

# Regulatory Reporting Solution for US Federal Reserve – Lombard Risk Integration Pack

Release 8.0.5.0.0

User Guide
June 2018



Oracle Financial Services Regulatory Reporting for US Federal Reserve – Lombard Risk Integration User Guide, Release 8.0.5.0.0

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### About the Guide

Welcome to Release 8.0.5.0.0 of the Oracle Financial Services Regulatory Reporting for US Federal Reserve – Lombard Risk Integration Pack User Guide.

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

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

## Scope of the Guide

The objective of this user guide is to provide a comprehensive working knowledge on Oracle Financial Services Regulatory Reporting for US Federal Reserve – Lombard Risk Integration Pack, Release 8.0.5.0.0. 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 8.0.5.0.0 and details the process flow and methodologies used.

#### **Intended Audience**

This guide is intended for:

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

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#### **Related Information Sources**

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

- Oracle Financial Services Regulatory Reporting for US Federal Reserve Lombard Risk Integration Pack Installation Manual Release 8.0.5.0.0
- Oracle Financial Services Data Foundation User Guide Release 8.0.5.0.0
- Oracle Financial Services Data Foundation Installation Manual Release 8.0.5.0.0
- Oracle Financial Services Analytical Applications Infrastructure User Guide Release 8.0.5.0.0 (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:

- Chapter 1: Introduction
- Chapter 2: Getting Started
- Chapter 3: Regulatory Reporting (REG REP) Solution Data Flow
- ◆ Chapter 4: OFSAA Features
- Chapter 5: Executing Run through Run Management
- Chapter 6: Metadata Export Utility
- Chapter 7: Report Submission
- Chapter 8: Maintenance
- Chapter 9: Validation / Edit Checks for Data Schedules
- Chapter 10: Troubleshooting Guidelines

#### **Conventions Used**

Table 1 lists the conventions used in this guide.

Table 1: Conventions Used in this Guide

Convention	Meaning		
Italics	Names of books, chapters, and sections as references		
Bold	Object of an action (menu names, field names, options, button names) in a step-by-step procedure		
	Commands typed at a prompt		

	•	◆ User input	
Monospace	ospace    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:

- Overview
- OFSAA Regulatory Reporting Architecture
- Scope

#### 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

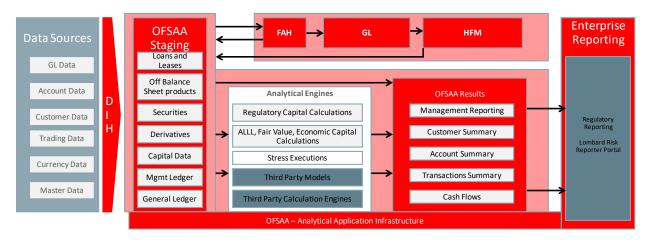


Figure 1: Regulatory Reporting (REG REP) Solution Architecture

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, you 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	FR Y-9C Consolidated Financial Statements for Holding Companies	
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
FFIEC-009A Country Exposure Information Report		8.0.1

Report Name		Released Version
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	FR-2314 Financial Statements of Foreign Subsidiaries of U.S. Banking Organizations	
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	FR Y-14Q Schedule M.1 – Balances	
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	FR Y-14M Capital Assessments and Stress Testing Report - Monthly	
FFIEC-101 Regulatory Capital Reporting for Institutions Subject to the Advanced Capital Adequacy Framework		8.0.3

Report	Report Name	Released Version
FDIC-8020 Statement of Deposits 8.0		8.0.3
FFIEC-002 Assets and Liabilities of U.S. Branches and Agencies of Foreign Banks		8.0.5
FR 2420 Selected Money Market Rates		8.0.5

The following table lists the detailed scope.

**Table 3: Detailed Scope** 

SI. 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	0	Off-Balance-Sheet Items
7	FFIEC-009A	A	Country Exposure Information Report Part A
8	FFIEC-009A	В	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

SI. No.	Report Code	Schedule Code	Schedule Name
22	FFIEC-031	RC-L	Derivatives and Off-Balance-Sheet Items
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	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

SI. No.	Report Code	Schedule Code	Schedule Name
47	FFIEC-041	RC-M	Memoranda
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	Regulatory Capital Components and Ratios
53	FFIEC-041	RC-R Part	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	А	Type of Investments
71	FR Y-12	В	Type of Security
72	FR Y-12	С	Type of Entity within the Banking Organization

SI. 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	М	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

SI. No.	Report Code	Schedule Code	Schedule Name
99	FR Y-14QRCI	С	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	В	Securities
112	FR Y-14QSUPMNT	К	Supplemental
113	FR Y-14QTRADING	F	Trading
114	FR Y-15	_	Banking Organization Systemic Risk Report
115	FR Y-15	Α	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

SI. No.	Report Code	Schedule Code	Schedule Name
125	FR Y-9C	_	Consolidated Financial Statements for Holding Companies
126	FR Y-9C	н	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	НС	Consolidated Balance Sheet
131	FR Y-9C	НС-В	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	НС-Н	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	НС-М	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

SI. 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

SI. No.	Report Code	Schedule Code	Schedule Name
176	FR-2420	А	Federal Funds
177	FR-2420	AA	Selected Borrowings from Non-Exempt Entities
178	FR-2420	В	Eurodollars
179	FR-2420	С	Time Deposits and Certificates of Deposit (CDs)
180	FFIEC-002	RAL	Assets and Liabilities
181	FFIEC-002	А	Cash and Balances Due from Depository Institutions
182	FFIEC-002	C Part I	Loans and Leases
183	FFIEC-002	C Part II	Loans to Small Businesses and Small Farms
184	FFIEC-002	Е	Deposit Liabilities and Credit Balances
185	FFIEC-002	К	Quarterly Averages
186	FFIEC-002	L	Derivatives and Off-Balance-Sheet Items
187	FFIEC-002	N	Past Due, Nonaccrual, and Restructured Loans
188	FFIEC-002	0	Other Data for Deposit Insurance Assessments
189	FFIEC-002	Р	Other Borrowed Money
190	FFIEC-002	Q	Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis
191	FFIEC-002	Т	Fiduciary and Related Services

# 2 Getting Started

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

- Prerequisites
- **♦** Assumptions
- Logging in to the OFSDF Interface with Lombard Risk for US FED
- Organization of the Interface for User Roles
- Metadata Browser

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 prerequisite software that must be installed are:

- Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) 8.0.5.0.0 (patch 25873206)
- Oracle Financial Services Data Foundation (FSDF) 8.0.5.0.0 (patch 26583731)
- AgileREPORTER version 1.15.6-b1293
- ◆ AgileREPORTER Templates version ARforFED\_v1.11.1.3
- Ensure that you have executed **.profile** file before you trigger the installation.
- Ensure that the FIC Server is up and running before you trigger the installation. For information
  on restarting the services, see *Oracle Financial Services AAI Release 8.0.5.0.0 Installation Guide*(OHC Documentation Library) for more information.

For detailed instructions on installing this Interim Release, see <u>Oracle Financial Services Regulatory</u> <u>Reporting for US Federal Reserve – Lombard Risk Integration Pack Installation Guide Release 8.0.5.0.0</u>.

# 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 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
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

V_ASSET_LEVEL_CODE
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
C-1
Z-1
S-7
G-3
G-2
E-2
A-3
A-0

V_ASSET_LEVEL_CODE
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.
   The definition is as follows:
  - The CEN Code identifies estimated deposit totals, consolidated offices, or locations that do not accept deposits. Complete this item only if applicable by entering 1 for estimated deposits, 2 for deposits consolidated with a different location (applicable for limited service locations only), or 3 for a non-deposit accepting location. If you are reporting actual deposits for a location, the CEN Code should be left blank.
  - This CEN Code must be populated manually by client as FSDF provides only accurate deposits. There is no mechanism to identify use case of estimated deposits and hence CEN Code 1 must be entered manually. FSDF runs consolidation for an Entity and it does not identify location for consolidation. Hence, consolidation with different location must be updated manually. If deposits are available in FSDF, location is expected to be deposit accepting. Hence, non deposit accepting location must be populated manually.

## 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 must 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.

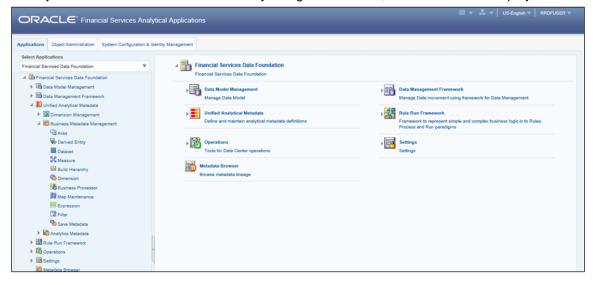


Figure 3: Landing Page

## 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
- 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.

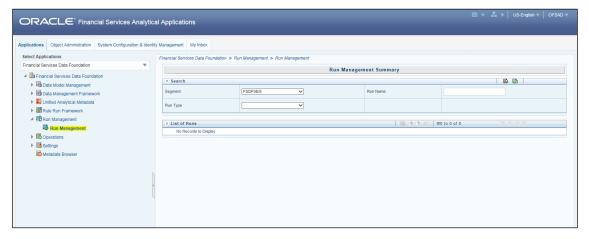


Figure 4: Run Management Summary Screen

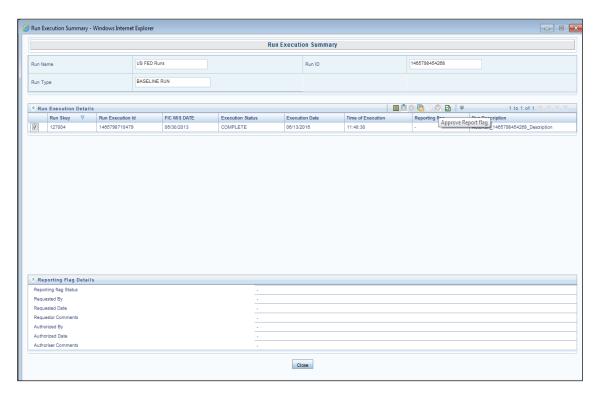


Figure 5: Run Management Summary Screen

## 2.4.2 Executing Batch to Resave Derived Entities

To execute the batch to resave derived entities, follow these 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.
- Similarly "<<INFODOM>>\_USFED\_FR2314\_RESAVEDE",
   "<<INFODOM>>\_USFED\_FRY11\_RESAVEDE" can be used to resave DEs related to FR 2314,
   FR Y-11 respectively.

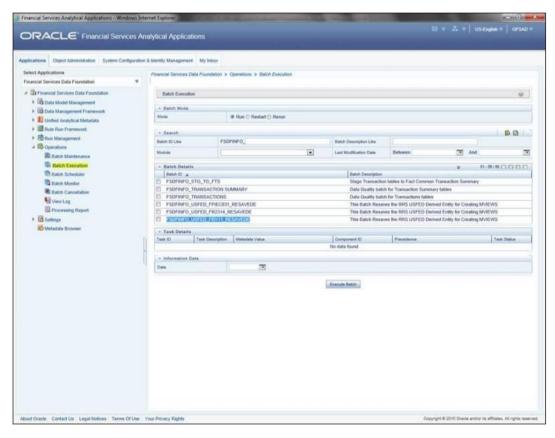


Figure 6: Batch Maintenance Screen

- 4. Monitor status of the batch using **Batch Monitor** link.
- 5. The batches available for this release are:
  - a. batch\_resave\_de\_usfed\_ffiec002This batch saves the Derived Entities of FFIEC 002 report.
  - b. batch\_resave\_de\_usfed\_ffiec009This batch saves the Derived Entities of FFIEC 009 report
  - c. batch\_resave\_de\_usfed\_ffiec009AThis batch saves the Derived Entities of FFIEC 009A report.
  - d. batch\_resave\_de\_usfed\_ffiec031This batch saves the Derived Entities of FFIEC 031 report.
  - e. batch\_resave\_de\_usfed\_ffiec041This batch saves the Derived Entities of FFIEC 041 report.
  - f. batch\_resave\_de\_usfed\_ffiec101This batch saves the Derived Entities of FFIEC 101 report.

g. batch\_resave\_de\_usfed\_fr2314

This batch saves the Derived Entities of FR 2314 report.

h. batch\_resave\_de\_usfed\_fr2886b

This batch saves the Derived Entities of FR 2886B report.

i. batch\_resave\_de\_usfed\_fry11

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

j. batch\_resave\_de\_usfed\_fry14m

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

k. batch\_resave\_de\_usfed\_fry14q\_H1H2

This batch saves the Derived Entities of FR Y-14Q H1 and H2 reports.

