

**Oracle® Financial Services Asset Liability  
Management Analytics**

User Guide

Release 5

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Oracle Financial Services Asset Liability Management Analytics User Guide, Release 5

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## **Oracle Financial Services Asset Liability Management Analytics User Guide, Release 5**

**Part No. E27736-01**

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# Preface

## Intended Audience

Welcome to Release 5 of the *Oracle Financial Services Asset Liability Management Analytics User Guide*.

The Oracle Financial Services Asset Liability Management Analytics User Guide provides information needed to understand the underlying structure, pre-requisites, processing requirements, and use of Oracle Financial Services Asset Liability Management Analytics.

The Oracle Financial Services *Oracle Financial Services Asset Liability Management Analytics* User Guide provides useful guidance and assistance to:

- Technical end users supporting Business Intelligence applications
- Functional Business Intelligence end users

See Related Information Sources on page xi for more Oracle product information.

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# Structure

## **1 Introduction to ALM BI**

This chapter provides a general description of the Asset Liability Management Analytics application.

## **2 Overview of the ALM BI Process Flow**

This chapter provides an overview of the end to end process flow.

## **3 Dimension Population**

This chapter describes the steps required to setup and execute the slowly changing dimension process.

## **4 ALM Results Transformation**

This chapter describes the steps required to setup and execute the ALM Result transformation process.

ALM Results Transformation is the process of pushing the ALM Results from the ALM Processing area to the ALM BI Mart. It transforms both Deterministic and Stochastic ALM results as well as other related information such as forecast rates and detailed cash flows, based on the type of process and processing options selected.

## **5 Account Summary Population**

This chapter describes how and when to execute the data movement processes needed to populate account level data in the reporting mart.

Account Summary tables are account level BI tables that are used to consolidate information from the various product specific tables used in both the Staging Area and Operational Processing areas. The Account Summary tables in the ALM BI data model are loaded from both the Staging Area tables and operational Instrument Tables using the Table to Table (T2T) component of OFSAAI framework.

## **6 FSA Reports**

### **7 Overview of ALM BI Dashboards and Reports**

This chapter describes the seeded reports and dashboards.

#### **A Creating a custom report**

This section provides an example of how to create a custom report using OBIEE + ALM BI.

#### **B How to change the Product Dimension in ALM BI**

This section describes how to change the Product dimension. The seeded product dimension is **PRODUCT**. Refer to the following section, if you need to change the product dimension to any other dimension.

#### **C Simplified Batch Execution**

This section describes how to setup and execute a simplified batch for running required ALM BI processes.

#### **D Troubleshooting**

This section provides tips for troubleshooting problems encountered in ALM BI.

## Related Information Sources

For more information about using Oracle Financial Services Analytical Applications (OFSAA), see the following related documents:

- Oracle Financial Services Analytical Applications Data Model Utilities User Guide.
- Oracle Financial Services Analytical Applications Data Model Data Dictionary.
- Oracle Financial Services Asset Liability Management (OFSALM) User Guide.
- Oracle Financial Services Funds Transfer Pricing User Guide.



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## Introduction to ALM BI

This chapter provides a general description of the Asset Liability Management Analytics application.

This chapter covers the following topics:

- Features and Components of ALM BI

### Features and Components of ALM BI

Oracle Asset Liability Management Analytics (ALM BI) is a business intelligence application that integrates robust Oracle Business Intelligence capabilities (OBI EE) with the OFSAA Asset Liability Management, Funds Transfer pricing and Liquidity Risk Management results, unleashing the power of back office data and turning it into fully operational intelligence.

- Wide Functional Coverage for ALM, FTP and LRM intelligence
- Architected for Performance in heavy data volume environments
- Low Total Cost of Ownership, Efficient data movement, Template like design to ease implementation
- Unleash the power of OFSAA data content: Extend the wealth of back office data to executives, risk managers, finance and treasury with role based dashboards driving insight into interest rate risk and liquidity risk management through powerful analytics
- Pervasive, compelling and actionable insight, with comprehensive drill down paths and analysis, increasing alignment and effectiveness

The ALM BI application is comprised of the following components:

1. OFSAA ALM BI Reporting Mart (physical data model)

- A number of ALM related relational database tables optimized for reporting and analysis
- Results from each ALM process are consolidated into a single reporting table allowing for comparative reporting
- Historical results are retained for each process allowing for period over period and trend reporting
- Results are stored in both base currency as well as any reporting currency specified by users during processing
- Account level data is <optionally> consolidated into a series of application specific **Account Summary tables**, supporting drill down to finest grain of detail
- Audit data such as detail cash flow information and rate outputs are additionally stored in the ALM BI data mart

## 2. Data Movement processes

- Data movement processes are provided to populate required data into the ALM BI Mart. Data Movement is accomplished through use of T to T functionality as well as PLSQL procedures.
- Data Movement processes can be executed directly through a batch process using the OFSAA Infrastructure or through a Simplified Batch process. These processes are described in detail in the following sections.

