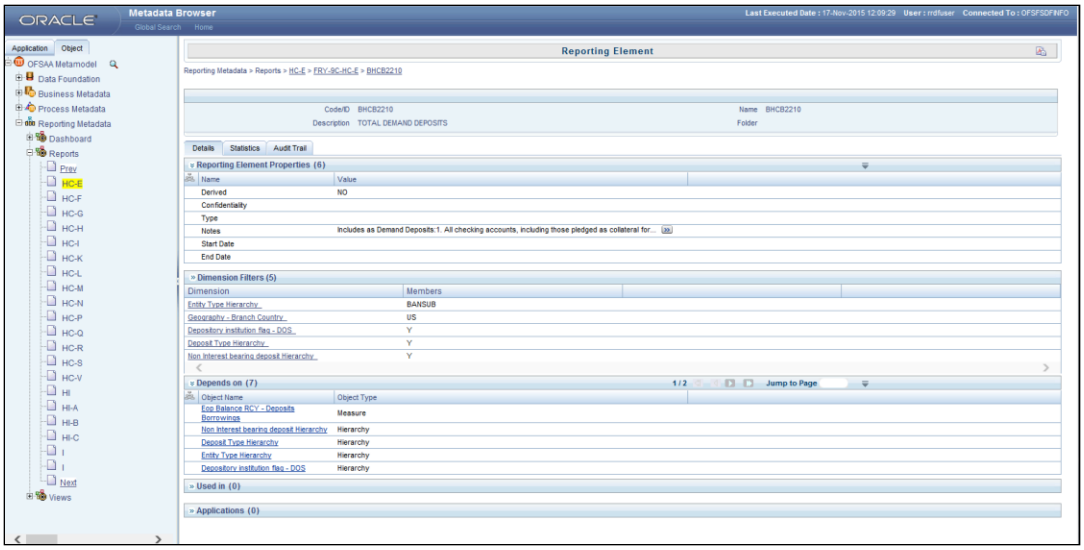


Figure 21: MDB - Reporting Metadata - Schedule View 3

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 4: 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. For MDRM codes, it indicates whether the MDRM codes is confidential for disclosure within a specific report.
Notes	Refers to regulator specific interpretation. For MDRM codes, this field provides a detailed description of a given cell reference.
Start Date	Refers to regulator specific interpretation. For MDRM codes, this field refers to the effective date of particular cell reference in case.
End Date	Refers to regulator specific interpretation. For MDRM codes, this field refers to the effective end/ sunset date of particular cell reference.

- **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.

2. Starting from a common metadata used across applicaiton, you may want to know the list of reports/ derived entities this metadata has used. Let us take an example of measure. To use MDB for metadata wise schedule, for each metadata, identify the schedules in which it is used. Follow these steps to identify the schedules:

   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 ***Eop Balance RCY - Deposits Borrowings***.

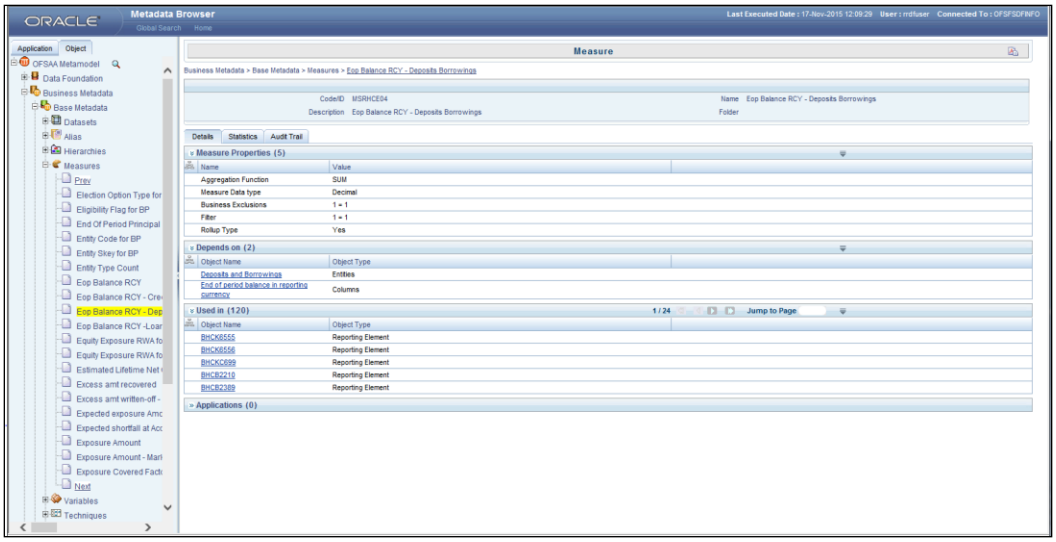


Figure 22: MDB - Business Metadata - Measure View 1

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.

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 **Schedule HC-E**:

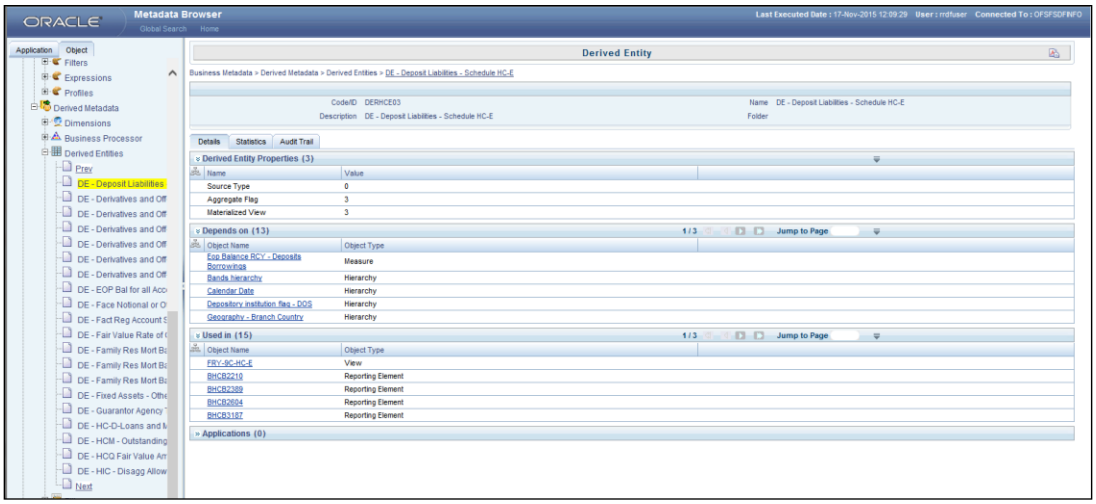


Figure 23: MDB - Business Metadata - Measure View 2

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.

3 Regulatory Reporting (REG REP) 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

2. REG REP 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.

3. It is integrated with results area of the respective processing application, and any change in the underlying processing can disturb the REG REP data sourcing.

4. Baseline and stress data must be populated with appropriate codes. Inaccurate mappings may can lead to inaccurate results. For details please refer to Relationship between Run and Stress.

5. 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.

6. All processing reporting requirements requiring cashflows, 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 US FED RUN CHART

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

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

Download the US FED 8.0.4.0.0 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, RRDF application requires data for the following executions:

1. Current Data / Execution
    a. Reporting month end data
    b. Projection Data
2. Historical (trend/vintage) Data
    a. Yearly
    b. Quarterly
3. Stressed Data

3.1.4 Consolidation

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

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

- Scope of consolidation is about list of Entities which participate in consolidation.
- Legal Entity Structure is looked through ORGANIZATION STRUCTURE DIMENSION. This stores parent-child relationship. This is stored only once.

- While moving the data, Legal Entity can move related entities to processing/reporting area.
- Legal structure being finalized once, this structure only stores one parent-child relationship.

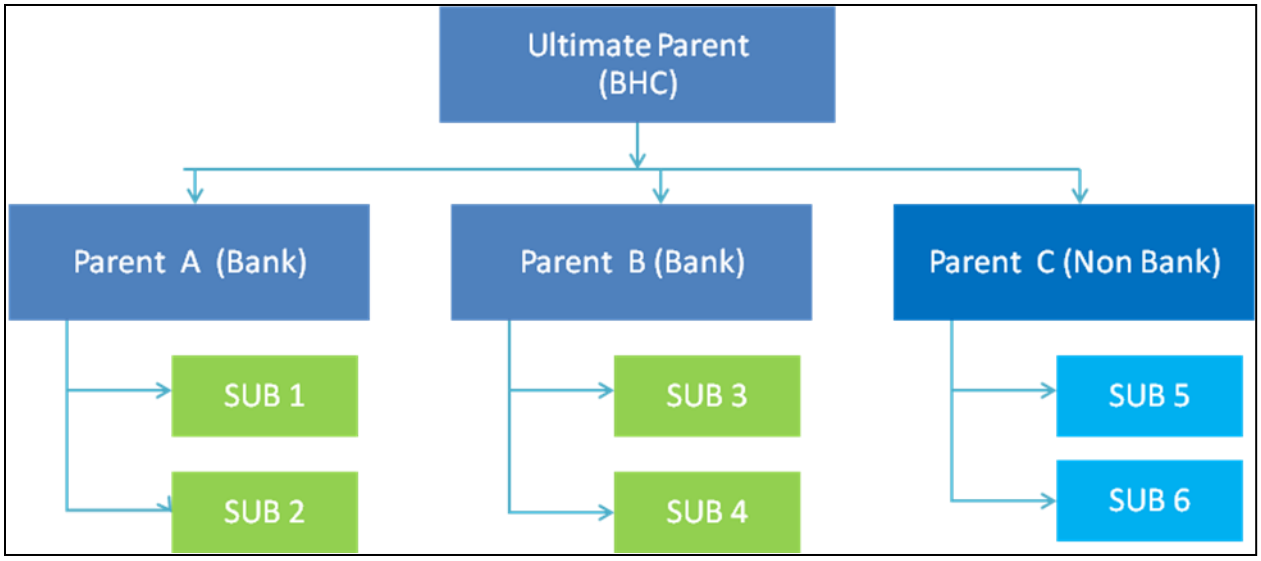


Figure 24: Consolidation

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

Consider the following example:

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

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

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

Refer to the following representation where FR Y-9C and FR-2052A are two regulatory reporting requirements.

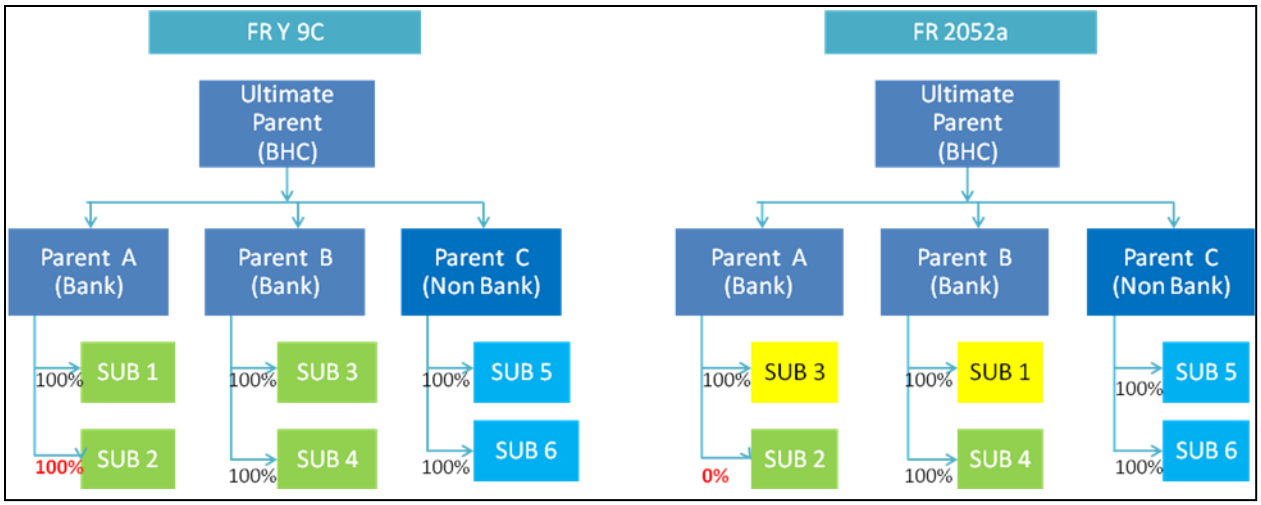


Figure 25: Consolidation with Multiple Hierarchies

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

Hierarchy structure is thus primary input to the consolidation process. Depending on whether end user has multiple hierarchies or not there two data flow.

Consolidation with Multiple Organization Structure Hierarchy:

1. End user loads Organization Structure Hierarchy to STAGE ORG STRUCTURE MASTER table, which is moved to ORG STRUCTURE DIMENSION using SCD component.

2. Execution specific organization structure hierarchies along with parent and child entity codes are populated in STAGE LEGAL ENTITY HIERARCHY INTERFACE table, which is moved to LEGAL ENTITY HIERARCHIES DIMENSION using SCD component.

3. Execution specific Consolidation percentage is loaded in STAGE ENTITY CONSOLIDATION PERCENTAGE table, where child entity code, parent entity code and consolidation percentage is populated. This is moved to FACT ENTITY CONSOLIDATION PERCENTAGE table using Table to Table transformation. In FSDF 804 release, this feature is not supported yet.

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

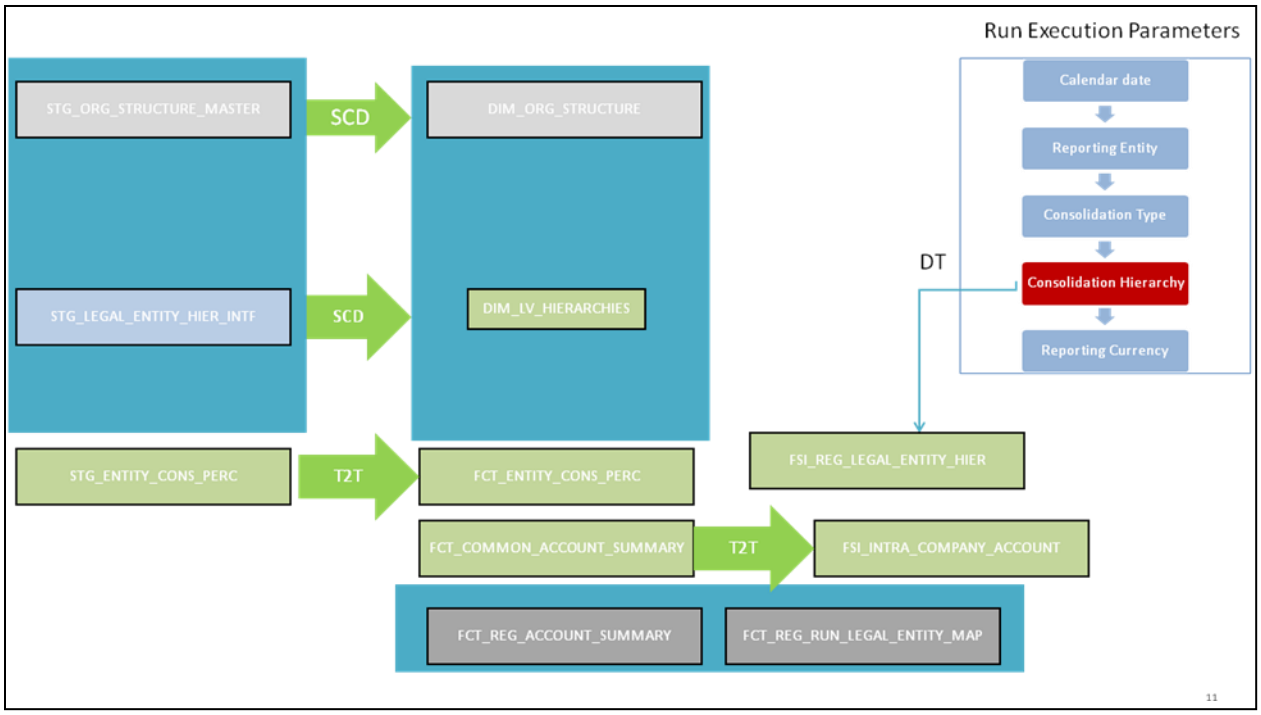


Figure 26: Consolidation with Multiple Organization Structure Hierarchy

5. If the end user does not have Multiple Hierarchy, STAGE LEGAL ETNTITY HIERARCHY which is used for the Consolidation process can be populated from ORG STRUCTURE DIMENSION instead of the STAGE LEGAL ENTITY HIERARCHY.

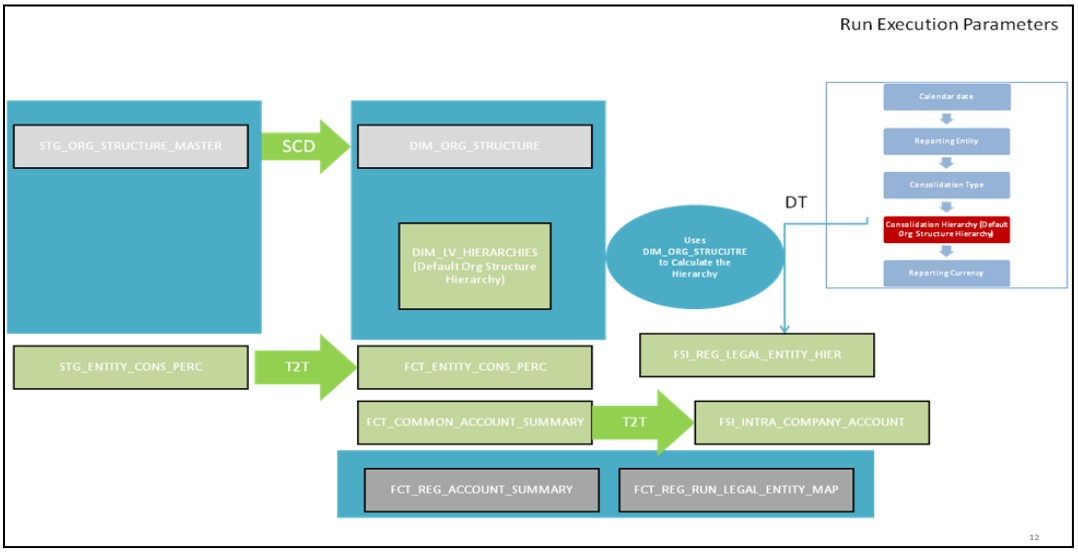


Figure 27: Consolidation without Multiple Organization Structure Hierarchy

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

Additional Data Preparations to handle Consolidation

The entity FCT_REG_RUN_LEGAL_ENTITY_MAP is used once end user selects REPORTING ENTITY from AgileREPORTER. This table is populated as part of USFED Run Execution.

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

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

3.1.4.1 Relationship between Run and Stress

The REG REP application for example in FRY 14 Annual, picks up reporting data based on the Reporting Run that populates the underlying Fact Table(s). Reporting Run is a flag, which must be marked as 'Y' in a DIM_RUN table so that, the OBIEE reporting layer selects a particular run execution.

In this application, a Run comprises:

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

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

c. Identification of Baseline and Stress run occurs from STRESS DIMENSION.

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

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

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

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

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

3.1.5 Projection Data

The following points provide information on the projection data:

1. Baseline run also populates projected date data.
2. This application requires projected data at two levels - Quarterly and Annual.
3. The **DIM_CONSOLIDATION** table is used to identify the projections. It contains the codes for projected quarters and years as required by the templates.
4. In the Fact tables, projection data is referred with respective Consolidation codes (scenario code for **FCT_MGMT_REPORTING**). BHC must populate the data accordingly.
5. In the following example, FQ1 means Financial Quarter 1, FY1 means Financial Year 1 and so on.

Table 5: Projection Data Example 1

Consolidation Code	Consolidation Description	Reporting Line	Scenario	EOP Balance
100	Actual	100	BSL	426,367
400	FQ1	100	BSL	608,618
401	FQ2	100	BSL	870,502
402	FQ3	100	BSL	567,736
403	FQ4	100	BSL	846,196
404	FQ5	100	BSL	775,027
410	FY1	100	BSL	470,092
411	FY2	100	BSL	473,880
412	FY3	100	BSL	942,034
413	FY4	100	BSL	497,889
414	FY5	100	BSL	807,813

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), REG REP sums up data points across all 90 days to arrive at a quarter end movement figure.

Table 6: Projection Data Example 2

Code	Projected Period	Reporting Line	Scenario	Run ID	Date	Projected Amount	Movement
100	Actual	100	BSL	RUNID001	10-Oct-13	300,000	900,000
100	Actual	100	BSL	RUNID002	15-Nov-13	100,000	
100	Actual	100	BSL	RUNID003	20-Nov-13	300,000	
100	Actual	100	BSL	RUNID004	30-Dec-13	200,000	
400	FQ1	100	BSL	--	--	--	608,618
401	FQ2	100	BSL	--	--	--	870,503
402	FQ3	100	BSL	--	--	--	567,736
410	FY1	100	BSL	--	--	--	470,093
411	FY2	100	BSL	--	--	--	473,881
412	FY3	100	BSL	--	--	--	942,035

- 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.

3.1.6 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. Refer to Data Integration Hub (DIH) User Guide in OHC Documentation Library for details. DIH enables to load the data from the source systems to the OFSAA staging tables, through logical interfaces, known as Application Data Interfaces (ADI). DIH provides a set of User Interfaces (UI), which is used to define and maintain External Data Descriptor (EDD), Application Data Interfaces, and map the EDDs and ADIs through connectors.

3.1.7 Data Flow from Staging to Results Area

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

3.1.7.1 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.

3.1.7.2 Derived / Transformed Data and Reclassifications

OFSDF Interface with Lombard Risk for US FED requires specific hierachies and dates to be transformed and reclassified to regulator specific values.

Table 7: Data Transformation Example

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

For example, data from banks has attributes such as issuer type and bank instrument type. However, these values are bank specific, and must be converted or reclassified to regulatory specific set of value such as DIM REG INSTR CLASSIFICATION 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 time to remaining maturity, time to next repricing date, and so on.

3.1.7.3 Re-classified to Regulatory Classifications

After transformation, the regulatory data is reclassified as follows:

Table 8: Data Reclassification Example 1

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

Table 9: Data Reclassification Example 2

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

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

- Regulatory Product Classification
- Regulatory Instrument Classification
- Regulatory Deposit Classification
- Trading Account Book Type Classification
- Claim Amount Population for Country Risk
- Immediate Counterparty Classification for Country Risk
- Claim Sector Reclassification for Country Risk
- Risk Sector Reclassification for Country Risk
- Cross Border Claim Reclassification for Country Risk
- Guarantee Amount Population for Country Risk

The additional transformations that are performed are:

- Remaining Time to Maturity Band
- Next Repricing Date 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. Regulatory Loan Purpose Classification

Refer to Business Metadata for details of these reclassifications.

3.1.8 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.

3.1.9 Data Flow from Processing to Results Area

This step is similar to Data Flow from Staging to Results Area. It involves either pass through data from processing to results or loading directly to results (refer Section 3.1.10). This is mostly due to processing measures such as Fair Value, Risk Weighted Assets, and so on.

3.1.10 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.

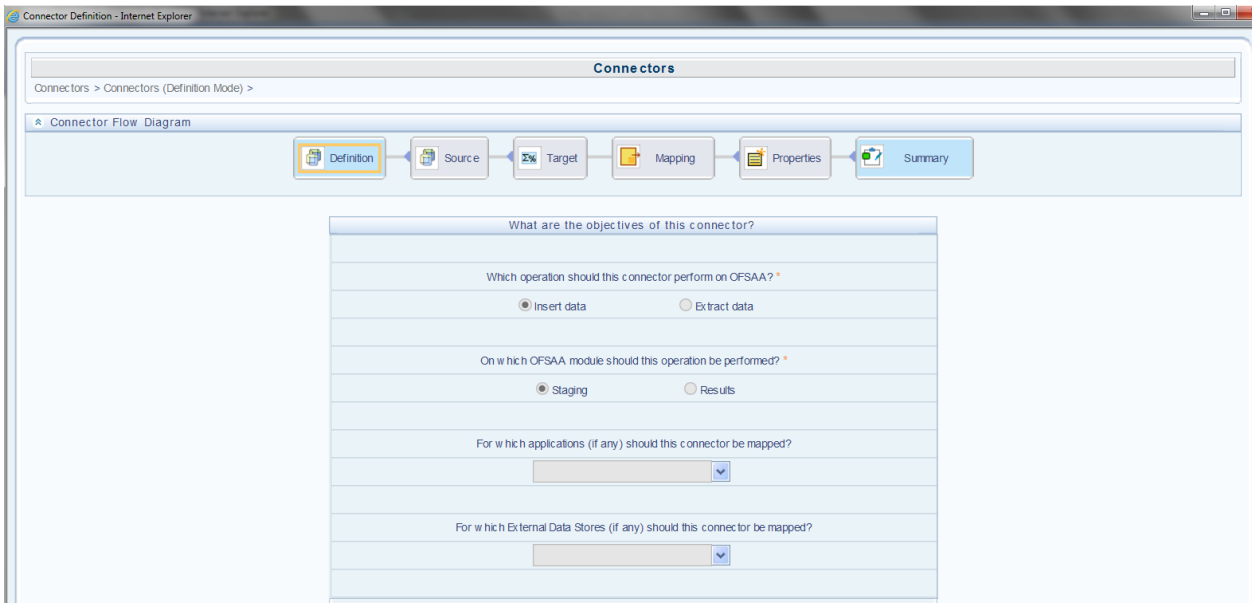
  For example, FCT_LRM_ACCOUNT_SUMMARY.n_asset_level_skey → DIM_ASSET_LEVEL.n_asset_level_skey. The business key (v_asset_level_code) must be sourced and persisted to ensure correct values are populated in the target column, that is, FCT_LRM_ACCOUNT_SUMMARY.n_asset_level_skey.