I. batch\_resave\_de\_usfed\_fry14q\_misc

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

m. batch\_resave\_de\_usfed\_fry14q\_RET

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

n. batch\_resave\_de\_usfed\_fry14Q\_Securities

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

o. batch\_resave\_de\_usfed\_fry15

This batch saves the Derived Entities of FR Y-15 report.

p. batch\_resave\_de\_usfed\_fry2052a

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

q. batch\_resave\_de\_usfed\_fry2052a\_Priority\_Views

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

r. batch\_resave\_de\_usfed\_fry2314\_7N\_11\_pv

This batch saves the Derived Entities of FR 2314, FR Y-7N and FR Y-11 reports.

s. batch\_resave\_de\_usfed\_fry2420

This batch saves the Derived Entities of FR 2420 report.

t. batch\_resave\_de\_usfed\_fry2644

This batch saves the Derived Entities of FR 2644 report.

u. batch\_resave\_de\_usfed\_fry2644\_pv

This batch saves the Derived Entities of FR 2644 report.

- v. batch\_resave\_de\_usfed\_fry2900This batch saves the Derived Entities of FR 2900 report.
- w. batch\_resave\_de\_usfed\_fry2900\_pvThis batch saves the Derived Entities of FR 2900 report.
- x. batch\_resave\_de\_usfed\_fdic\_8020This batch saves the Derived Entities of FDIC 8020 report.
- y. batch\_resave\_de\_usfed\_fry7nThis batch saves the Derived Entities of FR Y-7N report.
- z. batch\_resave\_de\_usfed\_fry9CThis batch saves the Derived Entities of FR Y-9C report.
- aa. batch\_resave\_de\_usfed\_fry9lpThis batch saves the Derived Entities of FR Y-9LP 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.

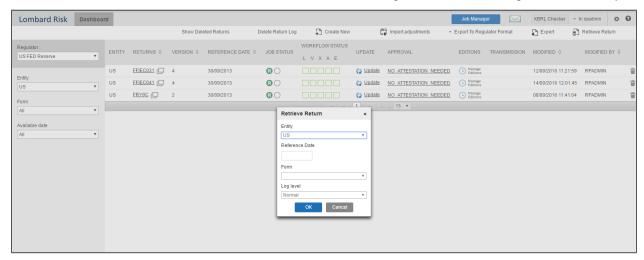


Figure 7: Retrieve Returns Page

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

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

1. Log in to the AgileREPORTER.



Figure 8: AgileREPORTER Login Page

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

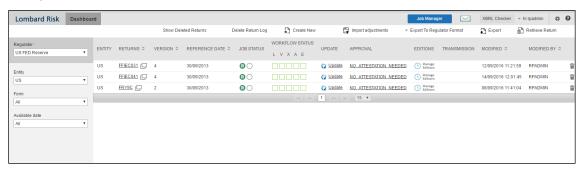


Figure 9: AgileREPORTER Main Page

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.

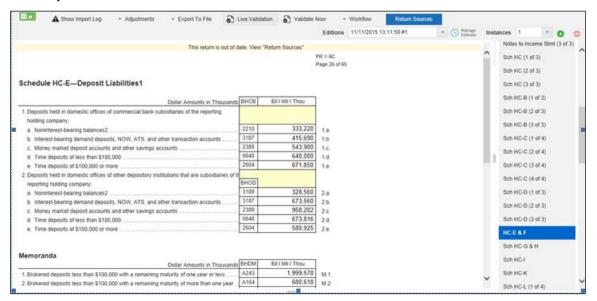


Figure 11: AgileREPORTER Schedule Details Page

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.

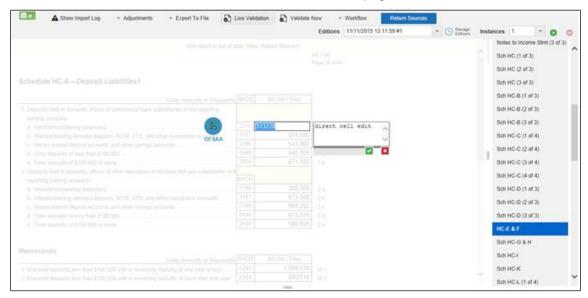


Figure 12: AgileREPORTER Drill Down

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.

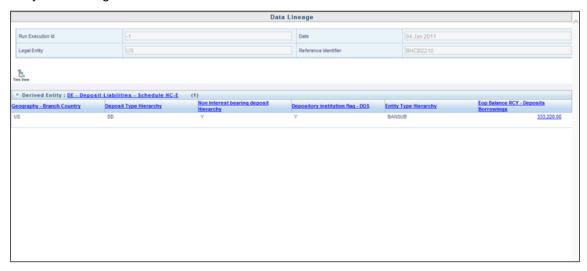


Figure 13: Data Trace Browser/ OFSAA Report Drill-down Screen

 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.

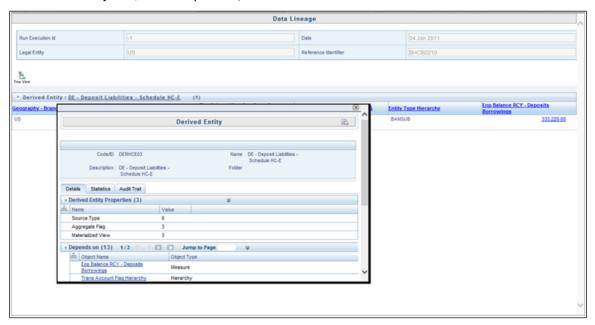


Figure 14: Derived Entity MDB View

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.

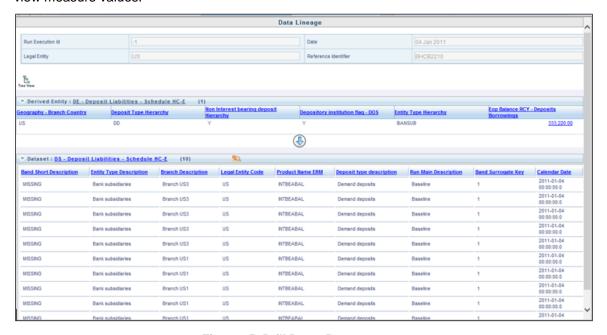


Figure 15: Drill Down Page

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

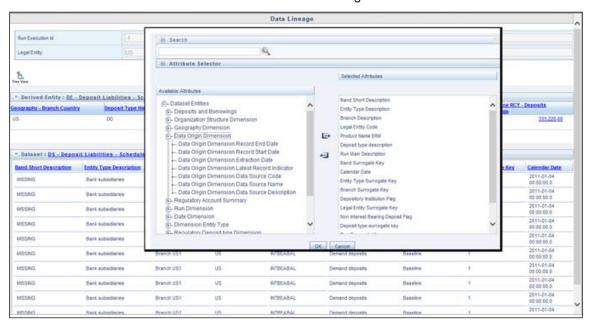


Figure 16: Drill Down Attribute Selector 1

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

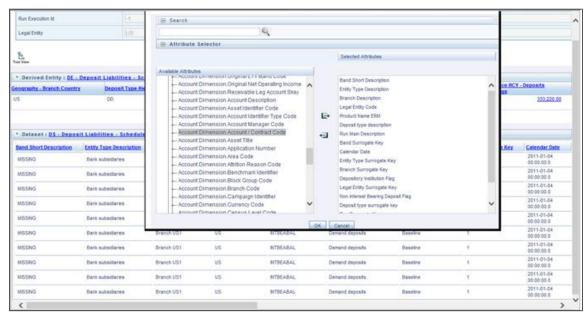


Figure 17: US FED Drill Down Attribute Selector 2

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.

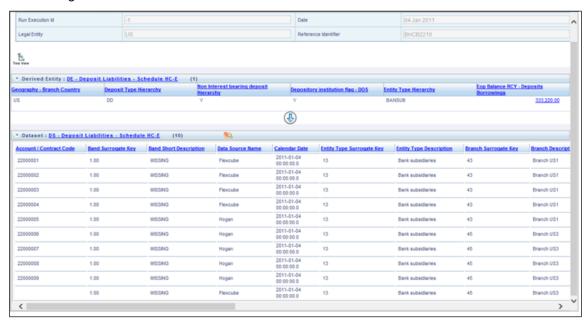


Figure 18: Drill Down - Granular

## 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 these steps:

- 1. To use MDB for schedule wise metadata, for a given schedule, identify the metadata used.
  - a) You can verify the data for related data elements in results using this information. Navigate to path *Objects* → *OFSAA Data Model* → *Reporting Metadata* → *Reports*. The Left Hand Side (LHS) displays the list of reports. For example, Figure 19 refers to *HC-E* Schedule of FRY9C report.

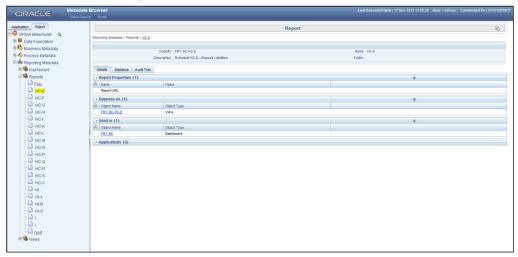


Figure 19: MDB - Reporting Metadata - Schedule View 1

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

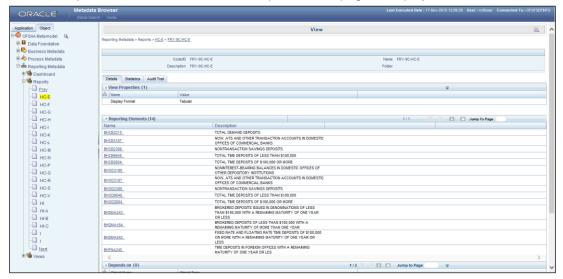


Figure 20: MDB - Reporting Metadata - Schedule View 2

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.
- **Used In**: This section displays the Reports in which this schedule is used.
- Applications: This section displays the applications in which this schedule is used.
- c) Click any Reporting Element. For example, **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.
Туре	Refers to regulator specific interpretation. For MDRM codes, this field provides a detailed description of a given cell type.
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.
- Used In: This section displays the Objects in which this schedule is used.
- Applications: This section displays the applications in which this schedule is used.
- 2. Starting from a common metadata used across application, you may want to know the list of reports/ derived entities this metadata has used. Let us take an example of measure. To 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 → Base Metadata → Measures. The LHS displays the list of measures. For example, Figure 22 refers to Eop Balance RCY - Deposits Borrowings.

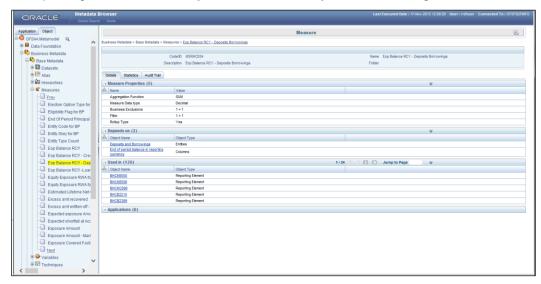


Figure 22: MDB - Business Metadata - Measure View

You can view the below information in this page:

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

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

**Note**: The similar steps as follows 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 → Business Metadata → Derived Metadata → Derived Entities. The LHS displays list of Schedules. For example, Figure 23 displays the derived entities used in Schedule HC-E.

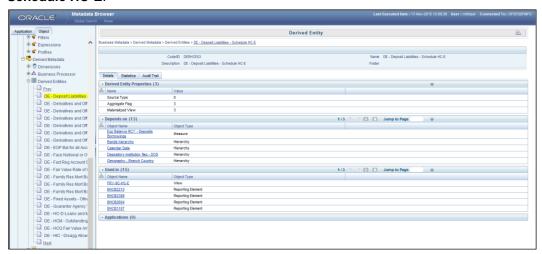


Figure 23: MDB - Business Metadata - Derived Enitity

You can view the following information in this page:

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

# 3 Regulatory Reporting (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

- REG REP is a reporting solution, which uses data from underlying fact tables directly for
  reporting. You are expected to prepare the load for the required data in 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.
- 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.
- 3. 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.
- 4. For usage of consolidation dimension (which has values like Actual, Budged, Forecast, and so on), all historical data is expected to be tagged as actual for the purpose of reporting vintage data, as per report requirements. For projection data, for a given run and Projection Period (quarter/year), only one set of data is expected to be stored.
- All processing reporting requirements requiring 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).