## 3. ALM BI OBIEE Repository

Included with the ALM BI application is the ALM BI specific OBIEE repository file, which provides the mapping of the physical data into the ALM BI Business Model. The repository defines the necessary data objects, join relationships and calculated items needed for ALM BI reporting.

## 4. ALM BI OBIEE Web Catalog

The ALM BI specific OBIEE Web Catalog provides the out of the box dashboards and seeded reports which provide users with a head-start in developing their organization specific ALM, FTP and LRM related BI content.

---

## Overview of the ALM BI Process Flow

This chapter provides an overview of the end to end process flow.

This chapter covers the following topics:

- Steps in ALM BI Process Flow
- End to end ALM BI data movement process

### Steps in ALM BI Process Flow

The following steps comprise the ALM BI Process:

**1. Hierarchy Flattening**

Run when a new Hierarchy is created and/or when edits are made to any hierarchy used within ALM BI.

**2. Dimension Table Population and Slowly Changing Dimension Processing**

Run after a new Hierarchy or ALM Process is created and/or after Hierarchy edits or the <ALM>**Active Time Bucket** definition is changed.

**3. Populating the Dimension Run table**

Run only after a new ALM Process is created or modified.

**4. Time Dimension Population**

Run before ALM Results Transformation. This process is also run automatically during ALM Results Transformation if the current data does not already exist.

**5. ALM Results Transformation**

Run after any ALM Process has been run. This process can be run manually as part of a batch process or automatically as an option embedded within each ALM process.

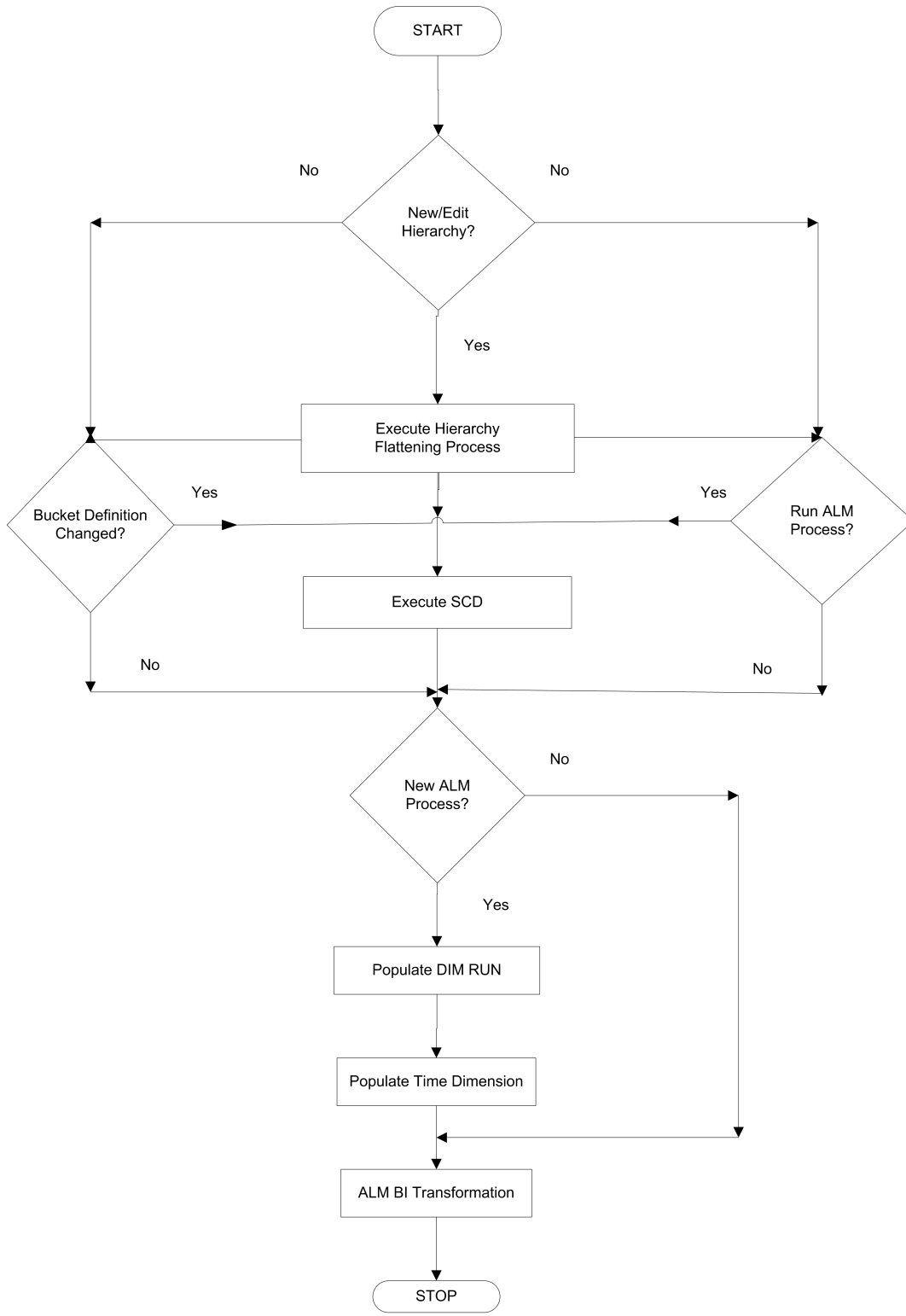
**6. <optional> Population of Account Summary data**

Run the Instrument Table specific T2T processes for each new as-of-date and after all account level processes have completed (if account level output option is selected), for example, ALM account level output of Market Value, Duration, Convexity, and so on.