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

3.1.10.1 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. Refer to DIH user for details on how to load data into a result area table.



3.1.10.2 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. Refer to *OFS AAI User Guide* for more details on configuring a T2T.

3.1.10.3 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.

Refer to the *OFS AAI User Guide* for more details on configuring a F2T.

3.1.11 FSDF Entity Information

3.1.11.1 Dimension Tables/Entities

Table 10: Dimension Tables/Entities

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
1	DIM_ACCRUAL_STATUS	Accrual Status Dimension	This table stores the loan accrual status. Values expected are : 0 = Accrual 1 = Non-Accrual 2 = Serviced for Others/Securitized
2	DIM_BANDS	Bands Dimension	This setup table contains the list of band dimensions. Information on the table name, columns containing the band codes, upper and lower bound values are stored in the setup table and a generic code is executed to populate the band codes in the respective fact tables.
3	DIM_CHANNEL	Acquisition Channel Dimension	This table stores the master list of all unique codes that denote channels through which customers can be acquired.
4	DIM_CREDIT_LINE	Credit Facility Dimension	This table stores the credit facility definition. Credit facility is committed line of credit given to a customer who can have multiple draws / exposures out of a given credit line.
5	DIM_CUSTOMER_TYPE	Customer Type Dimension	This entity stores the master list of customer types: OUR/ OTH.
6	DIM_DATES	Date Dimension	This table stores the List of Dates generated between any two dates typically covering extraction dates and cash flow dates.
7	DIM_DELQCY_WORKOUT_PROGRAM	Delinquency Workout Program Dimension	This table stores the loss / delinquency workout program associated with loans. Workout program is defined generally as: if particular program is deferment, forbearance, term changes, rate changes, and so on. This is a seeded Dimension and list of values are pre-populated by the installer.
8	DIM_EDUCATION	Education Dimension	This table stores the customer's education master information.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
9	DIM_FISCAL_PERIODS	Fiscal Periods Dimension	This table stores the fiscal information for each calendar based on the convention followed in the particular jurisdiction.
10	DIM_FORECLOSURE_STATUS	Foreclosure Status Dimension	This table stores the foreclosure process status. Values expected are: 0 = Not in foreclosure 1 = In foreclosure, pre-sale 2 = Post-sale foreclosure, Redemption, non-REO (if available, otherwise REO) 3 = REO
11	DIM_INTEREST_TYPE	Interest Type Dimension	This table stores the Interest Type.
12	DIM_LOAN_MODIFICATION_TYPE	Loan Modification Type Dimension	This table is used for any loan that is currently operating under modified terms and identifies the specific terms that were altered through loss mitigation efforts. The information in this table is independent of investor and speaks only to the nature of the program. For example, a FNMA loan can be modified under either a FDIC or proprietary modification program – in these cases, this information is populated with the FDIC or proprietary codes while the Investor field identifies the modification as being performed on a FNMA loan. 0 = Loan has not been modified 6 = ASF Streamline 8 = FHFA Streamline (Specific to program announced 12/15/08) 9 = FDIC Streamline (“Mod in a Box”) 10 = Proprietary Systematic Program 11 = Proprietary Other 12 = Home Affordable Modification and: 0 = Not Modified 7 = 2MP 8 = Proprietary Systematic 9 = Proprietary Other 10 = HAMP

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
13	DIM_ORG_STRUCTURE	Organization Structure Dimension	This entity stores the Organization Structure of the Financial Institution.
14	DIM_PRODUCT	Product Dimension	This entity stores the details of all the products (existing/stopped) offered by the Financial Institution.
15	DIM_PRODUCT_TYPE	Product Type Dimension	This table stores the loan product type information.
16	DIM_REG_PRODUCT_TYPE	Regulatory Product Type Dimension	This table stores the regulatory product types. This is used for regulatory reporting purpose and contains values like Auto Loans, Credit Cards, other consumer loans, and so on.
17	DIM_REG_REGION	Regulatory Region Dimension	This entity stores the borrower's current place of residency must be used to define the region.
18	DIM_RUN	Run Dimension Dimension	The Run Master Dimension entity stores all the baseline and simulation runs.
19	DIM_VEHICLE_TYPE	Vehicle Type Dimension	This table stores the vehicle types. For example: SUV, Car, Truck, and so on.
20	DIM_WRITE_OFF_REASONS	Write-Off Reasons Dimension	This table stores the master list of reasons based on which the contracts are written-off from the books.
21	DIM_AGENCY_TYPE	Agency Type Dimension	This table stores details of Agency type which issues and guarantees loans like US Government Agency, US Government Sponsored Agency.
22	DIM_COUNTRY	Country Dimension	This table stores the master list of countries.
23	DIM_CR_LN_VALUATION_TYPE	Credit Line Valuation Type Dimension	This entity stores the method used to account the credit line. The credit line can account for under the fair value option or is held for sale and carried at the lower-of-cost-or-market (LOCOM).

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
24	DIM_CREDIT_RATING	Credit Rating Dimension	This table stores the master list of credit rating and rating issuers.
25	DIM_CUSTOMER	Customer Dimension	This entity stores the list of the organization's customers and counterparties and their attributes.
26	DIM_FRY9C_LINES	FR Y-9C Lines Dimension	This table stores the FR Y-9C reports codes. The FR Y-9C report is a highly analytical report submitted to the regulator for the purpose of analyzing health of banking institution. Report the integer code (Additional Instructions for FR Y 9C for descriptions). Only enter designated descriptions corresponding to the line number on the FR Y-9C, HC-C, in which the outstanding balance is recorded or, in the case of an unused commitment, the line number in which the credit facility would be recorded if it were drawn. Refer to following FR Y-9C instructions for definitions of HC-C line item categories: 1. bhck1292 (U.S. Banks and other U.S. Depository Institutions) 2. bhck1296 (Foreign Banks) 3. bhck1590 (loans to finance agricultural production and other loans to farmers) 4. bhck1763 (Commercial and Industrial loans to U.S. addressees. Exclude loans that are scored but not graded) 5. bhck1764 (Commercial and Industrial loans to non-U.S. addresses. Exclude loans that are scored but not graded) 6. bhck2081 (Loans to foreign governments and official institutions) 7. bhckJ454 (Loans to non depository financial institutions)

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
			8. bhckJ451 (All other loans, excludes consumer loans) 9. bhckF163 (All other leases, excludes consumer leases) 10. bhckF160 (nonfarm,nonres, owner occupied) 11. nonfarm, nonres, owner occupied originated in non-domestic offices as reported within bhck1410
27	DIM_INDUSTRY	Industry Dimension	This table stores the industry information.
28	DIM_LIEN_POSITION	Lien Position Dimension	This table stores the list of lien positions that can be on the collateral.
29	DIM_LOB	Line Of Business Dimension	This entity stores the unique list of Line of Bussiness and the details of each Line of Bussiness.
30	DIM_MITIGANT	Mitigant Dimension	This entity stores information on various risk mitigants like collateral, guarantee, nettable liabilities, and so on.
31	DIM_PARTY	Party Dimension	This table stores the history of a party. Party here can be customer, issuer and guarantor, and so on.
32	DIM_REG_INDEX	Regulaory Index Information Dimension	This table stores list of indices which are designed to store the regulatory based index code as designated by the regulator. For example: LIBOR, PRIME, Treasury Index, and so on.
33	DIM_REG_INTEREST_TYPE	Regulaory Interest Type Dimenison	This table stores the list of indices which are designed to store the regulatory based interest type code as designated by the regulator for an account at account level or group of accounts at a credit line level. For example: FIXED, FLOATING, MIXED, and so on.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
34	DIM_STD_CREDIT_LINE_PURPOSE	Standard Credit Facility Purpose Dimension	This table stores the regulator specified purpose of the said credit facility. This is the list of values which are unique to US Banking system. Only Number is expected here. This is also synch up with Shared National Credit data codes. 0 = OTHER 1 = ACQUISITION AND/OR MERGER FINANCING 2 = ASSET SECURITIZATION FINANCING 3 = CAPITAL EXPENDITURES EXCLUDING REAL ESTATE 4 = COMMERCIAL PAPER BACK-UP 5 = INDUSTRIAL REVENUE BOND BACK-UP 6 = MORTGAGE WAREHOUSING 7 = TRADE FINANCING 8 = PERFORMANCE GUARANTEE 9 = WORKING CAPITAL - SHORT TERM/SEASONAL 10 = WORKING CAPITAL – PERMANENT 11 = GENERAL CORPORATE PURPOSES 12 = DEBT REFINANCE/CONSOLIDATION 13 = ESOP FINANCING 14 = AGRICULTURE AND/OR LIVESTOCK PRODUCTION 15 = AGRICULTURE AND/OR RANCHING REAL ESTATE 16 = STOCK BUYBACK 17 = PORTFOLIO ACQUISITION

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
			INCLUDING NOTE PURCHASE AGREEMENTS 18 = REAL ESTATE ACQUISITION/DEVELOPMENT/CONSTRUCTION – LAND 19 = REAL ESTATE ACQUISITION/DEVELOPMENT/CONSTRUCTION – RESIDENTIAL 20 = REAL ESTATE ACQUISITION/DEVELOPMENT/CONSTRUCTION - COMML & INDL 21 = REAL ESTATE INVESTMENT/PERMANENT FINANCING – RESIDENTIAL 22 = REAL ESTATE INVESTMENT/PERMANENT FINANCING - COMMERCIAL AND INDUSTRIAL 23 = BUSINESS RECAPITALIZATION/DIVIDENDS 24 = NEW PRODUCT DEVELOPMENT 25 = PROJECT FINANCING

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
35	DIM_STD_CREDIT_LINE_TYPE	Standard Credit Facility Type Dimension	This table stores the regulator specified credit facility types. For example: 1 = REVOLVING CREDIT 2 = REVOLVING CREDIT CONVERTING TO TERM LOAN 3 = REVOLVING CREDIT - ASSET BASED 4 = REVOLVING CREDIT - DIP 5 = NON-REVOLVING LINE OF CREDIT 6 = NON-REVOLVING LINE OF CREDIT CONVERTING TO TERM LOAN 7 = TERM LOAN 8 = TERM LOAN – A 9 = TERM LOAN – B 10 = TERM LOAN – C 11 = TERM LOAN – BRIDGE 12 = TERM LOAN - ASSET BASED 13 = TERM LOAN – DIP 14 = CAPITALIZED LEASE OBLIGATION 15 = STANDBY LETTER OF CREDIT 16 = OTHER REAL ESTATE OWNED 17 = OTHER ASSET
36	DIM_STD_MITIGANT_TYPE	Standard Mitigant Type Dimension	This entity stores the standard mitigant type.
37	DIM_ACCOUNT	Account Dimension	This table stores the list of identifiers which uniquely identify every single financial arrangement between customer and reporting bank.
38	DIM_COLL_VALUE_BASIS	Collateral Vaulation Basis Dimension	This table stores the valuation basis of the Collateral Valuation. The allowed values are “as is”, “as stabilized”, or “as completed”.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
39	DIM_HOLDING_TYPE	Holding Type Dimension	This table stores the Holding Type of the security.
40	DIM_LOCATION	Location Dimension	This table stores the location dimension.
41	DIM_PROPERTY_TYPE	Property Type Dimension	This table stores the property types associated.
42	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 7 = Home Improvement 8 = Debt Consolidation 9 = Education A = Medical Y = Other U = Unknown
43	DIM_CREDIT_STATUS	Credit Status Dimension	This entity stores the credit status codes for the customer account along with the descriptions for each status code. For example: current, delinquent, foreclosed.
44	DIM_GEOGRAPHY	Geography Dimension	This table stores the distinct list of all geographical locations, where any of the transaction channels of the Bank are located.
45	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. For example: FHLMC/ FNMA, FHA loans, and so on.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
46	DIM_ASSET_LEVEL	Liquidity Asset Level Dimension	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.
47	DIM_BROKER_DEPOSIT_TYPE	Broker Deposit Type Dimension	This table stores the standard list of broker deposit types that are required in the regulatory document. A broker is an individual or party (brokerage firm) that arranges transactions between a buyer and a seller for a commission when the deal is executed. There are several kinds of brokers, each of whom deals in specific types of transactions. Each type of broker provides different levels or type of service. The list of values for this table is Reciprocal, Sweep, and Other.
48	DIM_COLL_RELEASE_REASON	Collateral Release Reason Dimension	This entity stores the reason due to which the Collateral is released. Values expected are Excess, Due, and so on.
49	DIM_CURRENCY	Currency Dimension	This table stores the currency information.
50	DIM_ENCUMBRANCE_STATUS	Dimension Encumbarance Status Dimension	This entity stores the list of encumbrance status. The list fo values are Fully Encumbered, Partially Encumbered, and Not Encumbered.
51	DIM_INSTRUMENT_CONTRACT	Instruments Contracts Dimension	This entity stores the contracts and instruments in the Market and their details like Effective Date, Maturity Date, Face Value, Day Convention, Strike, and so on.
52	DIM_INSTRUMENT_TYPE	Instrument Type Dimension	This entity stores the details of all the Instrument Types which Reveleus Market Risk solution supports.
53	DIM_INSURANCE_SCHEME	Insurance Scheme Dimension	This entity stores the details of insurance scheme.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
54	DIM_IR_STRUCTURED_INSTRS	Structured Security Type Dimension	This table stores details of Structured Security Type like Pass Through Certificates and mortgage-backed securities.
55	DIM_MITIGANT_TYPE	Mitigant Types Dimension	This entity stores the master list of mitigant types given by the customers against their exposures. Possible types include Collateral, Guarantee, and so on.
56	DIM_NETTING_AGREEMENT	Netting Agreement Dimension	This table stores the details of Netting Agreement. Netting agreement happens between a bank and a counterparty for OTC derivative and SFT transactions. For example: ISDA, FOA, EEI, and so on.
57	DIM_PARTY_TYPE	Party Type Dimension	This table stores the history of a party for party type. Party here could be customer, issuer and guarantor, and so on.
58	DIM_REG_COLLATERAL_STOCK_TYPE	Regulatory Collateral Stock Type Dimension	This table stores the regulatory collateral stock type and acts as a reclassified dimension which refers to the stock of collateral held or posted by the entity related to certain transactions like derivatives. Expected values are: • Rehypothecatable – Unencumbered (and Treasury Controlled) • Rehypothecatable – Encumbered (or not Treasury Controlled) • Non-Rehypothecatable • Segregated Cash • Non-Segregated Cash
59	DIM_REG_COVER_TXN_TYPE	Regulatory Covered Transaction Type Dimension	This table stores the regulatory covered transaction types.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
60	DIM_REG_DEPOSIT_TYPE	Regulatory Deposit Type Dimension	This table stores the details of various deposit types like Demand deposits and Negotiable Order of Withdrawal (NOW) accounts.
61	DIM_STD_GL_TYPE	Standard General Ledger Type Dimension	This table stores the standard general ledger types.
62	DIM_UNDRLYNG_ASST_POOL_TYPE	Underlying Asset Pool Type Dimension	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 the Student Loan.
63	DIM_REG_INSTR_CLASSIFICATION	Regulatory Instrument Classification Dimension	This table stores data for different Instrument Classification defined by the Regulators.
64	DIM_STANDARD_PARTY_TYPE	Standard Party Type Dimension	This table stores the standard party type. Party here can be customer, issuer and guarantor, and so on.
65	DIM_STANDARD_PRODUCT_TYPE	Standard Product Type Dimension	This table stores the list of all product types specified by regulator for risk computations.
66	DIM_REG_PARTY_TYPE	Regulatory Party Type Dimension	This entity stores the regualtor specfic party types.
67	DIM_REG_LIQ_REPORTING_GROUP	Regulatory Liquidity Reporting Group Dimension	This is a reclassififed dimension storing various PIDs/Product reported in Liquidity reporting.
68	DIM_STANDARD_CENTRAL_BANKS	Standard Central Banks Dimension	This table stores the names of various central banks across the world.
69	DIM_REG_INSURER	Regulatory Insurer Dimension	This is a reclassified dimension which stores the deposit insurers as specified by the regulator. Values Expected are FDIC, OTHERS, and UNINSURED.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
70	DIM_RESULT_BUCKET	Result Bucket Dimension	This table stores the result buckets associated with each process.
71	DIM_SETTLEMENT_TYPE	Settlement Type Dimension	This table is used to identify the settlement mechanisms used for Secured and Foreign Exchange products. Following Secured products are identified using the table: TRIPARTY: secured financing transactions settled on the US-based tri-party platform, OTHER: secured financing transactions settled on other (for example, non-US) third-party platforms, BILATERAL: secured financing transactions settled bilaterally. Following Foreign Exchange products are identified using the table: CLS: FX transactions centrally cleared via CLS, OTHER: FX transactions settled via other (non-CLS) central clearinghouses, BILATERAL: FX transactions settled bilaterally.
72	DIM_RISK_SCENARIO	Risk Scenario Dimension	This table stores the Operation Risk Scenarios.
73	DIM_REG_TRADING_POSITION_CLASS	Regulatory Trading Position Class Dimension	This table stores the regulatory trading position class values.
74	DIM_REG_LIQ_CASHFLOW_GROUP	Regulatory Liquid Cashflow Group Dimension	This table store the cash flow groups used for liquidity reporting like FR 2052a. This serves as a reclassified dimension in regulatory reporting.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
75	DIM_FIXED_ASSETS	Fixed Assets Dimension	This table stores the data related to fixed assets. Fixed assets are physical assets such as Buildings, Land, Machinary, Automobiles, Gold bullion, and so on. They can be sold and appropriate profit/loss can be recognized based on appropriate accounting principles.
76	DIM_ISSUER	Issuer Dimension	This entity is used as an issuer of marketable collaterals.
77	DIM_REP_LINE	Reporting Line Dimension	This table stores list of all computed reporting line items.
78	DIM_SECURITIZED_PRODUCTS	Securitized Products Dimension	This table stores details of Securitized products like Residential pass-through securities and Residential mortgage-backed securities.
79	DIM_TRADING_ACCT_BOOK_TYPE	Trading Account Book Type Dimension	This table helps to identify trading assets and liabilities. Along with Holding type as held for trading, at times the regulator has an additional criteria like positive fair value for identification of trading assets and negative fair value for trading liabilities.
80	DIM_CONSOLIDATION	Consolidation Dimension	This entity stores details of various kinds of values to be analyzed like actual or budget.
81	DIM_ACCOUNT_PORTFOLIO	Account Portfolio Dimension	This table is planned for deprecation.
82	DIM_ACCT_PORTFOLIO	Account Portfolio Dimension	This table stores the master list of all the portfolios of the Institution. Portfolios are user-defined group of accounts. For example, auto loan porfolio is a group of auto loans.
83	DIM_ACCT_STATUS	Account Status Dimension	This table stores a set of unique codes that denote the status of an account.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
84	DIM_APR_RESET_TYPE	Apr Reset Type Dimension	This table stores the frequency of reset for the APRs as applicable to the card account.
85	DIM_BANKRUPTCY_CHAPTER	Bankruptcy Chapter Dimension	This table stores the code of the bankruptcy chapter filed by customer of the said account. The list of values are pre-populated by the installer.
86	DIM_CARD_FEE_PAY_TYPE	Card Fee Pay Type Dimension	This table stores the fee pay types associated with card account. Expected values are: 0 = No fee 1 = Annual 2 = Monthly 3 = Other
87	DIM_CENTRAL_AUTHORITY	Central Authority Dimension	This table stores the list of all the central authorities like Group Supervisor, and so on, for an entity.
88	DIM_CREDIT_CARD_CO_BRAND_TYPE	Credit Card Co Brand Type Dimension	This table stores the co-branding type / association code linked to the said credit card. The list of values are pre-populated by the installer.
89	DIM_CREDIT_CARD_LENDING_TYPE	Credit Card Lending Type Dimension	This table stores the credit card type code. The list of values are pre-populated by the installer.
90	DIM_CREDIT_CARD_NETWORK	Credit Card Network Dimension	This table stores the credit card networks associated.
91	DIM_CREDIT_CARD_REWARD_TYPE	Credit Card Reward Type Dimension	This table stores the credit card reward type code. The list of values are pre-populated by the installer.
92	DIM_CREDIT_CARD_TYPE	Credit Card Type Dimension	This table stores the codes of the credit card usage. The list of values are pre-populated by the installer.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
93	DIM_CREDIT_CLASS_TYPE	Credit Class Type Dimension	This table stores the credit class type description assigned to the given account. The list of values are pre-populated by the installer.
94	DIM_CREDIT_LINE_CHANGE_TYPE	Credit Line Change Type Dimension	This table stores the code of the credit line change type initiated by bank as applicable to the said account. The list of values are pre-populated by the installer.
95	DIM_CREDIT_SCORE_TYPE	Credit Score Type Dimension	This table stores the credit score type codes to be used for reporting for regulatory purposes code. The list of values are pre-populated by the installer.
96	DIM_DELQCY_WORKOUT_PROG_STATUS	Delinquency Workout Program Status Dimension	This table stores code of status of the work out programs. The list of values are pre-populated by the installer.
97	DIM_DELQCY_WORKOUT_PROG_TYPE	Delinquency Workout Program Type Dimension	This table stores the workout program type code associated with said account. The list of values are pre-populated by the installer.
98	DIM_ENTITY_TYPE	Entity Type Dimension	This table stores list of all types of entities in the organization structure.
99	DIM_INCOME_DOCUMENTATION_PROG	Income Documentation Program Dimension	This table stores the code of the income documentation related to particular account / customer. The list of values are pre-populated by the installer.
100	DIM_INCOME_SOURCE_TYPE	Income Source Type Dimension	This table stores the income sources. The list of values are pre-populated by the installer.
101	DIM_INDEX	Index Information Dimension	This table stores list of indices which are designed to measure price changes of an overall market, such as the stock market or the bond market. For example, Vanguard's Total Bond Market Index, Dow Jones Industrial Average, Tokyo Stock Exchange(Nikkei 225), and so on.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
102	DIM_INTEREST_TYPE_CONVERSION	Interest Type Conversion Dimension	This table stores the interest type change code for a given loan. Indicates whether the interest type was converted from ARM to Fixed through loss mitigation, and the duration of the fixed rate period. The list of values are pre-populated by the installer.
103	DIM_LIEN_PERFORMANCE	Lien Performance Dimension	This table stores the performance description of the lien associated with the loan account. It includes First and Junior lien performance. The list of values are pre-populated by the installer.
104	DIM_LIQUIDATION_STATUS	Liquidation Status Dimension	This table stores the code of liquidation status to convey the way account was liquidated. The list of values are pre-populated by the installer.
105	DIM_LOAN_REPURCHASE_STATUS	Loan Repurchase Status Dimension	This table stores the loan repurchase process status associated with the said account. The list of values are pre-populated by the installer.
106	DIM_LOAN_SOURCE_TYPE	Loan Source Type Dimension	This table stores the source by which the servicer originated or otherwise acquired the mortgage. At the servicer's discretion, acquired servicing can be reported as retail, broker, or correspondent originations to the extent the information is available. • Retail – Report all mortgages originated through the reporting institution’s retail, including branch or internet, production channel. • Wholesale (Broker) - Report all mortgages originated through the reporting institution's wholesale/broker production channel. Report as broker originated all third-party originated loans where the bank cannot distinguish between

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
			broker and correspondent originated. • Correspondent - Mortgages acquired through the reporting institution's correspondent production channel. This includes all mortgage whole loans purchased on a recurring basis (flow) from another correspondent institution, eligible for securitization into the secondary markets or portfolio retention on the bank's balance sheet. Report as broker originated all third-party originated loans when the bank cannot distinguish between broker and correspondent originated. • Bulk Purchase – Pools of mortgage whole loans purchased from a third party originator for the right to securitize or retention in the bank-owned portfolio. Residential Mortgages acquired for the Servicing Portfolio in this manner are typically negotiated as one-time transactions between a Mortgage Institution and an independent third party originator (Mortgage Company or Correspondent). Report all bulk acquisitions and correspondent flow acquisitions as correspondent originated when the institution cannot distinguish between these categories. Do not label bank acquisitions as Bulk Purchases. • Servicing Rights Purchased - Refers to a separately negotiated purchase of mortgage servicing rights (PMSR) from a third party. When the servicer cannot distinguish between bulk

