Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutions Canada (OFS REG REP OSFI)

User Guide

Release 8.1.2.0.0

August 2024





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1 Preface

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.

Topics:

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

1.1 What is New in this Release for OFS REG REP OSFI

This section lists new features and changes in OFS REG REP OSFI Release v8.1.2.0.0.

1.1.1 New Features

1.1.1.1 New Features in 8.1.2.6.0

- Automatic Report Publish
- <u>Drilldown enhancements</u>
- Adjustment enhancements
- The following reports are introduced in this release:

Report Name	Schedule Name or Description	
RESL	Real Estate Secured Lending	
B20	Residential Mortgage Underwriting Practices and Procedures Disclosure	

1.1.1.2 New Features in 8.1.2.5.0

The following reports are added in 8.1.2.5.0 release:

Report Name	Schedule Name or Description
A2	Non-Mortgage Loans
A3	Trading Income and Income from GoC Securities Trading
C1	Charge for Impairment

1.1.1.3 New Features in 8.1.2.4.0

The following reports are added in 8.1.2.4.0 release:

Report Name	Schedule Name or Description
P3	Income Statement
C3	Allowance Continuity
E3	Allowances for Expected Credit Losses
K4	Deposit Liabilities

1.1.1.4 New Features in 8.1.2.3.0

The new features introduced in this release is a New OSFI Menu to access Regulatory Reports (Report Mappings and Report Publish). The following reports are added in 8.1.2.3.0 release:

Report Name	Schedule Name or Description
E2	Mortgage Loans
N3	Loans in Arrears
J2	Home Equity Lines of Credit (HELOCs) Report
A4	Report on New Lending
B2	Securities

1.1.1.5 Deprecated Features

There are no deprecated features in this release.

1.1.1.6 Desupported Features

There are no desupported features in this release.

1.2 Scope of the Guide

The objective of this user guide is to provide comprehensive working knowledge on Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutions, Canada (OFS REG REP OSFI), Release 8.1.2.0.0. This user guide is intended to help you understand the key features and functionalities of Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutions, Canada release 8.1.2.0.0 and details the process flow and methodologies used.

1.3 Intended Audience

Welcome to Release 8.1.2.0.0 of the Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutions, Canada (OFS REG REP OSFI) User Guide.

This guide is intended for:

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

1.4 Access to Oracle Support

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

1.5 Related Information Sources

In addition to this user guide, you can see the following documents in the OHC Documentation Library:

- Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutions, Canada (OFS REG REP OSFI) Installation Manual Release 8.1.2.5.0
- Oracle Financial Services Data Foundation User Guide Release 8.1.2.0.0
- Oracle Financial Services Data Foundation Installation Manual Release 8.1.2.5.0
- Oracle Financial Services Analytical Applications Infrastructure User Guide Release 8.1.2.0.0

1.6 How this guide is Organized

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

- Chapter 2: Introduction
- Chapter 3: Getting Started
- Chapter 4: List of Configured OSFI Reports
- Chapter 5: Dimension Reclassification Tables
- Chapter 6: Regulatory Reporting Solution Data Flow
- Chapter 7: OFSAA Features
- Chapter 8: Executing Run through Process Modelling Framework in OFS REG REP OSFI
- Chapter 9: Regulatory Reports

• Chapter 10: Metadata Browser

1.7 Conventions Used

The following table lists the conventions used in this guide.

Table 1: Conventions Used in this Guide

Conventions	Description
References to sections or chapters in the manual are indicated in <i>Italics</i> .	
Screen names are indicated in the following manner: Introduction Screen	
Options and buttons are indicated in Bold .	
Code related text is indicated in Monospace.	
OFSAAI	Oracle Financial Services Analytical Applications Infrastructure
OFS AAAI	Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack
RHEL	Red Hat Enterprise Linux
Atomic Schema	Database Schema where the Application Data Model is uploaded
Config Schema	Database Schema which contains setup related configurations and metadata
OFS REG REP OSFI	Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutions, Canada

2 Introduction

This chapter provides an understanding of the OFS REG REP OSFI Application and its scope.

Topics:

- Overview
- OFSAA Regulatory Reporting Architecture
- Scope

2.1 Overview

The Office of the Superintendent of Financial Institutions (OSFI) is an independent agency of the Government of Canada, established in 1987 to contribute to the safety and soundness of the Canadian financial system. OSFI supervises and regulates federally registered banks and insurers, trust and loan companies, as well as private pension plans subject to federal oversight. It provides a regulatory framework of guidance and rules that meets or exceeds international minimums for financial institutions.

In addition to issuing guidance, OSFI provides input into the development of federal legislation and regulations affecting federally regulated financial institutions (FRFIs), and comments on accounting, auditing, and actuarial standards development, and determines how to incorporate them into our regulatory framework. It regulates by developing rules, interpreting legislation and regulations, and providing regulatory approvals types of transactions. It also contributes to new accounting, auditing, and actuarial standards.

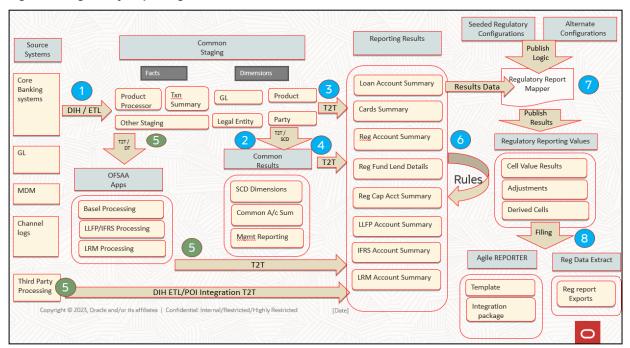
OSFI supervises by analyzing financial and economic trends to identify emerging issues that could adversely affect institutions. It assesses an institution's financial condition, material risks, and the quality of its governance, risk management, and compliance. It reports to Parliament through the Minister of Finance on various formal and informal processes that are used to ensure the effective execution of OSFI's mandate. For example, the Financial Institutions Supervisory Committee, whose members are OSFI, the Department of Finance, the Bank of Canada, the Canada Deposit Insurance Corporation, and the Financial Consumer Agency of Canada, meets at least quarterly to share information on matters relating to the supervision of federally regulated financial institutions.

OSFI also works with the Financial Transactions and Reports Analysis Centre of Canada (FINTRAC), which is responsible for ensuring compliance with Canada's Proceeds of Crime (money laundering) and Terrorist Financing Act.

2.2 OFSAA Regulatory Reporting Architecture

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

Figure 1: Regulatory Reporting Solution Architecture



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.

2.3 Scope

Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutions, Canada (OFS REG REP OSFI) covers the following Regulatory Reports for specified release as mentioned in the table:

Table 2: Scope of Regulatory Reports and Schedules

Report Name	Schedule Name or Description	Released Version
E2	Mortgage Loans	8.1.2.3.0
N3	Loans in Arrears	8.1.2.3.0
J2	Home Equity Lines of Credit (HELOCs) Report	8.1.2.3.0
A4	Report on New Lending	8.1.2.3.0
B2	Securities	8.1.2.3.0
P3	Income Statement	8.1.2.4.0
C3	Allowance Continuity	8.1.2.4.0
E3	Allowances for Expected Credit Losses	8.1.2.4.0
K4	Deposit Liabilities	8.1.2.4.0
A2	Non-Mortgage Loans	8.1.2.5.0
A3	Trading Income and Income from GoC Securities Trading	8.1.2.5.0
C1	Charge for Impairment	8.1.2.5.0
RESL	Real Estate Secured Lending	8.1.2.6.0
B20	Residential Mortgage Underwriting Practices and Procedures Disclosure	8.1.2.6.0

3 Getting Started

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

Topics:

- Prerequisites
- Assumptions
- Accessing the OFSDF Interface or OSFI Interface
- Organization of the Interface for User Roles
- Metadata Browser

OFSDF interface with OFS REG REP OSFI allows you to perform the following activities:

- Manage Data Loading and Transformation from various source systems to staging, processing, and results.
- Manage relevant OFSAA Metadata for Regulatory Reporting purposes. This includes creating, modifying, and viewing the metadata used in reporting.
- View the Report Metadata for mapping.

3.1 Prerequisites

For detailed prerequisites and instructions on installing this Release, see the <u>Oracle Financial Services</u> Regulatory Reporting for Office of Superintendent of Financial Institutions, Canada (OFS REG REP OSFI) <u>Installation Guide Release 8.1.2.6.0.</u>

3.2 Assumptions

OFSDF interface with OFS REG REP OSFI is a Reporting Application and it does not perform any risk or stress calculations. The assumptions for the application are:

- Textual and other related portions of reports like personal details, contact details, Yes or No choices
 must be updated on Report Portal directly and FSDF does not have a placeholder for it.
- Data provided is post reconciliation to ensure that the accuracy of data being reported (nonprescribed by regulators) are performed in OFSAA using various components – General Ledger (GL) reconciliation.
- All monetary amounts are expected to be positive in number, except valuation outputs which can be
 positive or negative. Rules are constructed assuming the negative sign of valuation amounts
 wherever applicable.
- The application populates a few specific Dimension Tables, known as seeded or sample tables as
 part of the installation script. Since they are used in the metadata, changes in data values have an
 impact on overall functioning.
- For data provided as of date, such as the last day of the quarter of the Reporting Year: Quarterly and Year to Date (YTD) report for the given date display the same value for those measures which

are of as of the date in nature. For example, the Annual and Quarterly Balance Sheet and BASEL Report generated as of 31-MAR show the same values for all measures such as Account Balance.

- All percentage data are expected in decimal format meaning 9% must be provided as 9 and not 0.09.
- Account Balances such as End of Period Balances are expected to be provided as Net of (without)
 Unearned Income.

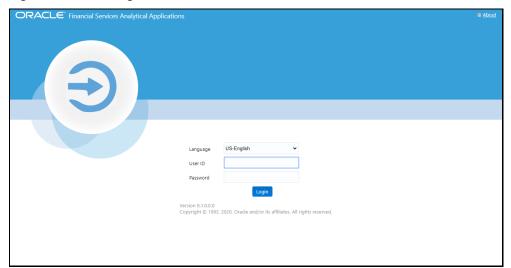
3.3 Accessing the OFSDF Interface or OSFI Interface

After the application is installed and configured, to access the OFSDF Interface with Reporting Portal for OSFI Application you must log in to the OFSAAI Environment using the OFSAAI Login Page.

To access the application, follow these steps:

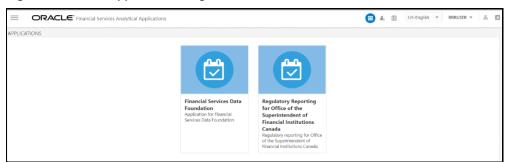
1. Enter the OFSAAI URL in your browser. The OFSAAI Login Page is displayed.

Figure 2: OFSAAI Log In



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

Figure 3: OFSAAI Applications Page



4. Select the **Financial Services Data Foundation** option to navigate to the **FSDF** Application or select the **Regulatory Reporting for Office of Superintendent of Financial Institutions Canada** to navigate to the **OFS REG REP OSFI** Application.

3.4 Organization of Interface for User Roles

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

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

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

Topics:

- Process Execution Summary
- Marking Run as Final
- Reporting Flag for Run through Process Execution Summary
- Executing Batch to Resave Derived Entities

3.4.1 Process Execution Summary

This section provides information on the Runs that apply to OSFI. The Process Execution Summary is launched after the Runs are executed from the Processing Modelling Framework. The following figure displays the Process Execution Summary with the data that is retrieved from the Process Modeler.

3.4.2 Marking Run as Final

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

- 1. After logging into the OFSAAI Applications Page, navigate to **Regulatory Reporting for Office of Superintendent of Financial Institutions Canada,** select **Process Modelling Framework** and select **Process Execution Summary.**
- 2. Scroll towards the right and click **Filter**, select the **Run Pipeline** from the available pipeline selection list. Click **OK**.
- **3.** After the Run Execution, the Process Execution Summary is generated in the list format as illustrated in the following steps. The summary page displays the **Process Names** for which the **Run Parameters** are generated.

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

You can view the detailed definition of a Run in a Read-Only Mode. The **Process Execution Details** Page displays the execution details for the selected Execution Key with the color band displaying the status of each Execution Key.

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

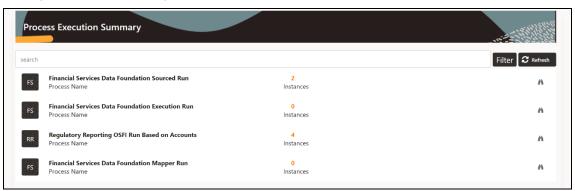
- **Process Description**: The Reconciliation Framework Run appears as the process description when the user executes the GL Reconciliation Run.
- **MIS Date**: The Extraction Date is displayed in this field.
- Start Time: It displays the Execution Date and the Execution Time when the Execution Run starts.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

3.4.3 Reporting Flag for Run through Process Execution Summary

To request, approve, and override a flag for the Process Execution, perform the following steps:

 After logging into the OFSAAI Applications Page, navigate to Regulatory Reporting for Office of Superintendent of Financial Institutions Canada, select Process Modelling Framework and select Process Execution Summary.

Figure: Run Pipeline Page



- 2. Scroll towards the right and click **Filter**, select the **Run Pipeline** from the available pipeline selection list. Click **OK**.
- 3. Scroll towards the right and click **View** in the **Process Name** row.
- **4.** Select **Request Report Flag** to request a Report Flag for the selected Run Execution.
- **5.** Enter information in the **Comments** field and click **Submit**. The request Report Flag for a Run is saved successfully.

3.4.3.1 Approve Report Flag for a Run

To approve the Report Flag, perform the following steps:

- **1.** Navigate to the **Process Execution Summary** Page and select the process name for which the Report Flag must be approved.
- 2. Click **Approve** to approve the request.
- 3. Enter the information in the Approve Request Flag Page.
- **4.** Click **Approve** to approve the requested Report Flag.

3.4.3.2 Override Report Flag for a Run

To override the Report Flag for a successful run, perform the following steps:

- **1.** Navigate to the **Process Execution Summary** Page and select the process name for which the Report Flag must be overridden.
- 2. Click **Override Report Flag** to override the Report Flag.
- 3. Enter the information in the **Override Report Flag** Window.
- 4. Click **Override** to override the requested report flag.
- 5. Click **Approve Report Flag** to approve the override Report Flag Request.
- **6.** Enter the information in the **Approver Comments** field and click **Approve** and the Report Flag is overridden successfully.

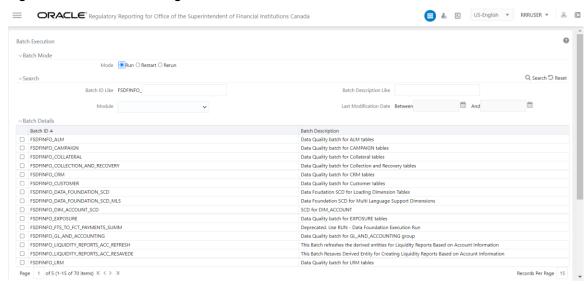
3.4.4 Executing Batch to Resave Derived Entities

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

After logging into the OFSAAI Applications Page, navigate to Regulatory Reporting for Office
of Superintendent of Financial Institutions Canada, select Operations, and then select Batch
Execution.

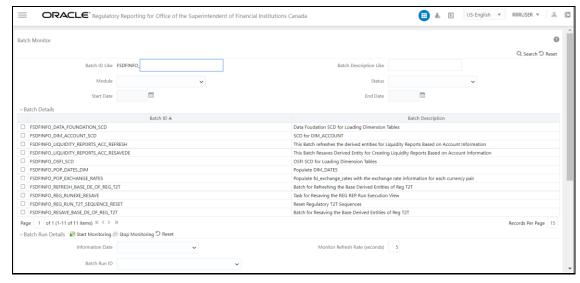
For more details on the list of Batches for resaving Derived Entities, see the OSFI RUN CHART.

Figure 4: Batch Execution Page



2. Monitor the status of the batch using the **Batch Monitor** (Navigate to **Regulatory Reporting for Office of Superintendent of Financial Institutions Canada,** select **Operations,** and select **Batch Monitor**).