## **End to end ALMBI data movement process**

The following flowchart illustrates the end to end ALMBI data movement process:





The end to end data movement process is typically managed through execution of one or more, Batch processes:

The recommended approach is to define two batch processes to perform ALMBI Transformation, as follows:

**ALM BI Batch1**, with a Task consisting of

- Hierarchy Flattening Process

**ALM BI Batch2**, with 3 Tasks in sequential order consisting of

- Slowly Changing Dimension Process
- Dimension Run Population Process
- ALMBI Transformation Process

<Optional>**ALM BI Batch3**, with Tasks to execute the required Account Summary T to T processes. This process is only needed if there is a requirement to report against the account level data.

- Populate Time Dimension
- Slowly Changing Dimension Process
- Account Summary T2T Definition Processes (one per instrument table)

**Note:** See the following sections on how to create a batch and adding respective tasks.

**The following are few examples of use cases and the related processing requirements:**

**Case 1:** Initially, when a new Hierarchy is created and/or when edits are made to a Hierarchy, perform the following steps.

1. Run Hierarchy Flattening
2. Run Dimension Table Population and Slowly Changing Dimension Processing
3. Populate the Dimension Run table
4. Run ALM Results Transformation

**Case 2:** When the active time bucket definition has been changed. Perform the following steps.

1. Run Dimension Table Population and Slowly Changing Dimension Processing
2. Run ALM Results Transformation

**Case3:** When a new ALM Process is created. Perform the following steps.

1. Run Dimension Table Population and Slowly Changing Dimension Processing
2. Populate the Dimension Run table
3. Run ALM Results Transformation



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## Dimension Population

This chapter describes the steps required to setup and execute the slowly changing dimension process.

This chapter covers the following topics:

- Overview of Dimension Population
- Hierarchy Flattening
- Dimension Table Population
- DIM\_RUN Population
- Time Dimension Population

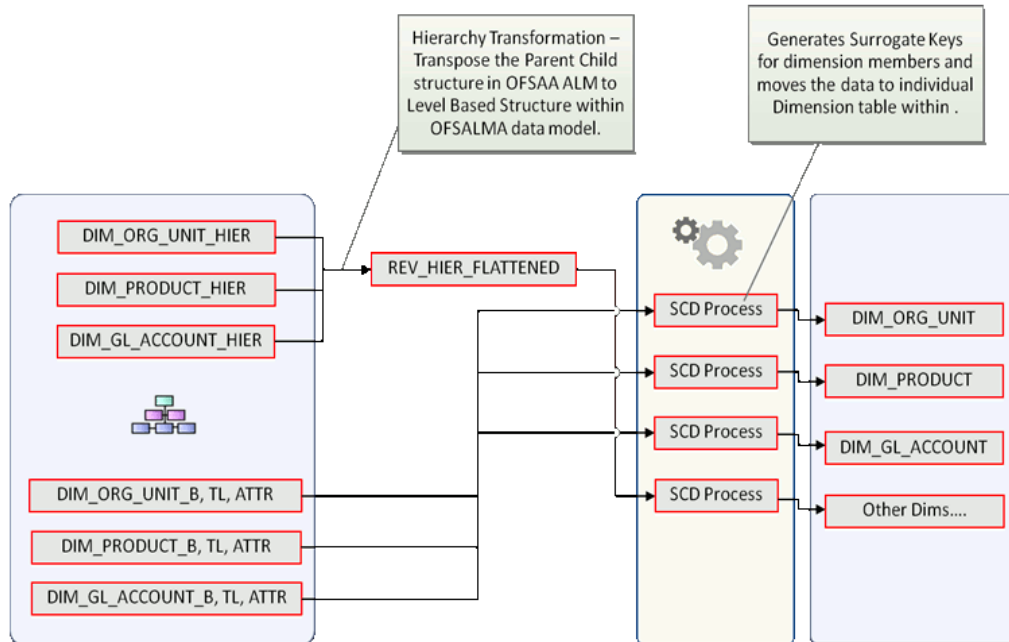
### Overview of Dimension Population

In OFSAA, Hierarchies are defined and managed through the common infrastructure, Dimension Management User Interface. Prior to use in ALM BI, the related parent child hierarchy data must first be converted to a **flattened**, level based format. The dimension population process involves both the hierarchy flattening process and movement of the dimension data from processing dimension tables to the common reporting dimension tables shared by all of the OFSAA BI applications.