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
			whole loan and bulk servicing acquisitions, the servicer must report all of these acquisitions consistently in the category that represents the majority of the servicer's acquisitions. **Note**: This reporting category applies exclusively to the Servicing Portfolio. • Wealth Management/Private Banking – report all loans originated through a servicer's private wealth management or private banking division. This is a seeded Dimension and list of values are pre-populated by the installer.
107	DIM_LOSS_SHARE_AGREEMENT	Loss Share Agreement Dimension	This table stores specific loss sharing agreements. A unique ID must be generated for each active sharing agreement. The specific ID must be consistent over time for as long as the agreement remains active without a relevant change in the terms of the loss sharing agreement. The institution must also provide a written summary of the relevant terms of each loss sharing agreement along with the corresponding Loss Share ID number. Additional supporting documentation may be requested if necessary. Report blank if the account is not associated with a loss sharing agreement.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
108	DIM_MORT_INVESTOR_TYPE	Mortgage Investor Type Dimension	This table stores the mortgage investor type or insurance company code which logically owns the mortgage till debt is cleared off. The list of values are pre-populated by the installer.
109	DIM_MORTGAGE_OCCUPANCY	Mortgage Occupancy Dimension	This table stores the code of mortgage occupancy for a given loan /account. The list of values are pre-populated by the installer.
110	DIM_PROG_ACTIVITY_STATUS	Program Activity Status Dimension	This table stores the program activity status code. The list of values are pre-populated by the installer.
111	DIM_REPAYMENT_STATUS	Repayment Status Dimension	This table stores the loan repayment plan status code. Repayment Performance Status – This field tracks the performance of repayment and step-to-mod plans. If a repayment plan or step-to-mod was completed successfully during the month, it must be coded as such in the work-out type completed field). This field is only to be populated for repayment plans that were active as of the end of the month or broken during the month. Broken plans must only be reported in the month the plan breaks. The list of values are pre-populated by the installer.
112	DIM_VALUATION_METHOD	Valuation Method Dimension	This table stores list of all methods used for valuation purposes.
113	DIM_RISK_SECTOR	Risk Sector	This table stores the reporting risk sectors which are determined based on the legal entity of the counterparty.
114	DIM_LOAN_SERVICE_TYPE	Loan Service Type Dimension	This table stores the details of loan service type which details whether the loan is Extended, Guaranteed, Serviced, or Insured by the Holding Company.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
115	DIM_PLEDGED_STATUS	Pledged Status Dimension	This entity stores the Pledged Status information.
116	DIM_SECURITIZATION_TYPE	Securitisation Type Dimension	This table stores the different securitization types as defined by Basel.
117	DIM_MARKET_RISK_POSITION	Dimension Market Risk Position	This entity stores a master list of different positions a Financial Institution can have on different marketable instruments. For example: Long Position, Short Cash Long Call, Long Put, and so on.
118	DIM_BASEL_BANK_ROLE	Basel Bank Roles	This table stores the Bank Role type as defined by Basel Accord.
119	DIM_BASEL_PRODUCT_TYPE	Basel Product Types Dimension	This table stores the details of product type as defined by Basel.
120	DIM_BASEL_CONSL_OPTION_TYPE	Basel Consolidation Option Dimension	This entity stores the Basel Consolidation Option Type (Solo / Consolidation).
121	DIM_EXPOSURE_UNDERLYING_TYPE	Exposure Underlying Type	This table stores the various underlying type for the exposure.
122	DIM_BEHAVIOUR_TYPE	Behaviour Type	This table represents account behaviour / performance. Expected Values are Core, Volatile, Substandard, Doubtful, Loss, Sight Devolvement, Sight Recovery, Usance Devolvement, and Usance Recovery.
123	DIM_REG_RISK_CLASS	Regulatory Risk Classification	This table stores the regulatory risk class like High / Medium and so on.
124	DIM_BASEL_POOL_TYPE	Dimension Basel Pool Type	This table stores the various securitization pool types.
125	DIM_BASEL_ASSET_CLASS	Basel Asset Class	This table stores the Basel defined exposure types.
126	DIM_RISK_TYPE	Risk Type Dimension	This Master table stores the risk ttypes. For example: Price Risk, Volatility Risk, and so on.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
127	DIM_BASEL_METHODOLOGY	Basel Methodology Dimension	This table stores the approach methodology as defined by Basel.
128	DIM_CAPITAL_COMP_GROUP	Capital Computation Group Dimension	This table stores the dimensions of Capital Computation Group.
129	DIM_BANK_BASE_ROLE	Bank Base Roles Dimension	This table stores the Bank Role type as defined by Basel.
130	DIM_FIDUCIARY_SERVICE_TYPE	Fiduciary Service Type Dimension	This entity stores the details of various types of fiduciary service.
131	DIM_FIDUCIARY_SERVICE_ROLE	Fiduciary Service Role Dimension	This entity stores the details of various roles played by a fiduciary service provider.
132	DIM_MR_ASSET_CLASS	Market Risk Asset Class Dimension	This entity stores the list of Ratings like AAA, EQ & custom Equities, XS and COM, which are used to identify the Interest Rate Risk Factor, Equity Risk Factor, Currency Risk Factor, and Commodity Risk Factors respectively.
133	DIM_FUND_TYPE	Fund Type Dimension	This table stores list of all applicable types of fund.
134	DIM_FUND	Fund Dimension	This table stores list of all funds used by the entity.
135	DIM_CAP_INSTRUMENT_TXN_TYPE	Capital Instrument Transaction Type Dimension	This table stores the capital instrument transaction type.
136	DIM_CONSTRUCTION_LOAN_TYPE	Construction Loan Type Dimension	This table stores details of Construction Loan Type like 1-4 Family residential, construction, town houses, duplex for the construction loans issued by Holding company.
137	DIM_ISSUER_TYPE	Issuer Type Dimension	This entity stores the issuer yypes.
138	DIM_ACCOUNT_TYPE	Dimension Account Type	This table stores the details of the account type.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
139	DIM_SALE_TYPE	Sale Type	This table stores the loan sale types. Organization can sell the loans as whole loan, through securitization, or pass through certificates.
140	DIM_REG_EQ_INVST_CLASSFCTN	Regulatory Equity Investment Classification Dimension	This table stores the regulator defined classifications of equity investment as used in regulatory reports. Expected Values are Direct Public Investment, Direct Nonpublic Investment, Indirect Investment.
141	DIM_REG_EQ_TXN_GROUP	Regulatory Equity Transaction Group Dimension	This table stores the regulator defined types of equity transactions as used in regulatory reports. Expected Values are Purchase, Return of Capital, Net Valuation Changes, and others.
142	DIM_SCENARIO	Scenario Dimension	This entity stores the details of various kinds of values to be analyzed like actual or budgeted.
143	DIM_REG_VINTAGE	Regulatory Vintage Dimension	This table stores the vintage definitions used in building Vintage dimensions in CRR. Vintage codes are "Year" + "Month" combination. Additional Comment is: Vintage dimension was built on fact table.
144	DIM_ACCT_SOLD_EXEMPT_STATUS	Account Sold Exemption Status Dimension	This table stores the status of exemption for sold accounts. Loans sold have liability on bank on legal terms. This dimension helps to identify if particular loan is exempted from reporting as it is already repurchased or settlement is completed.
145	DIM_STANDARD_ACCT_HEAD	Standard Accounting Head Dimension	This dimension lists the various standard accounting heads (Equity, Reserves and Surplus, and so on.) under which a bank classifies its GL sources of accounting capital.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
146	DIM_INSTRUMENT_CATEGORY	Instrument Category Dimension	This table stores instrument category - Assets/Liabilities/Others/Services.
147	DIM_EXPOSURE	Exposure Dimension	This table stores the account wise summary for product processor.
148	DIM_OPRISK_LOSS_DATA_CATEGORY	Operational Risk Loss Data Category Dimension	This tables stores the operational loss data category. Expected Values are Internal, External, Model Input, and Scenario.
149	DIM_VARIABLE	Variable Definition Dimension	This table stores the variables to be consumed by Enterprise Stress Testing or any other similar usage.
150	DIM_ACCRUAL_STATUS	Accrual Status Dimension	This table stores the loan accrual status. Values expected are: 0 = Accrual 1 = Non-Accrual
151	DIM_CREDIT_SCORE_MODEL	Credit Score Model Dimension	This table stores the list of credit score models used in arriving at the credit score.
152	DIM_PRODUCT_INT_TERM_GROUP	Product Interest Term Group Dimension	This table stores the Interest and Term Group together. For example, few US loans are categorized as Fixed 30 which means fixed interest and 30 years maturity and are reported with name Fixed 30.
153	DIM_REG_ACCT_SOURCING_CATEGORY	Regulatory Account Sourcing Category Dimension	This table stores the list of regulatory account sourcing categories that a bank follows to acquire a customer.
154	DIM_REG_AMORTIZATION_TYPE	Regulatory Amortization Type Dimension	This table stores the information regarding various regualtory amortization types.
155	DIM_REG_ATTRITION_REASON	Regulatory Attrition Reason Dimension	This table stores the various attrition reasons of a loan as prescribed by the regulator.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
156	DIM_REG_CREDIT_LIMIT_TYPE	Regulatory Credit Limit Type Dimension	This reclassified table stores the list of credit limit types.
157	DIM_REG_INS_LOAN_TYPE	Regulatory Mortgage Insurance Loan Type Dimension	This tables stores the regulatory loan types based on the mortgage issurance issuers.
158	DIM_REG_LOAN_DELQ_STATUS	Regulatory Loan Delinquency Status Dimension	This table stores the various deliquency status of a loan as prescribed by the regulator.
159	DIM_REG_LOAN_SEGMENT	Regulatory Loan Segment Dimension	This tables stores the regulatory portfolios of loans segmented based on regulatory requirements.
160	DIM_REG_MORT_INS_ISSUER	Regulatory Mortgage Insurance Issuer Dimension	This tables stores the regulatory mortgage insurance issuer values as required by the regulator.
161	DIM_REG_VALUATION_METHOD	Regulatory Valuation Method Dimension	This table stores the regulatory valuation method used to calculate the mitigant value.
162	DIM_SERVICED_LOAN_ACCOUNT	Serviced Loan Account Dimension	This table stores account summary. However only for those accounts which bank holds for servicing purpose only. These account may or may not be originated by bank.
163	DIM_STANDARD_IRC	Standard Interest Rates Dimension	This entity stores the standard interest rate curve definitions.
164	DIM_STD_BALANCE_CATEGORY	Standard Balance Category Dimension	This dimension entity stores the list of regulatory categories that a balance can have.
165	DIM_STD_CENTRAL_AUTHORITY	Standard Central Authority Dimension	This table stores the central authorities like FRB, FDIC and so on.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
166	DIM_ACCOUNT_CLASSIFICATION	Account Classification Dimension	This entity stores the account classifications according to different different regulations.
167	DIM_ACCOUNT_PURPOSE	Account Purpose Dimension	This table captures the purpose for which the bank has initiated the account.
168	DIM_ACCT_SOURCING_CATEGORY	Dim Account Sourcing Category Dimension	This dimension entity stores the list of Account sourcing categories that a bank follows to acquire a customer. This is used as a source to arrive at Regulatory values for account sourcing category.
169	DIM_AMORTIZATION_TYPE	Amortization Type Dimension	This entity stores the various type/method of amortizing principal and interest.
170	DIM_BASEL_CREDIT_RATING	Basel Credit Ratings Dimension	This entity stores the Basel defined Credit Ratings.
171	DIM_CD_DEFAULT_PARAM_GROUP	Credit Derivative Default Parameter Group Dimension	This table stores the group of parameters used to define the credit derivative valuation for incremental default analysis of credit derivatives.
172	DIM_COMMODITY	Commodity Information Dimension	This entity stores the master list of commodities and their details. For example: Sugar, Steel, Rubber, and so on.
173	DIM_COMMODITY_GROUP	Commodity Group Dimension	This table stores the commodity grouping required for CVA Sensitivity analysis as specified by the regulator.
174	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 can have four values: • LIQ (=Liquidity), • CRT (=Credit), • BOT (=Both Liquidity and Credit), • OTH (Others).

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
175	DIM_CVA_SENSTVTY_FCTOR_DTLS	Sensitivity Factor Details Dimension	This table stores the details of factors used for CVA sensitivity analysis done using variables other than rating, interest, FX, equity and commodity. User is expected to store detailing of factors here.
176	DIM_DIRECTIONAL_RISK_REG_CLASS	Directional Risk Regulatory Classification Dimension	This table stores the classificaiton codes required for directional risk reporting as required by FED. Values expected are: • Governments • Agencies • Municipals • Swaps / Discounting Curve • Instruments shocked by MV** • Other+O87
177	DIM_ENERGY_CONVERSION	Energy Conversion Dimension	This tables stores energy conversions. For example: Power, Gas can be values indicating that fuel is converted to which energy type.
178	DIM_FORECLOSURE_STATUS	Foreclosure Status Dimension	This table stores the foreclosure process status. Values expected are: 0 = Not in foreclosure 1 = In foreclosure, pre-sale 2 = Post-sale foreclosure, Redemption, non-REO (if available, otherwise REO) 3 = REO
179	DIM_FRY9C_HCC_SCHEDULE	FR Y-9C HCC Schedule Dimension	This table stores US FED FR Y-9C schedules codes and categories as applicable to the CCAR Reporting. These are basically mnemonic codes which are detailed to their descriptions and broken down as per CCAR requirements.
180	DIM_INDEX_TYPE	Index Type Dimension	This column stores the index type. For example: STOCK, COMMODITY, CDX, and so on.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
181	DIM_IRC	Interest Rate Curve Dimension	This entity stores the interest rate curve definitions.
182	DIM_MR_COUNTER_PARTY	Dim MR Counter Party Dimension	This table stores the standard counterparty types for trading book instruments. This is used in Basel MR Standardized approach.
183	DIM_MSR_PRODUCT_TYPE	MSR Product Type Dimension	This entity stores the code for the MSR product type. Values are FHLMC 30 year, GNMA 10 years, and so on.
184	DIM_MTM_COLL_PORTFOLIO	MTM Collateral Portfolio Dimension	This table stores the values for collateral used in MTM derivative positions at a portfolio level.
185	DIM_OCCUPANCY_TYPE	Occupancy Type Dimension	This table stores the Mortgage Occupancy Type. Values expected are self occupied, rented, vacant, other, and so on.
186	DIM_OECD_INDICATOR	OECD Indicator Dimension	This table stores the OECD indicator as defined by Basel 1. This is the dimension table that stores whether RWs are in Organisation for Economic Co-operation and Development's agreed methodology or not.
187	DIM_ORIGINAL_MATURITY_BAND	Original Maturity Band Dimension	This table stores the band definitions for Original Maturity of the exposure.
188	DIM_PD_MODEL_TYPE	PD Model Type	This table stores definition of model used for calculation of probability of default. It also conveys information on type of input information like internal/external, and so on.
189	DIM_POSITION_TYPE	Position Type Dimension	This table stores the various positions of a marketable instrument.
190	DIM_PRODUCT_BOOK	Product Book Dimension	This table stores whether the exposure is of Banking book or Trading book (if info is not available, it is under Missing category).

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
191	DIM_REAL_ESTATE_OWNED_TYPE	Real Estate Owned Type Dimension	This table stores the Real estate owned type of the Holding company like Foreclosed Real estate, Real estate Acquired.
192	DIM_REG_ACCOUNT_PORTFOLIO	Regulatory Account Portfolio Dimension	This table stores the Regualtory Account Portfolios user-defined group of accounts which are reported under Regulatory Reports. This table stores the master list of all the portfolios used in Regulatory Reporting of the Institution.
193	DIM_REG_ACCOUNT_SEGMENT	Regulatory Account Segment Dimension	This table stores the regulatory account segements. These segement are arrived as a part of regulatory classifications and consumed in Regulatory Reporting. Segement is part of regulatory accounting portfolio.
194	DIM_REG_CP_CNT_CATEGORY	Regulatory Counterparty Contract Category Dimension	This entity stores the collateral asset category offered / posted as collateral to given legal entity as part of contracts like SFT / Derivative / Others, used in report FR Y-14Q Counterparty.
195	DIM_REG_CREDIT_STATUS	Regulatory Credit Status Dimension	This table stores the regualatory credit status as prescribed by the regulator.
196	DIM_REG_INDEMNFICATION_TYPE	Regulatory Indemnification Type Dimension	This table stores the various indemnification types of a loan as prescribed by the regulator.
197	DIM_REG_MITIGANT_TYPE	Regulatory Mitigant Type Dimension	This entity stores the regulatory mitigant types. These are derived based on Standard Mitigant type and few other mitigant attributes.
198	DIM_REG_PRIMARY_OBLITN_TYPE	Regulatory Primary Obligation Type Dimesion	This table stores the primary obligations of a reporting institution. Primary obligations are those central obligations arising from the essential purpose of a contract or transaction, and from which other (secondary) obligations arise.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
199	DIM_REG_RESRV_LIABILITY_TYPE	Regulatory Reservable Liability Type Dimension	This table strores the reservable liability type as defined by Regulator. Reservable liability types refers to deposits, primary obligations which are allowed for reserving.
200	DIM_REG_WRITEOFF_REASONS	Regulatory Write-off Reasons Dimension	This tables stores the regulatory Write-off reasons mentioned by the regulator.
201	DIM_REGION	Region Dimension	This entity stores the master lists of regions where campaigns can be targeted.
202	DIM_RUN_IDENTIFIER	Run Identifier Dimension	This table stores the Bank Role type as defined by Basel Accord.
203	DIM_RUN_TYPE	Run Types Dimension	This entity stores the master list of all Run types supported.
204	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.
205	DIM_STANDARD_LOB	Standard LOB Dimension	The entity stores the master list of Lines of Business as prescribed by the regulator.
206	DIM_STD_DEPOSIT_MAT_INSTR_TYPE	Deposit Maturity Instruction Type Dimension	This table stores the maturity instruction type from customer. Values expected are: • TROTHTXNACC: Transfer to Other Transaction (Savings /Demand) Account • AUTORENEW: Auto Renewal\ • NOINSTR: No Instruction Available
207	DIM_STRESS	Stress Dimension	This table stores the master details of stress definitions made.
208	DIM_TRADING_ACCT_BOOK_TYPE	Trading Account Book Type Dimension	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.

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
209	DIM_UNDRLYNG_ASST_POOL_TYPE	Underlying Asset Pool Type Table Dimension	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.
210	DIM_VALUATION_METHOD	Valuation Method Dimension	This table stores the list of all methods used for valuation purposes.
211	DIM_VARIABLE	Variable Definition Dimension	This table stores the variables to be consumed by Enterprise Stress Testing or any other similar usage.
212	FSI_LRM_REP_LINE_ATTR_DETAILS	FSI LRM Reporting Line Attribute Details	This entity stores the additional reporting line attribute required for LRM Regulatory reports.
213	FSI_PARTY_STD_PARTY_MAP	Party To Standard Party Mapping	This entity stores the mapping of party from DIM_PARTY entity to the standard party code like FNMA, FHLMC,and so on, as required for regulatory reporting.
214	FSI_REG_MORT_INSURER	Regulatory Mortage Insurer Map	This table stores the party identifiers of Mortage insurers.

3.1.12 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

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
1	FCT_ACCOUNT_MITIGANT_ MAP	Fact Account Mitigant Map	This entity stores the account to mitigant mapping. It supports more than one mitigant to be mapped to an account.	Staging
2	FCT_ACCT_RECOVERY_ DETAILS	Fact Account Recovery Details	This entity stores the details of recoveries for each account.	Staging
3	FCT_ACCT_WRITE_OFF_ DETAILS	Fact Account Write Off Details	This entity stores the details of write-off for each account.	Staging
4	FCT_CARDS_SUMMARY	Fact Cards Summary	This table stores the contract summary of all active card accounts.	Staging, Results
5	FCT_COMMON_ACCOUNT_ SUMMARY	Fact Common Account Summary	This table stores common account level information that usually comes as an input through staging.	Staging
6	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, Results
7	FCT_LOAN_ACCOUNT_ SUMMARY	Fact Loan Summary	This table stores the details of loans. This table includes mortgage and vehicle loans.	Staging, Results
8	FCT_MITIGANTS	Fact Mitigants	This entity stores all the Mitigants and their details.	Staging
9	FCT_RECOVERY	Fact Recovery	This table stores the recovery details for all delinquent accounts.	Staging
10	FCT_REG_CAP_ACCOUNT_ SUMMARY	Fact Regulatory Capital Account Summary	This table stores the regulatory capital for each account. Typically, this table is an input from Basel application.	Results

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
11	FCT_PARTY_FINANCIAL_ DETAIL	Fact Party Financial Detail	This entity stores the financial information (Balance-Sheet, Profit and Loss statement, and Ratios) in base and reporting currency of the parties like Customer and Guarantor.	Staging
12	FCT_PARTY_FINANCIALS	Fact Party Financials	This entity stores the financial information (Balance-Sheet, Profit and Loss statement, and Ratios) of the parties like Customer and Guarantor. Balance sheet is prepared as of a particular date (Balance sheet creation date).	Staging
13	FCT_PARTY_RATING_DETAILS	Fact Party Rating Details	This table stores the party rating details of the customer, counterparty, guarantor, and so on.	Staging
14	FCT_IFRS_ACCOUNT_ SUMMARY	Fact IFRS Account Summary	This table stores the measures related to account that are computed by IFRS application.	Processed
15	FCT_ACCOUNT_POSTION_ PAIR	Fact Account Position Pair	This table defines position pairings that relate a primary position and its offsetting position. The position pairs can be held in any manner (for example, cash or margin). It contains only active customer account positions.	Staging

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
16	FCT_ACCT_CUST_DETAILS	Fact LRM Account Customer Relationship Details	This entity stores the derived attribute at account and customer granularity (includes joint accounts).	Staging
17	FCT_ACCT_PLACED_COLL_ MAP	Fact Account Placed Collateral Map	This table stores the account to placed collateral mapping. It is an intersection table to denote a placed collateral can be used in multiple account and an account contains multiple collateral.	Staging
18	FCT_COLL_PORTFOLIO_MTM_ DETAILS	Fact MTM Collateral Details	This table stores the MTM impact on derivative positions on a day-to-day basis.	Processed
19	FCT_COLL_PORTFOLIO_MTM_ SUMMARY	Fact MTM Collateral Summary	This table stores the MTM impact on derivative positions at a cumulative level.	Processed
20	FCT_DEPOSITS_BORROWINGS	Deposits And Borrowings	This table stores all the deposit and other borrowings accounts of bank.	Staging, Results
21	FCT_IFRS_MITIGANTS_ SUMMARY	Fact IFRS Mitigants Summary	This table stores the valuation of Mitigants as per IFRS requirements. Mitigant definitions happen in DIM MITIGANT and this table serves as additional set of attributes for FACT MITIGANTS.	Processed
22	FCT_IFRS_PLACED_ COLLATERAL	Fact IFRS Placed Collateral	This table stores the valuation of placed Collateral as per IFRS requirements. Placed Collateral definitions happen in DIM PLACED COLLATERAL and this table serves as additional set of attributes for FACT PLACED COLLATERAL.	Processed

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
23	FCT_LRM_ACCOUNT_ SUMMARY	Fact LRM Account Summary	This table stores the details of the Account Derived in Liquidity Risk Management Solution.	Processed
24	FCT_LRM_PLACED_ COLLATERAL	Fact LRM Placed Collateral	This table stores the liquidity specific procedded attributes for placed Collateral as per Liquidity Risk regulations. Placed Collateral definitions happen in DIM PLACED COLLATERAL and this table serves as additional set of attributes for FACT PLACED COLLATERAL.	Processed
25	FCT_MGMT_REPORTING	Fact Management Reporting	This table stores the management reporting data related to organization and product profitability/income statement/balance sheet.	Processed
26	FCT_PLACED_COLLATERAL	Fact Placed Collateral	This table stores the details of collateral which are placed against an account.	Staging
27	FCT_RATING_DWNGRD_ COLL_SUMMARY	Fact Rating Downgrade Collateral Summary	This entity stores the details regarding loss of Rehypothecation Rights due to a downgrade for a placed collateral.	Processed
28	FCT_RATING_DWNGRD_ MTGNT_SUMM	Fact Rating Downgrade Mitigant Summary	This entity stores the details regarding loss of Rehypothecation Rights due to a downgrade for a mitigant.	Processed
29	FCT_REG_ACCOUNT_ SUMMARY	Fact Regulatory Account Summary	This table stores the regulatory reclassifications and other information as required for regulatory reporting.	Results
30	FCT_LEGAL_ENTITY_DETAILS	Fact Legal Entity Details	This table stores the details of the legal entity.	Staging

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
31	FCT_REG_AGG_CASH_FLOWS	Fact Regulatory Aggregated Cashflows	This entity stores the aggregated cashflows for regulatory reporting purposes.	Results
32	FCT_REG_CUSTOMER_ SUMMARY	Fact Regulatory Customer Summary	This table stores the details at a customer level.	Results
33	FCT_REG_GL_CASH_FLOWS	Fact Regulatory General Ledger Cashflows	This table stores the cashflow details of general ledger accounts for regulatory reporting requirements.	Results
34	FCT_REG_MITIGANTS_ SUMMARY	Fact Regulatory Mitigants Summary	This table stores the cashflow groups required for FR2052 a reporting.	Results
35	FCT_REG_PLACED_ COLLATERAL	Fact Regulatory Placed Collateral	This table stores the cashflow groups required for FR2052 a reporting.	Results
36	FCT_REG_RUN_LEGAL_ENTITY _MAP	Fact Regulatory Legal Entity Run Map	This table stores the reporting entity identifier for every regulatory reporting run.	Results
37	FCT_SUBST_PLACED_ COLLATERAL	Fact Substitutable Collateral	This entity stores the details of a collateral which has to be substituted.	Processed
38	FCT_SUBSTITUTABLE_ MITIGANTS	Fact Substitutable Mitigants	This entity stores the details of a mitigant which has to be substituted.	Processed
39	FCT_TRANSACTION_SUMMARY	Fact Transaction Summary	This table stores the transaction summary.	Results
40	FCT_TRD_ACCOUNT_TXN_ SUMMARY	Fact Trading Account Transaction Summary	This entity stores all Fact Trading Account Transaction details.	Results