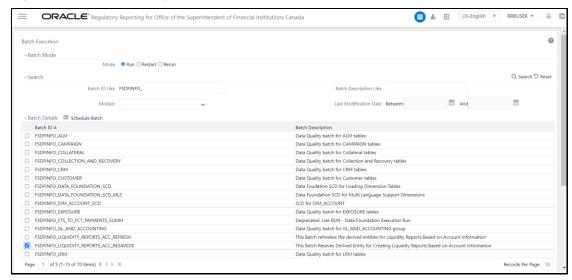
Figure 5: Batch Monitor Page



3. Navigate to Regulatory Reporting for Office of Superintendent of Financial Institutions Canada, select Operations, and select Batch Execution.

4. Select the batch **<INFODOM>_LIQUIDITY_REPORTS_ACC_RESAVEDE** to resave all the Views used in OSFI.

Figure 6: Batch Resave Page



5. Monitor the status of the batch using the **Batch Monitor** (Navigate to **Regulatory Reporting** for Office of Superintendent of Financial Institutions Canada, select Operations, and select **Batch Monitor**).

4 List of Configured OSFI Reports

Table 3: P3 - Income Statement Report Synopsis

P3 – Income Statement

The purpose of this return is to provide a consolidated statement of comprehensive income of the institution for the periods commencing either November 1 or January 1 and ending on the last days of either January, April, July and October or March, June, September, and December. The income statement categories reflect the information required by the major users - the Office of the Superintendent of Financial Institutions, the Bank of Canada, Canada Deposit Insurance Corporation and Statistics Canada - for purposes of analysing and monitoring the individual and aggregate financial condition of institutions.

The Contact agency for this report is OSFI and The Report consists of Interest Income/Expenses, Non-Interest Income/Expenses, Retained Earnings, Comprehensive Income and Charge for Impairment Other than Loans.

This return applies to all deposit-taking institutions under Sections 628 and 600 of the Bank Act and Section 495 of the Trust and Loan Companies Act.

This is a Quarterly Return and applies to Institutions with fiscal year-ends of October - Quarterly - January, April, July and October & Institutions with fiscal year-ends of December - Quarterly - March, June, September and December.

Table 4: P3 Assumptions and Clarifications

	P3 Assumptions &Clarifications
None	

Table 5: C3 - Allowance Continuity report Synopsis

C3 – Allowance Continuity

This report provides the Office of the Superintendent of Financial Institutions with detailed information relating to changes in the Allowance for Expected Credit Losses account.

The Contact agency for this report is Bank of Canada and The Report consists of the allowance for ECL is used in measurement of Expected Credit Loses for recognized and unrecognized credit related assets.

This return applies to all deposit-taking institutions under Sections 628 and 600 of the Bank Act and Section 495 of the Trust and Loan Companies Act.

This is a Quarterly Return and applies to Institutions with fiscal year-ends of October - Quarterly - January, April, July and October & Institutions with fiscal year-ends of December - Quarterly - March, June, September and December. This return is to be completed as at the last day of each quarter and submitted within 45 days of the reporting date.

Table 6: C3 - Assumptions & Clarifications

Section Name	Impacted Cells	Assumptions	
Section-1	4555;4567;4598;4614;4605;4621;4612;46 28;4667;4681;4674;4688	Treating un-recognized items as adjustments since guideline is silent on the specifics.	
Section-1	4607;4623;4608;4624;4609;4625;4610;4 626;4611;4627;4612;4628	Treating other items as adjustments since guideline is silent on the specifics.	
Section-1	4671;4672; 4670;4669;4673;4683;4711;4712	To be reconciled with E3 report as part of the validation rules.	

Table 7: E3 - Allowances for Expected Credit Losses Report Synopsis

E3 – Allowances for Expected Credit Losses

This return provides the Office of the Superintendent of Financial Institutions with detailed information relating to allowances for expected credit losses. This return applies to allowances in all 3 stages recorded under IFRS 9.

The Contact agency for this report is OSFI. This return applies to all deposit-taking institutions under Sections 628 and 600 of the Bank Act and Section 495 of the Trust and Loan Companies Act.

This is a Quarterly Return and applies to Institutions with fiscal year-ends of October - Quarterly - January, April, July and October & Institutions with fiscal year-ends of December - Quarterly - March, June, September and December. This return is to be completed as at the last day of each quarter and submitted within 45 days of the reporting date.

Table 8: E3 – Assumptions and Clarifications

Section Name	Impacted Cells	Assumptions
Section- 1	3194; 3201	The derivation logics are [3268] + [3269] OR [3403] - [3040]; [3418] - [3057] OR [3193] + [3194] + [3195] + [3196] + [3197] + [3198] + [3199] + [3200] respectively.
Section- 1	Applicable to all cells under section 1	For section 1, column 1 will be considered as ECL & Net Impaired Amount will be also calculated as EOP-ECL
Section-	3305;3008;3356;3027;3407;3046	HFP for 'Private Passenger Vehicle' considering as a 'Personal Expenditure'
Memo	3184	This cell is considered as derived. As no derivation logic is mentioned in validation rule. It will be considered as per the derivation logic given in Sec1.Its derivation logic will be = 3181-3502

Table 9: K4 – Deposit Liabilities Report Synopsis

K4 – Deposit Liabilities

This return provides the Office of the Superintendent of Financial Institutions a detailed breakdown of the deposit liabilities of deposit-taking institutions.

The Contact agency for this report is OSFI and This return classifies deposit liabilities as reported in Liability Items 1 and 2 on the balance sheet.

Accrued interest on deposits is not to be included in this return.

Deposit liabilities booked both in and out of Canada are to be included.

All deposits of non-residents are to be reported separately on this return.

The concept of institutional sectors used in this return conforms with the definitions of financial flow sector accounts detailed in the attached Definition of Financial Flow Sectors. This concept is also used in the Non-Mortgage Loans Report and the Return of Securities Classified by Institutional Sector.

Please ensure that the figures in this return reconcile with the institution's balance sheet.

This return applies to all deposit-taking institutions under Sections 628 and 600 of the Bank Act and Section 495 of the Trust and Loan Companies Act.

This is a monthly report and this return is to be completed within 30 days of the calendar month.

Table 10: K4 – Assumptions and Clarifications

	K4 Assumptions & Clarifications
None.	

Table 11: E2 - Mortgage Loans Report

E2 – Mortgage Loans Report

This report provides the Office of the Superintendent of Financial Institutions and the Bank of Canada with data on mortgages.

The Contact agency for this report is OSFI and this return analyses mortgages made on the security of property and reported as Asset 3(b)(i)(A), (B) and 3(b)(ii) on the balance sheet. Included are data covering all insured and uninsured advances as well as completed loans, mortgages purchased by the institution. Mortgages purchased are to be reported net of premium or discount (see the instructions for the balance sheet for treatment of discount and premium). All mortgage loans secured by property (not just first mortgages) are to be reported. Exclude any loans where mortgages are taken as collateral security either at the time the loan is made or subsequently. Report all figures on a consolidated institution basis. All amounts are to be expressed in thousands of Canadian dollar equivalents.

This return applies to all institutions under Sections 628 and 600 of the Bank Act and Section 495 of the Trust and Loan Companies Act.

This is a Quarterly Report and this return is to be completed within 45 days of calendar quarterend.

Table 12: E2 – Assumptions:

Table 12. L	l able 12: E2 – Assumptions:			
Report Code	Section Name	Impacted Cells	Assumptions	
E2	Section I - Total Mortgages	7831	For all other cells, combination of row description and column description to be considered. For this cell as column header only mentions Total, so as per the row description total of residential to be considered	
E2	Section I - Total Mortgages	7832	For all other cells, combination of row description and column description to be considered. For this cell as column header only mentions Total, so as per the row description total of non- residential to be considered	
E2	Section I - Total Mortgages	2690;2691;2692	In absence of detailed instructions, it is assumed that increase related to portfolio mortgage insurance is because of the purchase of portfolio mortgages.	
E2	Section I - Total Mortgages	2693;2694;2695	In absence of detailed instructions, it is assumed that decrease related to portfolio mortgage insurance is because of the sale of portfolio mortgage.	
E2	Section I - Total Mortgages and Section III - Outstandin g Mortgage Loans - Summary by Type, Arrears, and Allowance for Expected Credit Losses	2301;2307;2310;2312;2314;2316;23 18;2320;2687;2688	Under Section III, line number 1. (c). (ii). (F)Residential properties reported under non-residential are considered under the header Non-farm properties. To keep Sec I and Sec III aligned, for Sec I column header "Of Which: Residential properties reported under non-residential", residential properties which are covered under the non-farm properties are considered for of which condition. Farm properties which are also non-residential are not to be considered to under header "Residential properties reported under non-residential".	

Table 13: B2 - Securities

Securities - B2

This return provides a detailed breakdown of the securities holdings of deposit-taking institutions.

The contact agency of this report is Bank of Canada and This return provides information on securities (Asset 2).

Please ensure that the figures in this return reconcile with the institution's balance sheet.

Report total booked in and outside Canada.

Report all figures net of Allowance for Expected Credit Losses, where applicable.

This return applies to all institutions under sections 628 and 600 of the Bank Act, Section 495 of the Trust and Loan Companies Act and Section 24 of the Bank of Canada Act.

This is a Quarterly report and this return is to be completed within 45 days of the calendar quarter-end.

Table 14: A4 - Report of New and Existing Lending

Report of New and Existing Lending - A4

The purpose of this return is to provide information on the interest rates charged and funds advanced vis-à-vis new loans, booked in Canada, in Canadian dollars only, to Canadian households and business sectors by institutions.

The contact agency of this report is Bank of Canada and this return consists of Interest Rates Charged and Funds Advanced on New Lending and Existing Lending.

This return applies to all banks and foreign bank branches, trust, and loan companies under Sections 628 and 600 of the Bank Act and Section 24 of the Bank of Canada Act.

This is a Monthly report and this return is to be completed monthly and submitted within 30 days of the last day of each month to the Head Office of the Bank of Canada.

Table 15: N3 - Loans in Arrears

N3 - Loans in Arrears

This return provides the Office of the Superintendent of Financial Institutions with information relating to Non-mortgage and Mortgage loans in arrears.

The contact agency of this report is Bank of Canada.

This return applies to all deposit taking institutions under sections 628 and 600 of the Bank Act and Section 495 of the Trust and Loan Companies Act.

This a Quarterly report and this return is to be completed as at the last day of each quarter and submitted within 45 days of the reporting date.

Table 16: J2 - Home Equity Lines of Credit Report (HELOC)

J2 - Home Equity Lines of Credit Report (HELOC)

This report provides the Bank of Canada data on Home Equity Lines of Credit (HELOCs) and related products.

The contact agency of this report is Bank of Canada.

This return applies to all banks, foreign bank branches, and selected institutions on a consolidated basis under section 24 of the Bank of Canada Act, sections 628 and 600 of the Bank Act.

This is a Quarterly report and this return is to be completed as at the last day of each quarter and submitted within 45 days of the reporting date.

Table 17: A2 - Non-Mortgage Loans

A2 - Non-Mortgage Loans

This return provides a detailed breakdown of the non-mortgage loans of deposit-taking institutions.

The contact agency of this report is OSFI.

This return applies to all institutions under sections 628 and 600 of the Bank Act and Section 495 of the Trust and Loan Companies Act.

This is a Quarterly report and this return is to be completed within 45 days of calendar quarterend.

Table 18: A3 - Trading Income and Income from GoC Securities Trading

A3 - Trading Income and Income from GoC Securities Trading

The purpose of this return is to provide information on an institution's total trading income as at the end of each fiscal quarter.

The contact agency of this report is Bank of Canada and the Report consists of Trading Income and Income from GoC Securities Trading.

The return applies to RBC and RBC Dominion Securities Inc., Scotia Bank and Scotia Capital Inc., TD and TD Securities, BMO and BMO Nesbitt Burns Inc., National Bank and National Bank Financial Inc., CIBC and CIBC World Markets Inc., Laurentian Bank and Laurentian Bank Securities Inc., HSBC Bank Canada and HSBC Securities (Canada) Inc. In a single return, Section 1, 2, 3 under BoC: Sections 628 and 600 of the Bank Act and Section 24 of the Bank of Canada Act & OSFI: Sections 628 and 600 of the Bank Act and Section 495 of the Trust and Loan Companies Act.

This is a Quarterly Return and applies to Institutions with fiscal year-ends of October - Quarterly - January, April, July and October & Institutions with fiscal year-ends of December - Quarterly - March, June, September and December.

Table 19: C1 - Charge for Impairment

C1 - Charge for Impairment

The purpose of this return is to provide the Superintendent of Financial Institutions with information on the amount of charges for impairment by major asset categories made during the fiscal year.

The contact agency of this report is OSFI.

This return complies with the statutory requirement specified under Sections 628 and 600 of the Bank Act and Section 495 of the Trust and Loan Companies Act.

This is a Quarterly report and Institutions with fiscal year-ends of October – October Institutions with fiscal year-ends of December – December

Table 20: RESL - Real Estate Secured Lending

RESL - Real Estate Secured Lending

OSFI has introduced Real Estate Secured Lending (RESL) Data Call report to monitor and assess risk of FRFI lending activities in the Canadian housing real estate market. RESL data call captures all data elements for the whole portfolio at the transactional/record level.

The data call is to be submitted to OSFI on or before the 15th of each month.

Table 21: B20 - Residential Mortgage Underwriting Practices and Procedures Disclosure

B20 - Residential Mortgage Underwriting Practices and Procedures Disclosure

The purpose of this report is to provide details on Residential Mortgage Underwriting Practices and Procedures.

It applies to all banks, foreign bank branches, trust and loan companies, as well as life insurance, fraternal, and property and casualty companies.

This report is submitted quarterly.

5 Dimension Reclassification Tables

Table 22: Standard Dimension Reclassification

User Specific Dimension	Category	Regulatory Dimension	Category
DIM_BALANCE_C ATEGORY	Balance Category	DIM_STD_BALANC E_CATEGORY	Standard Balance Category
DIM_CREDIT_LIN E_PURPOSE	Credit Line Purpose	DIM_STD_CREDIT_ LINE_PURPOSE	Standard Credit Line Purpose
DIM_CREDIT_LIN E_TYPE	Credit Line Type	DIM_STD_CREDIT_ LINE_TYPE	Standard Credit Line Type
DIM_MITIGANT_ TYPE	Mitigant Type	DIM_STD_MITIGAN T_TYPE	Standard Mitigant Type
DIM_PARTY_TYP E	Party Type	DIM_STANDARD_P ARTY_TYPE	Standard Party Type
DIM_PRODUCT	Product	DIM_STANDARD_P RODUCT_TYPE	Standard Product Type
DIM_GL_ACCOU NT	General Ledger	DIM_STD_GL_TYP E	Standard General Ledger Type
DIM_IRC	Interest Rate Curve	DIM_STANDARD_I RC	Standard Interest Rates
DIM_LOB	Line Of Business	DIM_STANDARD_L OB	Standard Lob

DIM_CREDIT_SC ORE_MODEL	Dim Credit Score Model	DIM_REG_CREDIT_ SCORE_MODEL	Regulatory Credit Score Model
DIM_GL_ACCOU NT	General Ledger Account	DIM_REG_REPLINE	Regulatory Reporting Line
DIM_RECOVERY_ TYPE	Recovery Type	DIM_STD_RECOVE RY_TYPE	Standard Recovery Type
DIM_VEHICLE_TY PE	Vehicle Type	DIM_STD_VEHICLE _TYPE	Standard Vehicle Type
DIM_WRITE_OFF _REASONS	Write-Off Reasons	DIM_STD_WRITE_ OFF_REASONS	Standard Write-off Reasons
DIM_PARTY_ROL E	Party Role	DIM_STD_PARTY_ ROLE	Standard Party Role

Table 23: C3 – Regulatory Dimension Reclassification

User Specific Dimension	Category	Regulatory Dimension	Category
DIM_ACCOUNT_	Account Purpose Dimension	DIM_REG_ACCOU	Regulatory Account
PURPOSE		NT_PURPOSE	Purposes Dimension
DIM_ACCOUNT_	Account Purpose Dimension	DIM_REG_LOAN_P	Regulatory Loan
PURPOSE		URPOSE	Purpose Dimension
DIM_ACCT_STAT	Account Status Dimension	DIM_REG_ACCT_S	Regulatory Account
US		TATUS	Status Dimension