The Dimension Population process has two components:

1. Hierarchy Flattening
2. Dimension table population

# Dimension Population



## Hierarchy Flattening

The following topics are covered in this section:

- Overview of the Hierarchy flattening process, page 3-2
- Pre-requisites, page 3-3
- Tables used by the Hierarchy flattening process, page 3-5
- Executing the Hierarchy flattening process, page 3-5
- Checking the execution status, page 3-8

## Overview of Hierarchy Flattening Process

The Hierarchy Flattening process is used to move hierarchy data from the parent child storage data structure to a level based storage data structure. In the Hierarchy Management model, hierarchy data for any hierarchy created on seeded or user defined dimensions is stored within dimension specific hierarchy tables for the respective dimensions. The Hierarchy Flattening process copies this data to the

REV\_HIER\_FLATTENED table in the BI data model after flattening is completed.

### Example

The hierarchy data of one or more Product Hierarchies created on the Product dimension (a seeded dimension) is stored in the DIM\_PRODUCTS\_HIER table. Similarly assuming there is a user defined dimension, for example, Legal Entity and a hierarchy has been defined on this dimension then the hierarchy data would be stored in the DIM\_LE\_HIER table (assuming this is the hierarchy table created for this hierarchy).

The hierarchy data in the preceding example would be moved to REV\_HIER\_FLATTENED in the BI data model by the hierarchy flattening process.

Database components used by this transformation are:

1. REV\_BATCHHIERFLATTEN – Oracle database function
2. REV\_HIER\_TRANSFORMATON\_BIAPPS – Oracle database Package called by the preceding function.

Some of the features of the Hierarchy Flattening process are:

- The user has the choice to process a single hierarchy or all hierarchies belonging to a particular dimension as part of a single execution.
- Any change made to the hierarchy using the Hierarchy Management maintenance window will change the flag **flattened\_rows\_completion\_code** in REV\_HIER\_DEFINITIONS to **Pending**. This improves processing efficiency as the Flattening process will avoid hierarchies that have not been modified.

## Pre-requisites and troubleshooting

1. All the post install steps mentioned in the *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration guide* and the solution installation manuals of **Asset Liability Management** and **Asset Liability Analytics** have to be completed successfully.
2. The Hierarchies are maintained in the Dimension Management component of OFSAA Infrastructure. (In the Financial Service Application menu, first select Master Maintenance, then select Dimension Management, and then select Hierarchies).

The 3 steps mentioned subsequently in this section (1,2,3) are essentially debugging steps and must be checked only if the hierarchy flattening process has failed. Seeded Hierarchies which are included with the installation and any hierarchies created using the Dimension Management user interface will have the proper data in the following section Tables used by the Hierarchy Flattening Process, page 3-5.

1. Check in the database (atomic schema) to confirm the column

flattened\_rows\_completion\_code in the table REV\_HIER\_DEFINITIONS has the value **PENDING** for the Hierarchy Id being processed. This column will have the value Pending for any new hierarchy created or modified using the OFSAAI Hierarchy management user interface.

2. Check if the REV\_DIMENSIONS\_B table has a row for the dimension that is being processed. (Use a database SQL query to check. This is available in Executing the hierarchy flattening transformation, page 3-5 section.)
3. Check if the REV\_HIERARCHIES table has a row for the hierarchy id that is being processed. (Use a database SQL query to check. This is available in Executing the hierarchy flattening transformation, page 3-5 section.)
3. Application users must be mapped to a role which has the seeded batch execution function (BATPRO)
  - By default, this SMS function is mapped to the SMS Role: Data Centre Manager (SYSOPC)
  - The ALM Application seeds 3 user-profiles: ALM Administrator, ALM Analyst and ALM Auditor. After installation of ALM, the system administrator should additionally map the BATPRO function with the required ALM roles.
4. Before executing a batch check if the following services are running on the application server (For more information on how to check if the services are up and on, and how to start the services if you find them not running, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*).
  - Iccserver
  - Router
  - AM
  - Messageserver
5. Users must create Batch Processes for executing the flattening and movement procedures. This process is explained in detail, in the Executing the Hierarchy Flattening transformation, page 3-5 section.
  - The flattening procedure takes dimension-id and hierarchy sys-id as additional parameters; Dimension-id is mandatory where as hierarchy-id is optional.
  - These processes can also be run using the Simplified Batch window, which allows for execution of stored procedures.



## Tables used by the Hierarchy Flattening Process

- REV\_HIERARCHIES – This is the master table for hierarchies with one row per hierarchy
- REV\_DIMENSIONS\_B – This is the master table for dimensions with one row per dimension
- REV\_HIER\_DEFINITIONS – The flattened\_rows\_completion\_code column is checked to determine if the hierarchy can be processed.
- DIM\_<DIMENSIONNAME>\_HIER – This table stores the parent/child hierarchy data and is the source for the transformation. for example, DIM\_PRODUCTS\_HIER.
- REV\_HIER\_FLATTENED – This is the output table for the transformation into which the flattened hierarchy data gets populated.