6. FR 2900, FFIEC-031 RC-K, FFIEC-041 RC-K, FR Y-9C HC-K, FFIEC-031 RC-O, and FFIEC-041 RC-O reports require the averaging of the balances as of the close of business for each day for the calendar quarter or an average of the balances as of the close of business on each Wednesday during the calendar quarter. Oracle Financial Services Regulatory Reporting for US Federal Reserve – Lombard Risk Integration supports both the above methods.

You must update V\_COMPONENT\_VALUE in SETUP\_MASTER with method followed at the respective financial institution:

- a. For daily averaging, populate the value 'EVERY-DAY'.
- b. For weekly averaging, populate the value 'EVERY-WEDNESDAY'.

You must update FSI\_CAL\_MIS\_DATE\_MAP table with dates for which averaging is required.

The table **FSI\_CAL\_MIS\_DATE\_MAP(D\_CALENDAR\_DATE DATE, D\_MIS\_DATE DATE)** must be populated for Reports – FR 2900, FFIEC-031 RC-K, FFIEC-041 RC-K, FR Y-9C HC-K, FFIEC-031 RC-O, and FFIEC-041 RC-O.

FSI\_CAL\_MIS\_DATE\_MAP is an entity used to generate the quarterly average report with two date columns: D\_CALENDAR\_DATE and D\_MIS\_DATE.

- a. D\_CALENDAR\_DATE holds the date details for the calendar year. This includes holiday date.
- b. D\_MIS\_DATE holds the effective date to be considered for quarterly average report generation. This column is excluding holiday date.
- c. If calendar date falls on an holiday, then D\_MIS\_DATE has value (date) for the last working date or any other date value as per client's requirement.

The above mentioned reports will be generated only if FSI\_CAL\_MIS\_DATE\_MAP is populated. Example for data in FSI\_CAL\_MIS\_DATE\_MAP:

D_CALENDAR_DATE	D_MIS_DATE	Comments
05-Jan-17	05-Jan-17	
06-Jan-17	06-Jan-17	
07-Jan-17	06-Jan-17	There is no data loaded from source. Consider balance from 06-Jan-2017 for 07-Jan-2017.
08-Jan-17	06-Jan-17	There is no data loaded from source. Consider balance from 06-Jan-2017 for 08-Jan-2017.

While performing averaging:

- a. For each date, reporting execution is selected.
- b. A business processor holds the average function for the data selected.

Post average calculation, averaged data is sent to AgileREPORTER.

- 7. Addition of Setup Master Entries for Branch/FED level reporting: To ensure retrieval at the Branch/FED level, the RUNEXESUMM view must have the relevant information. This information can be configured by changing the entries for SETUP\_MASTER tables as follows:
  - a. The relevant component code for the configuration in SETUP\_MASTER table is 'BRANCH FED DIST IDENTIFIER' for which the default configuration is as below:

V_COMPONENT_CODE	V_COMPONENT_DESC	V_COMPONENT_VALUE
BRANCH FED DIST IDENTIFIER	Branch or FED Distirct	DEFAULT
	Identifier	

b. To enable RUNEXESUMM entries for Branch/FED District, the V\_COMPONENT\_VALUE must be changed to the V\_ACCT\_BRANCH\_CODE / V\_FED\_RESERVE\_DISTRICT value as per the DIM\_GEOGRAPHY table respectively. This Branch/FED District value must be the one for which retrieval is done.

The RUNEXESUMM view will now reflect the entries for the Branch/FED District for retrieval purposes.

## 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 8.0.5.0.0 RUN Chart from the MOS.

## 3.1.3 User-specific Reclassification Rules / Mapper Maintenance

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

- 1. Standard Product Type Reclassification
- 2. Standard Party Type Reclassification
- 3. Standard Mitigant Type Reclassification
- 4. Regulatory Industry Reclassification

- 5. Regulatory Credit Status Reclassification
- 6. Regulatory Loan Purpose Reclassification
- 7. Regulatory Credit Score Model Mapper Maintenance
- 8. GL Account to Reporting Line Mapper Maintenance

Refer Business Metadata for details of these reclassifications.

Modify or customise the following rules as per user-specific values. These are sample rules with sample values in SCD Dimensions. These rules must be reconfigured post SCD execution which contains user-specific values for the Source Hierarchy.

RULE NAME	TARGET HIERARCHY	SOURCE HIERARCHY
RL14M_11	DIM_REG_ATTRITION_REASON	DIM_ATTRITION
RUSFR2052A104	DIM_REG_CREDIT_STATUS	DIM_ACCT_STATUS
RGRLED01	DIM_REG_EDUCATION	DIM_EDUCATION
RL14M_111	DIM_REG_INDEMNFICATION_TYPE	SEC_POOL_MASTER
RL14M_105	DIM_REG_INDEX	DIM_IRC
RL14M_20	DIM_REG_INDEX	DIM_IRC
RUSFR2052A28	DIM_REG_INSURER	DIM_INSURANCE_SCHEME
RGRLLNP01	DIM_REG_LOAN_PURPOSE	DIM_ACCOUNT_PURPOSE
RL14M_112	DIM_REG_LOAN_PURPOSE	DIM_ACCOUNT_PURPOSE
RLFD4500	DIM_REG_REGION	DIM_REGION
RL14M_102	DIM_REG_VALUATION_METHOD	DIM_VALUATION_METHOD
RL14M_109	DIM_REG_VALUATION_METHOD	DIM_VALUATION_METHOD
RL14M_110	DIM_REG_VALUATION_METHOD	DIM_VALUATION_METHOD
RL14M_15	DIM_REG_VALUATION_METHOD	DIM_VALUATION_METHOD
RL14M_26	DIM_REG_VALUATION_METHOD	DIM_VALUATION_METHOD
RGRLWR01	DIM_REG_WRITEOFF_REASONS	DIM_WRITE_OFF_REASONS
RUSFR2052A109	DIM_STANDARD_CENTRAL_BANKS	DIM_PARTY
RL14M_14	DIM_STANDARD_IRC	DIM_IRC
RUSFR2052A20	DIM_STANDARD_PRODUCT_TYPE	DIM_PRODUCT_TYPE
RL14M_2	DIM_STD_BALANCE_CATEGORY	DIM_BALANCE_CATEGORY
RL14M_35	DIM_STD_CENTRAL_AUTHORITY	DIM_PARTY
FRY9CRULE006	DIM_STD_CREDIT_LINE_PURPOSE	DIM_CREDIT_LINE_PURPOSE

## 3.1.4 Configuring Setup Tables for Standard Set of Values

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

## 3.1.4.1 SETUP\_MASTER Table

The SETUP\_MASTER table in atomic schema must be modified with the required values for US FED.

V_COMPONENT_ CODE	V_COMPONENT_ DESC	V_COMPONENT_ VALUE	Description
DEFAULT_FINANCIAL _ELEMENT	Default Financial Element	DEFAULT	Component Value to be updated according to the values used in STG_GL_DATA.V_FINANCIAL_ELEM ENT_CODE. This is used for Fact Management Reporting T2T.
DEFAULT_FX_RATE_ SRC	Default FX Rate Source	DEFAULT	Component Value to be updated according to the values used in STG_EXCHANGE_RATE_HIST.V_RA TE_DATA_ORIGIN. This is used for Calculating the Reporting Currency.
DEFAULT_MARKET_C ENTER	Market Center Identifier	DEFAULT	Component Value to be updated according to the values used in STG_INSTRUMENT_MARKET_PRIC ES.V_MKT_CENTER_ID. This is used for Calculating the Instrument Close Price.
USFED_DEFAULT_PD _MODEL	PD Model for USFED Regulatory Reporting	DEFAULT	Component Value to be updated according to the values used in STG_PD_MODEL_MASTER.V_PD_M ODEL_CODE. This is used for Calculating PD Model Band Skey.

## 3.1.4.2 FSI\_PARTY\_STD\_PARTY\_MAP

In USFED Regulatory Reporting, there is reporting requirement for certain Party which are considerd to be Regulatory Standard. As Party Dimension is an SCD table and the values of Party Identier Code (V\_PARTY\_ID) can change bank to bank, the FSI\_PARTY\_STD\_PARTY\_MAP is used for mapping the Bank-specific V\_PARTY\_ID to Regulatory-specific V\_STD\_PARTY\_CODE. Here, you must modify the V\_PARTY\_ID column according to the Bank-sepcific V\_PARTY\_ID of corresponding Party, which is stored in Party Dimension (DIM\_PARTY).

The following are the STD Party Codes which are getting used in US FED Regulatory Reporting.

V_STD_PARTY_CODE	V_STD_PARTY_NAME	V_PARTY_ID
вос	Bank of Canada	BOC
BOE	Bank of England	BOE
вој	Bank of Japan	вој
ECB	European Central Bank	ECB
FDIC	Federal Deposit Insurance Corporation	FDIC
FEDFINBNK	Federal Financing Bank	FEDFINBNK
FEDMOR	Federal National Mortgage Association	FEDMOR
FHA	Federal Housing Administartion	FHA
FHLB	Federal Home Loan Banks	FHLB
FHLMC	Federal Home Loan Mortgage Corporation	FHLMC
FNMA	Federal National Mortgage Association	FNMA
FRB	Federal Reserve Bank	FRB
FmHA	Farmers Home Administration	FmHA
GNMA	Government National Mortgage Association	GNMA
HOSTEADASOC	Home-stead associations	HOSTEADASOC
IMF	International Monetary Fund	IMF
NCUA	National Credit Union Administration	NCUA
NCUSIF	National Credit Union Share Insurance Fund	NCUSIF
ОСВ	Other Central Bank	ОСВ
OGSE	Other GSE	OGSE
POSTMST	Postmaster's Demand Deposit Accounts	POSTMST

V_STD_PARTY_CODE	V_STD_PARTY_NAME	V_PARTY_ID
RBA	Reserve Bank of Australia	RBA
SNB	Swiss National Bank	SNB
TENVAL	Tennessee Valley Authority	TENVAL
UN	United Nations	UN
VA	Veteran Affairs	VA
WB	World Bank	WB

## 3.1.4.3 FSI\_REG\_MORT\_INSURER

In USFED Regulatory Reporting, there is reporting requirement for certain Mortgage Issuer which are considerd to be Regulatory Standard. As Party Dimension is an SCD table and the values of Party Identier Code (V\_PARTY\_ID) can change bank to bank, the FSI\_REG\_MORT\_INSURER table is used for mapping the Bank-specific V\_PARTY\_ID to Regulatory-specific V\_REG\_MORT\_ISSUER\_CD. Here, you must modify the V\_PARTY\_ID column according to Bank-sepcific V\_PARTY\_ID of corresponding Party, which is stored in Party Dimension (DIM\_PARTY).

The following are the Regulatory Spefic Issuer Codes which are getting used in US FED Regulatory Reporting.

V_REG_MORT_ISSUER_CD	V_REG_MORT_ISSUER_NAME	V_PARTY_ID
Arch MI	Arch MI	Arch MI
CMG	CMG Insurance Company	CMG
CRA	Community Reinvestment Act Loans	CRA
ESNT	Essent	ESNT
FHA	Federal Housing Administration	FHA
FHAP	FHA Project	FHAP
FHAR	FHA Residential	FHAR
GE	Genworth Mortgage Insurance	GE
HUD	Department of Housing and Urban Development	HUD
HUDL	HUD 235 Loans	HUDL
INT	Integon	INT
MGIC	Mortgage Guarantee Insurance Company	MGIC

V_REG_MORT_ISSUER_CD	V_REG_MORT_ISSUER_NAME	V_PARTY_ID
MSG	Missing	MSG
NMI	National Mortgage Insurance	NMI
ОТН	Others	ОТН
PMI	Private Mortgage Insurance Company	PMI
RAD	Radian	RAD
RMIC	Republic Mortgage Insurance Company	RMIC
TRD	Triad	TRD
UGIC	United Guaranty Residential Insurance Company	UGIC
VA	Department of Veteran Affairs	VA
VAR	VA Residential	VAR

## 3.1.5 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

#### 3.1.6 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.

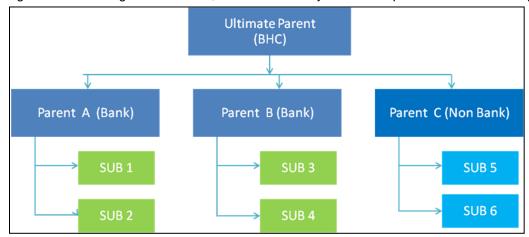


Figure 24: Consolidation

- 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.