DIM_APPLICATIO	Application Status Dimension	DIM_REG_APPLICA	Regulatory Application
N_STATUS		TION_STATUS	Status Dimension
DIM_APPLICATIO	Application PURPOSE Dimension	DIM_REG_APPLICA	Regulatory Application
N_PURPOSE		TION_PURPOSE	Purpose Dimension
DIM_PROPERTY_ TYPE	Property Type Dimension	DIM_REG_PROPER TY_TYPE	Regulatory Property Type Dimension
DIM_UNDERLYIN	Underlying Type Master	DIM_REG_UNDERL	Regulatory Underlying Type Master Dimension
G_TYPE	Dimension	YING_TYPE	

Table 24: Mappers for Reclassification of Standard Dimensions

Mappers for Reclassification of Standard Dimensions	
MAP_BAL_CAT_STD_BAL_CAT	Mapper for Balance Category to Standard Balance Category
MAP_RECVR_TYP_STD_RECVR_TYP	Mapper for Common Recovery Type to Standard Recovery Type
MAP_CRDLN_PUR_STD_CRDLN_PUR	Mapper for Credit Line Purpose to Standard Credit Line Purpose
MAP_CRDLN_TYP_STD_CRDLN_TYP	Mapper for Credit Line Type to Standard Credit Line Type
MAP_CREDIT_SCR_MDL_REG_MDL	Mapper for Credit Score Model To Reg Credit Score Model
MAP_DIM_GL_ACCT_STD_GL_TYPE	Mapper for General Ledger Account to Standard General Ledger Account Type
MAP_GL_CODE_REP_LINE	Mapper for GL Code to Repline Code
MAP_GL_REP_LINE_MGMT_LDGR	Mapper for GL Code to Repline Code Management Ledger
MAP_DIM_IRC_STD_IRC	Mapper for Interest Rate Code to Standard Interest Rate Code
MAP_DIM_LOB_STD_LOB	Mapper for Line of Business Code to Standard Line of Business Code

MAP_MITG_TYP_STD_MITGN_TYP	Mapper for Mitigant Type to Standard Mitigant Type
MAP_PARTY_R_STD_PARTY_R	Mapper for Party Role Code to Standard Party Role Code
MAP_PARTY_TYP_STD_PARTY_TYP	Mapper for Party Type Code to Standard Party Type Code
MAP_PROD_CODE_STD_PROD_TYPE	Mapper for Product Code to Standard Product Code
MAP_PROD_CODE_STD_PROD_TYPE	Mapper for Vehicle Type to Standard Vehicle Type
MAP_WRTOFF_STD_WRTOFF_REASN	Mapper for Write Off Reasons to Standard Write Off Reasons

Table 25: Mappers for Reclassification of Regulatory Dimension

Mappers for Reclassification of Regulatory Dimension	
MPCA_ACCT_REG_ACCT_PURPOSE	Reg CA Mapper for Regulatory Account Purpose
MPCA_ACCT_REG_ACCT_STATUS	Reg CA Mapper for Regulatory Account Status
MPCA_APPL_REG_APPL_PURPOSE	Reg CA Mapper for Regulatory Application Purpose
MPCA_APPL_REG_APPL_STATUS	Reg CA Mapper for Regulatory Application Status
MPCA_CHANNEL_REG_CHANNEL	Reg CA Mapper for Regulatory Channel
MPCA_DWNP_REG_DOWNPYMT_SRC	Reg CA Mapper for Regulatory Down Payment Source
MPCA_FORB_REG_FORB_STATUS	Reg CA Mapper for Regulatory Forbornce Status
MPCA_ACCT_REG_LOAN_PURPOSE	Reg CA Mapper for Regulatory Loan Purpose
MPCA_LOAN_REG_LOAN_PURPOSE	Reg CA Mapper for Regulatory Loan Purpose
MPCA_PROP_REG_PROPERTY_TYPE	Reg CA Mapper for Regulatory Property Type

MPCA_UNDERLYNG_REG_UND_TYPE	Reg CA Mapper for Regulatory
	Underlying Type

Table 26: Residential and non-Residential property categorization

Regulatory Property Type	Column Heading	Mitigant Type
1UNITCOOPDW	Residential	RRE
TOWNHOUSE	Residential	RRE
1UNIT	Residential	RRE
CONDO	Residential	RRE
2TO4UNITS	Residential	RRE
5PLUS	Residential	RRE
MOBILEHOME	Mobile Home	RRE
VACANTLAND	Vacant Land	RRE
SEMIDETACHED	Semi-detached house	RRE
FARMLAND	Non - Residential	CRE
CONDOAPT	Residential	RRE
OFFICE	Non - Residential	CRE
COMMERCIAL	Non - Residential	CRE
LANLOTDEV	Non - Residential	CRE
INDWARHOUSE	Non - Residential	CRE
HOTHOSPGAMING	Non - Residential	CRE
RESPROPCONSNONRES	Non - Residential	CRE

Table 27: E2 – Bi-furcation of property type codes used in configuration into residential or non-residential category:

Regulatory Property Type	Category
1UNITCOOPDW	Residential
TOWNHOUSE	Residential
1UNIT	Residential
CONDO	Residential
2TO4UNITS	Residential

5PLUS	Residential
CONDOAPT	Residential
MOBILEHOME	Residential
VACANTLAND	Residential
SEMIDETACHED	Residential
OFFICE	Non -residential
COMMERCIAL	Non -residential
LANLOTDEV	Non -residential
INDWARHOUSE	Non -residential
HOTHOSPGAMING	Non -residential
FARMLAND	Non -residential
RESPROPCONSNONRES	Non -residential

6 Regulatory Reporting Solution Data Flow

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

Topics:

- Regulatory Fiscal Period Settings in OSFI
- Data Preparation
- Overview of OFS REG REP OSFI User Interface
- Adjustment Feature for Template-based Reports

6.1 Regulatory Fiscal Period Settings in OSFI

6.1.1 Reporting Dates

The regulatory reports need to be filed on varying frequencies based on the requirement. The frequency of reports could be based on fiscal month, fiscal quarter, or fiscal year periods. Hence it is important to identify the fiscal year start date followed by the Institution to correctly populate fiscal quarters and fiscal year ends. Financial Institutions in Canada has the choice of two fiscal year periods. The first choice is fiscal year period from January 1 to December 31 and second choice is fiscal year period from November 1 to October 31.

January 1 to December 31

Institutions with fiscal year-ends of December

This is the default use case where fiscal year period matches with calendar year.

Fiscal year starts on January 1 and end on December 31 same year.

Four quarter periods are:

- January to March
- April to June
- July to September
- October to December

November 1 to October 31

Institutions with fiscal year-ends of October - January, April, July and October

Here Fiscal year starts on 1st November and ends on October 31st of coming year.

Four quarter periods are

- November to January
- February to April
- May to July
- August to October

6.1.1.1 Setting fiscal year in OSFI setup

Fiscal year is calculated in two steps:

- Set fiscal year start day
- Calculate fiscal year periods

6.1.1.1.1 Setting fiscal year start day

The table FSI_RR_CONF_REG_FY_SETUP is utilized to configure the fiscal year start date.

The table FSI_RR_CONF_REG_FY_SETUP_has three columns.

- V_REG_APP_ID
- V_JURISDICTION_CD
- V_FISCAL_YEAR_START_DAY

V_FISCAL_YEAR_START_DAY accepts start day in 'MMDD' format with default value set as '0101'. This represents the fiscal year from January 1st to December 31st. For November 1 and October 31 fiscal period, specify the fiscal year format as '1101'. The table FSI_RR_CONF_REG_FY_SETUP can be queried to view the current V_FISCAL_YEAR_START_DAY.

6.1.1.1.2 Calculate fiscal year periods

The table FSI_RR_CONF_REG_FISCAL_DATES holds the fiscal year period calculated from V_FISCAL_YEAR_START_DAY saved in FSI_RR_CONF_REG_FY_SETUP table. It can be queried to see the values for quarter start, quarter end, previous quarter start date, previous quarter end date, previous year start date and previous year end date, etc.

This table is populated by running the batch <INFODOM>_REG_FISCAL_PERIODS_OSFI using auto generation program. This is a onetime activity to load all the required dates in the table FSI_RR_CONF_REG_FISCAL_DATES.

6.2 Data Preparation

This section explains the input data preparation from OFSAA.

Topics:

- Assumptions for Data Preparation
- OSFI RUN CHART
- Run or Execution Expectations
- Data Flow from Source Systems to Staging Area
- Data Flow from Staging to Results Area
- <u>Guidelines for Data Loading to Result Area Tables in Data Foundation for Regulatory Reporting Implementations</u>
- FSDF Entity Information
- Fact Tables or Entities

6.2.1 Assumptions for Data Preparation

The following are the assumptions for data preparation:

- 1. RRS is a reporting solution, which uses data from underlying fact tables directly for reporting. The end-user is expected to prepare the load for the required data in the reporting area accordingly. Although this has a thin processing layer to reclassify to regulatory dimensions and bands, all the processing measures are expected to be from respective applications and provide as required.
- **2.** It is integrated with the results area of the respective processing application, and any change in the underlying processing can disturb the RRS Data Sourcing.
- **3.** Baseline and Stress Data must be populated with appropriate codes. Inaccurate Mappings may lead to inaccurate results.
- **4.** For usage of consolidation dimension (which has values like Actual, Budget, Forecast, and so on), all Historical Data is expected to be tagged as actual to Report Vintage Data, as per report requirements. For Projection Data, for a given Run and Projection Period (quarter or year), only one set of data is expected to be stored.

6.2.2 OSFI RUN CHART

Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutions Canada (OFS REG REP OSFI) provides the OSFI RUN Chart listing the tasks required for the population of data for OSFI Reports. This covers the following tasks:

- Run Chart
- Data Load
- Dimension Data Population
- FSDF Source Run PMF
- OSFI REG RUN PMF

Download the OFS REG REP OSFI 8.1.2.5.0 Run Chart from the MOS.

6.2.3 Run or Execution Expectations

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

- 1. Current Data or Execution
- a. Reporting Month-end Data
- **b.** Projection Data
- 2. Historical (trend or vintage) Data
- **a.** Yearly
- **b.** Quarterly
- 3. Stressed Data

NOTE

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

6.2.4 Data Flow from Source Systems to Staging Area

The staging area is populated with data from various data sources, such as GL Data, Account Data, Customer Data, Trading Data, Currency Data, and Master Data. See the <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.

6.2.5 Data Flow from Staging to Results Area

This section details the Pass-through Data, Transformed Data, and Classification.

Topics:

- Pass-Through Data
- Reclassified to Regulatory Classifications

6.2.5.1 Pass-Through Data

Pass-Through Data refers to the Static Data that is pre-processed and flows to the results area directly. The Common Staging Area (CSA) Model represents the data entry point into the FSDF. CSA provides a

simplified, unified Data Sourcing Area for inputs required by Analytical Applications and Engines. It consists of over 400 tables and nearly 9000 columns organized into distinct subjects.

The Staging Area is a Physical Data Model, which is deployed using the Analytical Application Infrastructure, which manages it. The design of the Staging Area Data Model is to allow efficient data loading for analytics. It thus has crucial differences from a general-purpose repository of Operational or Transactional Data across a Bank.

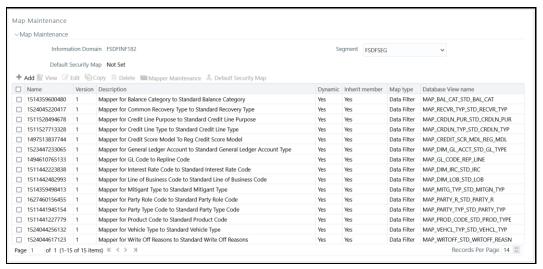
The Staging Area acts as the single source of data and contains Unified Data Requirements for various Banking areas such as Loans and Losses, Off-balance Sheet Products, Securities, Derivatives, Capital Data, Management Ledger and General Ledger. A common example of this category includes various monetary amounts, dates, and so on.

6.2.5.2 Maintenance of Mappers for Reclassification of Standard Dimensions

The mapper can be maintained under OFSAAI.

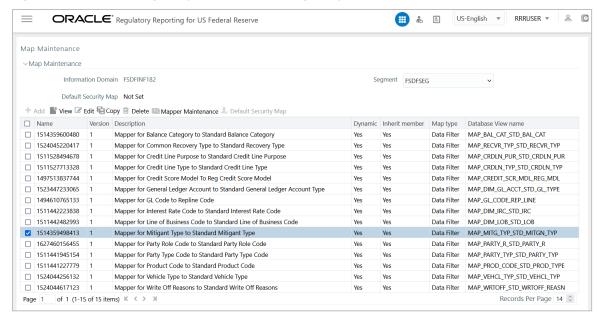
 After logging into the OFSAAI applications page, navigate to Regulatory Reporting for Office of Superintendent of Financial Institutions Canada, select Administration, and then select Map Maintenance.

Figure 7: Map Maintenance page



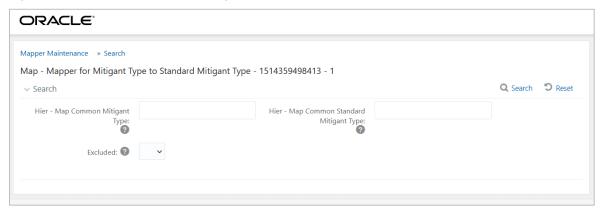
2. For illustration, we have selected Mapper for Mitigant Type to Standard Mitigant Type. Click Mapper Maintenance.

Figure 8: Mapper for Mitigant Type to Standard Mitigant Type



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

Figure 9: Map Maintenance Search page



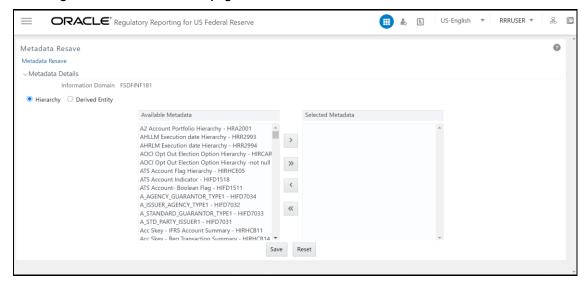
Prerequisites for Mapper Maintenance

- After logging into the OFSAAI applications page, navigate to Regulatory Reporting for Office of Superintendent of Financial Institutions Canada, select Administration, and then select Save Metadata. Load all the required user-specific dimensions using SCD.
- **4.** To Resave these hierarchies, select these hierarchies and click **Save**.
 - HCMDF001 Hier Map Common Product
 - HCMDF002 Hier Map Common Standard Product Type
 - HCMDF003 Hier Map Common Party Type
 - HCMDF004 Hier Map Common Standard Party Type

- HCMDF005 Hier Map Common Interest Rate Curve
- HCMDF006 Hier Map Common Standard Interest Rate Curve
- HCMDF007 Hier Map Common Line of Business
- HCMDF008 Hier Map Common Standard Line of Business
- HCMDF009 Hier Map Common Credit Line Type
- HCMDF010 Hier Map Common Standard Credit Line Type
- HCMDF011 Hier Map Common Credit Line Purpose
- HCMDF012 Hier Map Common Standard Credit Line Purpose
- HCMDF013 Hier Map Common Mitigant Type
- HCMDF014 Hier Map Common Standard Mitigant Type
- HCMDF015 Hier Map Common Balance Category
- HCMDF016 Hier Map Common Standard Balance Category
- HCMDF017 Hier Map Common General Ledger Code
- HCMDF018 Hier Map Common Standard General Ledger Type
- HCMDF019 Hier Map Common Vehicle Type
- HCMDF020 Hier Map Common Standard Vehicle Type
- HCMDF021 Hier Map Common Write Off Reasons
- HCMDF022 Hier Map Common Standard Write Off Reasons
- HCMDF023 Hier Map Common Recovery Type
- HCMDF024 Hier Map Common Standard Recovery Type
- HRLMP001 HIR RLMP Industry Codes
- HRLMP002 HIR RLMP Regulatory Industry Codes
- HRLMP003 HIR RLMP Application Status
- HRLMP004 HIR RLMP Regulatory Application Status
- HRLMP005 HIR RLMP Document Type
- HRLMP006 HIR RLMP Regulatory Document Type
- HRLMP007 HIR RLMP Account Status
- HRLMP008 HIR RLMP Regulatory Account Status
- HRLMP009 HIR RLMP Regulatory Account Purpose
- HRLMP010 HIR RLMP Organization Unit Code
- HRLMP011 HIR RLMP Line of Business Code
- HRLMP012 HIR RLMP Std Secondary Line of Business
- HRLMP013 HIR RLMP Underlying Type
- HRLMP014 HIR RLMP Regulatory Underlying Type