## Executing the Hierarchy Flattening Process

To execute this procedure from the Batch Processing framework (accessed through the application batch operations window), create a batch through the following steps:

**Note:** For a more comprehensive coverage of configuration and execution of a batch, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

1. From the **Home** menu, select **Operations**, then select **Batch Maintenance**.
2. Click **New Batch** ('+' symbol in Batch Name container) and enter the Batch Name and description.
3. Click **Save**.
4. Select the Batch you have created in the earlier step by clicking on the checkbox in the Batch Name container.
5. Click **New Task** ('+' symbol in Task Details container).
6. Enter a Description for the task that you wish to add: for example: Flatten hierarchy xxxxxxxx
7. Select **Transform Data**, from the components list.
8. Select the following from the Dynamic Parameters List and then

click **Save**:

- Leave the selections for Datastore Type, Datastore Name and IP Address as the default values
- Rule Name: Choose **batch\_hierTransformation** from the list. (This is a seeded Data Transformation procedure installed as part of the ALM BI application installer. If you don't see this procedure in the list, contact Oracle support)
- Parameter List: This will be a comma-separated value of the Dimension ID and Hierarchy ID ( Refer the following for details on **Parameter list**)

The values for the earlier mentioned, Parameter List are:

Dimension ID values

ORG\_UNIT\_ID = 1

GL\_ACCOUNT\_ID = 2

COMMON\_COA\_ID =3

PRODUCT\_ID =4

If you are using a user defined dimension, execute the following query in the database to find the value and use the value in dimension id column for the dimension name / description to be processed.

```
SELECT B.DIMENSION_ID, T.DIMENSION_NAME, T.DESCRPTION
FROM REV_DIMENSIONS_B B INNER JOIN REV_DIMENSIONS_TL T
ON B.DIMENSION_ID = T.DIMENSION_ID AND T.DIMENSION_NAME
LIKE 'ELECT B.DIMENSION_ID, T.DIMENSION_NAME,
T.DESCRPTION FROM REV_DIMENSIONS_B B INNER JOIN
REV_DIMENSIONS_TL T ON B.DIMENSION_ID = T.DIMENSION_ID
AND T.DIMENSION_NAME LIKE '<DIMENSION NAME>'
```

Replace <DIMENSION NAME> in the earlier query with the Dimension Name you find in the UI (In the Financial Service Application menu, first select Master Maintenance, then select Dimension Management) for the dimension on which the Hierarchy you want to flatten is configured on. Users will need to create a separate batch for each dimension.

Hierarchy ID values - If all the hierarchies belonging to a dimension are to be processed then provide null (in lower case only) as the parameter value. Otherwise, provide the System Identifier of the hierarchy that needs to be transformed.

For example, you can find the Hierarchy ID through the Hierarchy

user interface, at the bottom of the window, for example,

Audit Trail		User Comments	
* System ID -40006997			
Created By		QTUSER	
Last Modified By		CHRIS	

An alternate way to find the unique system identifier for a specific hierarchy is as follows:

Use the value in the hierarchy\_id column as the parameter for the hierarchy to be processed.

```
SELECT B.OBJECT_DEFINITION_ID, SHORT_DESC, LONG_DESC
FROM FSI_M_OBJECT_DEFINITION_B B INNER JOIN
FSI_M_OBJECT_DEFINITION_TL T ON B.OBJECT_DEFINITION_ID
= T.OBJECT_DEFINITION_ID AND B.ID_TYPE =<ID_TYPE>
```

<ID\_TYPE> represents the dimension number to which a particular hierarchy belongs.

Example, if all the hierarchies for the GL Account dimension need to be processed the parameter list should be given as follows (where '2' is the dimension id for the seeded dimension GL Account):

**'2', null**

Example, if a particular hierarchy with code 1000018112 needs to be processed, the parameter list should be given as follows:

**'2', '1000018112'**

9. Execute the batch from Batch Execution by choosing the batch(es) created following the steps mentioned earlier.

For more details, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

**Note:** This process can also be run using the Simplified Batch user interface. In the optional parameters field within the Simplified Batch window, specify the same parameters as earlier.

For more details refer Appendix : Simplified Batch Execution, page C-1.

Hierarchy transformation can also be directly executed on the database through SQLPLUS using the following details:

- Function Name : rev\_batchHierFlatten
- Parameters : batch\_run\_id, mis\_date, pDimensionId, pHierarchyId
- Sample parameter values : 'Batch1' , '20091231' , '2' , '1'000018112'

**Note:** Execute the Hierarchy Transformation batch when a new Hierarchy is created or there is a change made to an existing Hierarchy.

## Checking the execution status

The status of execution can be monitored using the Batch Monitor window.

The status messages in Batch Monitor are :

N - Not Started

O - On Going

F - Failure

S – Success

The Event Log window in Batch Monitor provides logs for execution with the top row being the most recent. If there is any error during execution, it will get listed here. Even if you see Successful as the status in Batch Monitor it is advisable to go through the Event Log and re-check if there are any errors.

Alternatively, the execution log can be accessed on the application server in the following directory \$FIC\_DB\_HOME/log/date. The file name will have the batch execution id.

The database level operations log can be accessed by querying the FSI\_MESSAGE\_LOG table. The batch run id column can be filtered for identifying the relevant log. (This is the same log you see in the Event Log Window.)

Check the **.profile** file in the installation home if you are not able to find the paths mentioned earlier.