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
41	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, and so on. They can be sold and appropriate profit/loss can be recognized based on appropriate accounting principles.	Staging
42	FCT_LLFP_ACCOUNT_ SUMMARY	Fact Loan Loss Forecasting And Provision Account Summary	This entity stores loan loss forecasting and provision account summary. Typically this table is an input from loan loss forecasting and provision (llfp) application.	Processed
43	FCT_REG_ACCT_MITIGANT_ MAPPING	Fact Regulatory Account Mitigant Mapping	This table stores the account mitigant mapping information.	Results
44	FCT_CR_CUSTOMER_ SUMMARY	Fact Credit Risk Customer Summary	This entity stores the details of various measures pertaining to the customer.	Staging
45	FCT_ASSETS_SOLD	Fact Assets Sold	This table stores the data of assets sold over a period of time. For example, banks sells loans to other parties.	Staging
46	FCT_ENTITY_INFO	Fact Entity Information	This entity stores the information about the various entities in the Oraganization Structure of the Financial Institution.	Staging
47	FCT_FIDUCIARY_SERV_ INVST_SUMM	Fact Fiduciary Services Investmnet Summary	This entity stores the details of investments done through a fiduciary account.	Staging`

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
48	FCT_MERCHANT_BANKING	Fact Merchant Banking	This entity stores the details of issues associated with a fiduciary account.	Staging
49	FCT_MITIGANT_REG_CAPITAL	Fact Mitigant Regulatory Capital	This table stores the regulatory capital information related to mitigants.	Processed
50	FCT_REG_TRANSACTION_ SUMMARY	Fact Regulatory Transaction Summary	This table stores the summary of regulatory transactions. For example, amount of securities sold or transferred from HTM to AFS.	Results
51	FCT_SECURITIZATION_POOL	Fact Securitisation Pool	This table stores the information on the securitization pool.	Processed
52	FCT_SEC_EXPOSURES	Fact Securitisation Exposures	This entity stores all the Securitisation Exposures for Basel II processing.	Processed
54	FCT_INSTR_PROPOSED_TXNS	Fact Instrument Proposed Transactions	This table stores the proposed set of instruments that are transacted by the Financial Institution.	Staging
55	FCT_NON_SEC_EXPOSURES	Fact Non Securitisation Exposures	This entity stores all the Securitisation Exposures.	Processed
56	FCT_NETTABLE_POOL	Fact Nettable Pool	This entity stores all Pools created for Netting.	Processed
57	FCT_PAYMENTS_SUMMARY	Fact Payment Summary	This entity stores the payment value, Receipt or inward value and Netted (payment and receipts) value aggregated at currency level in natural currency and reporting currency.	Results

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
58	FCT_CAP_INSTR_POSITIONS	Fact Capital Instrument Positions	This entity stores the regulatory position of capital instruments and details of treatment to capital instrument under Basel I and III regulations.	Staging
59	FCT_REG_EXP_MITIGANT_ MAPPING	Fact Regulatory Exposure Mitigant Mapping	This table is planned for deprecation.	Processed
60	FCT_CP_CREDIT_QUALITY_ SUMMARY	Fact Counterparty Credit Quality Summary	This table stores the output of CVA calculation done for a given counterparty.	Processed
61	FCT_MORT_SERV_RIGHTS	Fact Mortgage Servicing Rights	This tables stores the Mortgage Servicing Rights valuation information. Mortgage Servicing Rights values are typically book value, fair value, and so on.	Processed
62	FCT_REG_LE_CAPITAL_ SUMMARY	Fact Regulatory Legal Entity Capital Summary	This table stores the regulatory capital related information for the legal entity. This table stores all information from the GL related to the capital structure processing and the various levels of capital computations processed and computed by the application. This stores information at the granularity of the capital line item, for each capital component group. Some of the line items stored are Tier 1 Capital, Tier 2 Capital, Total Capital, and Capital Ratio.	Results

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
63	FCT_REG_CP_CAPITAL_ SUMMARY	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 and default fund calculations.	Processed
64	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 by the bank is for default fund contribution or for other OTC transactions, with a central counterparty. It is generally used for cleared transactions and default fund contributions.	Processed
65	FCT_REG_CAP_POOL_ SUMMARY	Fact Regulatory Capital Pool Summary	This table stores the information of all exposures to a bank, which are at a pool level. Some of the pool identified for this table are OTC nettable pool and retail pools. This table stores the regulatory capital information related to these pools.	Processed
66	FCT_LOANS_SERVICED	Fact Loans Serviced	This table stores the details of loans serviced by bank. They may or may not be originated by the bank.	Staging
67	FCT_FUND_CIS_COMPOSITION	Fact Fund CIS Composition	This entity stores the composition of the Investment funds.	Staging

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
68	FCT_CAP_INSTR_TXNS	Fact Capital Instrument Transactions	This entity stores the transactions on the capital instruments.	Staging
69	FCT_CREDITRISK_ACCOUNT_SUMMARY	Fact Credit Risk Account Summary	This entity stores the different measures of exposures pertaining to Credit Risk Analytics.	Processed
70	FCT_LIQUIDITY_REPORTING	Fact Liquidity Reporting	This entity stores the measure to be reported for each of the Liquidity Reporting line. Reporting Measures are the amounts displayed in standard template prescribed by supervisor. For example, Reporting lines and measures mentioned in QIS Reporting Template reporting lines, reporting lines and measures mentioned in "Instructions for completing and submitting the Liquidity Monitoring Tool (4-G) template".	Processed
71	FCT_LIQUIDITY_REP_LINE_COMMENT	Fact Liquidity Reporting Line Comments	This entity stores the comments for each of the Liquidity Reporting line. Reporting Lines are the standard template reporting lines prescribed by supervisor. For example, Reporting lines mentioned in QIS Reporting Template reporting lines, reporting lines mentioned in "Instructions for completing and submitting the Liquidity Monitoring Tool (4-G) template".	Processed

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
72	FCT_REG_EQ_INV_SUMMARY	Regulatory Equity Investmnet Summary	This table stores the summary of equity investments done by entity as per regulatory equity investment types.	Results
73	FCT_OTTI_FV_PROJECTIONS	Fact Other Than Temporary Impairment Fair Value Projections	This table store the assumptions to determination criteria and value for Other-than-temporary impairment for product investment.	Processed
74	FCT_OPSRISK_LOSS_ PROJECTION	Fact Operational Risk Loss Projection	This table stores the projection of operational losses across required measurement units and period for a given operational loss data category.	Processed
75	FCT_OTTI_FV_ASSUMPTIONS	Fact Other Than Temporary Impairment Fair Value Assumptions	This table stores the assumptions to determination criteria and value for Other-than-temporary impairment for product investment.	Processed
76	FCT_SCEN_VARIABLE_ PROJECTION	Fact Scenario Variable Summary	This table stores the projection of various variables for Enterprise Stress Testing or any other similar usage.	Processed
77	FCT_CAP_INSTR_PROPOSED_ REDEEM	Fact Capital Instrument Proposed Redemption	This entity stores the proposed set of capital instruments that are redeemed or converted by the Financial Institution.	Staging
78	FCT_CAP_INSTR_PROPOSED_ ISSUES	Fact Capital Instrument Proposed Issues	This entity stores the proposed set of capital instruments that are issued by the Financial Institution.	Staging

Sl. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
79	FCT_REGULATORY_PLANNED_ ACTION	Fact Regulatory Planned Actions	This table stores the impact of Planed Actions on various measures like capital, RWA, exposure, and so on that are required for Basel III and Dodd-Frank schedule. Financial Institutions must capture all material planned actions, including, but not limited to, the roll-off or sale of an existing portfolio, the issuance of regulatory capital instruments and other strategic corporate actions.	Processed
80	FCT_REPORTING_GROUP_ OUTPUT	Fact Reporting Group Output	This entity stores the outputs at Reporting Group Level.	Processed
81	FCT_STANDARD_ACCT_HEAD	Fact Standard Accounting Head	This table stores the data as per the standard accouning heads.	Processed
82	FCT_CARDS_BALANCE_ SUMMARY	Fact Cards Balance Summary	This table stores the cards summary details of cards like eop bal, interest rate, current payment, and others against card balance category.	Staging
83	FCT_PFT_ACCOUNT_ SUMMARY	Fact PFT Account Summary	This table stores the account level measures computed by the PFT application.	Processed

3.2 Mapping of Results to Reporting Requirements of Lombard Risk

Figure 28 explains the flow of data between OFSAA and AgileREPORTER:

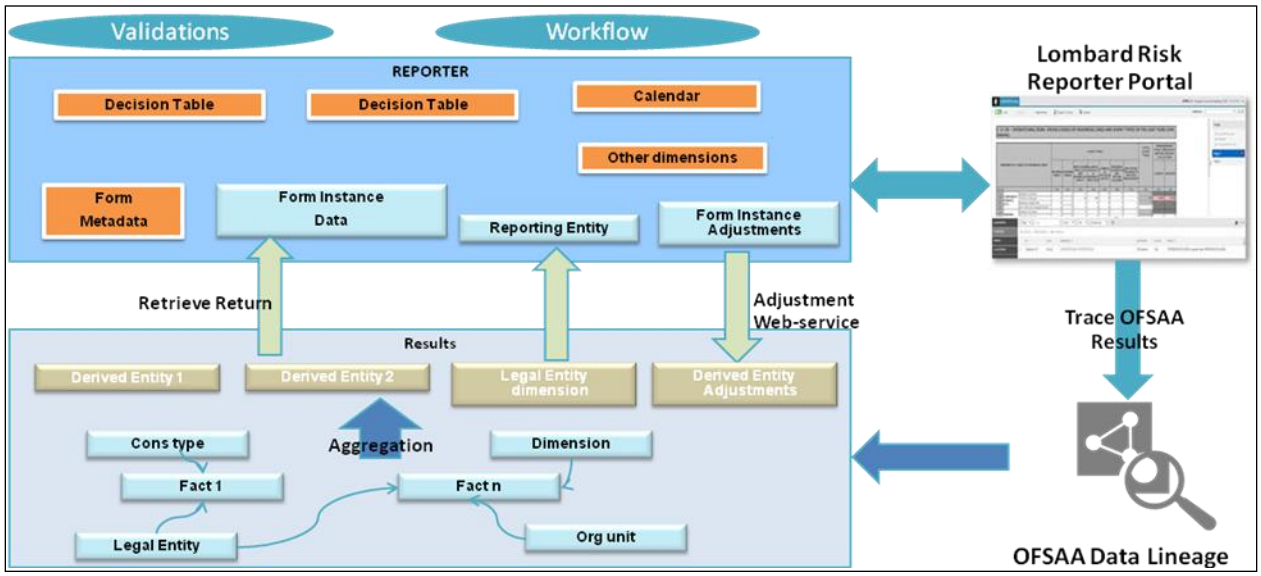


Figure 28: Data Flow between OFSAA and AgileREPORTER

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.

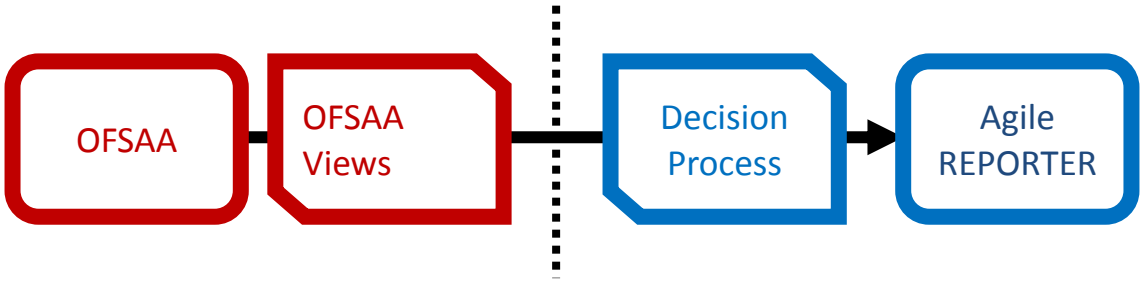


Figure 29: Decision Process in AgileREPORTER

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 maintainance 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:

Regulatory Reporting (REG REP) Solution 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.

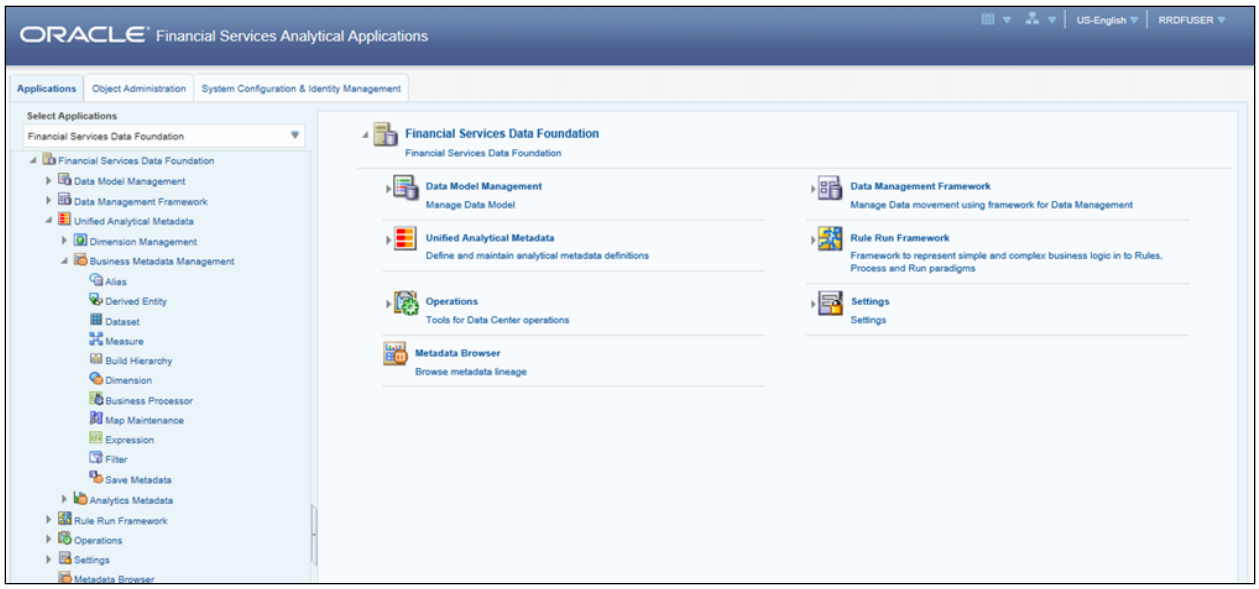


Figure 30: Landing Page

4.2 Business Metadata

In addition to Derived Entity, REG REP uses the following OFSAA features to create the business metadata. For details on the features, refer to OFS Analytical Applications Infrastructure User Guide in OHC 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 US FED. Regulatory Reporting (REG REP) 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.

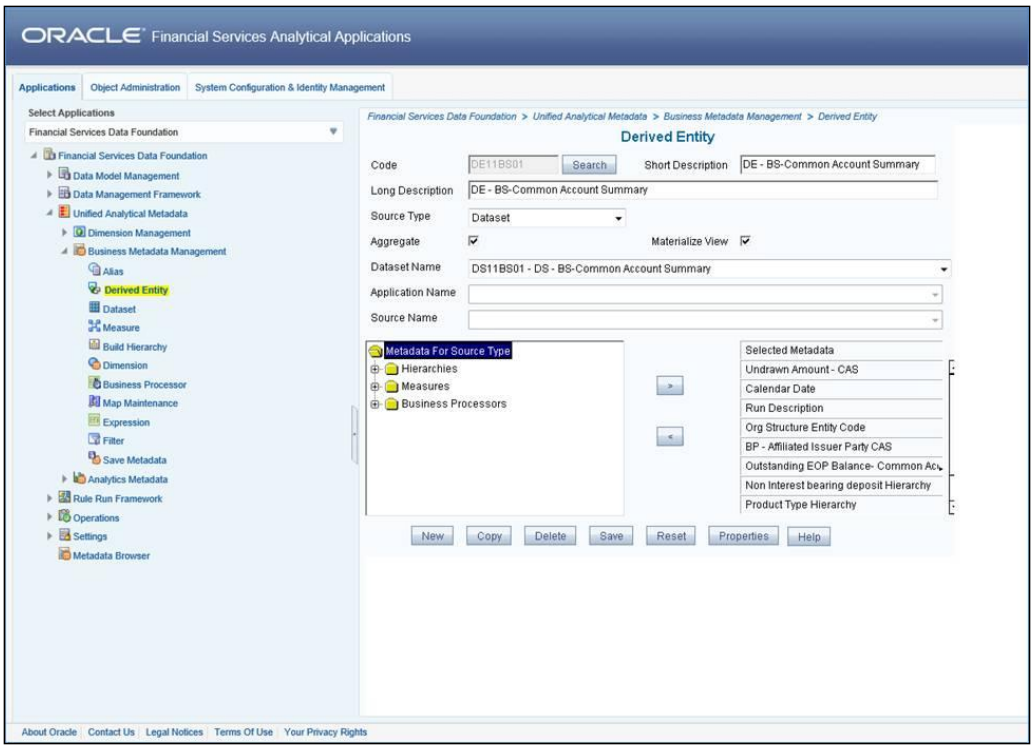


Figure 31: Derived Entity User Interface

Derived Entities must have AS_OF_DATE and LEGAL_ENTITY as the 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 OFS Analytical Applications Infrastructure User Guide in (OHC) 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 US FED uses the following Rules Run Framework of OFSAA. For details on the features refer to OFS Analytical Applications Infrastructure User Guide in OHC documentation library.

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

  REG REP 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).

Table 11: Dimension Mapping Example 1

Cell References	Is Derived?	Product Type	Customer Type	Branch Country	Measure
BHCK1234	No	Real Estate Loans	Individuals	US	Amortized Cost
BHCK1235	No	Real Estate Loans	Individuals	Non-US	Amortized Cost
BHCK9088	Yes				
BHCK1598	No	Credit Cards	Individuals		Amortized Cost
BHCK7075	No		Foreign Banks	Non-US	Amortized Cost
BHCK7075	No		Sovereign	Non-US	Amortized Cost

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

Table 12: Dimension Mapping Example 2

Cell References	Is Derived?	Product Type	Customer Type	Branch Country	Measure
BHCK1234	No	RELO	IND	US	MREG0001
BHCK1235	No	RELO	IND	Non-US	MREG0001
BHCK9088	Yes				
BHCK1598	No	CC	IND		MREG0001
BHCK7075	No		FB	Non-US	MREG0001
BHCK7075	No		SOV	Non-US	MREG0001

Note: All the dimension member codes that are used in the decision table are preseeded 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 (REG REP) Solution.

In some cases, certain sections of the schedule or the entire schedule can be a list of data rows without any mapping to 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 USFED 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.

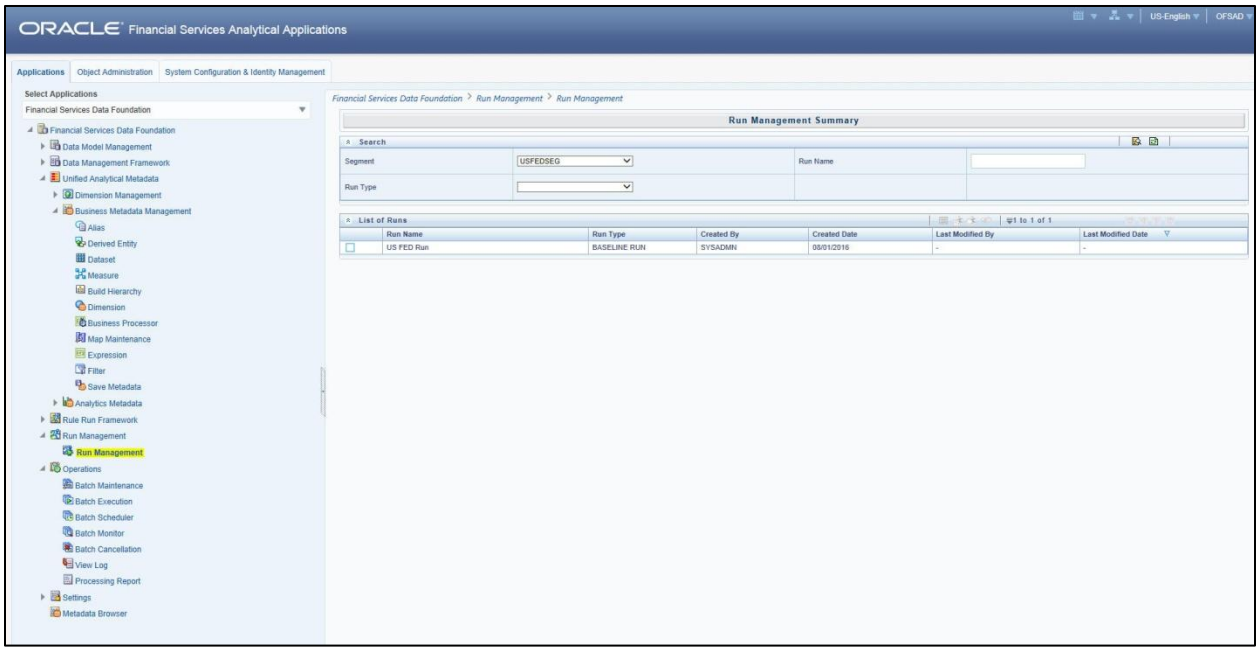


Figure 32: Search Section

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.

- **View**: Selecting a single row out of the grid enables the View icon. Clicking the View icon allows you to view the detailed definition of a Run on a read-only basis. The View icon is only enabled when a single Run has been 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.

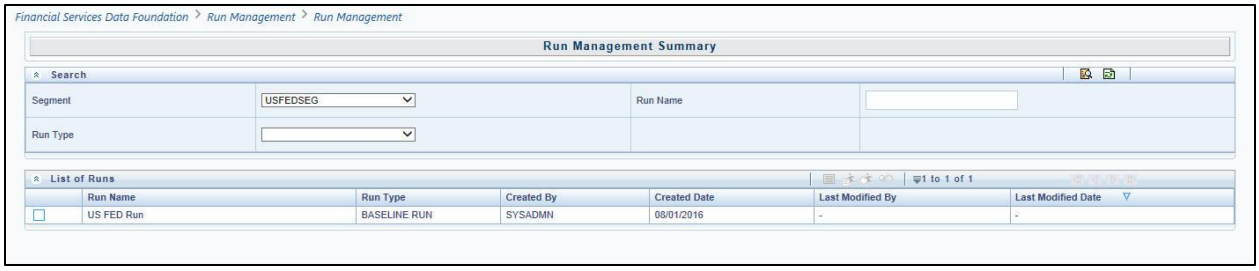


Figure 33: Run Management Summary

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 entitiy, all its child legal entities are also used.
- **Consolidation Hierarchy**: Legal Entity Hierarchy is used for selecting the required hierarchyfor the consolidated run. This parameter is not required for solo run.

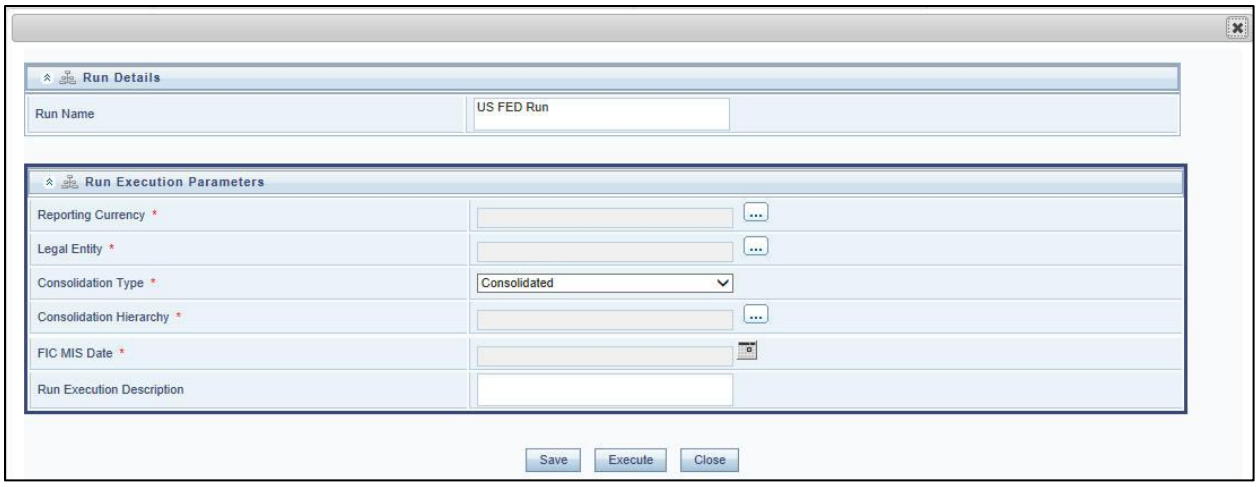


Figure 34: Run Parameters Window

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 (HFSDF001)
- Reporting Currency Code for Run (HFSDF002)
- Legal Entity Hierarchy for Run (HFSDF003)

NOTE: For further details on Save Hierarchy, refer to *Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack 8.0.4.0.0* 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.