- HRLMP501 HIR RLMP Property Type
- HRLMP502 HIR RLMP Regulatory Property Type
- HRLMP503 HIR RLMP Account Purpose
- HRLMP504 HIR RLMP Regulatory Loan Purpose
- HRLMP505 HIR RLMP Account Status Code
- HRLMP506 HIR RLMP Regulatory Credit Status
- HRLMP507 HIR RLMP Sec Pool Type
- HRLMP508 HIR RLMP Regulatory Sec Pool Type

Figure 10: Metadata Resave page



Possible Mapping Combinations

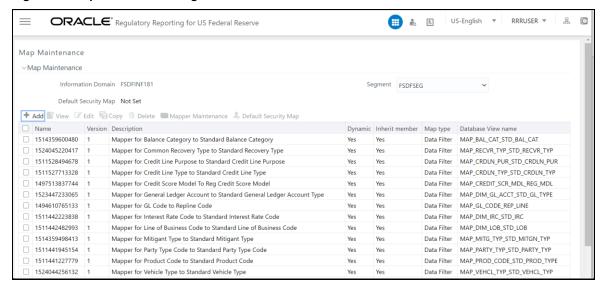
One Standard Dimension table in the source can be mapped only to one Standard Dimension table. One to Many or Many to Many mapping leads to an error in T2T as the records are duplicated. From the illustration, the possible combinations for Mitigant Type to Standard Mitigant Type Mapping are One to One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

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

To conduct One to One or Many to One mapping:

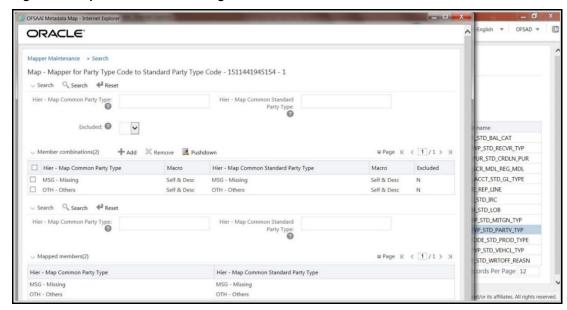
 After logging into the OFSAAI Applications Page, navigate to Regulatory Reporting for Office of Superintendent of Financial Institutions Canada, select Administration, and then select Map Maintenance.

Figure 11: Map Maintenance Page



- 6. Click Create new Map icon to create a new map or select an existing Map. For illustration, Mapper for Party Type Code to Standard Party Type Code value is selected. Click the Mapper Maintenance icon.
- 7. The Mapper Maintenance window opens (in this illustration, the Map Mapper for Party Type Code to Standard Party Type Code Window opens). To conduct One to One or Many to One mapping, in the Member Combinations section, click Add.

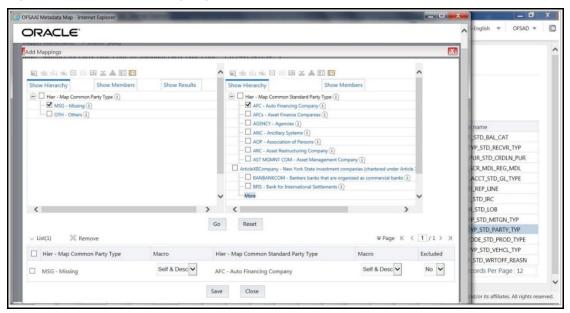
Figure 12: Map Maintenance Add Page



- **8.** The Add Mappings pop-up window opens. In this illustration:
 - To map One to One, select one value in the Hier Map Common Mitigant Type Data Model and one value in the Hier - Map Common Standard Mitigant Type Data Model, and click Go. Repeat this step for each One to One data model mapping, and then click Save.

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

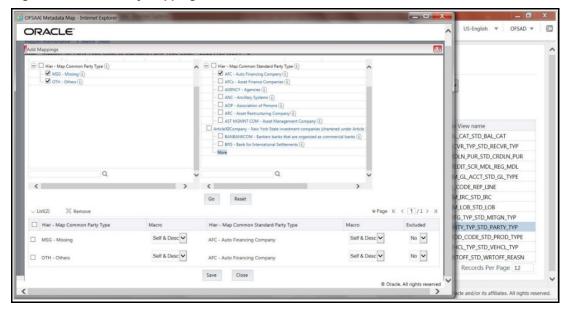
Figure 13: One to One Mapping Page



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

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

Figure 14: One to Many Mapping Windows



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

6.2.5.3 Reclassified to Regulatory Classifications

After transformation, the Regulatory Data is reclassified as follows.

Table 28: Data Reclassification Example 1

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

Table 29: Data Reclassification Example 2

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

The additional transformations that are performed are:

- Remaining Time to Maturity Band
- Regulatory Delinquency Band

Within Reclassification Rules, few rules where the source is customer-specific values. In such cases, these rules must be validated and updated as required by you because the ready-to-use rule can differ from what you have. Such rules are very few and restricted to the following:

- 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

See Business Metadata for details on these reclassifications.

6.2.6 Process Modelling Framework for App Integration

After designing and saving the Process Flow Diagram, the Process is listed in the *Process Modeler* Page.

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

- After logging into the OFSAAI Applications Page, navigate to Regulatory Reporting for Office of Superintendent of Financial Institutions Canada, select Process Modelling Framework, and select Process Modeller.
- 2. Open OSFI Regulatory Reporting Run.



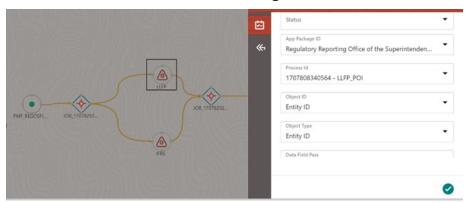
3. Right-click PMF_REGOSFI_APP_INT_LOAD_PROCESS and then click Delete Link.



4. Create nodes for LLFP and IFRS.



5. Click on the first node and enter the following values:



- Name Process Code, Process Name as LLFP_POI.
- Select App Package ID as Regulatory Reporting for Office of the Superintendent of Financial Institutions Canada.

- Object ID = Entity.
- Object Type = Entity.
- **6.** Save and update the node for IFRS.
- 7. Open LLFP_POI by clicking on right corner of icon.
- **8.** Pull in Load T2T icon from left and service task.
- 9. Click on the Load T2T icon and name it as LoadT2T_FCT_LLFP_ACCOUNT_SUMMARY.
 - Datastore name = FSDFINFO.
 - Load mode = Table2 Table.
 - Source name = EXT.STAGING.
 - File Name =T2T_FCT_LLFP_ACCOUNT_SUMMARY.
- 10. Save and click **Create Link**. Similarly create a link for IFRS.



11. Save it as Run - OSFI Regulatory Reporting Run.

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

Regulatory Reports make use of data available across several fact tables in the OFSAA Data Foundation Model and these result tables are either loaded from the raw data sourced from source systems via out of the box T2Ts.

Consistent Usage of Run Identifier

Most of the fact tables used in Regulatory Reporting are Run enabled and have a composite Primary Key inclusive of Run Identifier that enables the same snapshot of data to be loaded multiple times into the Target Fact Table for any given execution date. All the out of the box processes that impact data used in Regulatory Reports are executed as part of an integrated run to ensure that Run Identifier is consistent across Fact Tables. Since the reporting is done on an Integrated Schema, the customs data flow design must keep this integrity intact. This essentially means that the Custom ETL Processes designed to load the data directly into the fact tables must be able to leverage the

Run Identifier generated by the Run Engine during execution. Run Identifier Information is available in the DIM RUN Table.

Correct Dimensional Lookup Configuration

Dimensional Identifiers are typically part of referential integrity constraints with the fact table so the custom ETL Processes must ensure that lookups retrieve a valid Surrogate Key for a given value of the Business Key. The Intermediate Staging Structure must ensure all the Business Keys are persisted correctly and the lookup condition is designed on the correct Dimension Table.

From the OFSAA Technical Infrastructure Standpoint, the mentioned options are available to the customer to design and implement the custom ETL Process explained above. OFSAA strongly recommends the following options to maintain consistency in terms of Data Lineage in Metadata Browser as the configured metadata can be made available in the Meta-Model through MDB Publish:

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

Topics:

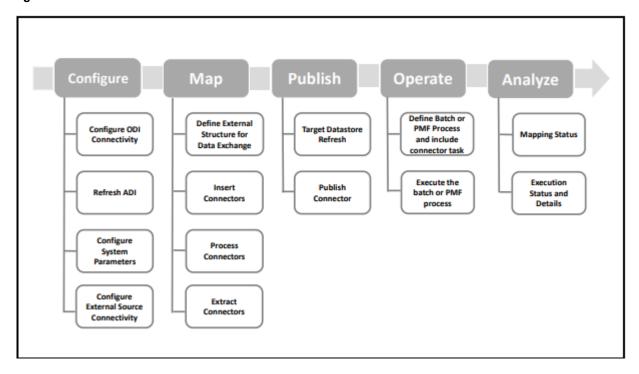
- DIH Connectors
- Data Mapping (T2T)
- Data File Mapping (Flat File to RDBMS Target F2T)

6.2.7.1 DIH Connectors

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

See the <u>Data Integration Hub (DIH) User Guide</u>, for more information about loading the data into a Result Area Table.

Figure 15: DIH Connectors



6.2.7.2 Data Mapping (T2T)

Data Mapping refers to the process of retrieving Unstructured Data from Data Sources for further Data Processing, Storage, or Migration. This feature is commonly known as RDBMS Source to RDBMS Target (T2T) Framework in the OFSAA World and can be leveraged when Source Data is available in the Oracle Database. Dimensional Lookups must be handled via the T2T's join condition and expressions. See the OFSAAI User Guide for more details on configuring a T2T.

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

If the Source Data is available in file structures, the OFSAA F2T Component can be used to bring the data in the OFSAA Ecosystem. As Lookups cannot be configured in an F2T, this component must be used in conjunction with the T2T Component, that is, data is first loaded from the file to an Interim Staging Structure using the F2T Component followed by data load to the Target Result Area Table using the T2T Component. This is the Least Recommended Approach as there is a need for Interim Table Structure in the Data Model and involves multiple data hops that add to the overhead.

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

6.2.8 Setup Master Configuration

Please refer to <u>FSDF user guide</u> for setup master configuration. The seeded Dimension table DIM_GAAP holds the possible GAAP values. The appropriate GAAP code for run must be updated in the setup master table V COMPONENT VALUE for V COMPONENT CODE = DEFAULT GAAP.

The staging area tables, require GAAP value in V_GAAP_CODE column for each account. Only accounts in staging area with the same GAAP value as the default GAAP value participate in the data flow for a given run. Hence it is important to update the setup master table before run execution.

6.2.9 FSDF Entity Information

The FSDF Entity Information is given in the Dimension Tables and Data Elements Documents available on the MOS Page.

OFS Regulatory Reporting for Office of Superintendent of Financial Institutions Canada - Dimension Tables <release version>.

OFS Regulatory Reporting for Office of Superintendent of Financial Institutions Canada - Data Elements release version.

6.2.10 Fact Tables or Entities

For all tables with Data Flow type tagged as a Processing, it is recommended that you map data directly to the result area if the Processing Application is not part of the OFSAA Product Suite. For example, Basel Computations, RWA Numbers, and Capital Ratio are taken from the processing area which is populated by OFSAA or other Basel Applications.

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

- OFSAA Data Integration Hub (DIH) Product
- Flat File
- Table-to-Table Transformation with the source being Processing Application.

The list of Processing Output Tables is available in the OFS Regulatory Reporting for Office of Superintendent of Financial Institutions Canada - Data Elements <release version > document in the MOS Page.

6.3 Overview of OFS REG REP OSFI User Interface

This section provides details to log in to the OFSAA Application, View Report Summary, View Schedule Summary, View Cells, and Map Data Schedules. It includes:

- Logging in to OFS REG REP OSFI UI
- Viewing Schedule Summary
- Viewing Cell Summary

6.3.1 Logging in to OFS REG REP OSFI UI

After the applications are installed and configured, to access the OFS REG REP OSFI UI you must log in to the OFSAAI Environment using the OFSAAI Login Page.

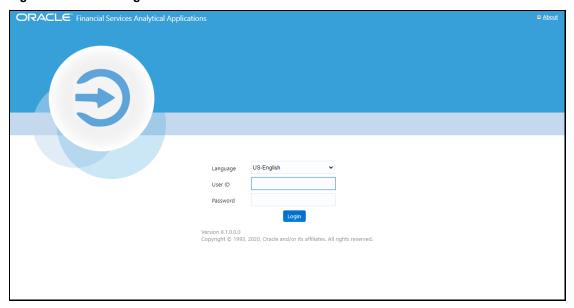
NOTE

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

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

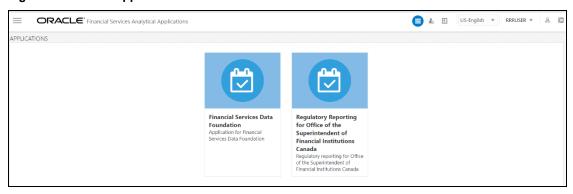
1. Enter the OFSAAI URL in your browser. The OFSAAI Login Page is displayed.

Figure 16: OFSAAI Log In



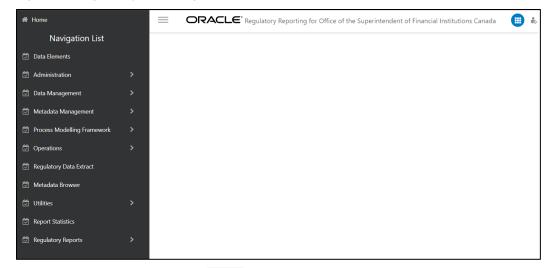
- 2. Select the desired language from the **Language** drop-down list.
- Enter your User ID and Password.When you log into OFSAAI, the OFSAA Applications Page is displayed.

Figure 17: OFSAA Applications Screen



Select the **Regulatory Reporting for Office of Superintendent of Financial Institutions Canada.** The Regulatory Reporting for Office of Superintendent of Financial Institutions Canada Landing Page is displayed.

Figure 18: Regulatory Reporting for Office of Superintendent of Financial Institutions Canada Page



- **4.** Select the Navigation Menu in the OFS REG REP OSFI UI to access the following windows:
- a. Home
- b. Data Elements
- c. Administration
 - i. Map Maintenance
 - ii. Save Metadata
- **d.** Data Management
 - i. Data Sources
 - ii. Data Mapping
 - iii. Post Load Changes
 - iv. DMT Configurations
- e. Metadata Management
 - i. Alias
 - ii. Build Hierarchy
 - iii. Measure
 - iv. Dataset
 - v. Business Processor
 - vi. Derived Entity
 - vii. Rule
 - viii. Process
 - ix. Run
 - x. Reports

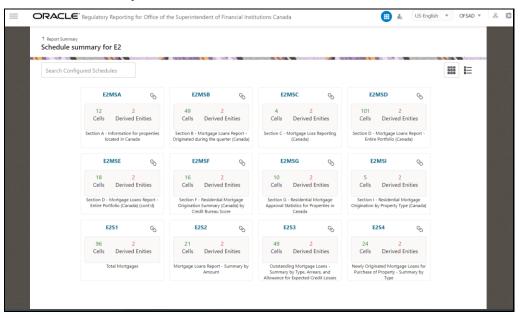
- xi. Data Quality Rules
- **xii.** Data Quality Groups
- **f.** Process Modelling Framework
 - i. Process Modeller
 - ii. Process Monitor
- g. Operations
 - i. Batch Maintenance
 - ii. Batch Execution
 - iii. Batch Scheduler
 - iv. Batch Monitor
 - v. Batch Cancellation
 - vi. View Log
- vii. Processing Report
- **h.** Regulatory Data Extract
- i. Metadata Browser
- i. Utilities
 - i. Metadata Report
- k. Report Statistics
- Regulatory Reports
 - i. Report Mappings
 - ii. Report Publish

6.3.2 Viewing Schedule Summary

The Schedule Summary Window provides the component schedules for the Corresponding Report. Select the Report Code in the Report Summary Window to navigate to the Schedule Summary Window (as shown in Figure 37).