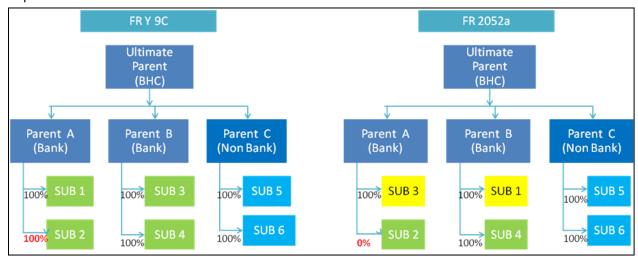


Figure 25: Consolidation with Multiple Hierarchies

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 you have multiple hierarchies or not, there are two data flows.

Consolidation with Multiple Organization Structure Hierarchy:

- You load Organization Structure Hierarchy to STAGE ORG STRUCTURE MASTER table, which
  is moved to ORG STRUCTURE DIMENSION using SCD component.
- 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.
- 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.
- The STAGE LEGAL ENTITY HIERARCHY is used for the Consolidation process and not the one from ORGANIZATION STRUCTURE DIMENSION.

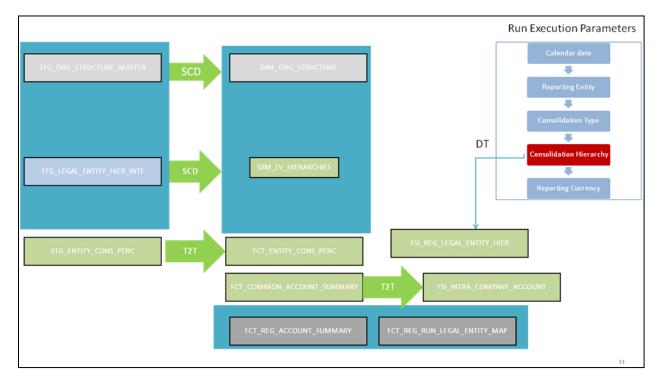


Figure 26: Consolidation with Multiple Organization Structure Hierarchy

5. If you do 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.

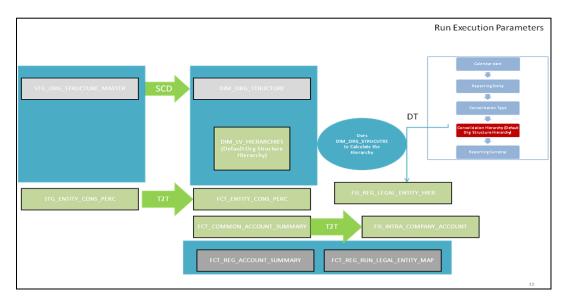


Figure 27: Consolidation without Multiple Organization Structure Hierarchy

**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 you select 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.

## 3.1.6.1 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.

## 3.1.7 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.

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

Table 5: Projection Data Example 1

#### 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 need not provide this difference as a download. Movement data for actual is identified through different runs and 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	
100	Actual	100	BSL	RUNID002	15-Nov-13	100,000	000 000
100	Actual	100	BSL	RUNID003	20-Nov-13	300,000	900,000
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.

## 3.1.8 Data Flow from Source Systems to Staging Area

The staging area is populated with data from various data sources, such as GL data, Account data, Customer data, Trading data, Currency data, and Master data. See <u>Data Integration Hub (DIH) User Guide</u> in 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.

## 3.1.9 Data Flow from Staging to Results Area

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

#### 3.1.9.1 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.

#### 3.1.9.2 Derived / Transformed Data and Reclassifications

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

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

**Table 7: Data Transformation Example** 

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.

#### 3.1.9.3 Reclassified 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 CLASSIFICATION	
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

Refer Business Metadata for details of these reclassifications.

## 3.1.10 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.

## 3.1.11 Data Flow from Processing to Results Area

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

# 3.1.12 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 quidelines 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.

Data Loading Guidelines for handling Negative or Credit Balances

To handle Negative Balances in Regulatory Reporting, there are two primary sources of the negative balances:

- 1. Natural asset negative balances from system of records
- 2. Adjustment entries or Plug entries.

Reporting requirement is to show the genuine asset negative balances as liabilities where adjustment entries should be aggregated to the same heading assets or liabilities as they are loaded. USFED uses General Ledger type from General Ledger Account dimension. Primarily following two General Ledger Type codes are used for this purpose.

- 1. ASSET
- 2. LIABILITY

General Ledger is available in every contract or product processor table as General Ledger code. Following products are considered for the treatment of negative balances:

- 1. Loans and Cards
  - a. Loans are reported under Assets category in Balance Sheet. There are cases when customer makes excess payment towards the loan account which makes the end of period account balance becoming credit balance or negative balance.
  - b. When excess payment is made, then account will no longer fall under Asset category, but it becomes a liability for the financial institution and must be reported as non-interest bearing demand deposits in respective line items.
  - c. To avoid reporting of excess payment as assets, you must assign a General Ledger code to given account with V\_GL\_TYPE\_CODE = 'LIAB'.
  - d. When for any loan regulatory reclassification assigned with GL code having
     V\_GL\_TYPE\_CODE = 'LIAB', it excludes the reporting for all asset line items and it is added to Liability in respective line items.

- e. Accounts created for Adjustment or Plug entries must have General Ledger code having V\_GL\_TYPE\_CODE = 'AST'. This adds up to the same asset line item resulting in addition or reduction of overall reporting amount for a given line item based on sign of end of period balance.
- f. Accounts created for Adjustment or Plug entries for excess payments must have General Ledger code having V\_GL\_TYPE\_CODE = 'LIAB'. This adds up to the same Liability line item resulting in addition or reduction of overall reporting amount for a given line item based on sign of end of period balance.

# <u>Illustrative Table showing handling of Negative Balances for Assets other than</u> **Derivatives**

						FR Y-9C	
Use Case	Product	Account	GL TYPE	Balance	HC-C 6.a	HC-E 1.a	HC-H 1
Genuine Debit Balance	Credit Card	AC 001	ASSET	400	400		400
Excess Payments: Genuine Negative Balance	Credit Card	AC 002	Liability	-600		600	
Adjustment Positive Entry	Credit Card	AC 003	ASSET	100	100		100
Adjustment Negative Entry	Credit Card	AC 004	ASSET	-250	-250		-250
Excess Payments: Adjustment Positive Entry	Credit Card	AC 005	LIABILITY	200		-200	
Excess Payments: Adjustment Negative Entry	Credit Card	AC 006	LIABILITY	-300		+300	
	Total						

HC-C Line Item 6.a: Credit Cards

HC-E Line Item 1.a: Non-Interest Bearing Balances

HC-H Line Item 1: Earning Assets

## Impact of Negative Balances on Derivative GL Reconciliation Scenarios

Derivatives (Trading Assets / Trading Liabilities / All Other Assets / All Other Liabilities)

- a. Derivatives are not expected to have genuine negative notional amounts or end of period balances as in case of loans or cards. Also, fair value of a derivative is to be loaded always as a positive value.
- b. Application runs a rule called as Trading Account Type dimension which checks for GL code having V\_GL\_TYPE\_CODE. If GL type is ASSET, it is shown under Trading Assets / All Other Assets. If GL type is 'LIAB', it is shown under Trading Liabilities or All Other Liabilities.

**NOTE:** Currently, this feature is enabled for FR Y-11 / FR 2314 / FR 2052A Reports only. Other reports to uptake this feature in subsequent releases.

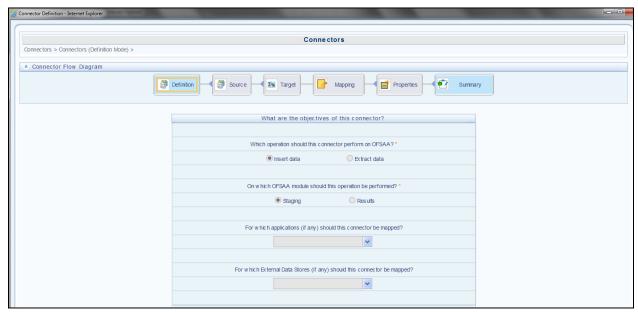
							FR Y- 11 / FR 2314 / FR Y-9C			
Use Case	Natural or Adjustment	ACC	GL Type	GL Bal	SL BAL	Fair Value / Unrealized Gain	Other Assets BS 7 / HC-F 6	Other Liabilities BS 14 / HC-G 3	Revaluation Gains BS M 4.e or 6.e HC-D 11	Revaluation Loss HC-D 14
GL and SL match	Natural	AC 01	Asset	800	800	800	800		800	
GL and SL match	Natural	AC 02	LIAB	-1500	-1500	-1500		1500		1500
GL has Assets higher than SL data	Natural	AC 03	Asset	1100	1000	1000	1000		1000	
GL has Assets higher than SL data	Adjustment	AC 04	Asset		100	100	100		100	
GL has lower assets than the SL data	Natural	AC 05	Asset	1200	1500	1500	1500		1500	
GL has lower assets than the SL data	Adjustment	AC 06	Asset		-300	-300	-300		-300	
GL has higher liabilities than the SL data	Natural	AC 07	LIAB	-2000	-1750	-1750		1750		1750
GL has higher liabilities than the SL data	Adjustment	AC 08	LIAB		-250	-250		250		250
GL has lower liabilities than the SL data	Natural	AC 09	LIAB	-1250	-1750	-1750		1750		1750
GL has lower liabilities than the SL data	Adjustment	AC 10	LIAB		500	500		-500		-500

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

#### 3.1.12.1 DIH Connectors

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



#### 3.1.12.2 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.

#### 3.1.12.3 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 *Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack* on OHC for more details on configuring a F2T.

# 3.1.13 FSDF Entity Information

## 3.1.13.1 Dimension Tables/Entities

**Table 10: Dimension Tables/Entities** 

SI. 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.

SI.	List of Seeded Tables	Table/Entity	Table/Entity Descriptions
No.		Logical Names	, , , , , , , , , , , , , , , , , , , ,
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.
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.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
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
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.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
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 writtenoff 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).
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	This table stores the FR Y-9C reports
		Dimension	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)
			8. bhckJ451 (All other loans, excludes
			consumer loans)
			9. bhckF163 (All other leases, excludes
			consumer leases)
			·
			bhckF160 (nonfarm,nonres, owner occupied)
			11. nonfarm, nonres, owner occupied
			originated in non-domestic offices as
			reported within bhck1410

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
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.

SI. 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 REFINANCING  13 = ESOP FINANCING  14 = AGRICULTURE AND/OR LIVESTOCK PRODUCTION  15 = AGRICULTURE AND/OR RANCHING REAL ESTATE  16 = STOCK BUYBACK

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
			17 = PORTFOLIO ACQUISITION INCLUDING NOTE PURCHASE AGREEMENTS
			18 = REAL ESTATE  ACQUISITION/DEVELOPMENT/CO  NSTRUCTION – LAND
			19 = REAL ESTATE  ACQUISITION/DEVELOPMENT/CO  NSTRUCTION – RESIDENTIAL
			20 = REAL ESTATE  ACQUISITION/DEVELOPMENT/CO  NSTRUCTION - 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

SI. 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 CONVERTING TO TERM LOAN  7 = TERM LOAN  8 = TERM LOAN - A  9 = TERM LOAN - B  10 = TERM LOAN - B  10 = 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".

SI. 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.

SI. 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.

SI.	List of Seeded Tables	Table/Entity	Table/Entity Descriptions
No.		Logical Names	
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.

SI. 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.