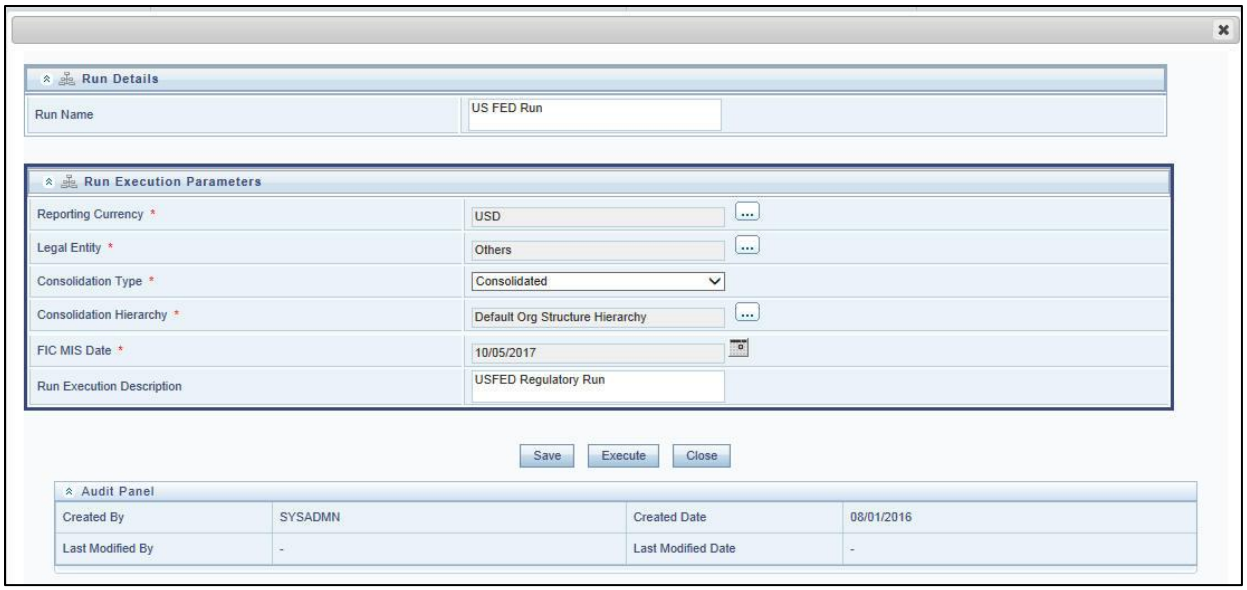


Figure 35: Run Execution Parameters Window

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.

Figure 36: Run Details

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.
- **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 8.0.4.0.0 on OHC. To execute a Run, the execute run role should be mapped to your user profile. Currently, the users mapped under FSDF Admin or FSDF Operator User Groups automatically have this role.

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.

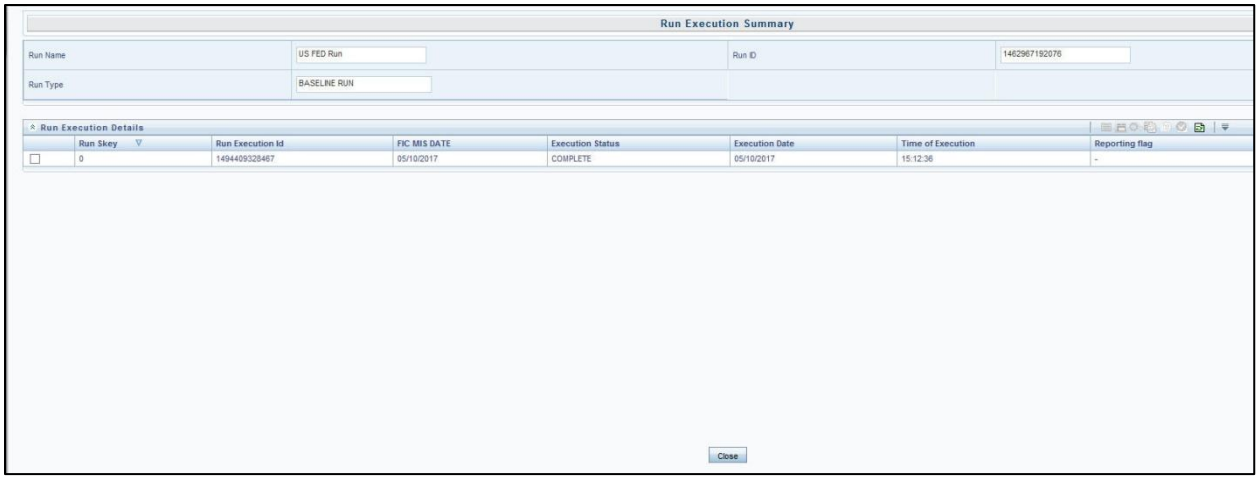


Figure 37: Run Execution Summary

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.

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:

1. **MDB Publish**: Execute the batch, **INFODOM_MDB**
   Logs: MDB logs are generated under deployed area **/Context_Name/logs/MDB_XXXX.log**
2. **Data Elements Wrapper Execution**: After MDB Publish is completed succesfully 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_USFED

   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 Maintainance screen.

   a. Login to Oracle Financial Services Analytical Applications interface with your credentails.
   b. Navigate to **Applications → Financial Services Data Foundation → Operations → Batch Maintenance**
   c. Select **Batch Name (<INFODOM>_POP_DATA_ELEMENTS_USFED)**
   d. Select **Task1** and click the **Edit** button. The *EditTask Definiton* 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.

Sl. 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	'Y'
3	P_MDR_USAGE_FLAG	Usage Parser Flag	Y/N	'N'

Sl. No.	Parameter	Description	List of Values	Default Value
4	P_MDR_MD_DF_FLAG	Metadata to DataFlow Flag	Y/N	'N'
5	P_INFODOM_NAME	Infodom Name	##INFODOM##	<Value of the Infodom where USFED is installed>. For example: 'USFEDINFO'
6	P_SEGMENT_CODE	Segment Code	##SEGMENT##	<Value of Segment Code which is used while installing USFED>. For example: 'USFEDSEG'
7	P_REG_APP_ID	Application Identifier	##APPID##	Application ID for US FED. For example: 'OFS_REG_REP_USFED'

- **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.

DASHBOARD ID	JURISDICTION CODE	REPORT CODE	INCLUDE REPORT
1	USFED	FRY-9C	Y
2	USFED	FRY-9LP	Y
3	USFED	FFIEC-009	Y
4	USFED	FFIEC-009a	Y
5	USFED	FRY-15	Y
6	USFED	FRY-20	Y
7	USFED	FRY-12	Y
8	USFED	FRY-11	Y
9	USFED	FRY-11s	Y
10	USFED	FR-2314	Y
11	USFED	FR-2314s	Y
12	USFED	FR-2052A	Y
13	USFED	FR-2052B	Y
14	USFED	FRY-14Q	Y
15	USFED	FRY-14A	Y
16	USFED	FFIEC-031	Y
17	USFED	FR-2886B	Y
18	USFED	FFIEC-041	Y
19	USFED	FRY7N	Y
20	USFED	FFIEC101	Y
21	USFED	FR-2900	Y
22	USFED	FDIC-8020	Y
23	USFED	FRY-14M	Y
24	USFED	FR-2644	Y

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 DataFlow 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_USFED 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_USFED. No need to modify this value.
- **Application Identifier (P_REG_APP_ID)**: This is the application identifier of the product (OFS_REG_REP_USFED). 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_ELEMENTS	Calculates Ultimate Table/Column for Business Metadata. The message “Completed ULTIMATE_METADATA_ELEMENTS” indicates that the Business Metadata Ultimate elements parsing is complete.
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_ELEMENTS	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.

Flag	Batch Run ID	Indication
P_METADATA_FLAG	POP_MDR_LINEAGE_METADATA	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_REG_REP_USFED	Processes Dashboard Elements from FSI_M_CELL_DIM_VAL and FSI_M_CELL_DEFN. The message “Completed REPORT_ELEMENTS for OFS_REG_REP_USFED” indicates that the Dashboard Metadata parsing is complete.
P_REPORT_FLAG	REPORT_TO_TARGET_MAP_OFS_REG_REP_USFED	Processes Dasbboard with Processed Business Metadata. The message “Completed REPORT_TO_TARGET_MAP for OFS_REG_REP_USFED” indicates that the Dashoboard to Business Metadata parsing is complete.
P_REPORT_FLAG	REPORT_TO_SOURCE_MAP_OFS_REG_REP_USFED	Processes Dasbboard with Processed MDR Lineage. The message “Completed REPORT_TO_SOURCE_MAP for OFS_REG_REP_USFED” indicates that the Dashboard to Data Flow Metadata parsing is complete.
P_REPORT_FLAG	POP_FINAL_ELEMENTS_OFS_REG_REP_USFED	Processes Final Data Elements for USFED. The message “Completed POP_FINAL_ELEMENTS for OFS_REG_REP_USFED” indicates that all the Dashboard related Metadata parsing is complete.

Flag	Batch Run ID	Indication
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_USAGE	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_METADATA	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.)

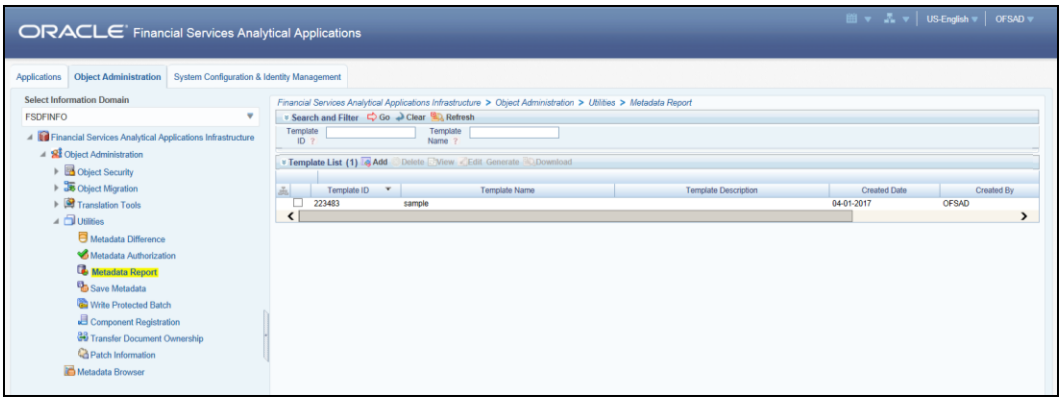
NOTE: It is recommended that the following SQL statement must be executed in Config Schema, if this INDEX is not created:

```
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
/
```

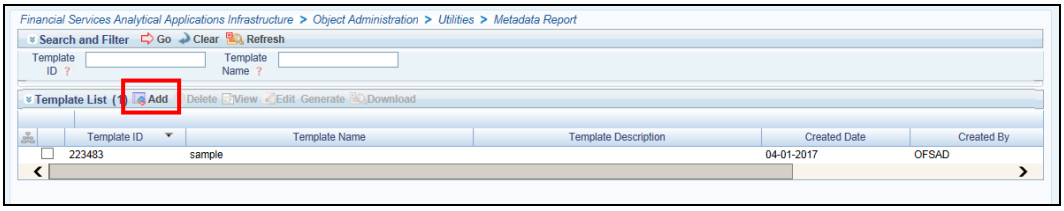
6.2 Create and Export Metadata Report Templates

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

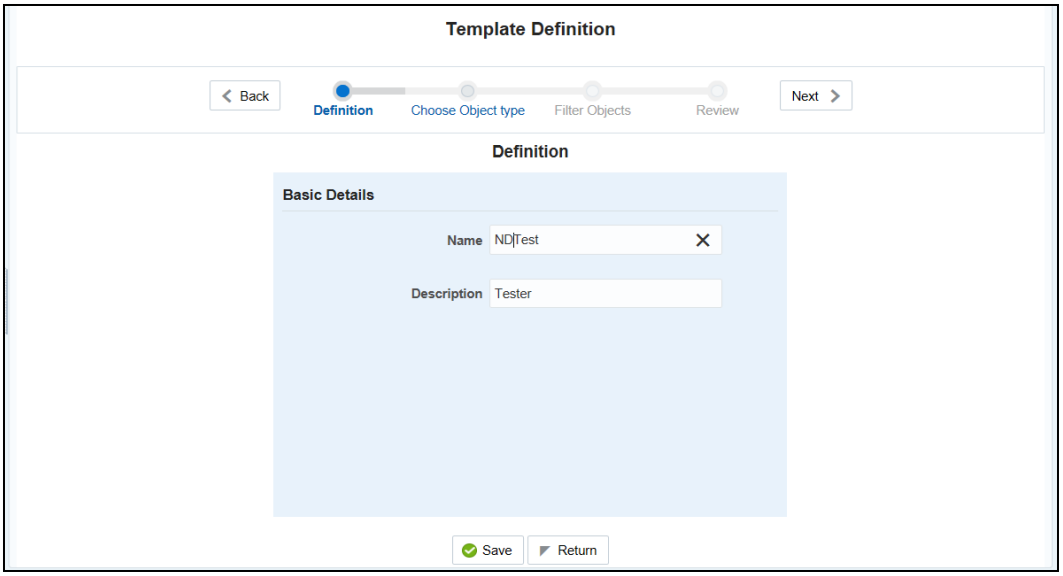
1. Navigate to **Object Administration → Utilities → Metadata Report**.



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.



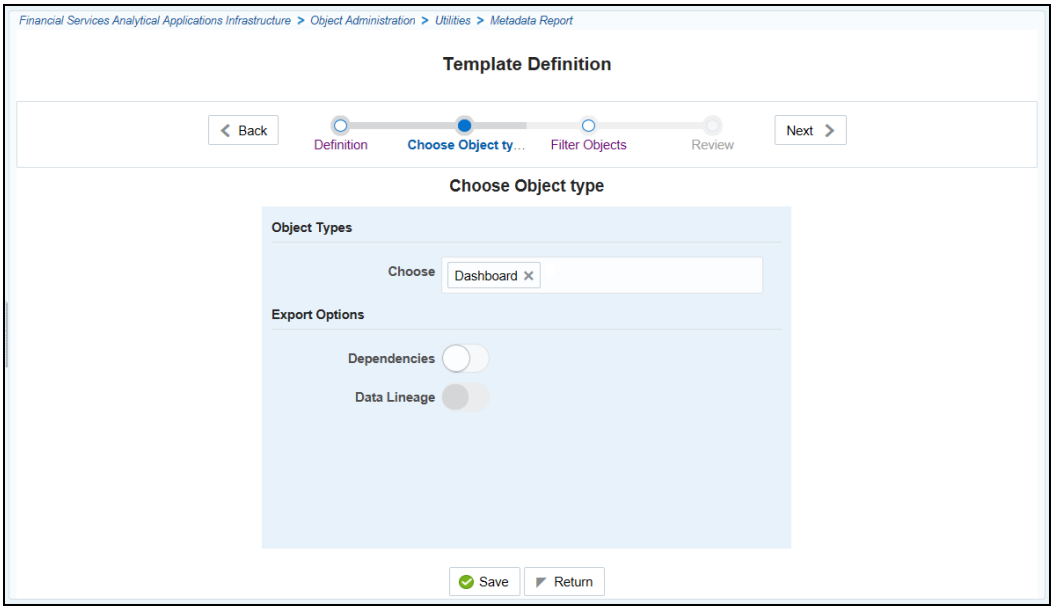
4. Select the desired object from the **Object Type** dropdown to be exported.

   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.

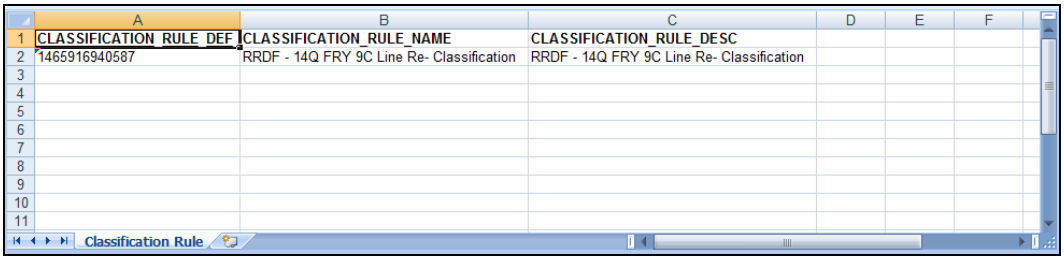
   Dependencies: Metadata object is dependent on several other metadata objects. Metadata object is also used (that is, consumed) in several other metadata objects. Dependency or usage tree can be of any depth. For example, a rule can be dependent on a hierarchy, business processor, and dataset. Further, 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**.



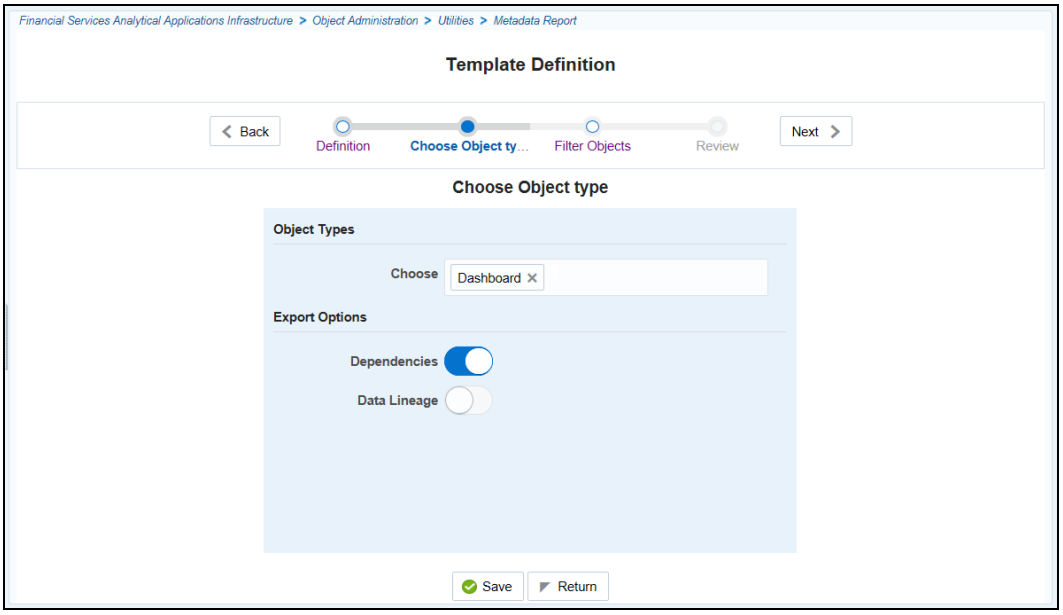
The exported sample report for Individual is as follows:



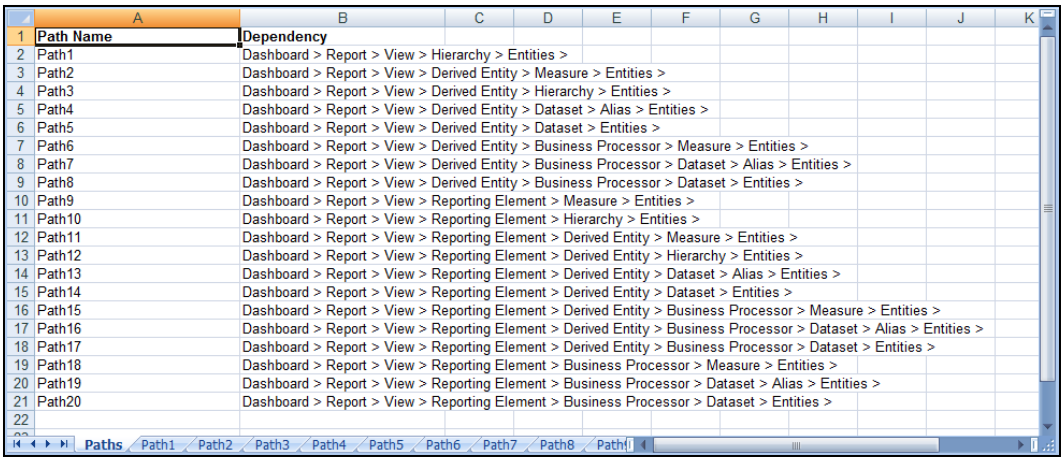
	A	B	C
1	CLASSIFICATION_RULE_DEF	CLASSIFICATION_RULE_NAME	CLASSIFICATION_RULE_DESC
2	1465916940587	RRDF - 14Q FRY 9C Line Re- Classification	RRDF - 14Q FRY 9C Line Re- Classification

Classification Rule

For Relational: In the **Export Options**, select **Dependencies**.



The exported sample report for Relational is as follows:



	A	B
1	Path Name	Dependency
2	Path1	Dashboard > Report > View > Hierarchy > Entities >
3	Path2	Dashboard > Report > View > Derived Entity > Measure > Entities >
4	Path3	Dashboard > Report > View > Derived Entity > Hierarchy > Entities >
5	Path4	Dashboard > Report > View > Derived Entity > Dataset > Alias > Entities >
6	Path5	Dashboard > Report > View > Derived Entity > Dataset > Entities >
7	Path6	Dashboard > Report > View > Derived Entity > Business Processor > Measure > Entities >
8	Path7	Dashboard > Report > View > Derived Entity > Business Processor > Dataset > Alias > Entities >
9	Path8	Dashboard > Report > View > Derived Entity > Business Processor > Dataset > Entities >
10	Path9	Dashboard > Report > View > Reporting Element > Measure > Entities >
11	Path10	Dashboard > Report > View > Reporting Element > Hierarchy > Entities >
12	Path11	Dashboard > Report > View > Reporting Element > Derived Entity > Measure > Entities >
13	Path12	Dashboard > Report > View > Reporting Element > Derived Entity > Hierarchy > Entities >
14	Path13	Dashboard > Report > View > Reporting Element > Derived Entity > Dataset > Alias > Entities >
15	Path14	Dashboard > Report > View > Reporting Element > Derived Entity > Dataset > Entities >
16	Path15	Dashboard > Report > View > Reporting Element > Derived Entity > Business Processor > Measure > Entities >
17	Path16	Dashboard > Report > View > Reporting Element > Derived Entity > Business Processor > Dataset > Alias > Entities >
18	Path17	Dashboard > Report > View > Reporting Element > Derived Entity > Business Processor > Dataset > Entities >
19	Path18	Dashboard > Report > View > Reporting Element > Business Processor > Measure > Entities >
20	Path19	Dashboard > Report > View > Reporting Element > Business Processor > Dataset > Alias > Entities >
21	Path20	Dashboard > Report > View > Reporting Element > Business Processor > Dataset > Entities >
22		

Paths | Path1 | Path2 | Path3 | Path4 | Path5 | Path6 | Path7 | Path8 | Path

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

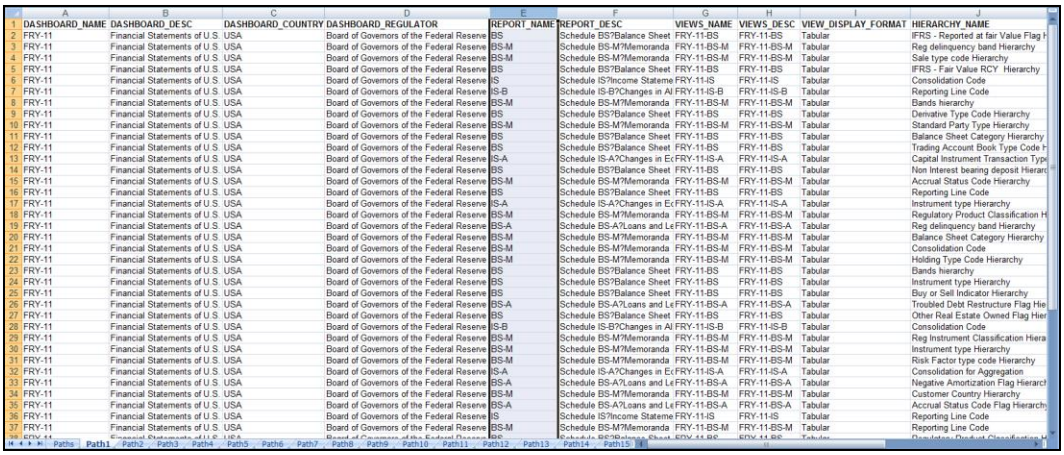
Each path tells how the dependency/usage is derived from dashboard to entity or vice versa involving various OFSAA object types like Derived Entity, Hierarchies, Datasets, Measures, and so on.

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

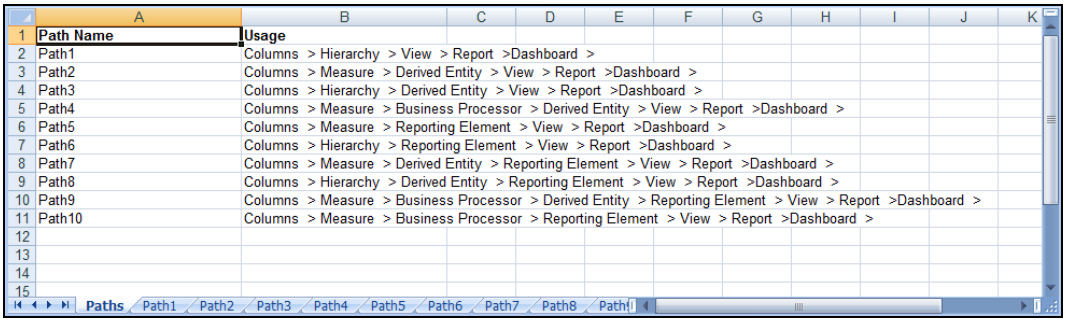
For every dependent object type displayed in each path sheet, the following columns are displayed:

- 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.