For example, the Schedule Summary Window for the E2 Report is displayed as follows.

Figure 19: Schedule Summary Screen



NOTE

You can view the summary of all the configured reports in the

Tile view or List view .

The Search Bar helps you to find the required information from the database. You can enter the nearest matching keywords to search and filter the results by entering information on the Search Box. You can search for a Schedule using either the Name or Description.

The Paging option (Figure 20) at the bottom right corner allows you to see more reports than the ones currently displayed on the window.

NOTE

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

6.3.2.1 Schedule Information

Each tile or list on the Schedule Summary Window corresponds to one schedule under the report. For each schedule, you can view the Schedule Code and the Description, the number of configured non-derived cells for the schedule and the count of Utilized Derived Entities.

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

Figure 20: Schedule Information



7 OFSAA Features

This chapter provides an understanding of the AAI Components used in the solution and Dimensional Mapping.

Topics:

- OFSAA Infrastructure
- Business Metadata
- Derived Entity
- Dimension Mapping

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

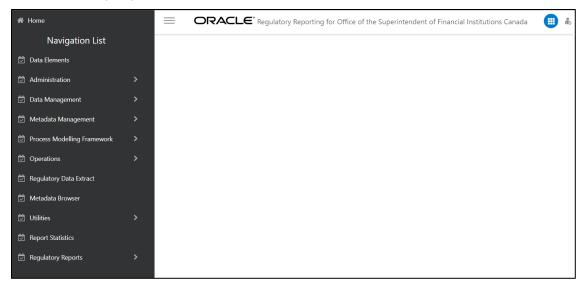
7.1 OFSAA Infrastructure

OFSAA Infrastructure includes the facilities for creating and maintaining Dimensional Reference Data, Interest Rate, and Currency Exchange Rate Data, and process tuning data. Additionally, OFSAA Infrastructure includes functionality for building and maintaining rules that can be used by any Oracle Financial Services Analytical Application. These common rule objects include:

- Expressions
- Hierarchies
- Filters

The Analytical Applications that you see on the Left-Hand Side (LHS) of the Financial Services Applications Home Page depending on your Logon Privileges and on the OFSAA Modules that are installed for your environment.

Figure 21: OSFI Landing Page



7.2 Business Metadata

In addition to Derived Entity, RRS uses the following OFSAA features to create the Business Metadata. For details on the features, see the OFS Analytical Applications Infrastructure User Guide.

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

7.3 Derived Entity

It is the primary component of OFSAA used for OFS REG REP OSFI. Regulatory Reporting Solution uses Derived Entity to create a physical materialized view which is then queried by reporting portal using Preset Data Handoff Templates. An Entity refers to a table in which data is stored. Derived Entity within the Infrastructure System facilitates you to define entities that are populated through a series of Data

Transformation Processes resulting from an existing Dataset or a Source Application. An Entity can be used to define other Business Metadata such as Measures, Hierarchies, Dimensions, Datasets, and Cubes.

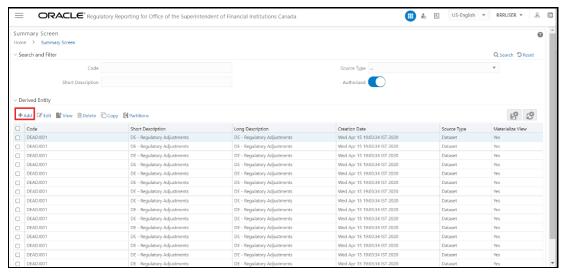
Derived Entities comprise the following:

- Measures
- Hierarchies
- Datasets

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

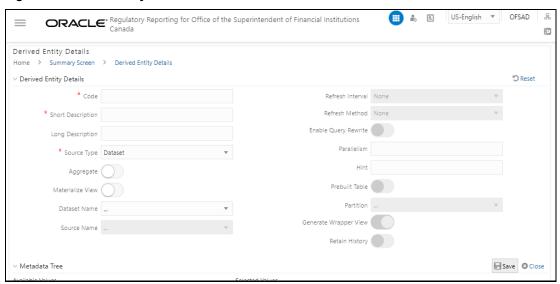
Navigate to Regulatory Reporting for Office of Superintendent of Financial Institutions
 Canada, select Metadata Management, and then select Derived Entity.
 The existing Derived Entities Summary Screen is displayed. You can Add a new Derived Entity
 and Edit, View, Delete, or Copy an existing Derived Entity.

Figure 22: Derived Entity Summary Page



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

Figure 23: Derived Entity User Interface



8 Executing Run through Process Modelling Framework in OFS REG REP OSFI

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

This chapter provides information about the usage of the Process Modeling Framework (PMF) Feature in the Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutions Canada (OFS REG REP OSFI) Application.

NOTE

For detailed information about the Process Modeling Framework (PMF) feature in OFSAA, see the <u>Process Modelling Framework Orchestration Guide</u>.

This chapter includes the following topics:

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

8.1 Overview

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

- Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutions Canada (OFS REG REP OSFI) Sourced Run.
- Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutions Canada (OFS REG REP OSFI) Execution Run.

8.2 Designing a Pipeline in OFS REG REP OSFI

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

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

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

- Selecting the Run Parameters and Executing the Run
- Verifying the Run Execution
- Verifying the Execution Logs

NOTE

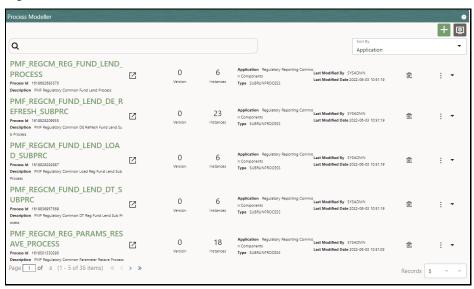
For information about executing the Run Pipeline using a Command-Line Utility, see the section *Using Command Line Utility* in the <u>Process Modelling Framework Orchestration Guide</u>.

8.2.1 Selecting the Run Parameters and Executing the Run

After designing and saving the Process Flow Diagram, the Process is listed in the *Process Modeler* Page. To select the Run Parameters and execute the Run, follow this procedure:

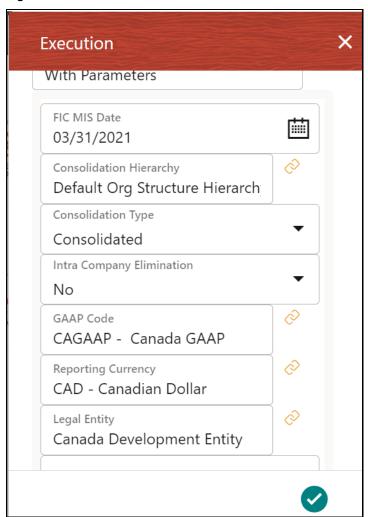
- 3. After logging into the OFSAAI Applications Page, navigate to **Regulatory Reporting for Office of Superintendent of Financial Institutions Canada**, select **Process Modelling Framework**, and select **Process Modeller**.
- **4.** In the **Process Modeller** Page, click **More** corresponding to the Run Pipeline that must be executed.

Figure 24: Process Modeler Screen



5. When you click **Execute Run**, the **Select Run Params** Window is displayed.

Figure 25: Select Run Parameter Screen



- **6.** Select the **Execution Type** as **With Parameters** from the drop-down list.
- **7.** Select or enter the required values for each field as follows.

Table 30: Run Parameter Fields and Descriptions

Field Name	Description or Instruction
Reporting Currency	Enter the Reporting Currency Code used to calculate the amount during the data population in the Target Table.
Legal Entity	Select the Legal Entity Code to identify the Legal Entity used for the Run.
Consolidation Type	Select the Consolidation Type of Legal Entities on a solo or consolidation basis. In a Solo Run, only the Selected Legal Entity is used. In a Consolidated Run, along with the Selected Legal Entity, all its Child Legal Entities are also used.
Intra Company Elimination	Select the Intra Company Elimination type to eliminate (YES) or skip the elimination (NO) of Intra Company Accounts during a Consolidated Run.

Field Name	Description or Instruction
Consolidation Hierarchy	Enter the Legal Entity Hierarchy used for the consolidated Run. This parameter is not required for the Solo Run.
GAAP Code	Enter the required accounting standard.
FIC MIS Date	Select the Extraction Date.
BackDated Execution	Select the option Yes from the drop-down list if the Run is executed for a Prior Date else NO . For example, Regulatory refiling.
Run Execution Description	Enter a longer description of the Run.

8. When you click, the Run execution begins. The **Select Run Params** Window closes.

NOTE

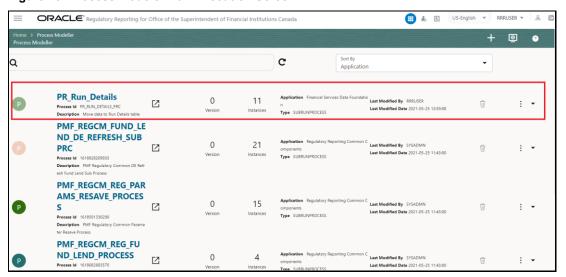
The execution of the Run Pipeline is triggered using the selected FIC MIS DATE. The Run SKey is generated and inserted into the DIM_RUN table. For the Run SKey generated, the corresponding user-selected Run parameters are inserted into the RUN_EXE_PARAMETERS table.

8.2.2 Verifying the Run Execution

After selecting the Run Parameters and beginning the Run Execution, verify the progress of the Run. To verify the Run Execution Progress, follow this procedure:

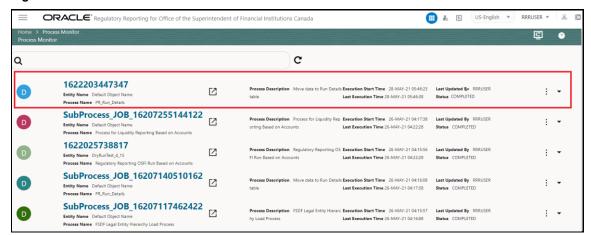
1. In the **Process Modeler** Page, click **More** corresponding to the Run Pipeline that must be verified. Click **Process Flow Monitor**.

Figure 26: Process Modeler Run Execution Screen



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

Figure 27: Process Monitor Screen

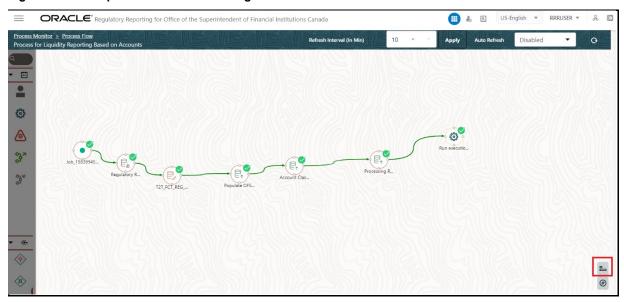


3. The Process Flow Diagram Window is displayed. The icon at each Sub Pipeline indicates that the Run Execution is successful.

NOTE

The icon at each Sub Pipeline indicates that the Run Execution is unsuccessful.

Figure 28: Run Pipeline Process Flow Diagram



NOTE

The icon shows the entire label of the nodes in the Process Flow Diagram and the icon shows the nodes navigation in the diagram.

8.2.3 Verifying the Execution Logs

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

To verify the execution log, follow these steps:

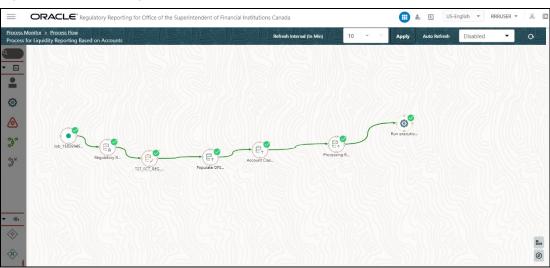
1. In the **Process Monitor** Window, click the required Process Flow ID. The Process Flow Diagram is displayed in a new window. Double click on the required Sub Pipeline. The **Execution Logs** Window is displayed.

Figure 29: Sub Pipeline



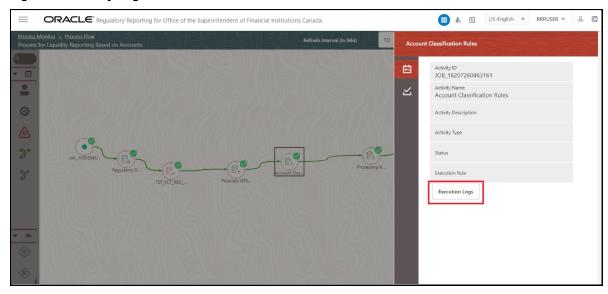
2. Click the required metadata to verify the Execution Log.

Figure 30: Execution Logs



3. Click the required node and the Activity Window is displayed.

Figure 31: Activity Logs



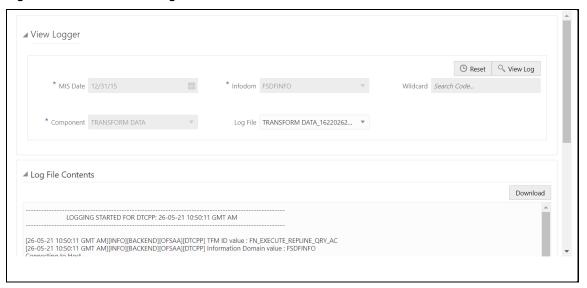
4. Click Execution Logs. The Log File Details Page is displayed.

Figure 32: Log File



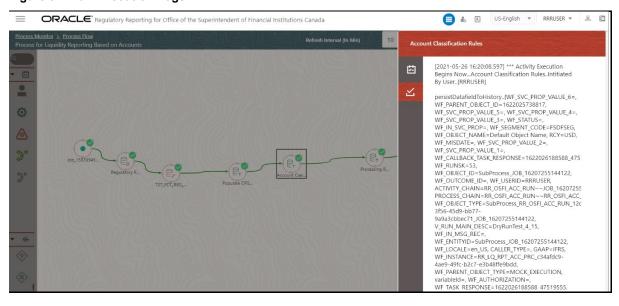
5. Select the **Log File** that you wish to view from the drop-down list and click **View Log**. The Run Execution Log details are displayed.

Figure 33: Run Execution Log



Alternatively, to verify the execution logs, click the icon in the Process Flow Diagram Window. The log details of the Run Execution are displayed in a new window.

Figure 34: Run Execution Logs



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

9 Regulatory Reports

In order to verify the existing logic, to enable and disable the mapping paths at a high level and at each mapping ID level, to publish the reports, to enable and disable the published reports, to re-execute and overwrite the publish reports there are two new features introduced such as Reports Mapping and Reports Publish in the OFS REG REP OSFI application.

Currently the Regulatory Reporting logic is built inside the Configuration Package and hence any additional configuration is not supported in the REG REP OSFI application. To enable this additional configuration, the reporting logic is now moved from the existing Configuration Package to OFSAA. The logic for computing the MDRM values are located in OFSAA, and the Configuration Package will perform as a Key Value Pair for each MDRM. Adjustments will still be distinct, and the same values will be supplied as adjustments into the Configuration Package.

9.1 Manage Report Mappings

This section provides the procedures to view, enable and disable the mappings at a high level and at each mapping ID level and to add a configuration in the OFS REG REP OSFI application.

View Report Mappings

After logging into the OFSAAI applications page, navigate to Regulatory Reporting for Office
of Superintendent of Financial Institutions Canada, select Regulatory Reports, then select
Report Mappings.