SI. 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 triparty 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.

SI.	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.

SI. 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 prepopulated 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 prepopulated by the installer.

SI. 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_STAT US	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.

SI. 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 prepopulated 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 prepopulated 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

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
No.		Logical Names	the bank cannot distinguish between 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)

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
			from a third party. When the servicer cannot distinguish between bulk 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.

SI. 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 prepopulated 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 prepopulated 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 prepopulated 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.

SI. 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.

SI. 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.

SI. 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.

SI. 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_CATEGOR Y	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.

SI. 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.

SI. 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).

SI. 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. You must store detailing of factors here.
176	DIM_DIRECTIONAL_RISK_REG_CLASS	Directional Risk Regulatory Classification Dimension	This table stores the classification 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.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
180	DIM_INDEX_TYPE	Index Type Dimension	This column stores the index type. For example: STOCK, COMMODITY, CDX, and so on.
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.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
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).
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.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
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.
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

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
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.
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	DIM_REG_CHANNEL	Regulatory Channel Dimension	This table stores the various types of channels through which accounts are originated.
213	DIM_REG_PARTICIPATION_TYPE	Regulatory Participation Type Dimension	This table stores the various loan participation types as required by the regulator. This table contains pre-seeded values.
214	DIM_REG_DISPOSITION_TYPE	Regulatory Disposition Type Dimension	This table stores the various types of disposition of accounts as required by regulator.
215	DIM_PARTICIPATION_BANK_ROLE	Participation Bank Role Dimension	This table stores the different types of loan participantion roles that can be performed by the bank.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
216	DIM_OPTION_TYPE	Option Type Dimension	This table stores the different embedded option types. This table contains preseded values.
217	DIM_CREDIT_PARTICIPATION	Credit Participation Dimension	This table stores the Credit participation information.
218	DIM_CREDIT_PARTICIPATION_TYPE	Credit Participation Type Dimension	This table stores the various Credit Participation types.
219	DIM_CREDIT_PARTICIPTN_TRANCHE	Credit Participation Tranche Dimension	This table stores the Credit participation Tranche information.
220	DIM_REG_IRC	Regulatory Interest Rate Curves Dimension	This entity stores the Regulatory Interest Rate Curve definitions .
222	DIM_PD_MODEL	Probability of Default Model Dimension	This table stores the Probability of Default model name, description, and version details.
223	DIM_HEDGE_PORTFOLIO_SET	Hedge Portfolio Set Dimension	This table stores the unique hedge identification under which the accounts are covered.
224	DIM_HEDGED_RISK	Hedged Risk Dimension	This column stores the codes for hedged Risk. Sample values are:  OCFV: Overall Change in Fair Value or Variability in Cash Flows,  IR: Interest Rate Risk,  FX: Foreign Exchange Risk,  CR: Credit Risk,  IRFX: Interest Rate Risk & Foreign Exchange Risk,  IRCR: Interest Rate Risk & Credit Risk,  FXCR: Foreign Exchange Risk & Credit Risk,  FXCR: Foreign Exchange Risk & Credit Risk,  IRFXCR: Interest Rate Risk & Foreign Exchange Risk & Credit Risk,  CIFVOPT: Change in Fair Value of Embedded Call or Put Option.

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions
225	DIM_REG_HEDGE_TYPE	Regulatory Hedge Type Dimension	This table stores the regulatory hedge type codes. Sample values are:  • CFH: Cash Flow Hedge,  • FVH: Fair Value Hedge,  • OTH: Other Hedge
226	DIM_REG_ELIG_CUST_CATEGORY	Regulatory Eligible Customer Category	This table stores the values if Regulator specified eligible customer types.  Sample values are:  OTH: Others  MSG: Missing  OTHNONEXMPENT: Other Non-Exempt Entity  OTHEXMTENT: Other Exempt Entity  USFBNK: U.S Branch or Agency of a Foreign Bank  NONUSFBNK: Non-U.S Office of a Foreign Bank  USGSEEXMPT: U.S Government-Sponsored Enterprise that is defined as an Exempt Entity  NONUSUSDEP: Non-U.S Office of a U.S Depository Institution  OTHENT: Other Entity  USDEPINST: U.S Depository Institution  NONDEPINSTNONEXMT: Non-Depository Financial Institution that is defined as a Non-Exempt Entity  NONFINCORENT: Non-Financial Corporate Entity  NONDEPINSTEXMT: Non-Depository Financial Institution that is Defined as an Exempt Entity

## 3.1.14 Fact Tables/Entities

For all tables with data flow type tagged as a Processing, it is recommended that you 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

SI. No.	List of Seeded Tables	Table/Entity Logical	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

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
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
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

SI. 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 dayto-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

SI. 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

SI. 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

SI. No.	List of Seeded Tables	Table/Entity Logical	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 (IIfp) 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`
48	FCT_MERCHANT_BANKING	Fact Merchant Banking	This entity stores the details of issues associated with a fiduciary account.	Staging

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
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
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

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
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
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

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
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
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

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
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
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

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
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
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

SI. No.	List of Seeded Tables	Table/Entity Logical Names	Table/Entity Descriptions	Data Flow Type
84	FCT_REG_CP_EXP_MTM_DTLS	Regulatory Counterparty Exposure Mitigant Summary	This table stores the MTM summary for a given counterparty and Netting agreement for business as usual and stressed scenarios.	
85	FCT_CREDIT_PARTCPTN_ TRNCH_MAP	Fact Credit Participation Tranche Map	This entity maps the participation to various tranches.	
86	FCT_ACCT_CREDIT_SCORE_ DETAILS	Fact Account Credit Score Details	This entity stores the details of the credit score of account thoroughout its lifetime.	
87	FCT_SERV_ACCT_CREDIT_ SCOR_DTL	Fact Serviced Account Credit Score Details	This entity stores the details of the credit score of serviced account thoroughout its lifetime.	
88	FCT_INSTRUMENT_PD_ DETAILS	Fact Instrument Probability of Default Details	This table stores the probability of default values as of given date for all relevant instruments.	
89	FCT_CUSTOMER_PD_DETAILS	Fact Customer Probability of Default Details	This table stores the probability of default values as of given date for all relevant customers.	
90	FCT_REG_HEDGE_SUMMARY	Fact Regulatory Hedge Summary	This table stores summary of hedged portfolio set which includes effective and ineffective portion of gain and loss, hedged notion amount, IRC used, and so on.	
91	FCT_HEDGE_PORTFL_SET_ ACC_MAP	Fact Hedge Portfolio Set Account Map	This table stores the unique hedge identification providing summary of accounts that are "Hedged" and instrument which is used for "Hedging".	

## 3.2 Mapping of Results to Reporting Requirements of Lombard Risk

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

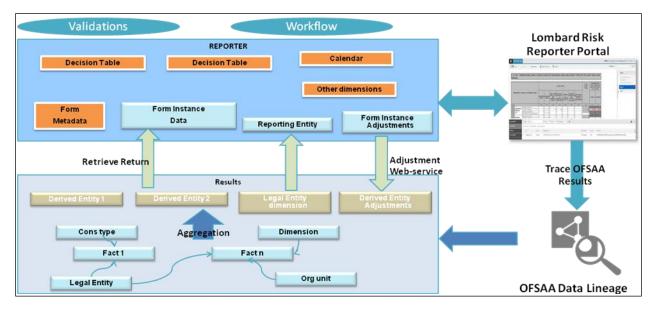


Figure 28: Data Flow between OFSAA and AgileREPORTER

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.

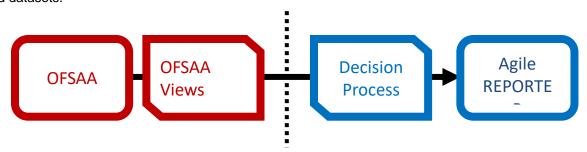


Figure 29: Decision Process in AgileREPORTER

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:

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

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

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

## 4.3 Derived Entity

It is the primary component of OFSAA used for OFSDF Interface with Lombard Risk for 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.

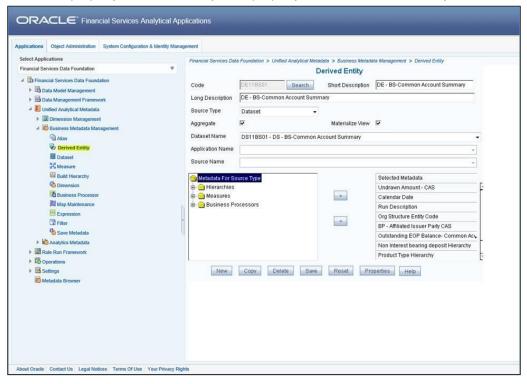


Figure 31: Derived Entity User Interface

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

#### 4.3.2 User Roles

Following are the user roles for derived entity:

- Reporting Analyst: To create, modify, and delete a derived entity.
- Data Analyst: To 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 <u>OFS Analytical Applications Infrastructure User Guide</u> in <u>OHC</u> documentation library.

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

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

Table 11: Dimension Mapping Example 1

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.

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

Table 12: Dimension Mapping Example 2

**Note**: All the dimension member codes that are used in the decision table are preseded by OFSAA and cannot be modified. Therefore, if you have other member codes in the dimension, then you must re-classify them by using re-classification rule post load, or value-code mapping during load.

Decision tables must be prepared closer to the report submission period. In some cases, reclassification of multiple dimensions which result in a single unified reporting dimension must be performed in order to address the complexity of decision table. Reclassification rule is defined in OFSAA and packaged as part of OFSAA Risk Regulatory Reporting (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: Run Search Section

#### 5.2.2 List of Runs Section

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

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

- ◆ 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.

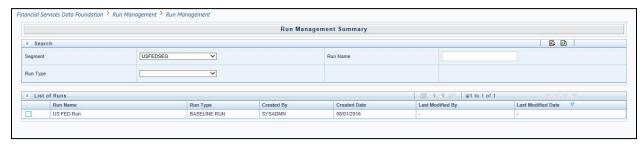


Figure 33: Run Management Summary

**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 entity, 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.

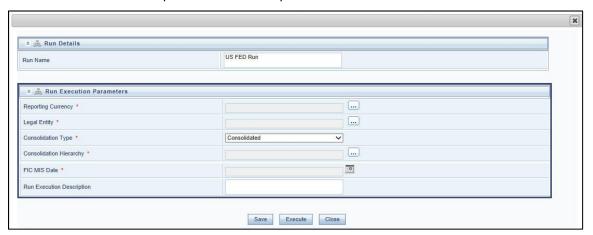


Figure 34: Run Default Parameters Window

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 must save the following hierarchies under Save Metadata screen:
  - 1. Legal Entity Code for Run (HFSDF001)
  - 2. Reporting Currency Code for Run (HFSDF002)
  - 3. Legal Entity Hierarchy for Run (HFSDF003)
  - 4. GAAP Code for Run (HFSDF005)

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

## 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.

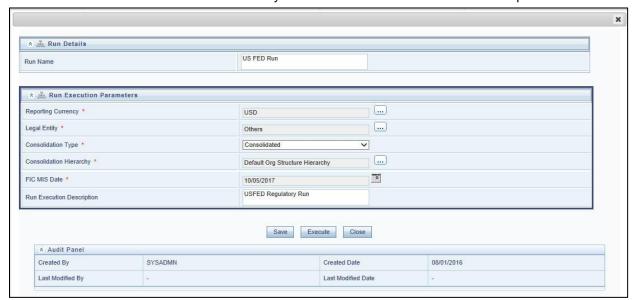


Figure 35: Run Execution Parameters Window

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.

#### 5.2.4.2 Run Execution Parameters Section

The following Run execution parameters can be updated:

- Reporting Currency: Reporting Currency Code parameter is used for calculation of amounts in Reporting Currency during Data Population.
- Legal Entity: Legal Entity Code parameter is used for identifying the legal entity, which is used for the Run.
- Consolidation Type: Consolidation Type parameter is used for selecting legal entities on a solo
  or consolidation basis. In a solo run, only the selected legal entity will be used. In a consolidated
  run, along with the selected legal entity, all its child legal entities are also used.

- Consolidation Hierarchy: Legal Entity Hierarchy is used for selecting the required hierarchyfor the consolidated run. This parameter is not required for solo run.
- FIC MIS Date: Enter the extraction date in this field.
- Run Execution Description: Enter a longer description of the Run.