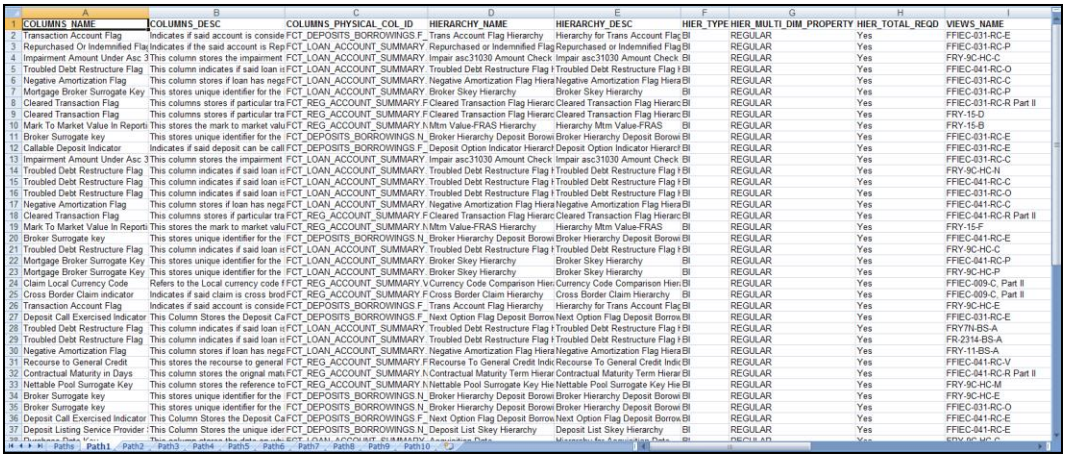


The Usage sample report (generated by default when Dependencies is selected) is as follows:



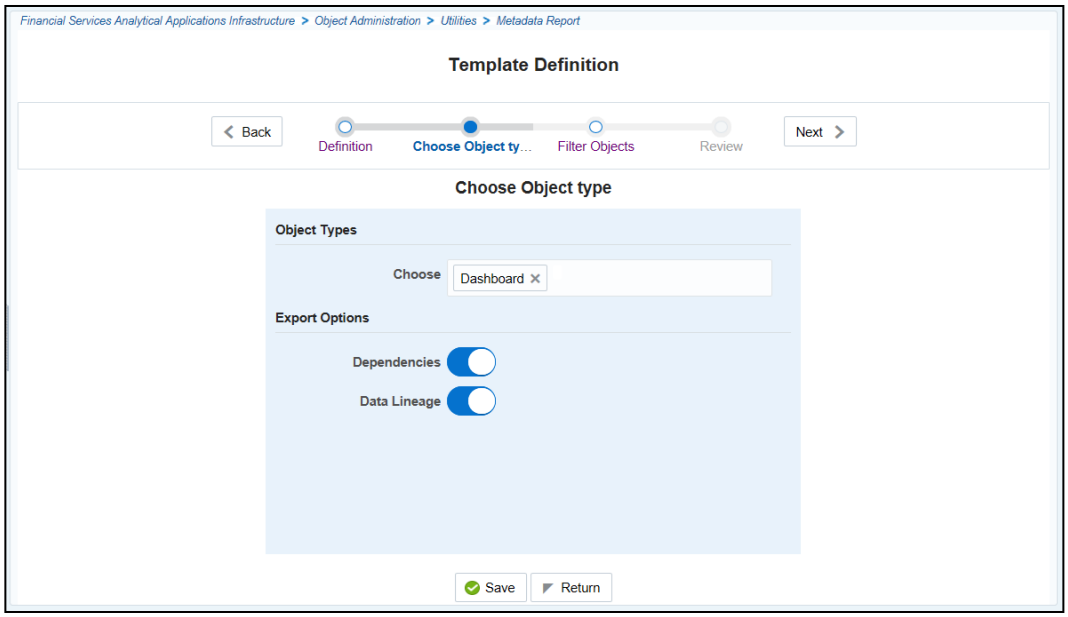
	A	B
1	**Path Name**	**Usage**
2	Path1	Columns > Hierarchy > View > Report >Dashboard >
3	Path2	Columns > Measure > Derived Entity > View > Report >Dashboard >
4	Path3	Columns > Hierarchy > Derived Entity > View > Report >Dashboard >
5	Path4	Columns > Measure > Business Processor > Derived Entity > View > Report >Dashboard >
6	Path5	Columns > Measure > Reporting Element > View > Report >Dashboard >
7	Path6	Columns > Hierarchy > Reporting Element > View > Report >Dashboard >
8	Path7	Columns > Measure > Derived Entity > Reporting Element > View > Report >Dashboard >
9	Path8	Columns > Hierarchy > Derived Entity > Reporting Element > View > Report >Dashboard >
10	Path9	Columns > Measure > Business Processor > Derived Entity > Reporting Element > View > Report >Dashboard >
11	Path10	Columns > Measure > Business Processor > Reporting Element > View > Report >Dashboard >

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

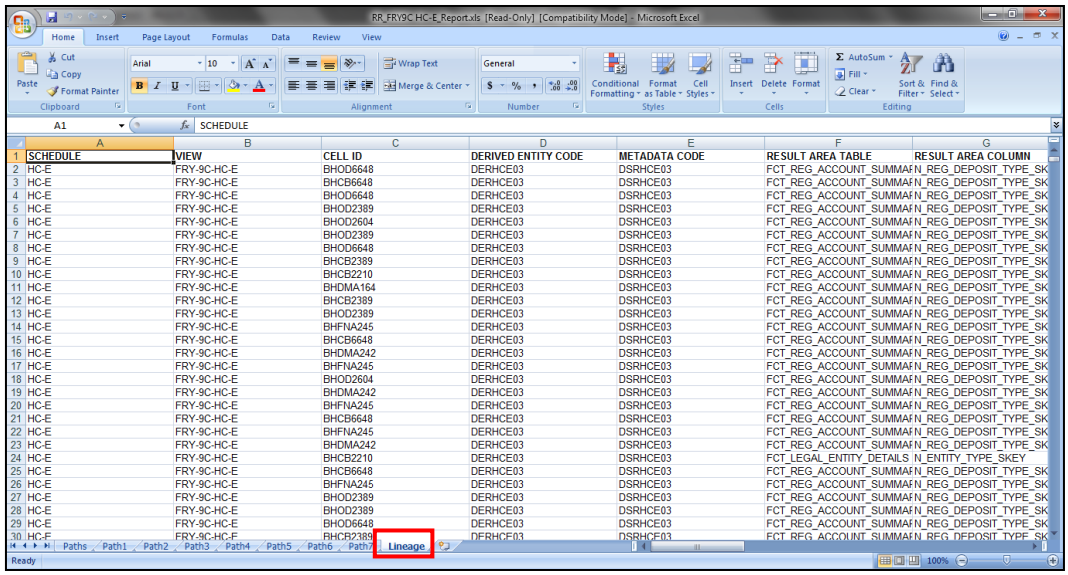


Select **Data Lineage** in **Template Definition → Choose Object Type** to export the lineage details up to the Staging Columns level.

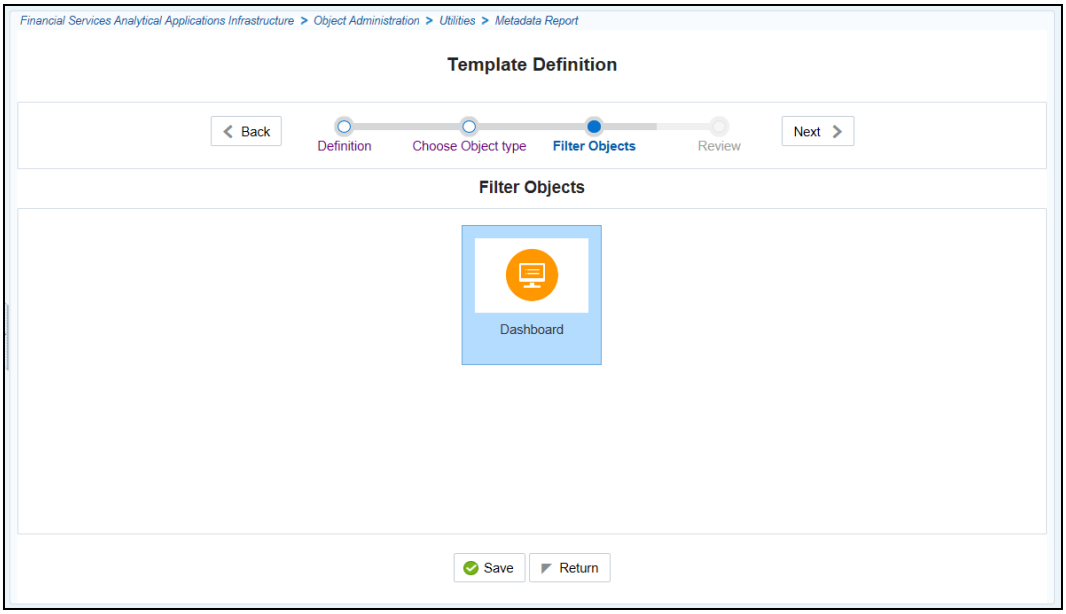
NOTE: **Data Lineage** can be selected only if **Dependencies** is opted.



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).

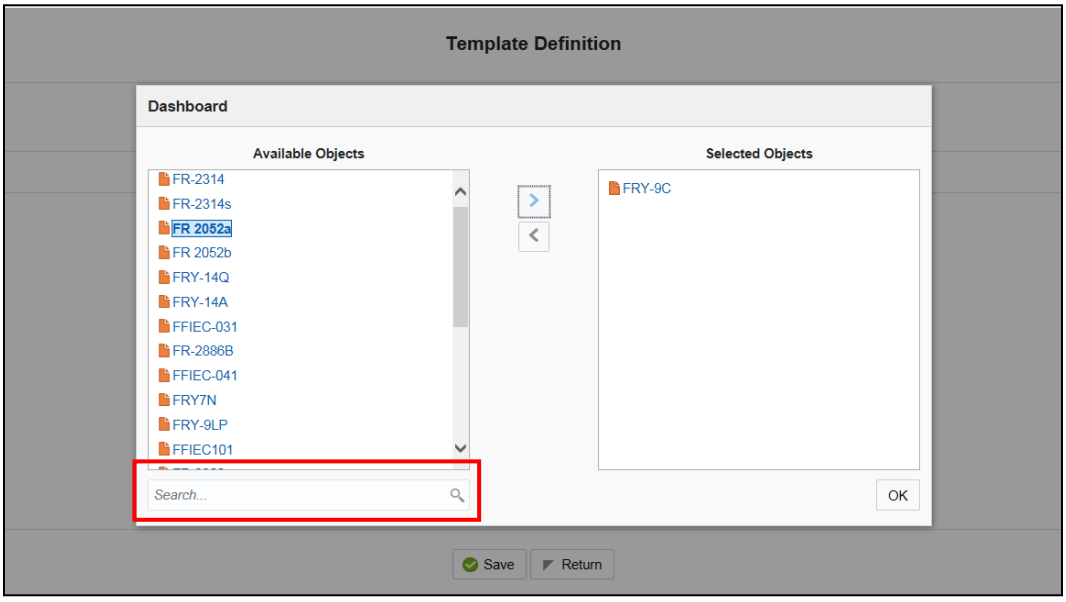


5. Select **Filter Objects** to see the selected objects.



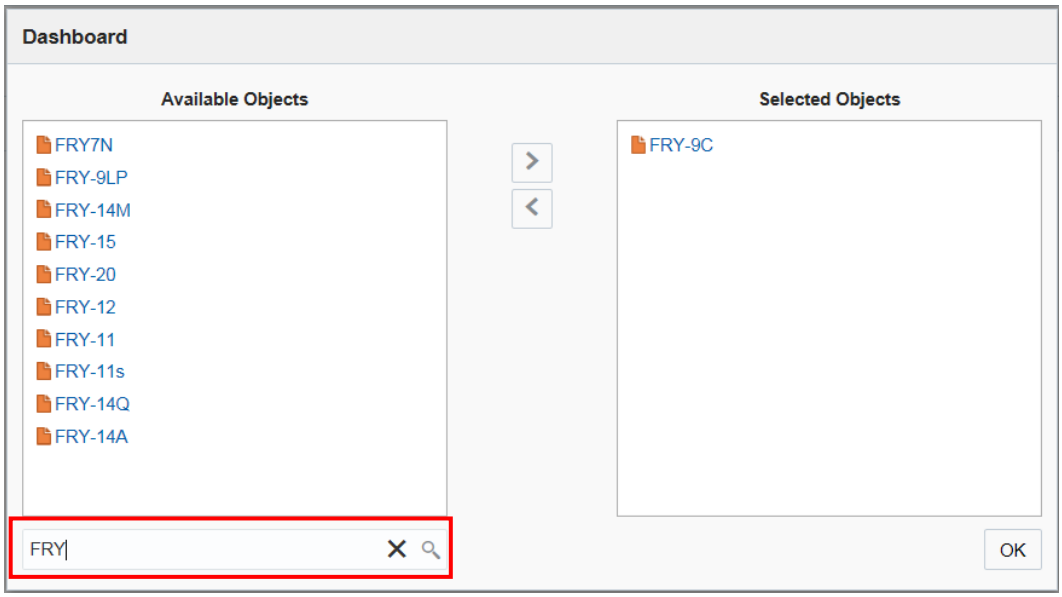
6. Select one **Filter Object** from the **Available Objects** and Click  to add a **Selected Object**.

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

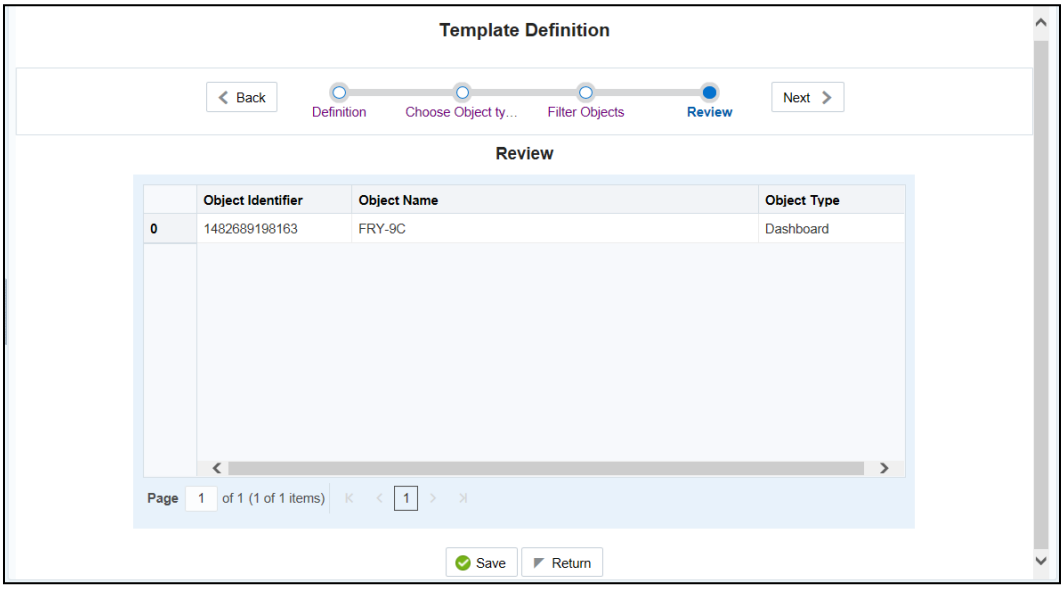


When the object list is huge, use the Search option as shown above. Type first three letters of the Filter Object name and the relevant Filter Objects is displayed.

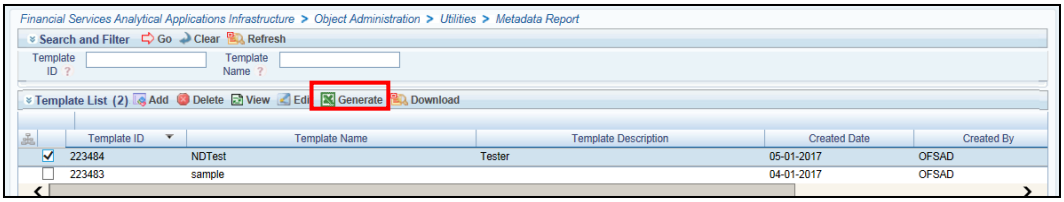
NOTE: You can type the complete Filter Object name to select and add to the Selected Objects.



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



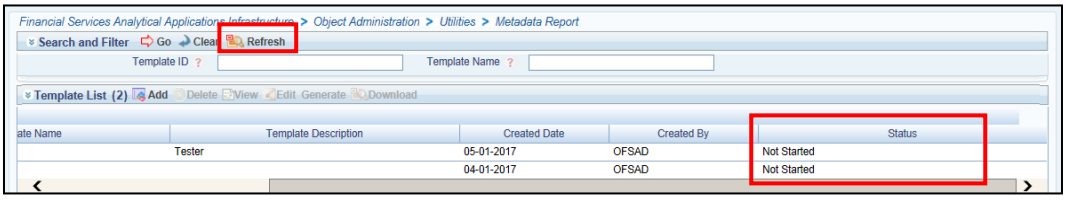
8. Click **Return** to go to the **Summary** page.



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.



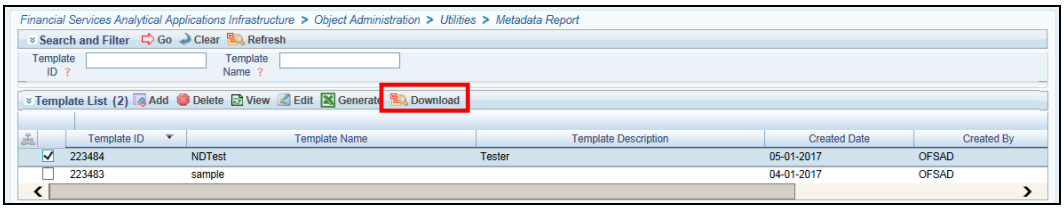
For Excel Export, the following are the Status values:

- **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

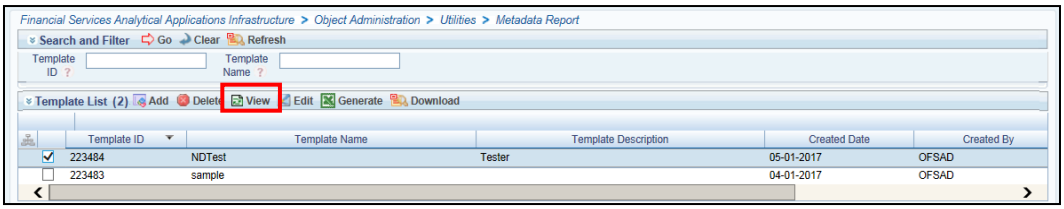
The following user groups are pre-seeded in the component that helps user to get access to the Metadata Report Extract screen.

a. MDR View Group: Helps users to see Metadata Report Extract with View permissions.
b. 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).

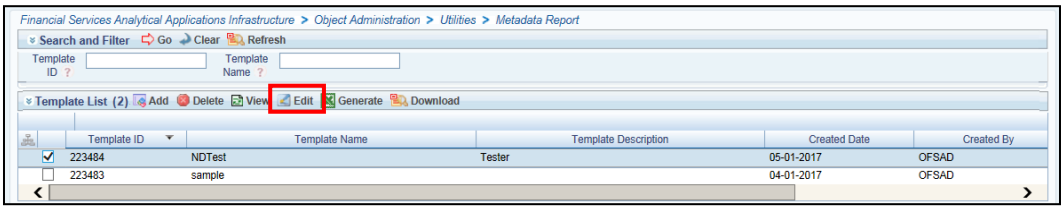


NOTE: The Metadata Report Templates excel report is opened in view-only mode.

6.4 Modify/Edit Metadata Report Templates

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

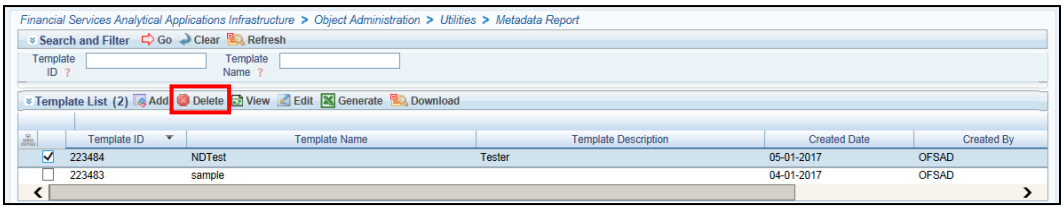
1. Select a **Template** in the **Template List** in **Summary** screen.
2. Click **Edit** icon to modify the generated Metadata Report Templates excel report (after the export status shows as completed).



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:

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 Chceks / 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 Name	Report Template
FDIC-8020	FDIC8020_V1
FFIEC-009	FFIEC009_V1
FFIEC-009A	FFIEC009A_V1
FFIEC-031	FFIEC031_V9
FFIEC-041	FFIEC041_V9
FFIEC-101	FFIEC101_V2
FR-2052A	FR2052A_V3
FR-2314	FR2314_V2
FR-2314S	FR2314S_V2
FR-2644	FR2644_V2
FR-288SB	FR2886B_V1

Report Name	Report Template
FR-2900	FR2900_V3
FR Y-11	FRY11_V2
FR Y-11S	FRY11S_V2
FR Y-12	FRY12_V2
FR Y-14A OR	FRY14AOR_V2
FR Y-14A RCI	FRY14ARCI_V1
FR Y-14A RCT	FRY14ARCT_V2
FR Y-14A SCENR	FRY14ASCENR_V1
FR Y-14A SUMM	FRY14ASUMM_V3
FR Y-14M	FRY14M_V1
FR Y-14MA1	FRY14MA1_V1
FR Y-14MA2	FRY14MA2_V1
FR Y-14MB1	FRY14MB1_V1
FR Y-14MB2	FRY14MB2_V1
FR Y-14MC1	FRY14MC1_V1
FR Y-14MD1	FRY14MD1_V1
FR Y-14MD2	FRY14MD2_V1
FR Y-14QA1	FRY14QA1_V3
FR Y-14QA AUTO	FRY14QAAUTO_V1
FR Y-14QA INTAUTO	FRY14QAINTAUTO_V1
FR Y-14QA INTCARD	FRY14QAINTCARD_V1
FR Y-14QA INTFM	FRY14QAINTFM_V1
FR Y-14QA INTHE	FRY14QAINTHE_V1
FR Y-14QA INTL OTHCONS	FRY14QAINTLOTHCONS_V1
FR Y-14QA INTSB	FRY14QAINTSB_V1
FR Y-14QA STUDENT	FRY14QASTUDENT_V1
FR Y-14QA US OTHCONS	FRY14QAUSOTHCONS_V1
FR Y-14QA USSB	FRY14QAUSSB_V1

Report Name	Report Template
FR Y-14Q BAL	FRY14QBAL_V2
FR Y-14Q CIL	FRY14QCIL_V1
FR Y-14Q CRE	FRY14QCRE_V1
FR Y-14Q FVO/HFS	FRY14QFVOHFS_V2
FR Y-14Q MSR	FRY14QMSR_V1
FR Y-14Q OPSRISKBL	FRY14QOpsriskBL_V1
FR Y-14Q OPSRISKMS	FRY14QOpsriskMS_V1
FR Y-14Q OPSRISKRFR	FRY14QOpsriskRFR_V1
FR Y-14Q OPSRISKTH	FRY14QOpsriskTH_V1
FR Y-14Q OPSRISKUOM	FRY14QOpsriskUOM_V1
FR Y-14Q PPNR	FRY14QPPNR_V2
FR Y-14Q RCI	FRY14QRCI_V2
FR Y-14Q RCT	FRY14QRCT_V3
FR Y-14Q RETAIL AUTO	FRY14QRetailAuto_V1
FR Y-14Q RETAIL INTAUTO	FRY14QRetailIntauto_V1
FR Y-14Q RETAIL INTCARD	FRY14QRetailIntcard_V1
FR Y-14Q RETAIL INTFM	FRY14QRetailIntfm_V1
FR Y-14Q RETAIL INTHE	FRY14QRetailINTHE_V1
FR Y-14Q RETAIL INTL OTHCONS	FRY14QRetailIntlothcons_V1
FR Y-14Q RETAIL INTSB	FRY14QRetailIntsb_V1
FR Y-14Q RETAIL STUDENT	FRY14QRetailStudent_V1
FR Y-14Q RETAIL US OTHCONS	FRY14QRetailUSothcons_V1
FR Y-14Q RETAIL USSB	FRY14QRetailUssb_V1
FR Y-14Q SEC	FRY14QSEC_V2
FR Y-14Q SUPMNT	FRY14QSUPMNT_V2
FR Y-14Q TRADING	FRY14QTRADING_V3
FR Y-15	FRY15_V4
FR Y-15A	FRY15A_V4

Report Name	Report Template
FR Y-20	FRY20_V2
FR Y-7N	FRY7N_V1
FR Y-9C	FRY9C_V6
FR Y-9LP	FRY9LP_V1

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

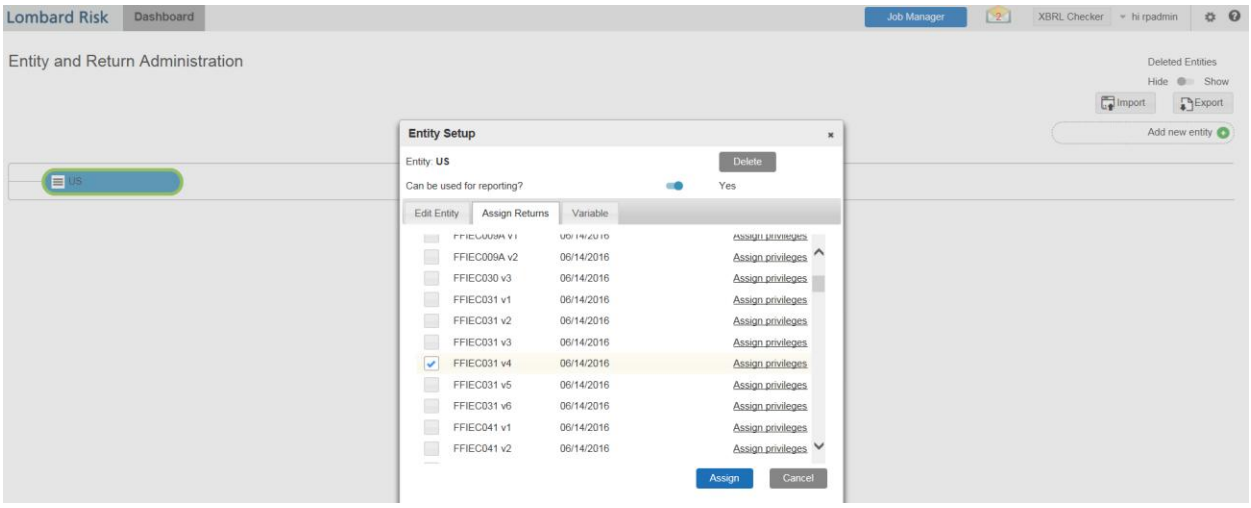


Figure 38: AgileREPORTER Entity Setup

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

8 Maintenance

This chapter provides an understanding of the maintainence 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 dataware housing configuration pack using the below process):

1. Choosing different execution as a final. After report verification, if requirement is to change the execution, then you must visit Marking Run as Final section. After making these changes you must refresh Derived Entities (Executing Batch to Resave Derived Entities). Then AgileREPORTER also needs to retrieve returns so that revised data is reflected on AgileREPORTER.
2. If Executing Batch to Resave Derived Entities is not working, you can look for Batch Operation Log files. For file path, refer to *OFS Analytical Applications Infrstructure Installation Manual* in OHC 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**.