## Dimension Table Population

The dimension table population process serves two purposes:

1. To move flattened hierarchy data from operational tables to the BI Tables.
2. To execute the slowly changing dimension (SCD) process against each processed

dimension.

Dimension table population should be run after initial creation of a hierarchy and after any changes are made to a hierarchy.

Dimensional data changes are handled in the ALM BI solution using the Slowly Changing Dimension component (Referred to SCD in subsequent parts of this document)

The following topics are covered in this section:

- Overview of SCD process, page 3-9
- Pre-requisites, page 3-11
- Tables used by the SCD component, page 3-12
- Executing the SCD component, page 3-17
- Checking the execution status, page 3-18
- List of Dimension Tables, page 3-20

## Overview of SCD process

Slowly Changing Dimensions (SCDs) are used to maintain the history of dimension-member changes over time.

SCD is a required process and is tied in to the BI application. Without this process, the updated information will not be reflected into ALM BI. For example, if the Active Time Bucket Definition was changed for an ALM Process Execution, the SCD process is required to reflect the new Active Time Bucket details into the Result Area. It is mandatory to run the SCD process if the hierarchies have changed.

For more information on Slowly Changing Dimensions, see:

- *Oracle Data Integrator Best Practices for a Data Warehouse* at <http://www.oracle.com/technetwork/middleware/data-integrator/overview/odi-best-practices-datawarehouse-whi-129686.pdf>
- *Oracle® Warehouse Builder Data Modeling, ETL, and Data Quality Guide, 11g Release 2 (11.2), Part #E10935-03* at [http://docs.oracle.com/cd/E18283\\_01/owb.112/e10935/dim\\_objects.htm](http://docs.oracle.com/cd/E18283_01/owb.112/e10935/dim_objects.htm).

The SCD component is delivered through an executable. For the ALM BI solution, the types of SCD supported are Type 1 and Type 2.

### Type 1 SCD methodology

The Type 1 methodology overwrites old data with new data, and therefore does not

track changes to the data across time.

### Example

Consider a Dimension Table, DIM\_PRODUCT.

<b>N_Product_Skey</b>	<b>V_Product_Name</b>	<b>D_Start_Date</b>	<b>D_End_Date</b>	<b>F_Latest_Record_Indicator</b>
1	PL	5/31/2010	12/31/9999	Y

In this example:

**N\_Product\_Skey** is the surrogate key column which is a unique key for each record in the dimension table.

**V\_Product\_Name** is the product name

**D\_Start\_Date** indicates the date from which this product record is valid

**D\_End\_Date** indicates the date to which this product record is valid

**F\_Latest\_Record\_Indicator:** A value 'Y' indicates this is the latest record in the dimension table for this product and 'N' indicates it is not.

If the V\_Product\_Name column is set as a Type 1 and if there is a change in the product name to 'Personal Loan' from 'PL' in the earlier example in the next processing period then, when SCD is executed then the record in the earlier example would be changed to

<b>N_Product_Skey</b>	<b>V_Product_Name</b>	<b>D_Start_Date</b>	<b>D_End_Date</b>	<b>F_Latest_Record_Indicator</b>
1	Personal Loan	6/30/2010	12/31/9999	Y

### Type 2 SCD Methodology

The Type 2 method tracks historical data by creating multiple records for a given natural key in the dimensional tables with separate surrogate keys. With Type 2, the historical changes in dimensional data are preserved. In the earlier example, for the change in product name from 'PL' to 'Personal Loan' if history has to be preserved then the V\_Product\_Name column has to be set as Type 2 in which case when SCD is processed for the processing period in which the change happens it will insert a new record as shown in the example below.

<b>N_Product_Skey</b>	<b>V_Product_Name</b>	<b>D_Start_Date</b>	<b>D_End_Date</b>	<b>F_Latest_Record_Indicator</b>
1	PL	5/31/2010	12/31/9999	N
2	Personal Loan	6/30/2010	12/31/9999	Y

A new record is inserted to the product dimension table with the new product name and the latest record indicator for this is set as 'Y' indicating this is the latest record for the personal loan product and the same flag for the earlier record is set to 'N'.

## Pre-requisites

1. The hierarchy flattening process has been run.
2. The setup tables accessed by the SCD component, including – SETUP\_MASTER, SYS\_TBL\_MASTER, SYS\_STG\_JOIN\_MASTER have the required entries.

Having entries in the table SETUP\_MASTER is optional. By default, SCD only maintains a history of changes to all the members within a dimension, without context of any hierarchy. If instead you wish to maintain the history of changes with respect to a specific hierarchy, the SETUP\_MASTER table can be used for this purpose.

This is achieved by specifying the sys-id of the required hierarchies, in the table SETUP\_MASTER. This table is referenced during SCD execution and if a hierarchy id is found, it would be included during the SCD process.

The column V\_COMPONENT\_DESC is used to identify the dimension-type and V\_COMPONENT\_VALUE for the hierarchy sys-id.