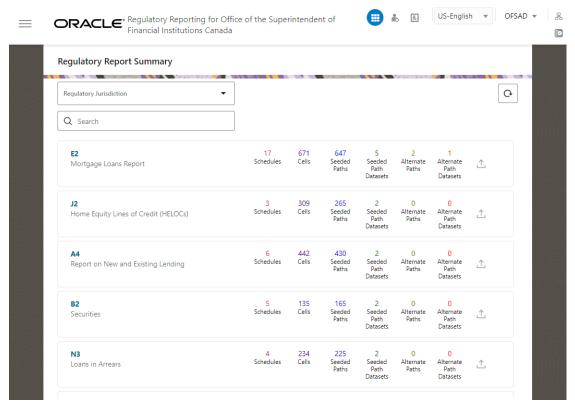
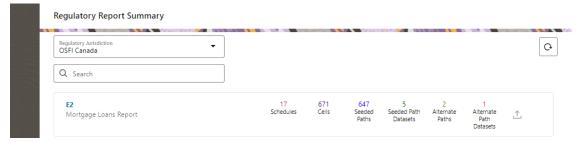


Figure 35: Regulatory Reporting Summary Page

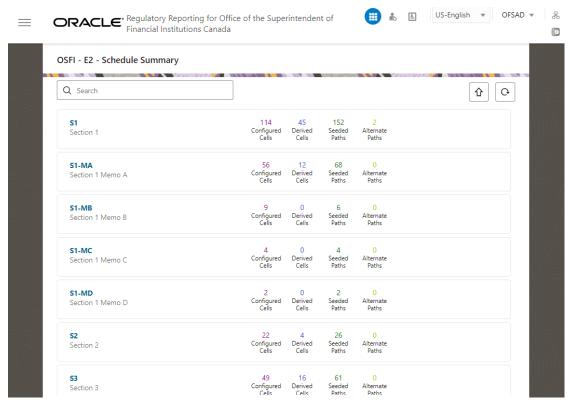
2. Select the **Regulatory Jurisdiction** from the dropdown list and in the **Search Pane**, enter the report that you wish to add the additional configuration.

Figure 36: Regulatory Report Summary Result page



3. Click on the **E2** Report link and the list of schedules associated with the report is displayed.

Figure 37: Report Schedule Summary Page



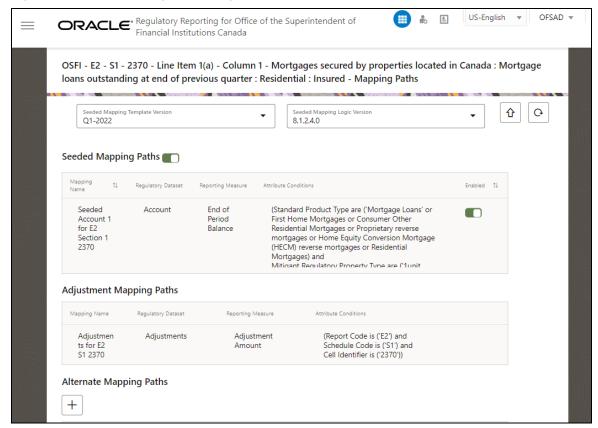
4. Click on any one of the schedules and the Reporting Line-Item Summary page is displayed.

US-English ▼ OFSAD ▼ **ORACLE*** Regulatory Reporting for Office of the Superintendent of Financial Institutions Canada 옳 0 OSFI - E2 - S1 - Reporting Line Item Summary û G Line Item 1(a) - Column 1 - Mortgages secured by properties located in Canada : Mortgage loans outstanding at end of previous quarter : Residential : 2401 Line Item 1(a) - Column 2 - Mortgages secured by properties located in Canada: Mortgage loans outstanding at end of previous quarter: Residential: Uninsured Line Item 1(a) - Column 3 - Mortgages secured by properties located in Canada: Mortgage loans outstanding at end of previous quarter: Residential: Of Which: Properties with more than 4 units 2426 Line Item 1(a) - Column 4 - Mortgages secured by properties located in Canada: Mortgage loans outstanding at end of previous quarter: Non-Residential: Non-farm 1 Seeded 3 0 Seeded Alternate Line Item 1(a) - Column 5 - Mortgages secured by

Figure 38: Schedule Based Reporting Line-Item Summary Page

5. Select the line item for which you wish to view the seeding mapping details. Select the Seeded Mapping Template Version and the Seeded Mapping Logic Version from the dropdown list for this specific line item to view its seeded mapping path details.

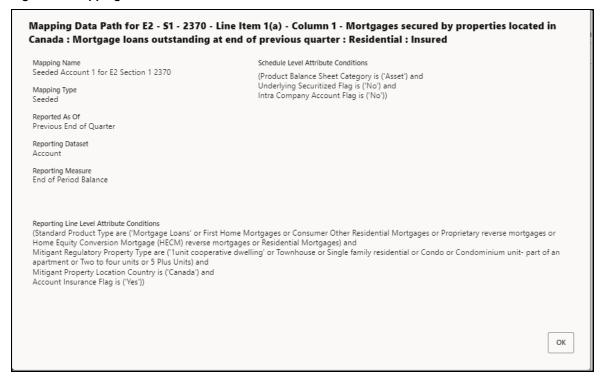
Figure 39: Seeded Mapping Details Page



The seeded mapping details consists of the reporting logic for mapping such as Measures, and Attributes and Values seeded by the application. Each line item can contain one or many mapping IDs associated with it. You can either enable and disable the entire seeded mapping of a line-item or enable and disable specific mapping of a line-item in the application.

Double-click on any one of the Attribute Conditions of the existing Seeded Mappings to view the Mapping Path.

Figure 40: Mapping Data Path for a Line Item Window



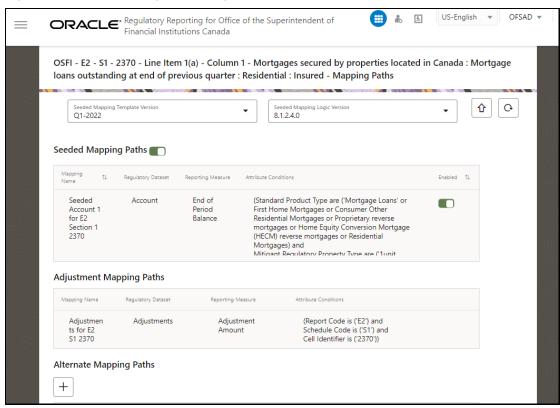
7. Click **OK** to close this window.

Enable or Disable Seeding Mapping Path

This section provides the procedure to enable or disable the Seeded Data Mapping Details.

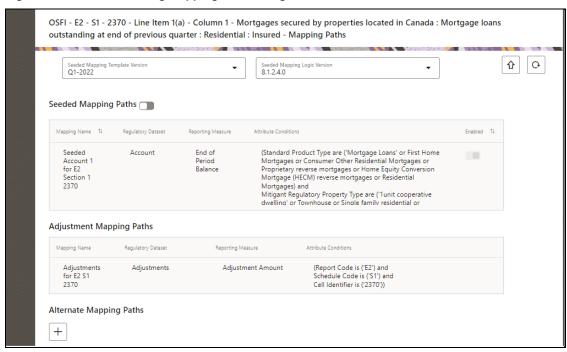
8. In the **Seeded Data Mapping Details** Page, you can enable or disable the Seeded Mapping Details.

Figure 41: Seeded Mapping Details Page



9. You can disable the **Seeding Mapping Paths** option to disable all the line items under this specific Seeded Mapping.

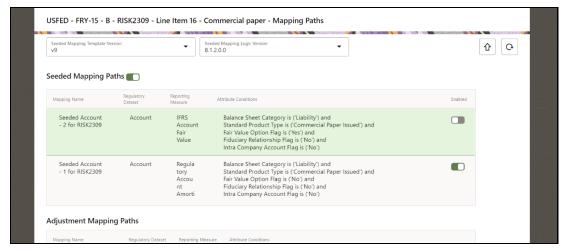
Figure 42: Disabled Seeding Mapping Details Page



Or

10. You can disable the **Seeding Mapping of a specific Mapping ID** option.

Figure 43: Disable seeded Mapping of a Specific Mapping ID Page



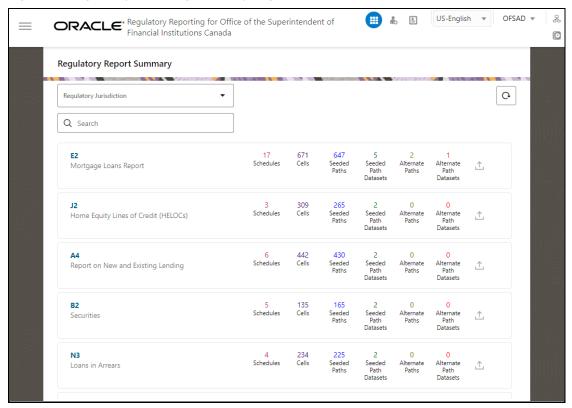
11. You can enable the disabled the Seeding Mapping Details of a specific line item or a Specific Mapping ID in the application.

Add Report Mappings

This section provides the procedure to add the Seeded Data Mapping Details.

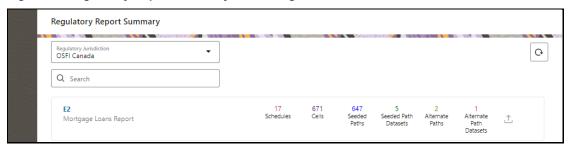
12. After logging into the OFSAAI Applications Page, navigate to Regulatory Reporting for Office of Superintendent of Financial Institutions Canada, select Regulatory Reports, then select Report Mappings.

Figure 44: Regulatory Reporting Summary Page



13. Select the **Regulatory Jurisdiction** from the dropdown list and in the **Search Pane**, enter the report that you wish to add the additional configuration.

Figure 45: Regulatory Report Summary Result Page



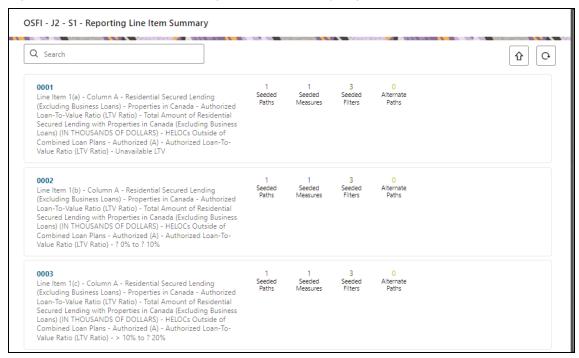
14. Click on the **J2** Report link and the list of schedules associated with the report is displayed.

Figure 46: Report Schedule Summary Page



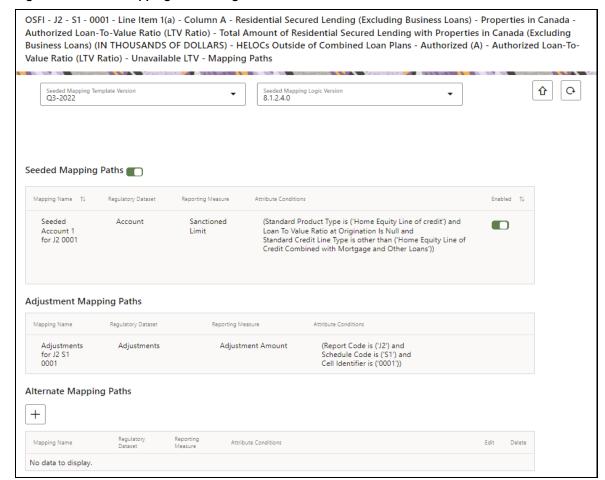
15. Click on any one of the schedules and the Reporting Line-Item Summary page is displayed.

Figure 47: Schedule Based Reporting Line-Item Summary Page



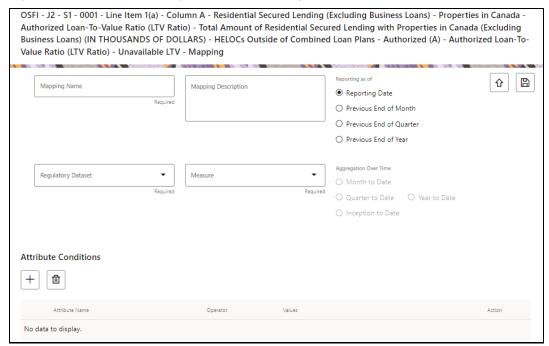
16. Select the line item for which you wish to view the seeding mapping details. Select the Seeded Mapping Template Version and the Seeded Mapping Logic Version from the dropdown list for this specific line item to view its Seeded Mapping Path Details.

Figure 48: Seeded Mapping Details Page



17. Scroll down and click the **Add** icon to add an alternative mapping path for an MDRM. The Alternative Mapping path page is displayed.

Figure 49: Alternative Mapping Details Addition page



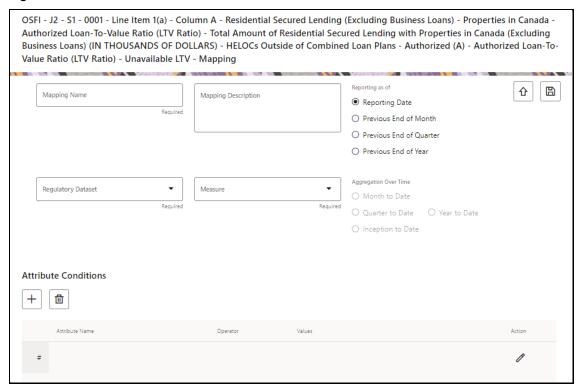
18. Enter information in the following fields.

Table 31: Alternative Mapping Details Addition

Field Name	Description or Instruction
Mapping Name	Enter the name of the new mapping configuration.
Mapping Description	Enter the description for the new mapping configuration.
Regulatory Dataset	Select the appropriate dataset from the dropdown list that will be used for Regulatory Reporting.
Measure	Select the appropriate measure from the dropdown list. The list of measure available is based on the regulatory dataset selection.

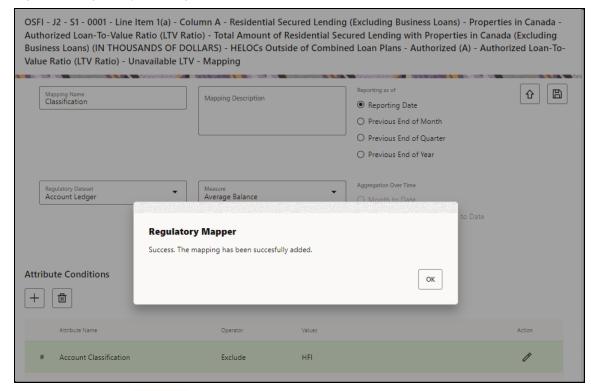
19. Click the Attribute **Add** icon to add the attribute conditions for the MDRM. The Attribute Addition window is displayed.

Figure 50: Attribute Condition Add Window



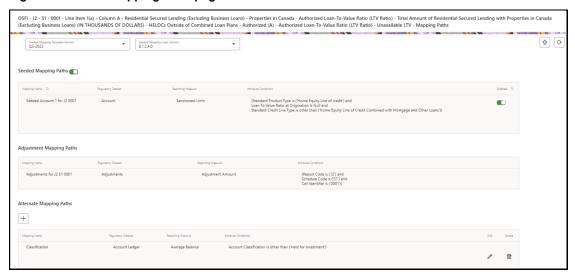
- 20. Click the **Edit** icon to add the attribute conditions such as **Attribute Name**, **Operator** and **Value** from the dropdown list.
- **21.** Click the Save icon to save the added attribute details.
- **22.** Click the Save button to save the added alternative mapping path in the application. A regulatory mapping added confirmation window is displayed.

Figure 51: Regulatory Mapping Added Confirmation Window



23. Click the **Ok** button and the newly added Alternative mapping path saved page is displayed.

Figure 52: Added Mapping Save page



24. Click the **Edit** icon to edit the newly added seeded mapping details.

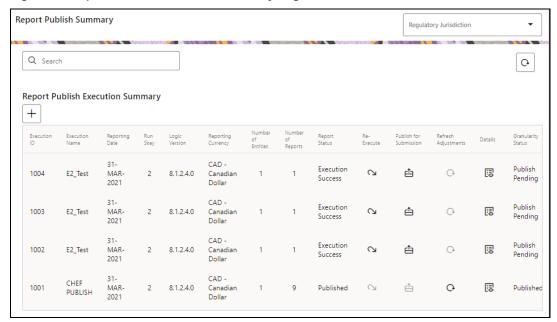
9.2 Reports Publish

Before retrieving the report, this feature allows you to verify the reporting values after considering seeded mappings and alternate mappings.