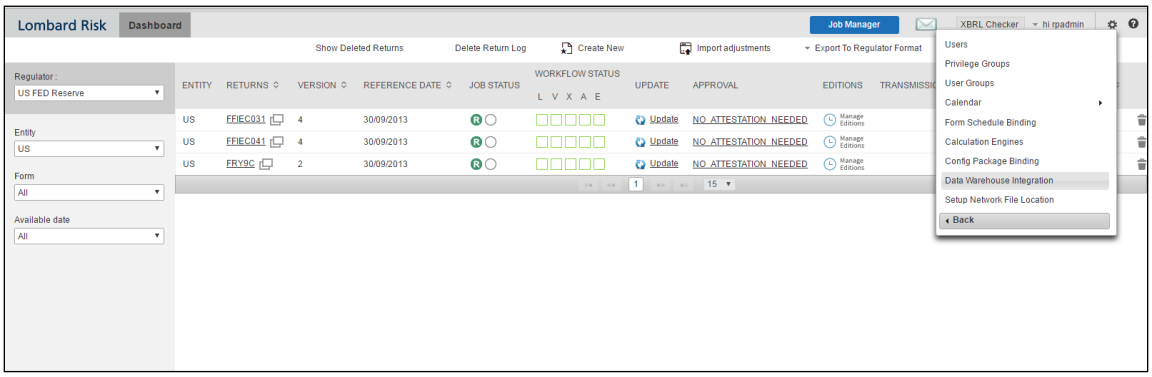


Figure 39: Data Warehouse Integration

   ii. Click **Add** to add a contextual button.

   iii. Enter details of the contextual button.

Name: It is the text that needs to be displayed in the contextual button.

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

http://<<OFSAA_HOST>>:<<OFSAA_PORT>>/<<OFSAA_CONTEXT>>/OFSAADrilldown/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.

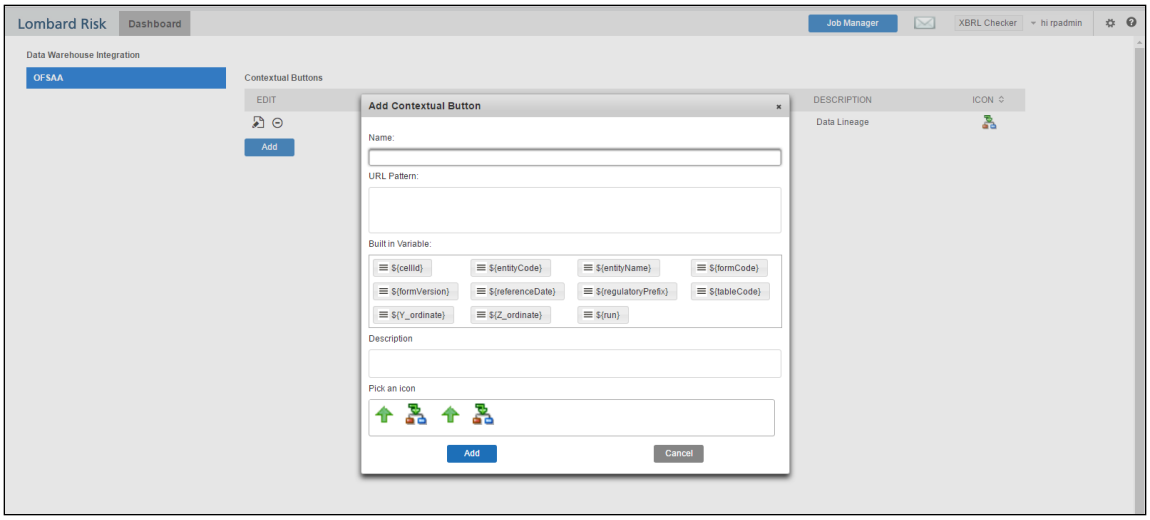


Figure 40: Adding Contextual Button

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

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

8.1 Data Schedules Views Creation

Source view required for generation of certain data schedule based returns like FR2052A and FR Y-14M must be created manually after all the dependent derived entities are saved successfully through batch framework. The views are ported as metadata in a future release after the dependent enhancements to BMM framework is confirmed. For now, the views must be executed manually by the DBA in the atomic schema.

8.1.1 FR 2052A

The command **<<Infodom>>_USFED_FRY2052A_RESAVEDE** must be executed to save all the derived entities required by FR 2052A. Post successful execution, the following views must be executed manually in the atomic schema. The scripts can be found within the **Post_Scripts** folder in the 8.0.4.0.0 installer kit.

- FR2052A_ASSET_INFLOW.sql
- FR2052A_DEPOSITS_OUTFLOW.sql

- FR2052A_FX_SUPPLEMENTAL.sql
- FR2052A_INFO_SUPPLEMENTAL.sql
- FR2052A_OTHER_INFLOW.sql
- FR2052A_OTHER_OUTFLOW.sql
- FR2052A_SECURED_INFLOW.sql
- FR2052A_UNSECURED_INFLOW.sql
- FR2052A_WHOLESALE_OUTFLOW.sql

8.1.2 FR Y-14M

The command **<<Infodom>>_USFED_FRY14M_RESAVEDE** must be executed to save all the derived entities required by FR Y-14M. Post successful execution, the following views must be executed manually in the atomic schema. The scripts can be found within the **Post_Scripts** folder in the 8.0.4.0.0 installer kit.

- FRY14M_A1_LOAN_LEVEL_DD_V.sql
- FRY14M_A2_PORTFOLIO_LEVEL_DD_V.sql
- FRY14M_B1_HOME_EQUITY_V.sql
- FRY14M_B2_HOME_EQUITY_V.sql
- FRY14M_C1_LOAN_LEVEL_DD_V.sql
- FRY14M_D1_LOAN_LEVEL_V.sql
- FRY14M_D2_PORTFOLIO_LEVEL_V.sql

9 Validation Checks for Data Schedules

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

9.1 Overview of Edit Check Process

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

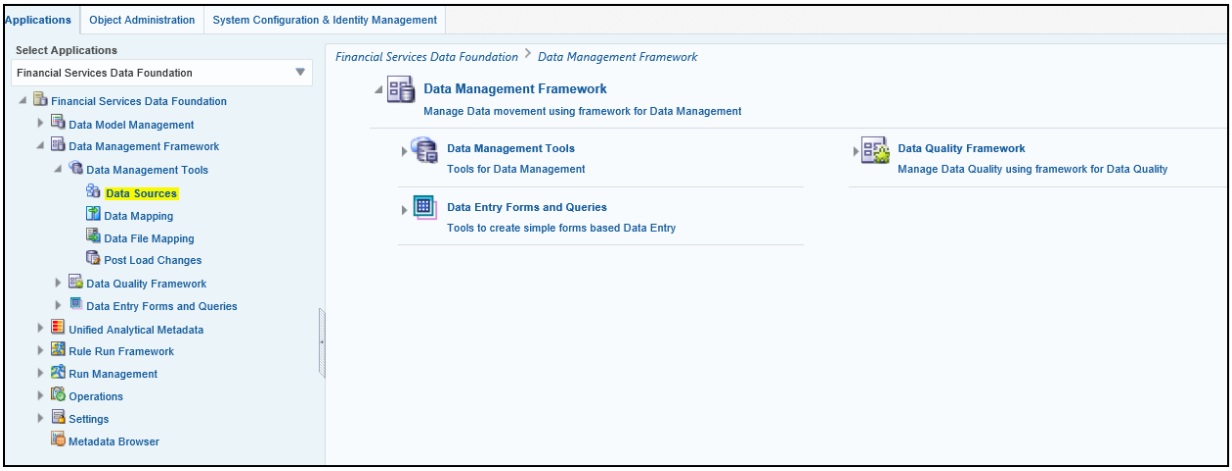
For template reports, edit checks are exclusively handled in Lombard Risk AgileREPORTER and are not covered in the OFSAA application.

9.2 Configuration Steps

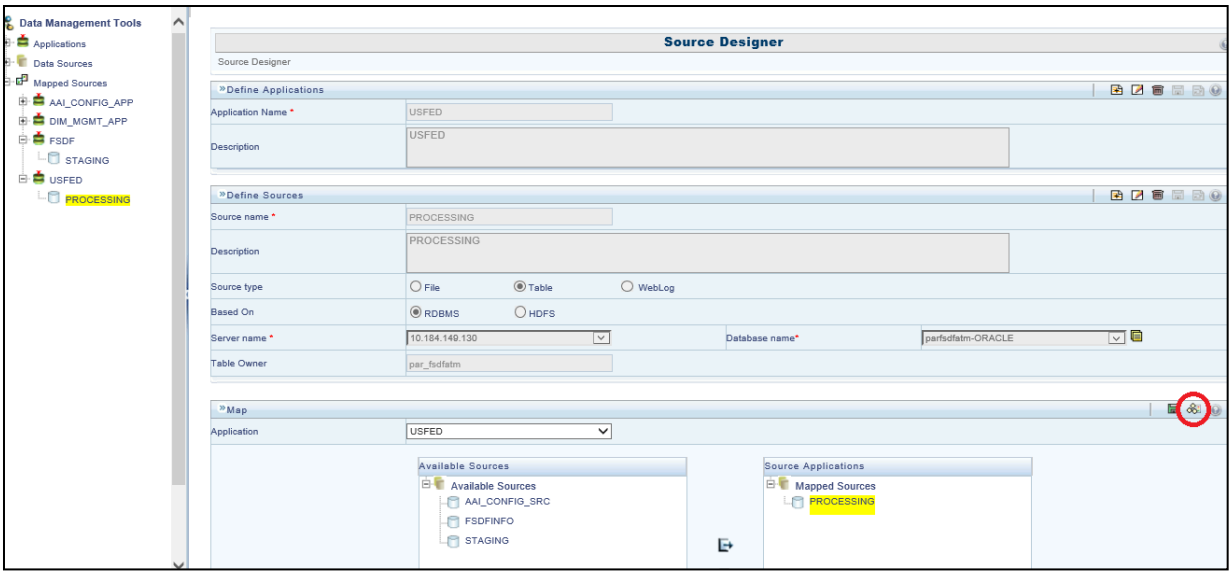
Perform the following configurations to validate / edit check for the data schedules before the Edit Check execution:

A. Source Model Generation

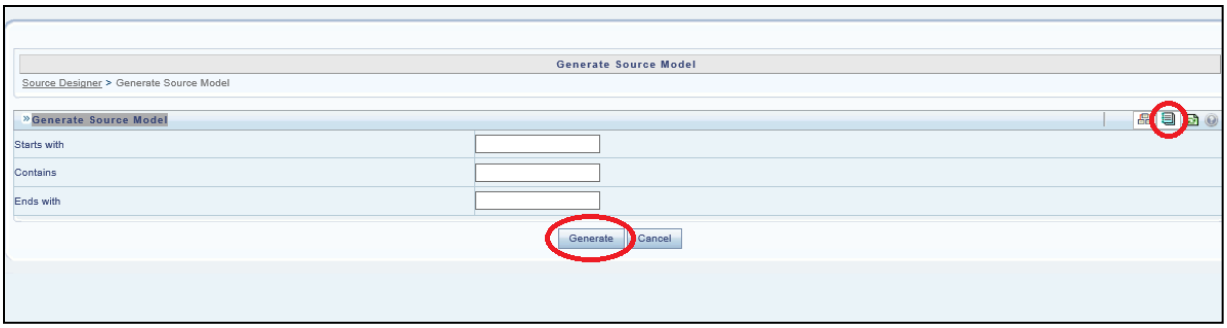
1. Log in to OFSAA application GUI.



2. Navigate to **Financial Services Data Foundation → Data Management Framework → Data Management Tools → Data Sources**. A new window is displayed as follows.



3. Navigate to **Mapped Sources → USFED → PROCESSING**.
4. Select **PROCESSING** in **Source Applications** and click **Source Model Generation** icon. A new window is displayed as follows.



5. Click **Catalogs** icon and then click **Generate**.

B. SETUP_MASTER Table

The SETUP_MASTER table must be updated with the top-most parent entity for the Bank that is used for consolidation with the following SQL statement:

```
UPDATE SETUP_MASTER
SET V_COMPONENT_VALUE = <Top Most Parent Entity Code>
WHERE V_COMPONENT_CODE = '2052A_CONS_ENTITY_CODE';
```

9.3 Execution Steps

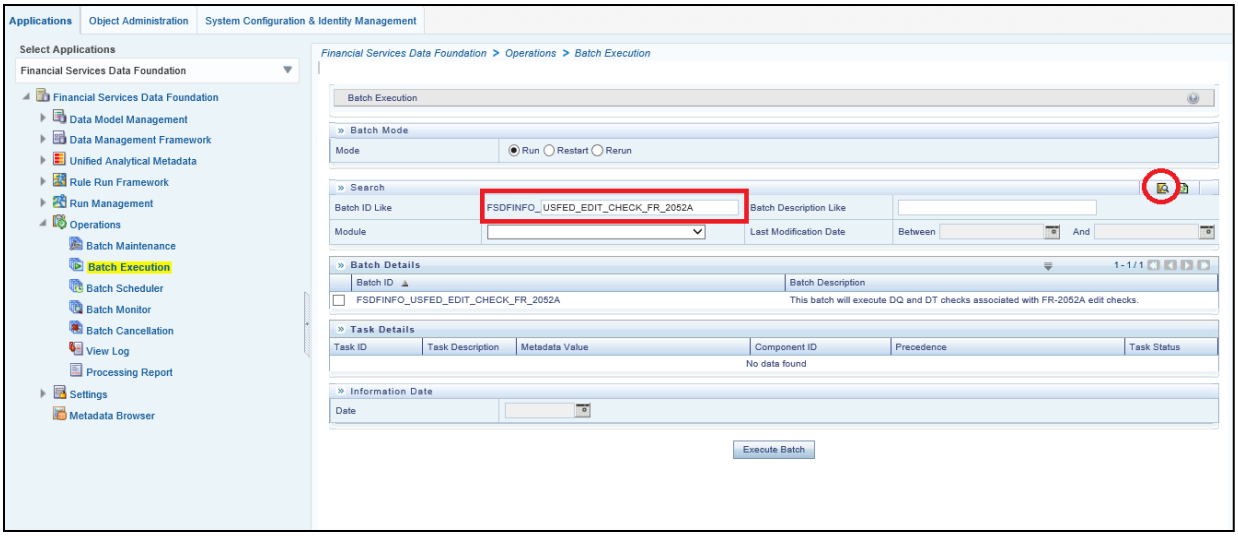
Perform the following batch run to complete the Edit Check execution:

```
FSDFINFO_USFED_EDIT_CHECK_FR_2052A batch.
```

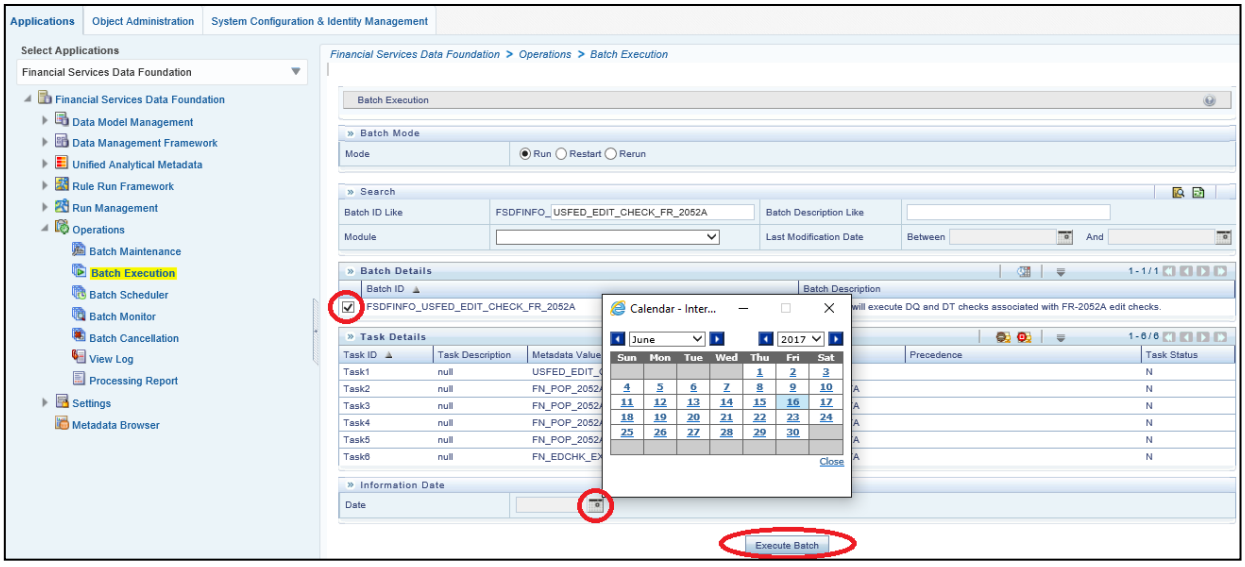
9.4 How to Execute the Batches?

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

1. Log in to OFSAA application GUI.
2. Navigate to **Financial Services Data Foundation → Operations → Batch Execution**. The Batch Execution window is displayed as follows.



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



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

9.5 Logs and Status

For Batch log, navigate to **Financial Services Data Foundation → Operations → Batch Monitor** to check the status of the batch.

The Edit Check log is classified into two types:

1. **Summary Table**

   The **FSI_EDIT_CHECK_SUMMARY** table stores the summary of the edit check executions for all the OFSAA implementations of edit checks. The summary table attributes and description is as follows.

Attribute Name	Attribute Description
V_BATCH_ID	This is the ID provided by the batch execution.
N_EDIT_CHECK_SKEY	This is the surrogate key (SKey) of the edit check from the FSI_EDIT_CHECK_MASTER table.
V_DQ_CHECK_ID	This is the ID from the DQ_CHECK_MASTER table populated for the Data Quality Check based edit checks.
RUN_STATUS	The following are the values for RUN_STATUS: F – Failed E – Error I – Information W – Warning P – Pass Null – Data Quality makes no entry is for RUN_STATUS if there is no data being processed.
FAILED_ROWS	Number of rows for the RUN_STATUS.
FIC_MIS_DATE	Date of the Batch execution.
ENTITY	Data Transformation edit checks populates the individual entity names of the checks.

NOTE: Edit Check does not make an entry for either ENTITY or DQ_CHECK_ID if it is aggregated validations performed across multiple FR-2052A report data schedules.

2. **Detail Table**

The following table shows the mapping for each Edit Check and its Details Table.

Edit Check No.	Edit Check Description	Edit Check Type	Details Table
2	Internal Transactions Reported on Consolidated Reporting Entity	Data Quality	• DQ_RESULT_SUMM_MASTER • DQ_RESULT_DETL_MASTER
3	Internal Transactions Reported Without Internal Counterparty	Data Quality	• DQ_RESULT_SUMM_MASTER • DQ_RESULT_DETL_MASTER
4	Lendable Value in Excess of Market Value	Data Quality	• DQ_RESULT_SUMM_MASTER • DQ_RESULT_DETL_MASTER
5	Third-Party Reporting Entity Exposures versus Consolidated	Data Transformation	• FSI_EDIT_CHECK_5_LOG
6	Symmetry of Intercompany Transactions	Data Transformation	• FSI_EDIT_CHECK_6_LOG
7	Large Haircuts on Secured Transactions	Data Quality	• DQ_RESULT_SUMM_MASTER • DQ_RESULT_DETL_MASTER
9	Missing Required Products by Entity Type	Data Transformation	• FSI_RUN_PROD_BY_ENT_TYP_LOG
10	Improper Intra-entity Consolidation	Data Quality	• DQ_RESULT_SUMM_MASTER • DQ_RESULT_DETL_MASTER
12	Invalid or Missing Counterparty Field	Data Quality	• DQ_RESULT_SUMM_MASTER • DQ_RESULT_DETL_MASTER
13	Missing or Not Applicable [Collateral Class] Field	Data Quality	• DQ_RESULT_SUMM_MASTER • DQ_RESULT_DETL_MASTER
14	Large Other Product or Counterparty Balance	Data Transformation	• FSI_EDIT_CHECK_SUMMARY

The Data Transformation Details Tables with the attributes and descriptions are as follows.

a. **FSI_EDIT_CHECK_5_LOG**

This table stores the result of comparison between aggregation of maturity value, collateral value, lendable value, and market value of the top-most parent entity with its child entities.

Attribute Name	Attribute Description
D_FIC_MIS_DATE	FIC MIS DATE of the batch provided during execution
N_MATURITY_STATUS	Maturity status has two values: 0 – Maturity values of parent not matching child entities 1 – Maturity Values of parent matching child entities
N_COLLATERAL_STATUS	Collateral status has two values: 0 – Collateral value of parent not matching the child entities 1 – Collateral value of parent matching the child entities
N_LENDABLE_STATUS	Lendable status has two values: 0 – Lendable value of the parent not matching the lendable value of the child entities 1 – Lendable values of the parent matching the lendable values of child entities
N_MARKET_STATUS	Market status has two values: 0 – Market value of the parent not matching child entities 1 – Market value of parent matching child entities
V_BATCH_ID	Batch ID of the batch being executed

b. **FSI_EDIT_CHECK_6_LOG**

This table stores the result of comparison between the maturity outflow amount versus the maturity inflow amount.

Attribute Name	Attribute Description
V_INTERNAL_COUNTERPARTY	Internal Counterpart value of the Inflow / Outflow
D_FIC_MIS_DATE	FIC MIS DATE of the batch provided during execution
N_ED_STATUS	ED status has two values: 0 – Maturity value sum of inflow not matching outflow 1 – Maturity value sum of inflow matching outflow
V_BATCH_ID	Batch ID of the batch being executed
V_REPORTING_ENTITY	Legal Entity Name / Internal Counterparty of the views

c. **FSI_RUN_PROD_BY_ENT_TYP_LOG**

This table stores the availability status of PIDs for the reporting enitity's entity type.