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

- 1. Legal Entity Code for Run (HFSDF001)
- 2. Reporting Currency Code for Run (HFSDF002)

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

By clicking the Execute button, a batch with the defined Run execution parameters is created and executed immediately. Status of the executed run can be seen in Batch Monitor screen or Run Execution Summary page.

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

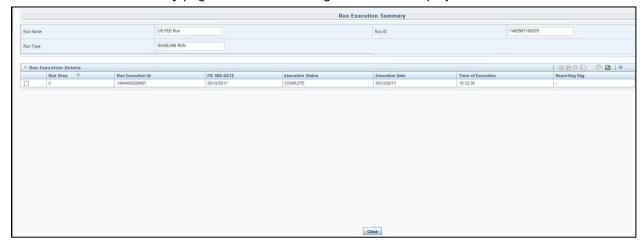


Figure 36: Run Execution Summary

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.

## 5.3 Run Execution from Command Line

The Run Execution can be performed from the Command Line Interface with the following steps:

- a. Navigate to **\$FIC\_HOME/ficdb/conf** directory
- b. Enter the details for the following fields in the **USFED Run RNUS\_REG\_RUN.properties** file:

Name	Description	Example
INFODOM	Specify name of Information Domain (INFODOM) of Run Definition	INFODOM=FSDFINF300
SEGMENT	Specify the Folder Code / Segment Code of Run Definition	SEGMENT=USFEDSEG
RUN_CODE	Specify the Run Code of the Run Definition	RUN_CODE=RNUS_REG_RUN
USER_ID	Specify the OFSAAI User ID for the Run Execution	USER_ID=rrruser
HIER_RCY	Specify the Reporting Currency Hierarchy Code for the Run Execution	HIER_RCY=[HFSDF002].[USD] (default value)
HIER_LE	Specify the Legal Entity Code for the Run Execution	HIER_LE=WFCB
HIER_CONSOHIER	Specify the Consolidation Hierarchy for the Run Execution	HIER_CONSOHIER=[HFSDF003].[Default Org Structure Hierarchy] (default value)

LIST_CONSOTYPE	Specify the Consolidation Type for the Run Execution	LIST_CONSOTYPE=SOLO List of values accepted are: 1. CONSL: Consolidated Run 2. SOLO: Solo Run (default value)
HIER_GAAP	Specify the GAAP Code Hierarchy for the Run Execution	HIER_GAAP=[HFSDF005].[USGAAP]
RUN_EXE_COMMENTS	Specify the Comments for Run Execution	RUN_EXE_COMMENTS=FR Y-9C Reporting Run
REQ_TYPE	Specify the Type of Execution for Run	REQ_TYPE=E List of Values Accepted are:  1. E: Create Batch and Execute (default value)  2. S: Create Batch

- c. Navigate to **\$FIC\_HOME/ficdb/bin** directory
- d. Execute the following .sh file by passing two arguments:

#### ExecuteRunManagement.sh <file name> <execution date>

Note: The execution date is in YYYYMMDD format. For example: 20171130

For example: ExecuteRunManagement.sh RNUS\_REG\_RUN.properties 20171130

e. After successfully invoking the Run, the following messages are displayed:

With REQ\_TYPE=S, the message "Successfully created batch" is displayed in the console.

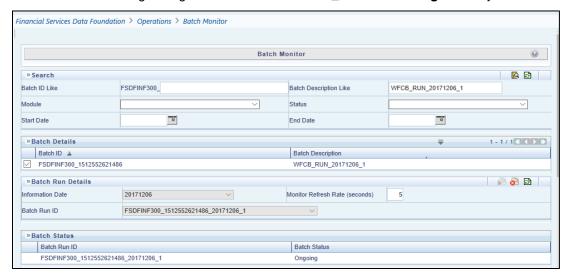


With REQ\_TYPE=E, the message "*Batch Triggered Successfully*" is displayed in the console.

SDynamParam:HIER\$LE-WFCB, HIER\$CONSOHIER-[HFSDF003].[Default Org Structure Hierarchy], HIER\$RCY-[HFSDF002].[USD], HIER\$GAAP-[HFSDF005].[USGAAP], LIST\$CONSOTYPE-SOLO responseStatus:200 responsePhrase:OK responsePhrase:OK responses Batch Triggered Successfully

**NOTE:** If any of the parameters in the **RNUS\_REG\_RUN.properties** file is not entered correctly, the execution does not display the success message as above.

The Batch execution status can be monitored through the Batch Monitor link from the OFSAA Application Interface and the relevant logs are generated under the **\$FIC\_HOME/ficdb/log** directory.



# 6 Metadata Export Utility

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

## 6.1 Prerequisites

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

- 1. MDB Publish: Execute the batch, INFODOM MDB
- 2. Logs: MDB logs are generated under deployed area /Context\_Name/logs/MDB\_XXXX.log
- 3. Data Elements Wrapper Execution: After MDB Publish is completed successfully with message "Metadata publishing is finished." in the /Context\_Name/logs/MDB\_XXXX.log, you must execute the Data Elements Utility with the following seeded batch to get the Data Lineage for each Metadata in OFSAA:

#### <INFODOM> POP DATA ELEMENTS USFED

**NOTE:** This execution requires adequate tablespace. Ensure that your Atomic Schema is having enough tablespace in TEMP and USERS.

#### Parameters used in <INFODOM>\_POP\_DATA\_ELEMENTS\_USFED Batch

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

The default parameters used in the **<INFODOM>\_POP\_DATA\_ELEMENTS\_USFED** batch are:

#### Task1 (METADATA PARSER)

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

#### Task2 (REPORT PARSER)

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

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

- Full METADATA Parsing [Default Mode] (if the P\_FULL\_PARSE parameter is 'Y', then the parsing happens for entire METADATA and Run Elements for the Run(s) enabled in FSI\_DE\_POP\_RUN\_LIST table in the Atomic Schema).
- 2. Incremental METADATA Parsing [Optional Mode. Batch Parameter to Be Modified] (if the P\_FULL\_PARSE parameter is 'N', then the parsing happens for changed METADATA and Run Elements for the Run(s) enabled in FSI\_DE\_POP\_RUN\_LIST table in the Atomic Schema).

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

- 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. (OPTIONAL) 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.

# Execution Types for REPORT Parsing in <INFODOM>\_POP\_DATA\_ELEMENTS\_USFED Batch

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

**NOTE:** Even if the P\_JURISDICTION parameter in <a href="https://www.ncbe.number.com/">NOTE: Even if the P\_JURISDICTION parameter in <a href="https://www.ncbe.number.com/">INFODOM>\_POP\_DATA\_ELEMENTS\_USFED</a> Batch is loaded, the Dashboards which get parsed depend on the FSI\_DE\_POP\_REPORT\_LIST table in the Atomic Schema.

2. **All Jurisdcitions REPORT Parsing [Optional Mode. Batch Parameter to Be Modified]** (if the P\_JURISDICTION parameter is NULL, that is, (") or two Single Quotes, then the parsing happens for entire Reports enabled in FSI\_DE\_POP\_REPORT\_LIST table in the Atomic Schema).

You can edit the parameters by accessing the Batch 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. (OPTIONAL) Select **Task2** 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.

#### **Enabling Run for METADATA Parsing**

Every execution for METADATA Parsing requires minimum one Run to be enabled in FSI\_DE\_POP\_RUN\_LIST table in the Atomic Schema. By default, RGRNUSFED is enabled.

RUN NAME	INCLUDE RUN
RGRNUSFED	Υ

#### **Enabling Reports for REPORT Parsing**

Every execution for REPORT Parsing requires minimum one Report to be enabled in FSI\_DE\_POP\_REPORT\_LIST table in the Atomic Schema. By default, the following 25 Reports are enabled for US FED Jurisdiction.

DASHBOARD ID	JURISDICTION CODE	REPORT CODE	INCLUDE REPORT
1	USFED	FRY-9C	Υ
2	USFED	FRY-9LP	Υ
3	USFED	FFIEC-009	Υ
4	USFED	FFIEC-009a	Υ
5	USFED	FRY-15	Υ
6	USFED	FRY-20	Υ
7	USFED	FRY-12	Υ
8	USFED	FRY-11	Υ
9	USFED	FRY-11s	Υ
10	USFED	FR-2314	Υ
11	USFED	FR-2314s	Υ
12	USFED	FR-2052A	Υ
13	USFED	FR-2052B	Υ
14	USFED	FRY-14Q	Υ
15	USFED	FRY-14A	Υ
16	USFED	FFIEC-031	Υ

DASHBOARD ID	JURISDICTION CODE	REPORT CODE	INCLUDE REPORT
17	USFED	FR-2886B	Υ
18	USFED	FFIEC-041	Υ
19	USFED	FRY7N	Υ
20	USFED	FFIEC101	Υ
21	USFED	FR-2900	Υ
22	USFED	FDIC-8020	Υ
23	USFED	FRY-14M	Υ
24	USFED	FR-2644	Υ
25	USFED	FRY-7NS	Υ

**NOTE:** By Default All Dashboards are enabled and if you wish to parse particular Dashboards, modify the FSI\_DE\_POP\_REPORT\_LIST table in the Atomic Schema by enabling / disabling the "Include Report Column".

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

By Deafult, the **<INFODOM>\_POP\_DATA\_ELEMENTS\_USFED** Batch contains both the tasks, that is, METADATA Parsing and REPORT Parsing. You can use platform feature of EXCLUDE / INCLUDE Batch Task for Optional execution of required tasks.

## 6.1.1 Verifying Logs

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

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

## 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:

- FSI\_DE\_RUN\_LINEAGE\_METADATA
- MDR\_LINEAGE\_METADATA
- FSI\_DE\_REPORT\_LINEAGE\_BASE
- ◆ FSI\_DE\_REPORT\_LINEAGE\_DETL

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

CREATE INDEX index\_mdr\_mod\_parent\_child

CREATE INDEX index\_mdr\_mod\_parent\_child

ON mdb\_object\_dependencies (parent\_object\_def\_id,child\_object\_def\_id)

**COMPUTE STATISTICS** 

/

#### 6.2 User Access

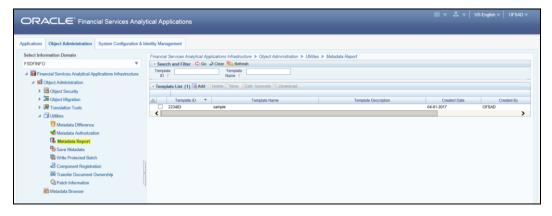
The following user groups are pre-seeded in the component that help you get access to the Metadata Report Extract screen.

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

## 6.3 Create and Export Metadata Report Templates

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

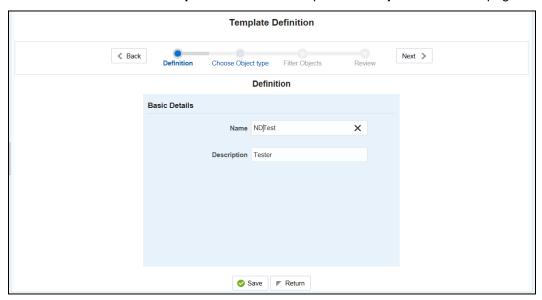
1. Navigate to Object Administration → Utilities → Metadata Report.



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



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



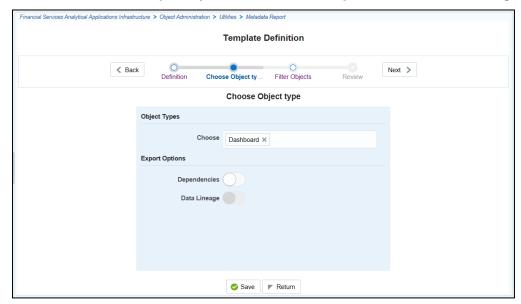
4. Select the desired object from the **Object Type** dropdown to be exported.