To publish the reports, follow these steps:

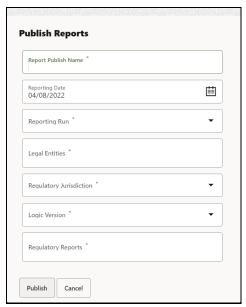
1. After logging into the OFSAAI applications page, navigate to **Regulatory Reporting for Office of Superintendent of Financial Institutions Canada,** select **Regulatory Reports,** then select **Report Publish.**

Figure 53: Report Publish Execution Summary Page



2. Click the **Add** icon to publish a report. The **Publish Reports** window is displayed.

Figure 54: Publish Reports Window



3. Enter information in the following fields.

Table 32: Reports Publish

Field Name	Description or Instruction	
Report Publish Name	Enter the business name of the publish.	
Reporting Date	Select the maximum run execution date using the calendar. By default, the maximum run execution date is displayed for a group of runs executed in that period.	
Reporting Run	Select the reporting run from the dropdown list.	
Legal Entities	Select one or many legal entities from the dropdown list.	
Regulatory Jurisdiction	Select the jurisdiction from the dropdown list.	
Logic Version	Select the logical version of the seeding mapping of the report.	
Regulatory Reports	Select the one or more regulatory reports from the dropdown list.	

- **4.** Click the **Publish** button to publish the report for the report to retrieve the fact table data. A confirmation window is displayed.
- 5. Click the **Ok** button to view the recently published report details in the Report Publish Execution summary.

9.2.1 Manage Reports Publish

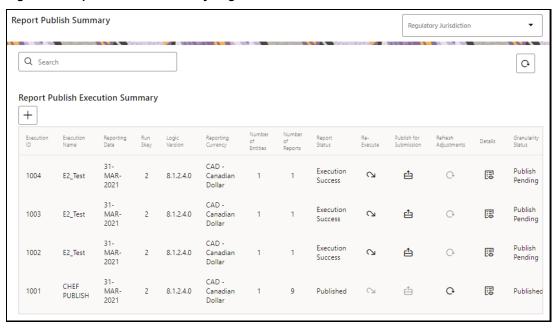
This section provides information on the procedures to re-execute, final publish or view the published reports in the application.

Re-execute Published Reports

To re-execute the published reports, follow these steps:

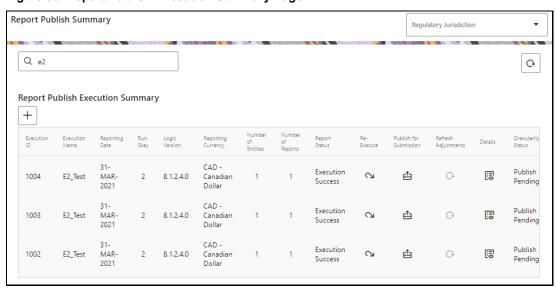
1. After logging into the OFSAAI applications page, navigate to **Regulatory Reporting for Office of Superintendent of Financial Institutions Canada,** select **Regulatory Reports,** then select **Report Publish.**

Figure 55: Report Publish Summary Page



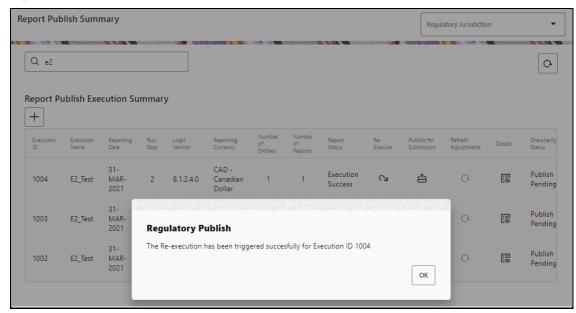
2. Select the **Regulatory Jurisdiction** from the dropdown list and enter a specific report that you wish to view using the Search pane. The Report Publish Summary Result page is displayed.

Figure 56: Report Publish Execution Summary Page



3. Click the **Re-execute** icon to re-execute the published report details. The Report Publish Summary page is displayed.

Figure 57: Report Publish Re-execution Confirmation Window



4. Click the **OK** button to re-execute the published report. The Report Publish Re-execution Confirmation Window is displayed. The status of the re-execution triggered report status changes to **Ongoing** in the application.

Figure 58: Report Publish Execution Summary Page

OK

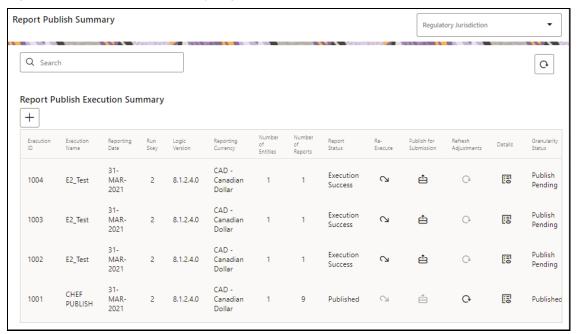


Final Publish Reports

To final publish the reports, follow these steps:

After logging into the OFSAAI applications page, navigate to Regulatory Reporting for Office
of Superintendent of Financial Institutions Canada, select Regulatory Reports, then select
Report Publish.

Figure 59: Report Publish Summary Page



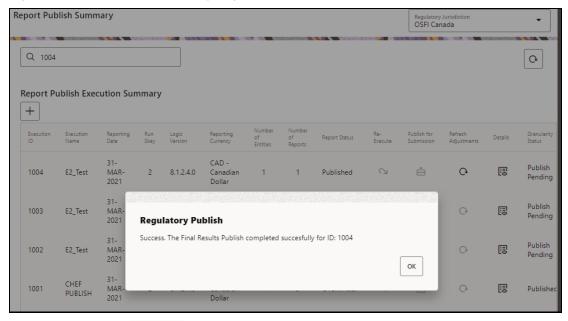
2. Select the **Regulatory Jurisdiction** from the dropdown list and enter a specific report that you wish to view using the Search pane. The Report Publish Summary Result page is displayed.

Figure 60: Report Publish Execution Summary Page



3. Click the **Publish for Submission** icon to final publish the report. The Final Publish Report Confirmation Window is displayed.

Figure 61: Publish Report Summary Page



4. Click the **OK** button . The Final Report Publish Confirmation Window is displayed. The status of the final published report status changes to **Published** in the application.

Figure 62: Report Publish Execution Summary Page

OK

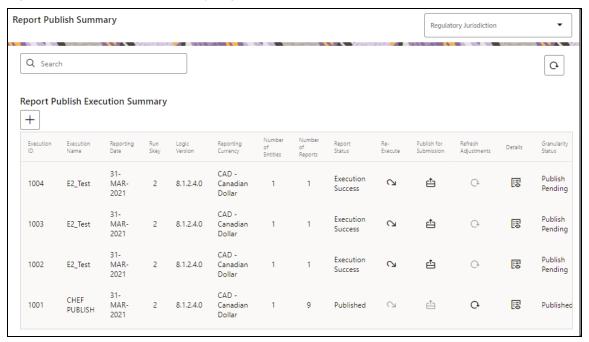


View Published Reports

To view the published reports, follow these steps:

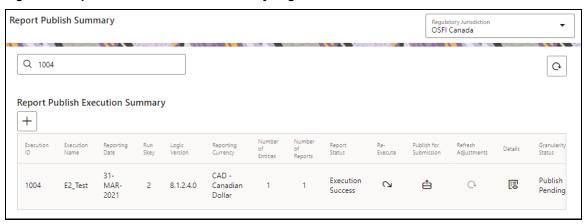
1. After logging into the OFSAAI applications page, navigate to **Regulatory Reporting for Office of Superintendent of Financial Institutions Canada,** select **Regulatory Reports,** then select **Report Publish.**

Figure 63: Report Publish Summary Page



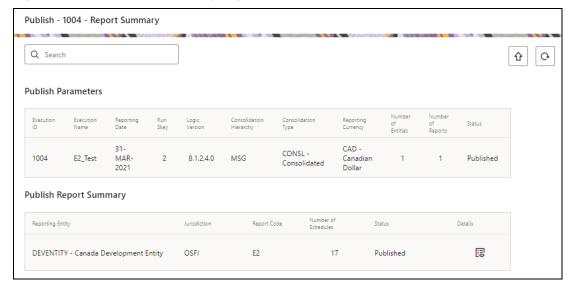
2. Select the **Regulatory Jurisdiction** from the dropdown list and enter a specific report that you wish to view using the Search pane. The Report Publish Summary Result page is displayed.

Figure 64: Report Publish Execution Summary Page



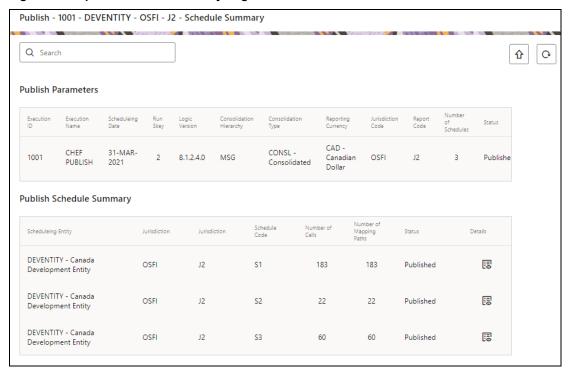
3. Click the **View** icon to view the published report details. The Report Publish Summary page is displayed.

Figure 65: Publish Report Summary Page



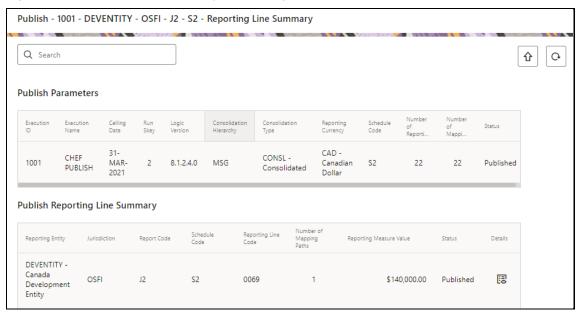
4. Click the Reporting Entity that you wish to see. The **Report Schedule Summary** page is displayed.

Figure 66: Report Schedule Summary Page



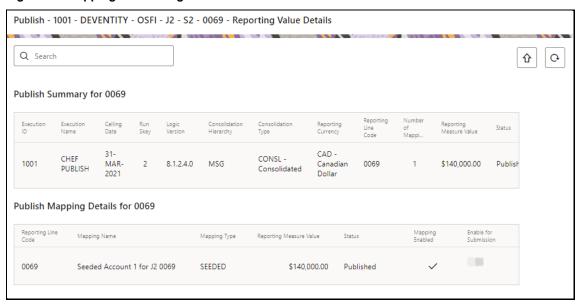
5. Click the Schedule that you wish to see. The **Report Line Item Summary** details page is displayed.

Figure 67: Report Line Item Summary Details Page



6. Click the Reporting Line item that you wish to see. The Mapping Details of the MDRM page is displayed.

Figure 68: Mapping Details Page



7. You can disable or enable the MDRM for final publish.

NOTE Once the Final Publish is completed, you cannot enable or disable the MDRM level values.

9.3 Drill-down of Published Reports

To get a drill-down of published reports, perform the following steps:

Metadata Publish is a prerequisite for publishing drill-down reports.

Steps for Metadata Publish

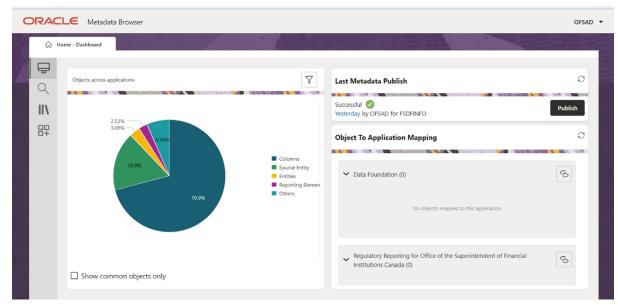
To re-execute the published reports, follow these steps:

After logging into the OFSAAI applications page, navigate to Regulatory Reporting for Office
of Superintendent of Financial Institutions Canada, select Metadata Browser. This opens
Metadata Browser in a new window.



2. Click Publish.

This publishes all the metadata related information and makes it available for the drill-down analysis.

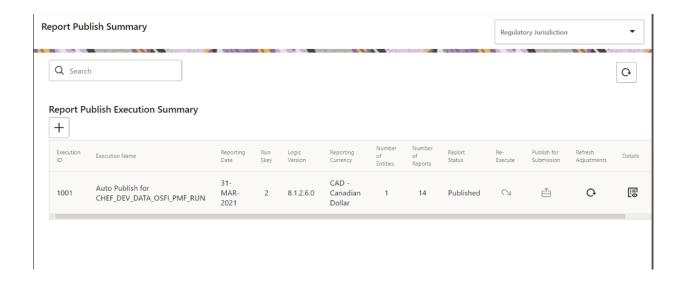


Once Metadata publish is complete, return to the Home page.

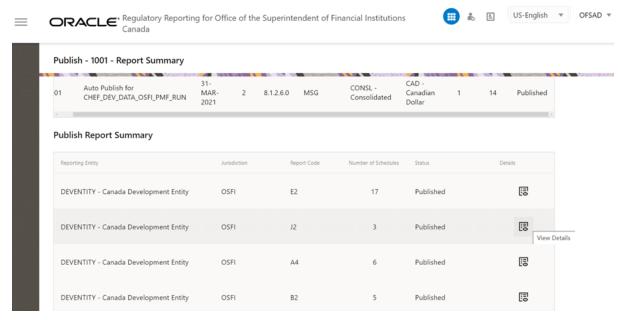
3. Navigate to Regulatory Reports



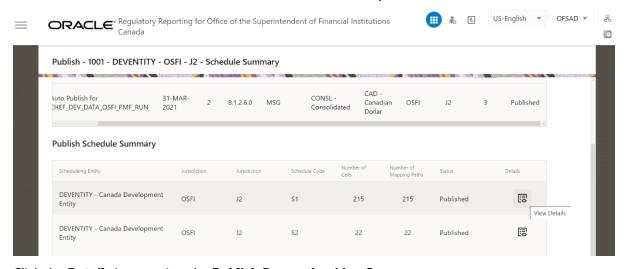
4. Click **Report Publish** to access the **Report Execution Summary** screen.



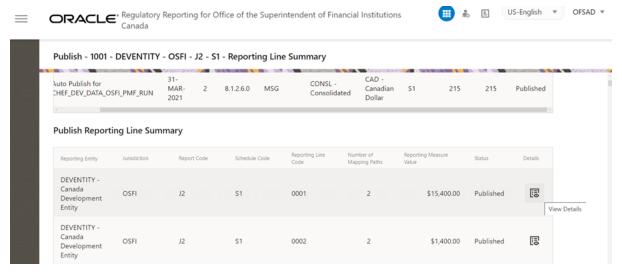
5. Click the **Details** icon to view the **Publish Report Summary**.



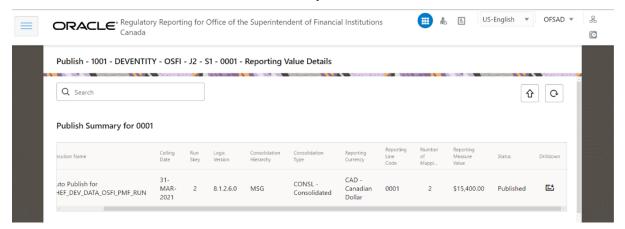
6. Click the **Details** icon to view the **Publish Schedule Summary**.



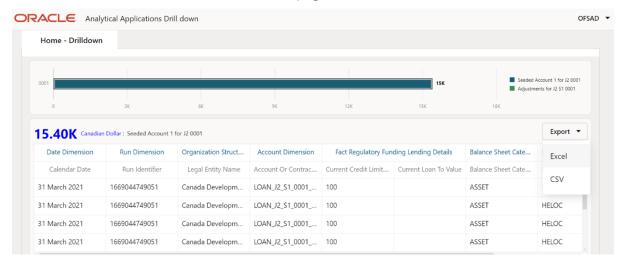
7. Click the **Details** icon to view the **Publish Rerporting Line Summary**



8. Click the **Details** icon to view the **Publish Summary for MDRM**



9. Click the **Drilldown** icon, to view the **Drilldown** page.



10. You can export the drill-down report by clicking the **Export** button, with options available for CSV and Excel formats. The report can then be downloaded.