The permissible values for the V\_COMPONENT\_DESC are as follows:

<b>v_component_DESC</b>	<b>Meaning</b>
PRODUCT_HIER1	Signifies the PRODUCT dimension
ORG_UNIT_HIER1	Signifies the ORG UNIT dimension
GL_ACCOUNT_HIER1	Signifies the GL ACCOUNT dimension
COMMON_COA_HIER1	Signifies the Common COA dimension

There should be separate rows in this table, for different hierarchy sys-id's; one row corresponding to each of the 4 dimensions PRODUCT, ORG UNIT, COMMON COA and GL ACCOUNT.

The tables SYS\_TBL\_MASTER and SYS\_STG\_JOIN\_MASTER are seeded for the Org unit, GL Account, Product and Common COA dimensions. You will only need to add entries in these tables if you add user defined dimensions.

3. Database Views with the name DIM\_<Dimension Name>\_V are seeded along with the seeded dimensions during the ALMBI installation. These views present data from the dimension tables as well as the flattened hierarchy data. For example, DIM\_PRODUCT\_V in usable format. New views will have to be added for any new dimensions added.

## Tables used by the SCD component

The database tables used by the SCD procedure are:

### SETUP\_MASTER

Rows will have to be inserted into this table manually for each key dimension using SQL in order for the SCD procedure to process the required hierarchies. The table structure is as follows:

1. V\_COMPONENT\_CODE – This column acts as a primary key.
2. V\_COMPONENT\_DESC - This column contains a standard value used within the database view for a flattened hierarchy.
3. V\_COMPONENT\_VALUE – This column contains the unique hierarchy identifier for the reporting hierarchies to be used in ALM BI. Hierarchy unique identifiers can be obtained by executing the following query.

```
Select b.object_definition_id, short_desc, long_desc from
fsi_m_object_definition_b b inner join fsi_m_object_definition_tl t
on b.object_definition_id = t.object_definition_id and b.id_type =
<id_type>
```

<id\_type> represents the dimension number to which a particular hierarchy belongs.

Alternatively, the unique system identifier for each hierarchy can be found at the bottom of the Hierarchy Management page while in EDIT mode.

Audit Trail		User Comments
System ID : 40006997		
Created By	QTUSER	
Last Modified By	CHRIS	

The following rows should be inserted into the SETUP\_MASTER table, exactly as



follows, with the exception of V\_COMPONENT\_VALUE. This value should reflect the unique system identifier of the Reporting Hierarchy for each dimension:

V_COMPONENT_CODE	V_COMPONENT_DESC	V_COMPONENT_VALUE
22	PRODUCT_HIER1	1000018711
88	ORG_UNIT_HIER1	100573
90	GL_ACCOUNT_HIER1	100574
91	COMMON_COA_HIER 1	100575

**Note:** For any new hierarchy added the appropriate row will need to be updated in this table manually for the SCD procedure to process the hierarchy. Note, ALMBI currently supports one reporting hierarchy per dimension.

#### SYS\_TBL\_MASTER

The ALM BI application installer will populate one row per dimension for the seeded dimensions in this table.

Column Name	Data Type	Column Description
MAP_REF_NUM	NUMBER(3)  NOT NULL	The Mapping Reference Number for this unique mapping of a Source to a Dimension Table
TBL_NM	VARCHAR2(30)  NOT NULL	Dimension Table Name
STG_TBL_NM	VARCHAR2(30)  NOT NULL	Staging Table Name
SRC_PRTY	NUMBER(2)  NULL	Priority of the Source when multiple sources are mapped to the same target

Column Name	Data Type	Column Description
SRC_PROC_SEQ	NUMBER(2)	The sequence in which the various sources for the DIMENSION will be taken up for processing
	NOT NULL	
SRC_TYP	VARCHAR2(30)	The type of the Source for a Dimension i.e., Transaction Or Master Source.
	NOT NULL	
DT_OFFSET	NUMBER(2)	The offset for calculating the Start Date based on the FRD
	NULL	
SRC_KEY	NUMBER(3) NULL	Source Key

Example data: The following data is inserted by the application installer for the 'product' dimension.

Column Name	Data Type
MAP_REF_NUM	NUMBER(3)
	NOT NULL
TBL_NM	VARCHAR2(30)
	NOT NULL
STG_TBL_NM	VARCHAR2(30)
	NOT NULL
SRC_PRTY	NUMBER(2)

**Note:** No changes are required to this table if the standard key dimensions are being used within ALM BI. If any new dimensions have been added (for example, ALM\_COA\_ID) a row will have to be inserted to this table manually.

### SYS\_STG\_JOIN\_MASTER

The ALM BI application installer will populate this table for the seeded dimensions.