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

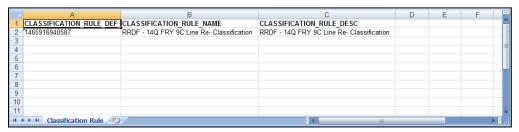
**Dependencies**: Metadata object is dependent on several other metadata objects. Metadata object is also used (that is, consumed) in several other metadata objects. Dependency or usage tree can be of any depth. For example, a rule can be dependent on a hierarchy, business processor, and dataset. Further,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

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

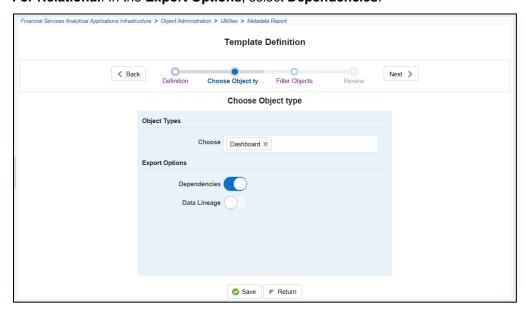
## For Individual: In the Export Options, do not select Dependencies or Data Lineage.



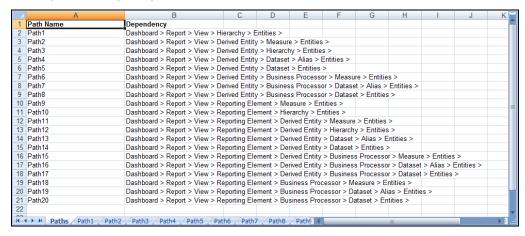
The exported sample report for Individual is as follows:



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







The 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.

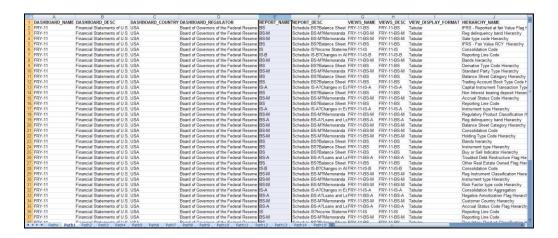
Each path tells how the dependency/usage is derived from dashboard to entity or vice versa involving various OFSAA object types like Derived Entity, Hierarchies, Datasets, Measures, and so on.

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

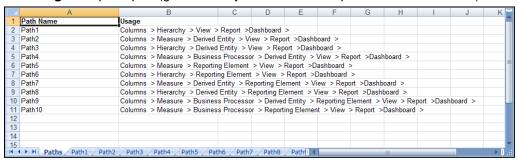
For every dependent object type displayed in each path sheet, the following columns are displayed:

- 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:

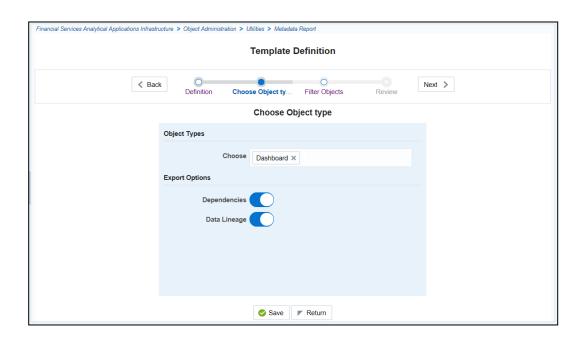


The first sheet shows the different Paths and their Usage upto the Dashboard level. Select the required **Path** sheet at the bottom to view the Usage.

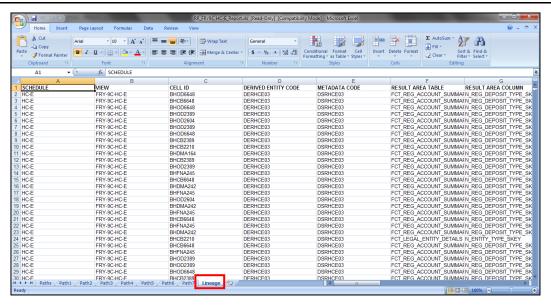


Select **Data Lineage** in **Template Definition**  $\rightarrow$  **Choose Object Type** to export the lineage details up to the Staging Columns level.

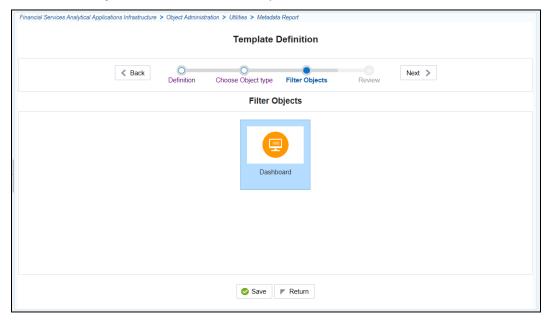
**NOTE:** Data Lineage can be selected only if **Dependencies** is opted.



**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).

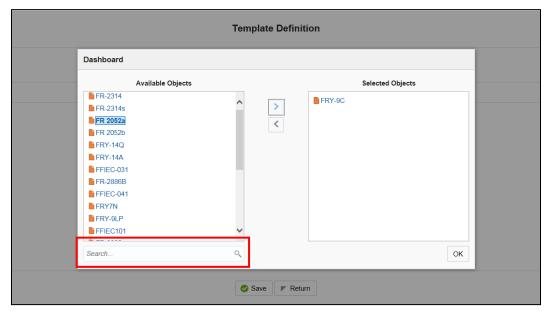


5. Select **Filter Objects** to see the selected objects.



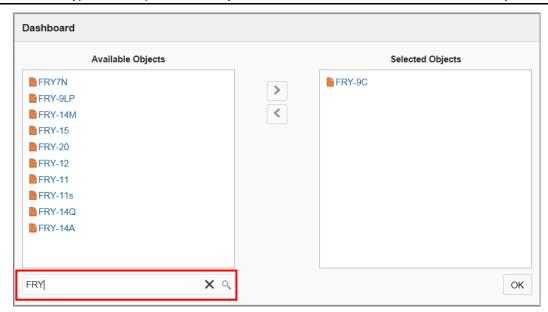
6. Select one Filter Object from the Available Objects and Click to add a Selected Object.

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

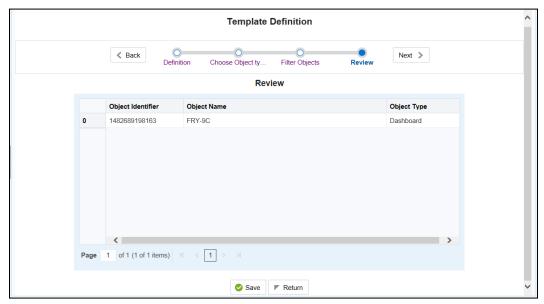


When the object list is huge, use the Search option as shown above. Type first three letters of the Filter Object name and the relevant Filter Objects is displayed.

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**.



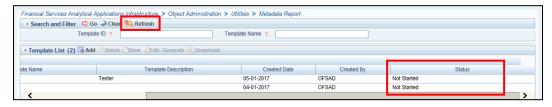
8. Click **Return** to go to the **Summary** page.



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.



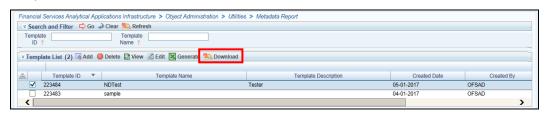
For Excel Export, the following are the Status values:

- 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 / No Path Found: 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 help you to get access to the Metadata Report Extract screen.

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

## 6.4 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.

## 6.5 Modify/Edit Metadata Report Templates

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

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



## 6.6 Delete Metadata Report Templates

Perform the following steps to delete the Metadata Report Templates:

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



# 7 Report Submission

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

- Report Submission: AgileREPORTER to Regulator
- Edit Checks/ Validity Check/ Quality Checks
- Report Templates to be used in AgileREPORTER

## 7.1 Report Submission: AgileREPORTER to Regulator

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

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

## 7.2 Edit Checks/ Validity Check/ Quality Checks

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

**Note**: See <u>Validation / Edit Checks</u> and also 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_V2	
FFIEC-002	FFIEC002_V1	
FFIEC-009	FFIEC009_V1	
FFIEC-009A	FFIEC009A_V1	
FFIEC-031	FFIEC031_V10 and FFIEC031_V11	
FFIEC-041	FFIEC041_V9 and FFIEC041_V11	
FFIEC-101	FFIEC101_V2	
FR-2052A	FR2052A_V4	
FR-2314	FR2314_V2	
FR-2314S	FR2314S_V1	
FR-2420A	FR2420A_V2	

Report Name	Report Template
FR-2420B	FR2420B_V2
FR-2420C	FR2420C_V2
FR-2644	FR2644_V2
FR-288SB	FR2886B_V1
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_V2
FR Y-14QA INTAUTO	FRY14QAINTAUTO_V2
FR Y-14QA INTCARD	FRY14QAINTCARD_V2
FR Y-14QA INTFM	FRY14QAINTFM_V2
FR Y-14QA INTHE	FRY14QAINTHE_V2
FR Y-14QA INTL OTH CONS	FRY14QAINTLOTHCONS_V2

Report Name	Report Template	
FR Y-14QA INTSB	FRY14QAINTSB_V2	
FR Y-14QA STUDENT	FRY14QASTUDENT_V2	
FR Y-14QA US OTH CONS	FRY14QAUSOTHCONS_V2	
FR Y-14QA USSB	FRY14QAUSSB_V2	
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 and FRY14QFVOHFS_V3	
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	FRY14QAAUTO_V2	
FR Y-14Q RETAIL INTAUTO	FRY14QAINTAUTO_V2	
FR Y-14Q RETAIL INTCARD	FRY14QAINTCARD_V2	
FR Y-14Q RETAIL INTFM	FRY14QAINTFM_V2	
FR Y-14Q RETAIL INTHE	FRY14QAINTHE_V2	
FR Y-14Q RETAIL INTL OTHCONS	FRY14QAINTLOTHCONS_V2	
FR Y-14Q RETAIL INTSB	FRY14QAINTSB_V2	
FR Y-14Q RETAIL STUDENT	FRY14QASTUDENT_V2	
FR Y-14Q RETAIL US OTHCONS	FRY14QAUSOTHCONS_V2	
FR Y-14Q RETAIL USSB	FRY14QAUSSB_V2	
FR Y-14Q SEC	FRY14QSEC_V5	

Report Name	Report Template
FR Y-14Q SUPMNT	FRY14QSUPMNT_V2
FR Y-14Q TRADING	FRY14QTRADING_V3
FR Y-15	FRY15_V5
FR Y-20	FRY20_V2
FR Y-7N	FRY7N_V1
FR Y-7NS	FRY7NS_V1
FR Y-9C	FRY9C_V6
FR Y-9LP	FRY9LP_V4

# 7.4 Supported Report Template Version and Activation Date

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

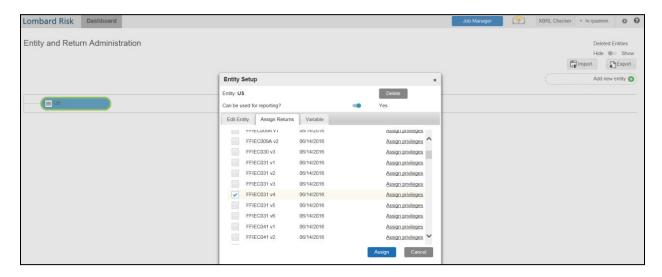


Figure 37: AgileREPORTER Entity Setup

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):

- Choosing different execution as a final. After report verification, if requirement is to change the
  execution, then you must visit <u>Marking Run as Final</u> section. After making these changes you must
  refresh Derived Entities (<u>Executing Batch to Resave Derived Entities</u>). Then AgileREPORTER also
  needs to retrieve returns so that revised data is reflected on AgileREPORTER.
- 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.