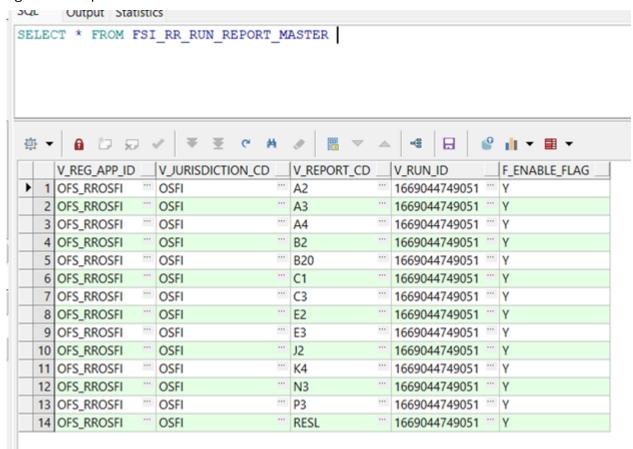
9.4 Automatic Report Publish

In OSFI version 8.1.2.6.0, the default configuration publishes all reports along with each Run Execution. If you want to disable specific reports, you must perform a one-time configuration in the Atomic Schema. Follow these steps:

- 1. Log in to the Atomic Schema
- **2.** Locate the FSI_RR_RUN_REPORT_MASTER Table: This table controls the publication settings for reports.
- **3.** Update the Table: Execute the necessary update statements to disable the reports you do not want to be published. This involves modifying the relevant fields to deactivate those reports.
- **4.** Save Changes: Ensure that all changes are saved and applied properly to prevent unintended report publishing.

By following these steps, you can customize which reports are published with each Run Execution according to your specific needs.

Eg. Default Report selections in 8.1.2.6.0



To disable B2 and C1, you can use the following update statement

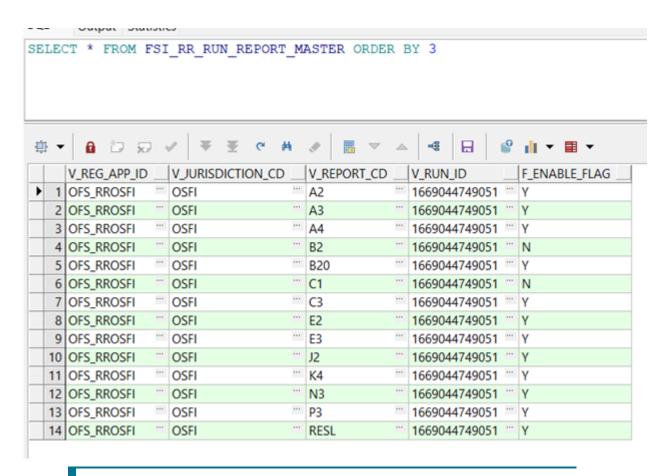
UPDATE FSI_RR_RUN_REPORT_MASTER

SET F_ENABLE_FLAG = 'N'

WHERE V_JURISDICTION_CD = 'OSFI'

AND V_REPORT_CD IN ('B2', 'C1');

COMMIT;



NOTE

The upgrade installer will not re-enable disabled reports, so there will be no impact on your settings even after the upgrade. Your settings will remain unchanged. If you wish, you can reenable the reports at any time.

After the regular Run Execution is complete, all enabled reports will be published by default and available for export.



The PMF Reg Run process has been enhanced with the inclusion of a new component, named PMF_REGOSFI_FN_RUN_REPORT_AUTO_PUBLISH.



This component has been added as the final step in the process flow.

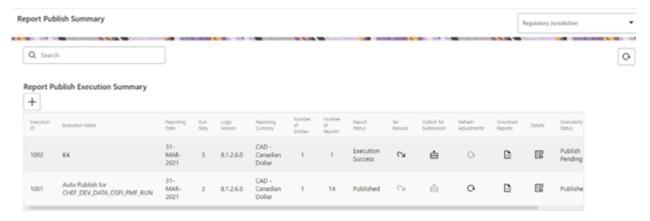
Its primary function is to automate the report publishing activity, thereby eliminating the need for manual intervention.

With this modification, the report publishing process now occurs seamlessly as part of the Reg Run, streamlining operations and improving efficiency.

The Report Publish Parameters in Autopulish

Report Publish Parameter	Reference
Report Publish Name	Run Name + 'Autopublish'
The Reporting Date	PMF Reg Run
Legal Entities	PMF Reg Run
Logic Version	Latest in Cell Master
Regulatory jurisdiction	FSI_RR_RUN_REPORT_MASTER
Regulatory Reports	FSI_RR_RUN_REPORT_MASTER

Publish ID is automatically generated and Reports are ready for Download.



9.5 Adjustment Feature for Template-based Reports

The adjustments feature is a new enhancement to adjust the differing values of the Report Systems. The Adjustments Derived Entity derives its values from the Adjustments Fact Table (FCT_REG_REPORT_ADJUSTMENTS) that specifies the adjustment value and the seeded table (DIM_REG_REPORT_CELL) that specifies the Cell ID or MDRM Code and the Report Code to which the MDRM belongs to. This ensures that there can be direct adjustments made to MDRM(s) such that the values from both the derived entities are traceable and efficiently reported.

9.5.1 Implementing the Adjustment Feature

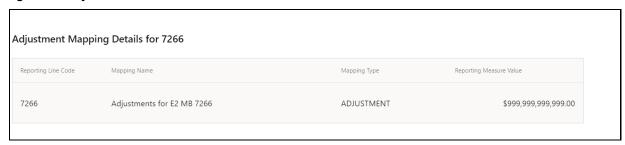
To implement the Adjustment feature, identify the Cell ID for the report and the line item where adjustment must be implemented.

For example: **E2** Report

NOTE The Adjustment feature works only for fixed table cells (Open Y cells are not supported).

The report currently displays a Total Value = 3, 33,161 for the identified cell as shown in the following figure.

Figure 69: Adjustment Feature



Now, the requirement is to adjust this amount to 15, 00,000+3, 33,161=18, and 33,161

NOTE

The Adjustment Feature works only for fixed table cells (Open Y cells are not supported).

Topics:

- Populating Base Tables
- Refreshing Adjustment Derived Entity
- Reporting Verification

9.5.1.1 Populating Base Tables

FCT_REG_REPORT_ADJUSTMENTS: This table must be populated with the requisite *Adjustment Amount* and other related columns.

The corresponding **N_CELL_SKEY** value must be picked from DIM_REG_REPORT_CELL for the respective **CELL_ID**. The DIM_REG_REPORT_CELL table is pre-seeded with cell IDs for reports supported for this feature.

The following columns must also be updated accordingly:

- N_ENTITY_SKEY
- 2. N_RUN_SKEY
- 3. N_MIS_DATE_SKEY

NOTE

V_PAGE_INSTANCE_VALUE shall be populated with appropriate instance value for reports with page instance filters. The page instance filter value shall match the values as populated in the DE hierarchy for page instance. The adjustment value shall be provided for all the page instance values that require adjustment including the "Total" instance. This attribute can be ignored for the reports without page instance.

9.5.1.2 Refreshing Adjustment Derived Entity

Execute the resave batch for Adjustments (<<INFODOM>> LIQUIDITY_REPORTS_ACC_RESAVEDE), to save the Adjustment derived entity - DEADJ001.

This ensures that the adjustment amount is reflected in the Adjustment Derived Entity DEADJ001.

9.6 User Access:

The following user groups are pre-seeded in the component that helps you get access to the Regulatory Reporting menu.

- 1. REGADMINGRP: Regulatory Reporting Admin Group To administrate Regulatory Reporting.
- **2.** REGMAPPERGRP : Regulatory Reporting Mapper Group To create mappings under Regulatory Reporting.

10 Metadata Browser

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

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

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

To access the Metadata Browser (Object and Application View), your role must be mapped to the SCR MDB Function.

Analysts review the metadata used for a particular report schedule to verify the data. Data Verification may require looking for metadata used in a given schedule or it can be scheduled in which particular metadata is used. Data Analysts and Reporting Analysts perform the Report Verification. Metadata refers to Business Measures, Hierarchies, Datasets, Derived Entities used for a given schedule.

10.1.1 Reporting Metadata

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

 You can verify the data for related data elements in results using this information. Navigate to Catalog of Objects, select OFSAA Metamodel, select Reporting Metadata, and select Reports.

The MDB Reporting Metadata Screen is displayed.

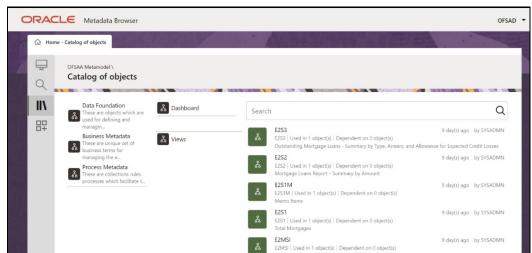
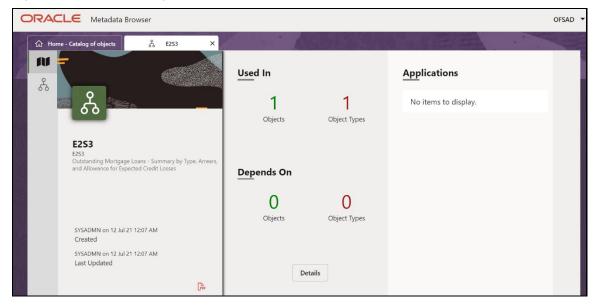


Figure 70: MDB - Reporting Metadata Page

2. Click the object view E2S3 to view the list of schedules. The **Reporting Metadata Schedule View** Page is displayed.

Figure 71: MDB - Reporting Metadata - Schedule View



You can view the following information in the **Schedule Details** Page:

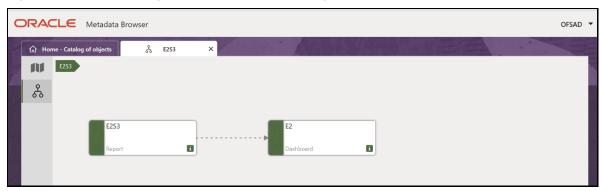
- **Depends On**: This section displays the metadata used in a given schedule.
- **Used In**: This section displays the Reports in which this schedule is used.
- Applications: This section displays the applications in which this schedule is used.
- **3.** Click **Details** to view the dependency and usage information such as the **Object Name** and the **Object Type**.

Figure 72: MDB - Reporting Metadata - Schedule View 1



4. From the **Schedule View** Page, click the **Dependency** Tab to view the Report Tree Structure.

Figure 73: MDB - Reporting Metadata Tree Structure Page



Starting from common metadata used across the application, you may want to know the list of reports or Derived Entities this metadata has used. Let us take an example of a measure. To identify how value is computed, perform the following steps to trace it back to the metadata.

10.1.2 Business Metadata

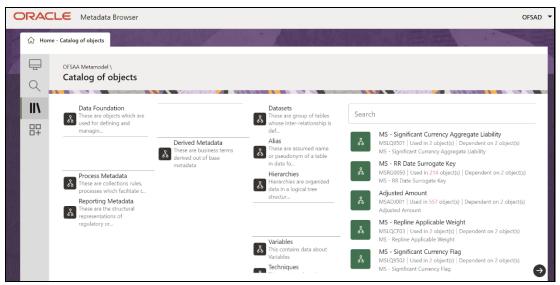
This section provides information on the Business Metadata Objects which include Base Metadata and Derived Metadata.

10.1.2.1 Base Metadata

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

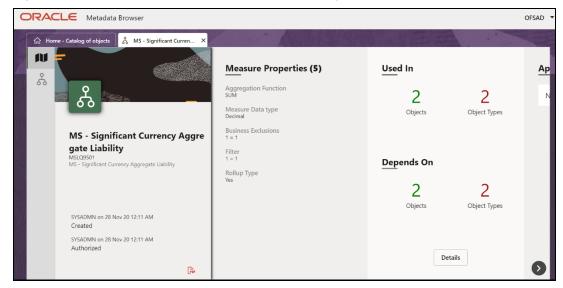
 To view the measures, navigate to Catalog of Objects, select OFSAA Metamodel, select Business Metadata, select Base Metadata, and select Measures. The MDB Business Metadata Page is displayed.

Figure 74: MDB - Business Metadata - Measure View Page



Click the Measure that you wish to view.The MDB Business Metadata Measure Details Page is displayed.

Figure 75: MDB - Business Metadata Measure Details Page



You can view the following information on this page:

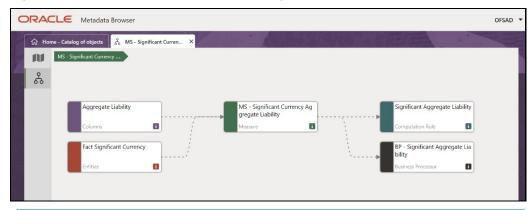
- Measure Properties: It provides information on the properties of Business measures. For example, aggregation function, Measure Data Type, Business Exclusions, Filter, and Rollup Type.
- **It Depends On**: This section displays all the object names and their types, such as Entities, Columns, and so 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.
- 3. Click **Details** to view the measure dependency and usage information.

Figure 76: Measure Dependency and Usage Details Page



4. From the **Measure Details** Page, click the **Dependency** tab to view the Measure Tree Structure.

Figure 77: Business Metadata Measure Tree Page



NOTE

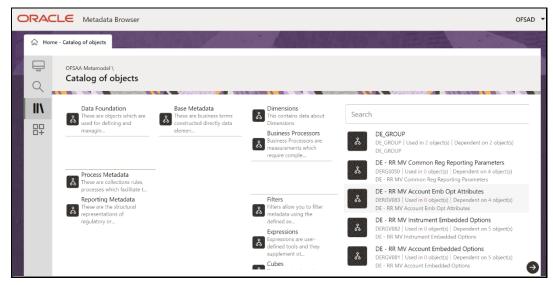
The similar steps as mentioned in this section are applicable for other metadata such as Business Metadata (Hierarchies, Measures, Variables, and so on) and Derived Metadata (Dimensions, Filters, and so on), Process Metadata (Process, Rules, and so on) and Data Foundation (Target Model, Sources, Connectors,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

10.1.2.2 Derived Metadata

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

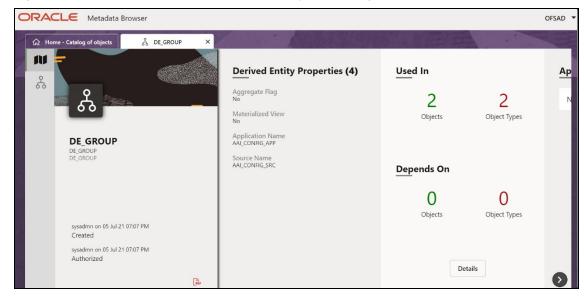
1. To view the schedule-wise derived entities, navigate to Catalog of **Objects**, select **OFSAA Metamodel**, select **Business Metadata**, select **Derived Metadata**, and select **Derived Entities**.

Figure 78: MDB - Business Metadata - Derived Entity Page



2. Click the **Derived Entity** that you wish to view. The **Derived Entity Details** Page is displayed.

Figure 79: MDB - Business Metadata Derived Entity Details Page



You can view the following information on this page:

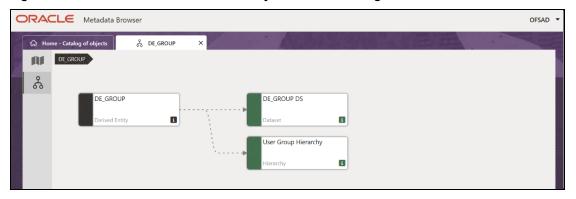
- Derived Entity Properties: It provides information on properties of Derived Entities, such as Source Type, Aggregate Flag, and Materialized View.
- **It Depends On**: This section displays all the object names and their types, such as Dataset, Hierarchy, and so on.
- Used In: This section displays the Objects in which this schedule is used.
- **Applications**: This section displays the applications in which this schedule is used.
- 3. Click **Details** to view the Derived Entity dependency and usage information.

Figure 80: Derived Entity Dependency and Usage Page



4. From the **Derived Entity Details** Page, click the **Dependency** tab to view the Derived Entity Tree Structure.

Figure 81: Business Metadata - Derived Entity Tree Structure Page



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