Attribute Name	Attribute Description
RUN_SKEY	RUN SKEY is the run from the views
FIC_MIS_DATE	FIC MIS Date of the batch being executed
ENTITY_TYPE	Entity Type of the Reporting Entity
PID	PID of the record from view
STATUS_FLAG	Staus values has two flags: 1 – PID is present for that entity type of Reporting Entity 0 – PID missing for that entity type of Reporting Entity
BATCH_ID	Batch ID of the batch being executed

The status of validation / edit checks are stored in the following SQL statement:

```
SELECT T1.FIC_MIS_DATE, T2.V_ED_CHK_ID, T2.V_ED_CHK_NAME,
NVL(T1.V_DQ_CHECK_ID, T1.ENTITY) ENTITY, T1.FAILED_ROWS,
T1.RUN_STATUS
FROM
  FSI_EDIT_CHECK_SUMMARY T1,
  FSI_EDIT_CHECK_MASTER T2
WHERE T1.N_EDIT_CHECK_SKEY = T2.N_EDIT_CHECK_SKEY
AND T1.V_BATCH_ID = <Batch ID>
```

9.6 FR-2052A Post-Submission Validation Checks

This section outlines the automated validation applied to each FR-2052A submission to verify and improve overall data quality, and communicate key structural features of the collection. These checks represent the early foundation of a validation framework for the FR-2052A and is refined and expanded upon as the collection progresses. OFS Regulatory Reporting performs the following checks either through Data Quality or Design.

Validation Check	**Performed in: Regulatory Reporting / Lombard Risk AgileREPORTER / Processing**	**Approach: Design / Data Quality / Data Transformation**
Internal Transactions Reported on Consolidated Reporting Entity	Regulatory Reporting	Data Quality
Internal Transactions Reported Without Internal Counterparty	Regulatory Reporting	Data Quality
Lendable Value in Excess of Market Value	Regulatory Reporting	Data Quality
Third-Party Reporting Entity Exposures versus Consolidated	Regulatory Reporting	Data Transformation
Symmetry of Intercompany Transactions	Regulatory Reporting	Data Transformation
Large Haircuts on Secured Transactions	Regulatory Reporting	Data Quality
Mismatched Currency Reporting	Regulatory Reporting	Design (this is handled as part of OFS Regulatory Reporting Model design)
Missing Required Products by Entity Type	Regulatory Reporting	Data Transformation
Improper Intra-entity Consolidation	Regulatory Reporting	Data Quality
Invalid or Missing Counterparty Field	Regulatory Reporting	Data Quality
Missing or Not Applicable (Collateral Class) Field	Regulatory Reporting	Data Quality
Large Other Product or Counterparty Balance	Regulatory Reporting	Data Transformation
Weekend Maturities (in respective source system)	Processing	–

10 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.

10.1 Prerequisites

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

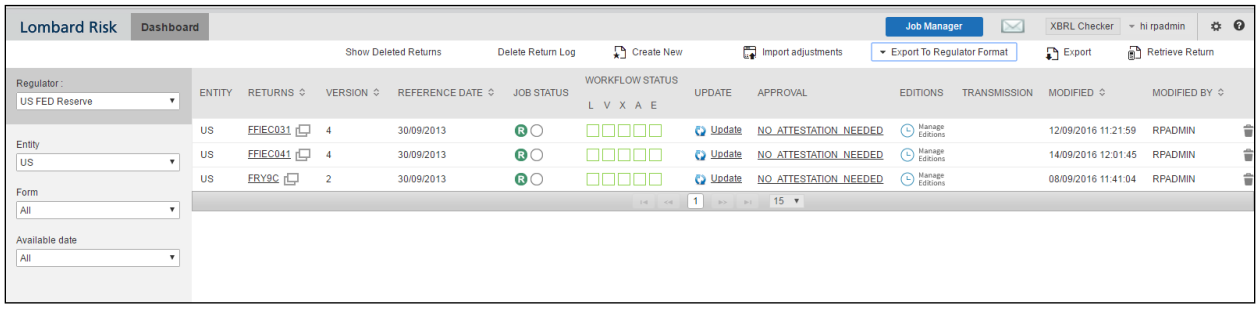


Figure 41: AgileREPORTER

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.

10.2 Troubleshooting Use Cases

10.2.1 Unable to Generate Report

If you are unable to generate reports, meaning none of the derived entities referred 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.

10.2.2 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.

10.2.2.1 Fetching Null or Zero Values

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

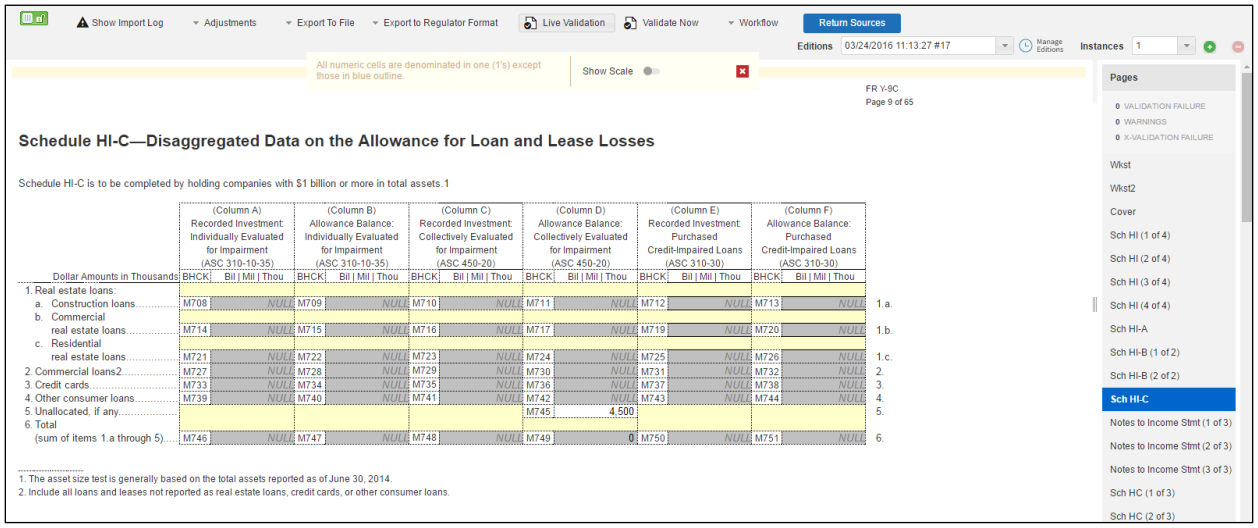


Figure 42: Fetching Null Values

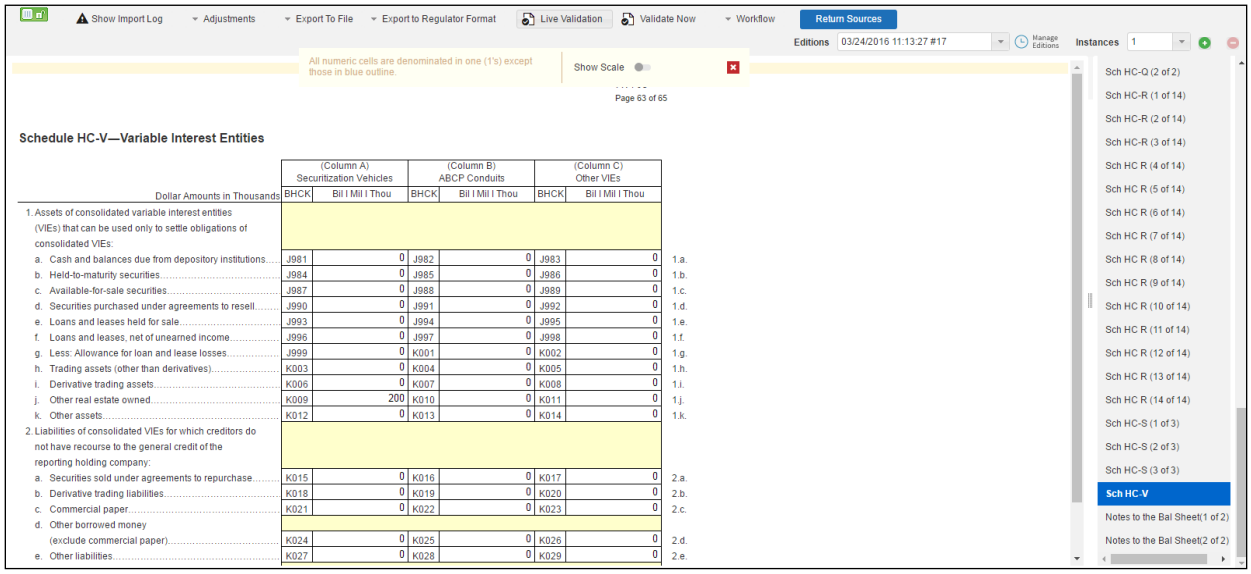


Figure 43: Fetching Zero Values

You must validate as:

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

a. Execute the Derived Entity / Materialized views to check if Derived Entity has data or not.
b. If Derived Entity does not have data, then check the Business Metadata excel for a given schedule.
c. Check Worksheet titled 'Derived Entity' in Business Metadata excel. Get all the derived entities for a given schedule.
d. Get dataset for each derived entity.
e. Execute datasets in OFSAA FSDF Atomic Schema to check if data is available for a given dataset joins.
f. If data is available in dataset queries, you must log a Bug / Service Request with AgileREPORTER.
g. If data is not available in 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.

10.2.3 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 HC-M from FR Y-9C report from US FED. Particular cell referred here is BHDMK169 –

6.a. Loans and leases (included in Schedule HC, items 4.a and 4.b):

(1) Loans secured by real estate in domestic offices:

(a) Construction, land development, and other land loans:

(1) 1–4 family residential construction loans

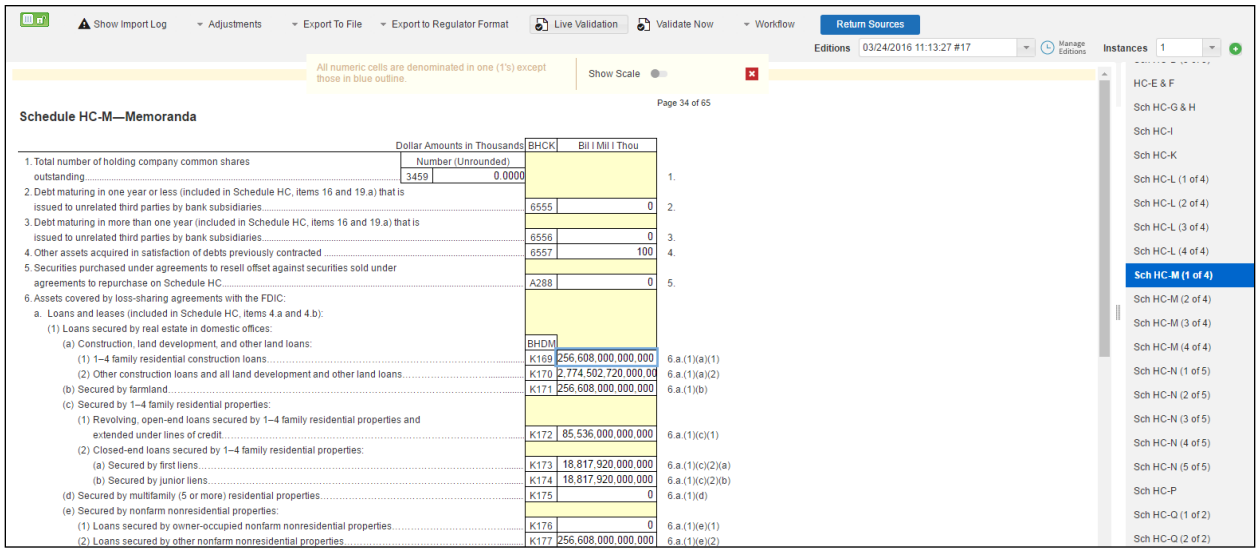


Figure 44: Schedule HC-M from FR Y-9C Report

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 45.

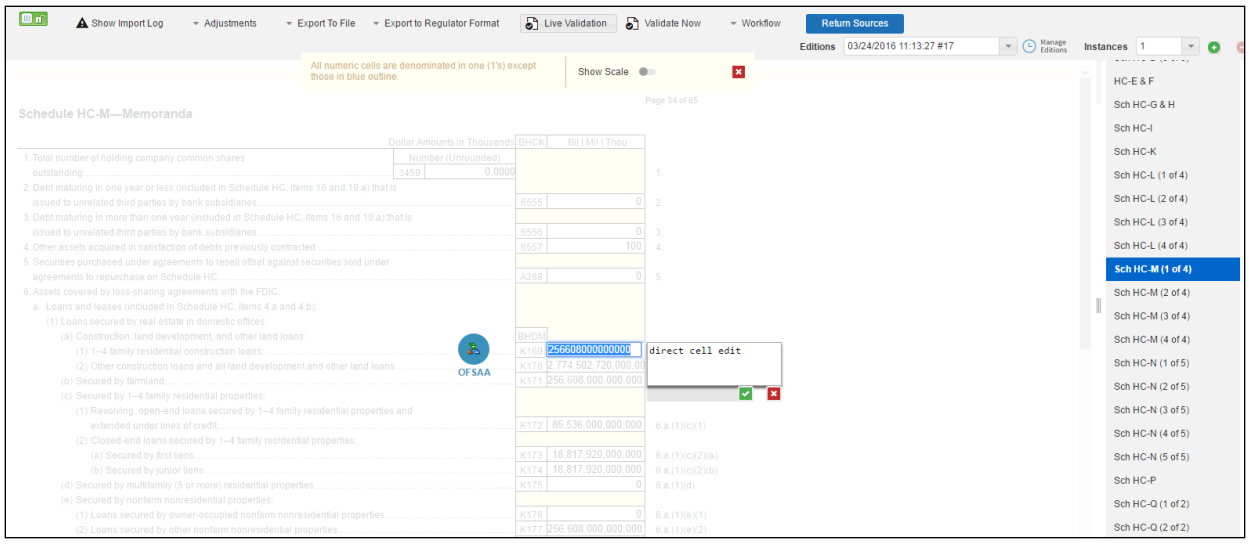


Figure 45: Data Lineage

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 46.

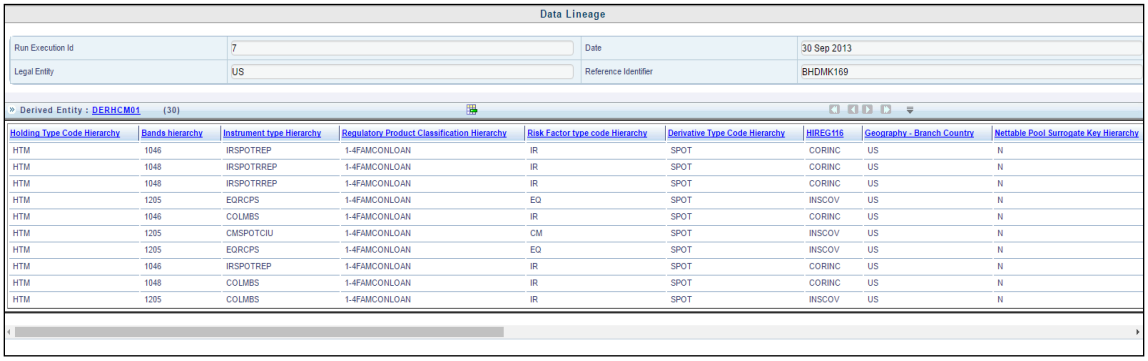


Figure 46: AgileREPORTER

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 47:

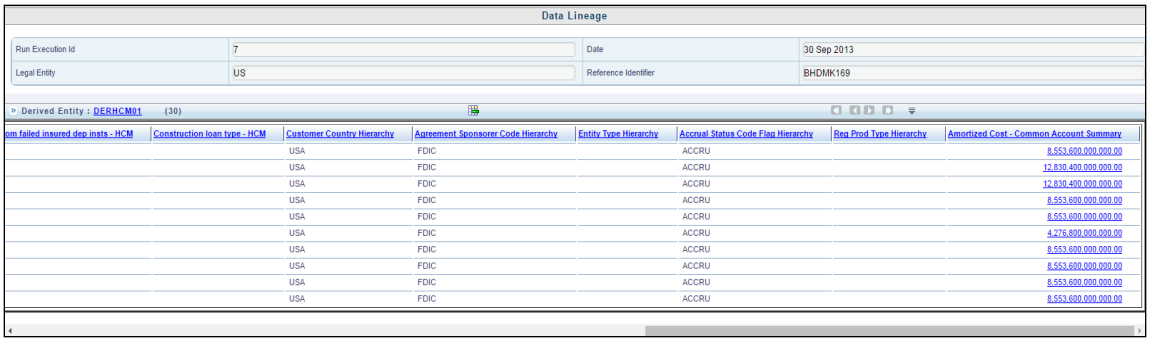


Figure 47: Measure Values

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.

10.2.3.1 Using Drill Down with Data Lineage View

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

1. All required accounts are shown in aggregation
2. Unwanted accounts are not included in 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.
2. 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 Oracle Support.

10.2.3.2 Data Lineage View is Unavailable

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.

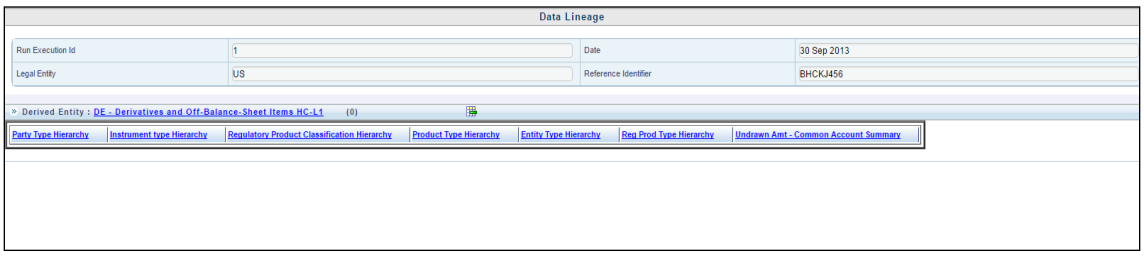
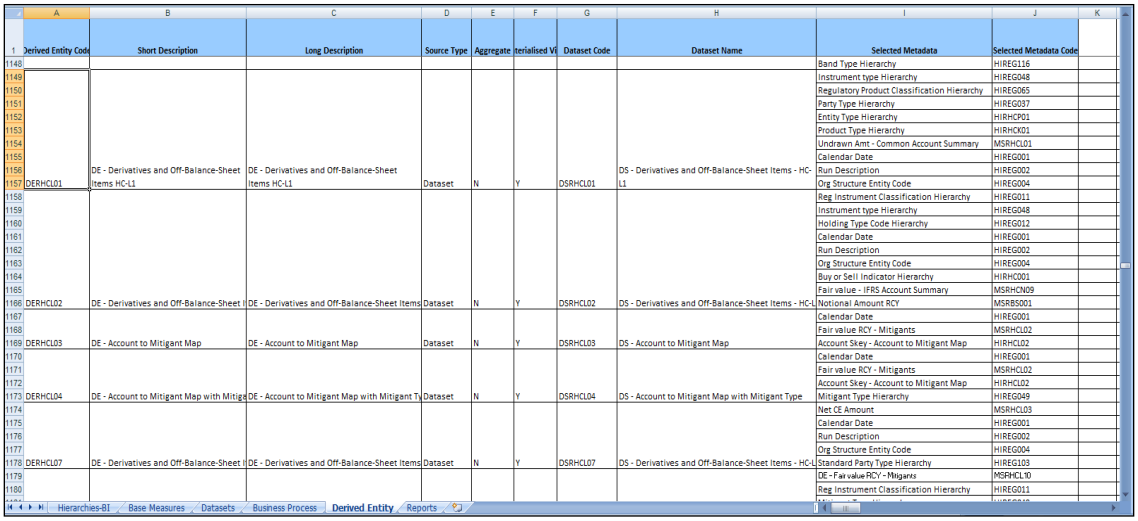


Figure 48: Data Lineage Unavailable

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

1. Internet connection is timed out or broken down - in this case clicking Data Lineage on AgileREPORTER results in a blank second block. To rectify this, re-login to OFSAA infrastructure and AgileREPORTER.
2. Data Lineage view works after Metadata is published using OFSAA Infrastructure. To validate if Metadata is properly published or not.
3. If Metadata is properly published and 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 49:

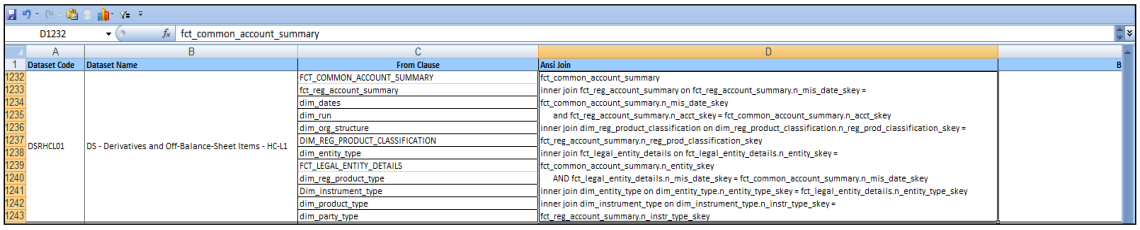


Derived Entity Code	Short Description	Long Description	Source Type	Aggregate	terialised Vi	Dataset Code	Dataset Name	Selected Metadata	Selected Metadata Code
								Band Type Hierarchy	HIREG116
								Instrument type Hierarchy	HIREG048
								Regulatory Product Classification Hierarchy	HIREG065
								Party Type Hierarchy	HIREG037
								Entity Type Hierarchy	HIRHCP01
								Product Type Hierarchy	HIRHCK01
								Undrawn Amt - Common Account Summary	MSRHCL01
								Calendar Date	HIREG001
DERHCL01	DE - Derivatives and Off-Balance-Sheet Items HC-L1	DE - Derivatives and Off-Balance-Sheet Items HC-L1	Dataset	N	Y	DSRHCL01	DS - Derivatives and Off-Balance-Sheet Items - HC-L1	Run Description	HIREG002
								Org Structure Entity Code	HIREG004
								Reg Instrument Classification Hierarchy	HIREG011
								Instrument type Hierarchy	HIREG048
								Holding Type Code Hierarchy	HIREG012
								Calendar Date	HIREG001
								Run Description	HIREG002
								Org Structure Entity Code	HIREG004
								Buy or Sell Indicator Hierarchy	HIRHC001
								Fair value - IFRS Account Summary	MSRHCN09
DERHCL02	DE - Derivatives and Off-Balance-Sheet I	DE - Derivatives and Off-Balance-Sheet Items	Dataset	N	Y	DSRHCL02	DS - Derivatives and Off-Balance-Sheet Items - HC-L	Notional Amount RCY	MSRBS001
								Calendar Date	HIREG001
								Fair value RCY - Mitigants	MSRHCL02
DERHCL03	DE - Account to Mitigant Map	DE - Account to Mitigant Map	Dataset	N	Y	DSRHCL03	DS - Account to Mitigant Map	Account Skey - Account to Mitigant Map	HIRHCL02
								Calendar Date	HIREG001
								Fair value RCY - Mitigants	MSRHCL02
								Account Skey - Account to Mitigant Map	HIRHCL02
DERHCL04	DE - Account to Mitigant Map with Mitiga	DE - Account to Mitigant Map with Mitigant Ty	Dataset	N	Y	DSRHCL04	DS - Account to Mitigant Map with Mitigant Type	Mitigant Type Hierarchy	HIREG049
								Net CE Amount	MSRHCL03
								Calendar Date	HIREG001
								Run Description	HIREG002
								Org Structure Entity Code	HIREG004
DERHCL07	DE - Derivatives and Off-Balance-Sheet I	DE - Derivatives and Off-Balance-Sheet Items	Dataset	N	Y	DSRHCL07	DS - Derivatives and Off-Balance-Sheet Items - HC-L	Standard Party Type Hierarchy	HIREG103
								DE - Fair value RCY - Mitigants	MSRHCL10
								Reg Instrument Classification Hierarchy	HIREG011

Hierarchies-BI | Base Measures | Datasets | Business Process | Derived Entity | Reports

Figure 49: Business Metadata

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



D1232 fx fct_common_account_summary

Dataset Code	Dataset Name	From Clause	Ansi Join
		FCT_COMMON_ACCOUNT_SUMMARY	fct_common_account_summary
		fct_reg_account_summary	inner join fct_reg_account_summary on fct_reg_account_summary.n_mis_date_skey =
		dim_dates	fct_common_account_summary.n_mis_date_skey
		dim_run	and fct_reg_account_summary.n_acct_skey = fct_common_account_summary.n_acct_skey
		dim_org_structure	inner join dim_reg_product_classification on dim_reg_product_classification.n_reg_prod_classification_skey =
DSRHCL01	DS - Derivatives and Off-Balance-Sheet Items - HC-L1	DIM_REG_PRODUCT_CLASSIFICATION	fct_reg_account_summary.n_reg_prod_classification_skey
		dim_entity_type	inner join fct_legal_entity_details on fct_legal_entity_details.n_entity_skey =
		FCT_LEGAL_ENTITY_DETAILS	fct_common_account_summary.n_entity_skey
		dim_reg_product_type	AND fct_legal_entity_details.n_mis_date_skey = fct_common_account_summary.n_mis_date_skey
		Dim_instrument_type	inner join dim_entity_type on dim_entity_type.n_entity_type_skey = fct_legal_entity_details.n_entity_type_skey
		dim_product_type	inner join dim_instrument_type on dim_instrument_type.n_instr_type_skey =
		dim_party_type	fct_reg_account_summary.n_instr_type_skey

Figure 50: Derived Entity

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 US Federal Reserve – Lombard Risk Integration Pack 8.0.4.0.0 User Guide

June 2017

Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:
Phone: +1.650.506.7000
Fax: +1.650.506.7200
oracle.com