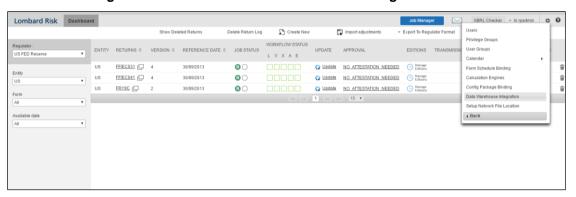


Figure 38: Data Warehouse Integration

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

**Name:** It is the text that must be displayed in the contextual button.

**URL Pattern:** Replace <<OFSAA\_HOST>>, <<OFSAA\_PORT>> and <<OFSAA\_CONTEXT>> with host, port and web context of the environment where OFSAA is installed. Replace <<OFSAA HOST>> with the name of information domain.

http://<<OFSAA\_HOST>>:<<OFSAA\_PORT>>/<<OFSAA\_CONTEXT>>/OFSAADrilldow n/drilldownreport.jsp?cellid=\${cellId}&infodom=<<INFODOM>>&legalentity=\${entityCode} &run=\${run}&date=\${referenceDate}

#### **Example:**

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

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

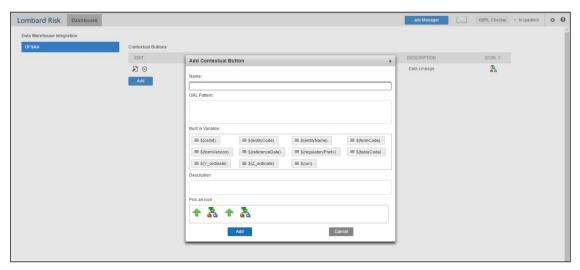


Figure 39: Adding Contextual Button

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

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

# 9 Validation / Edit 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

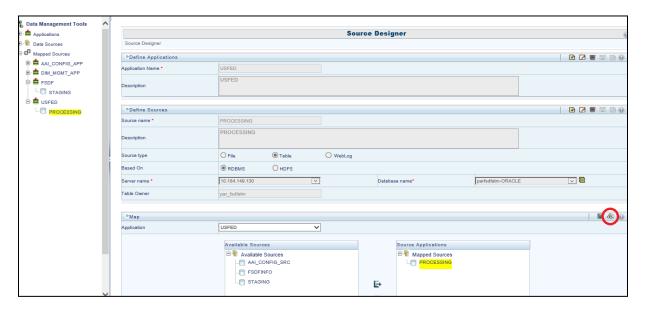
Perform the following configurations to validate / edit check for the data schedules before the Edit Check execution:

#### A. Source Model Generation

1. Log in to OFSAA application GUI.



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



- 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

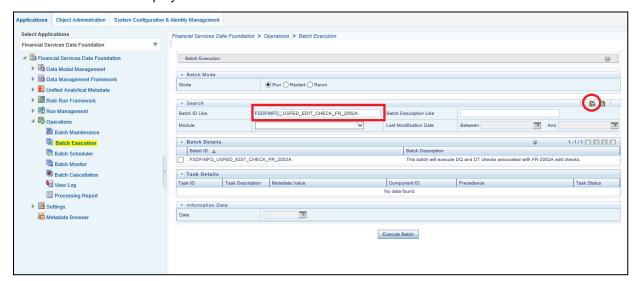
Perform the following batch run to complete the Edit Check execution:

FSDFINFO USFED EDIT CHECK FR 2052A batch.

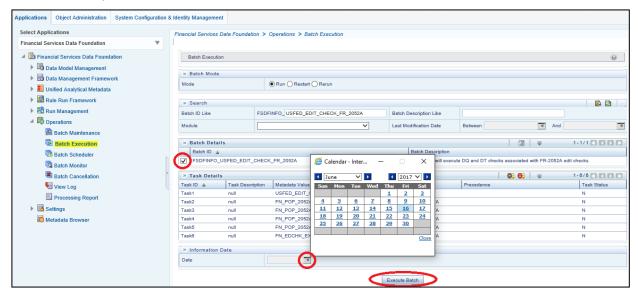
### 9.4 How to Execute the Batches?

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.



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	<ul><li>DQ_RESULT_SUMM_MASTER</li><li>DQ_RESULT_DETL_MASTER</li></ul>	
3	Internal Transactions Reported Without Internal Counterparty	Data Quality	<ul><li>DQ_RESULT_SUMM_MASTER</li><li>DQ_RESULT_DETL_MASTER</li></ul>	
4	Lendable Value in Excess of Market Value	Data Quality	<ul><li>DQ_RESULT_SUMM_MASTER</li><li>DQ_RESULT_DETL_MASTER</li></ul>	
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	<ul><li>DQ_RESULT_SUMM_MASTER</li><li>DQ_RESULT_DETL_MASTER</li></ul>	
9	Missing Required Products by Entity Type	Data Transformation	◆ FSI RUN PROD BY ENT TYP LOG	
10	Improper Intra-entity Consolidation	Data Quality	<ul><li>DQ_RESULT_SUMM_MASTER</li><li>DQ_RESULT_DETL_MASTER</li></ul>	
12	Invalid or Missing Counterparty Field	Data Quality	<ul><li>DQ_RESULT_SUMM_MASTER</li><li>DQ_RESULT_DETL_MASTER</li></ul>	
13	Missing or Not Applicable [Collateral Class] Field	Data Quality	<ul><li>DQ_RESULT_SUMM_MASTER</li><li>DQ_RESULT_DETL_MASTER</li></ul>	
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	
	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 entity'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 you can view this from AgileREPORTER User Interfaces designed for the Viewing / Editing of this aggregated data.

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

## 10.1 Prerequisites

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

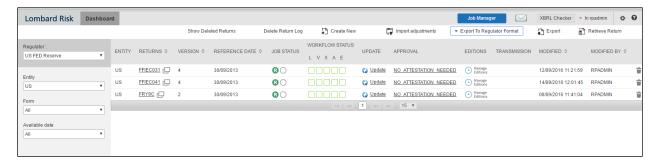


Figure 40: AgileREPORTER

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

The use cases described for swift troubleshooting are as follows.

#### 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.

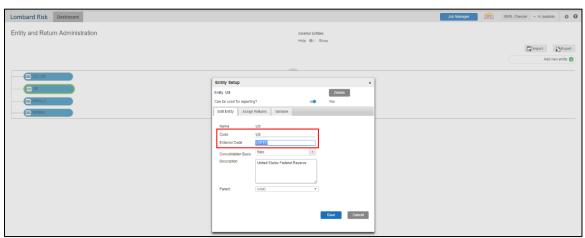
#### 10.2.2 Invalid Filter Combination for the Given Return

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

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



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



### 10.2.3 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.

#### 10.2.3.1 Fetching Null or Zero Values

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

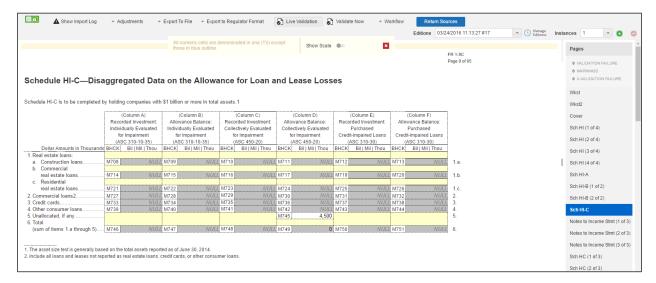


Figure 41: Fetching Null Values

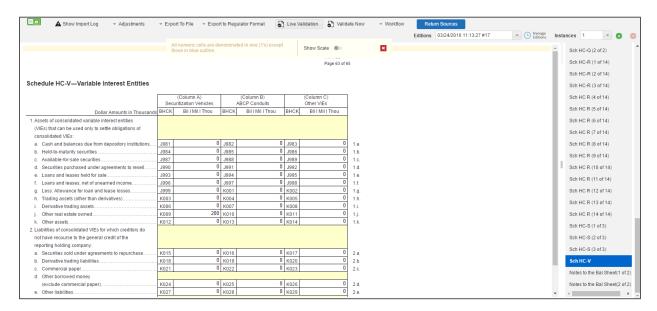


Figure 42: Fetching Zero Values

#### 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.
- Derived Entity does not have data:
  - a. Execute the Derived Entity / Materialized views to check if Derived Entity has data or not.
  - b. If Derived Entity does not have data, then check the Business Metadata excel for a given schedule.
  - c. Check Worksheet titled 'Derived Entity' in Business Metadata excel. Get all the derived entities for a given schedule.

- d. Get dataset for each derived entity.
- Execute datasets in OFSAA FSDF Atomic Schema to check if data is available for a given dataset joins.
- f. If data is available in dataset queries, you must log a Bug / Service Request with AgileREPORTER.
- g. If data is not available in dataset, then check if selection of Entity, Available Date (as of date) is appropriate and required executions are available. If Entity, As of Date and Run executions are correct and still data is not available, then you must log a Bug / Service Request with Oracle Support.

### 10.2.4 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

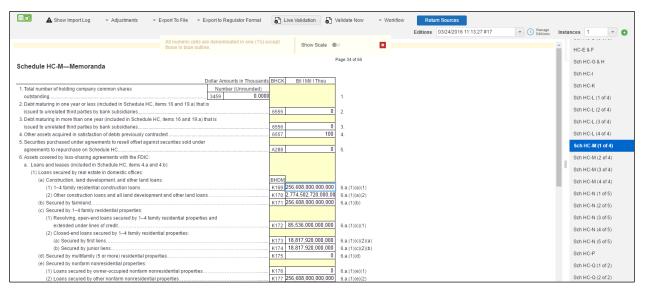


Figure 43: Schedule HC-M from FR Y-9C Report

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 44.

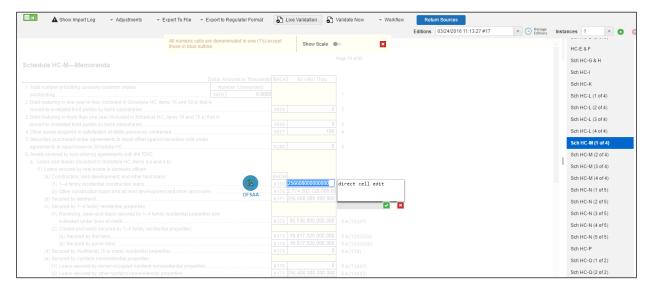


Figure 44: Data Lineage Icon

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

- If you are not already logged in, clicking here opens the OFSAA infrastructure login window. Log
  in using appropriate credentials and come back to Report Portal and click the same Data
  Lineage icon again.
- If you are already logged in to OFSAA Infrastructure, the Data Lineage first page opens as shown in Figure 45.

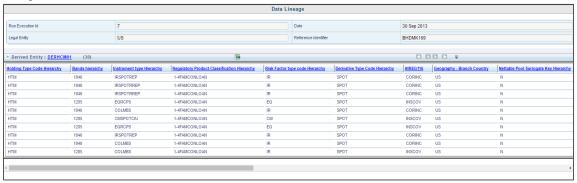


Figure 45: AgileREPORTER Drill-down

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

- 1. Run Execution ID: This refers to OFSAA Execution ID chosen for a given report.
- 2. Date: This refers to AS OF DATE selected for a given report.
- 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 46:

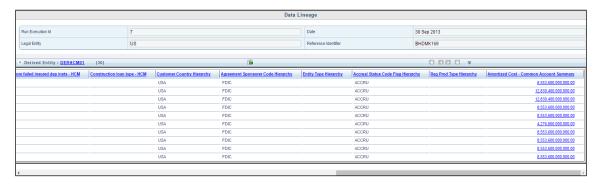


Figure 46: Measure Values

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.

#### 10.2.4.1 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:

- 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.
- If reclassified hierarchies are showing unexpected values, check Rules and source hierarchies of
  rules. This use case needs close verification to ensure that all source hierarchies have required
  values or Rule sequence which can lead to overwriting the values.
- 4. If all the source data is as expected and result area is now showing unexpected output, then log a Bug / Service Request with <u>Oracle Support</u>.

#### 10.2.4.2 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 47: Data Lineage Unavailable

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

- Internet connection is timed out or broken down in this case clicking Data Lineage on AgileREPORTER results in a blank second block. To rectify this, re-login to OFSAA infrastructure and AgileREPORTER.
- 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 48:

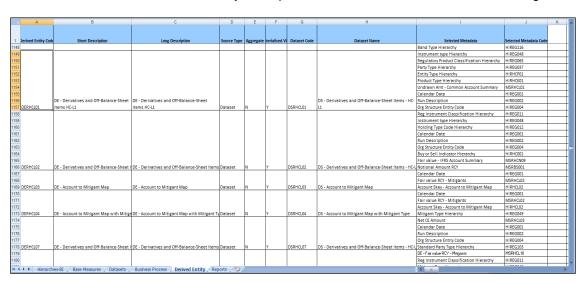


Figure 48: Business Metadata

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



Figure 49: 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 <a href="Oracle Support">Oracle Support</a>.



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