Column Name	Data Type	Column Description
MAP_REF_NUM	NUMBER (3) NOT NULL	The Mapping Reference Number for this unique mapping of a Source to a Dimension Table
COL_NM	VARCHAR2(30) NOT NULL	Name of the column in the Dimension Table
COL_TYP	VARCHAR2(20) NOT NULL	Type of column. The possible values are given below
STG_COL_NM	VARCHAR2(30) NOT NULL	Name of the column in the Staging Table
SCD_TYP_ID	NUMBER(3) NULL	SCD type for the column
PRTY_LOOKUP_REQD	CHAR(1) NOT NULL	Column to determine whether Lookup is required for Priority of Source against the Source Key Column or not
COL_DATATYPE	VARCHAR2(15) NULL	Column Data Type
COL_FORMAT	VARCHAR2(15) NULL	Column Format

The possible values for column type (the column COL\_TYPE) in SYS\_STG\_JOIN\_MASTER are:

1. PK – Primary Dimension Value (may be multiple for a given "Mapping Reference Number")
2. SK – Surrogate Key
3. DA – Dimensional Attribute (may be multiple for a given "Mapping Reference Number")

4. SD – Start Date
5. ED – End Date
6. LRI – Latest Record Indicator (Current Flag)
7. CSK – Current Surrogate Key
8. PSK – Previous Surrogate Key
9. SS – Source Key
10. LUD – Last Updated Date / Time
11. LUB – Last Updated By

Example data: The following data is inserted by the application installer for the **product** dimension

---

MAP_REF_NUM	6
COL_NM	V_PRODUCT_NAME
COL_TYP	DA
STG_COL_NM	V_PRODUCT_NAME
SCD_TYP_ID	2
PRTY_LOOKUP_REQD_FLG	N
COL_DATATYPE	VARCHAR
COL_FORMAT	

---

**Note:** No changes are required to this table if the standard key dimensions are being used within ALM BI. If any new dimensions have been added (for example, ALM\_COA\_ID) the related column details will have to be inserted to this table manually.

- DIM\_<dimensionname>\_V – The database view which SCD uses as the source.

**Example**

Dim\_products\_V



map_ref_num	Target Table that will be updated
1	DIM_PROCESS
2	DIM_FCST_RATES_SCENARIO
3	DIM_RESULT_BUCKET
4	DIM_ORG_UNIT
5	DIM_GL_ACCOUNT
6	DIM_PRODUCT
7	DIM_COMMON_COA
-1	<for all entries>

Wait: When the file is being executed you have the choice to either wait till the execution is complete or proceed with the next task. Click the list box of the field provided for Wait in the Value field to select 'Yes' or 'No'. Clicking **Yes** confirms that you wish to wait for the execution to be complete. Clicking **No** indicates that you wish to proceed.

Batch Parameter: Select 'Y' (upper case required)

- Execute the batch(es) from Batch Execution by choosing the batch created following the steps mentioned in the preceding steps.

**Note:** You cannot execute SCD process from the simplified batch window.

## Checking the execution status

The status of the process can be monitored using the batch monitor window. You can access the Batch Monitor by going to the following on the Left menu:

From the **Home** menu, select **Operations**, then select **Batch Monitor**.

**Note:** For a more comprehensive coverage, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

The status messages in Batch Monitor are :

N - Not Started

O - On Going

F - Failure

S – Success

The ICC execution log can be accessed on the application server in the following directory \$FIC\_DB\_HOME/log/ficgen.

Sample Path: /dbfiles/home/oracle/OFSAAI/ficdb/log/ficgen

The file name will have the batch execution id.

The detailed SCD component log can be accessed on the application server under the <ftp-share>/<infodom name>/logs

The file name will have the batch execution id.

Sample Path: /dbfiles/home/oracle/ftpshare/OFSAADEMO/logs

**Note:** Check the **.profile** file in the installation home if you are not able to find the paths mentioned earlier.

#### SCD Process Scenarios:

**Note:** It is not necessary to run SCD for all dimensions. In certain cases, you should specify the specific dimension requiring updates. The following common scenarios provide guidance on which dimensions will need to be re-run:

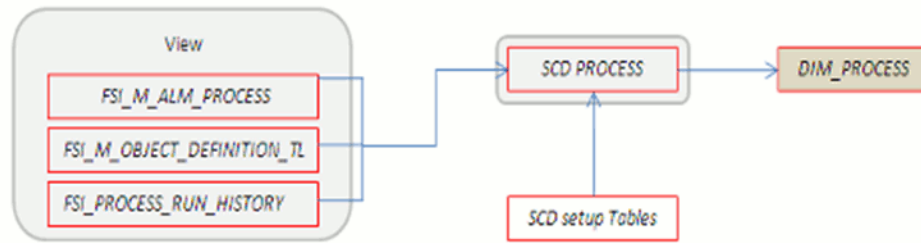
1. Re-running an existing ALM Process for the same as-of-date. It is not necessary to re-run any of the SCD dimensions.
2. Running an existing ALM Process for a new as-of-date.
  - Run SCD for Time Dimension (3), to refresh DIM\_RESULT\_BUCKET. Once per as-of-date and applies to all ALM processes run for that as-of-date.
3. Running a new ALM Process.
  1. Run SCD for Forecast Rate Scenarios (2) or Stochastic Process (1)
  2. If new as-of-date, also run for Time Dimension (3)
4. If Hierarchy changes are made, re-run SCD for the appropriate dimension(s), for example; 4-7 as needed.

## List of Dimension Tables

List of ALMBI Dimensions impacted by the SCD procedure are

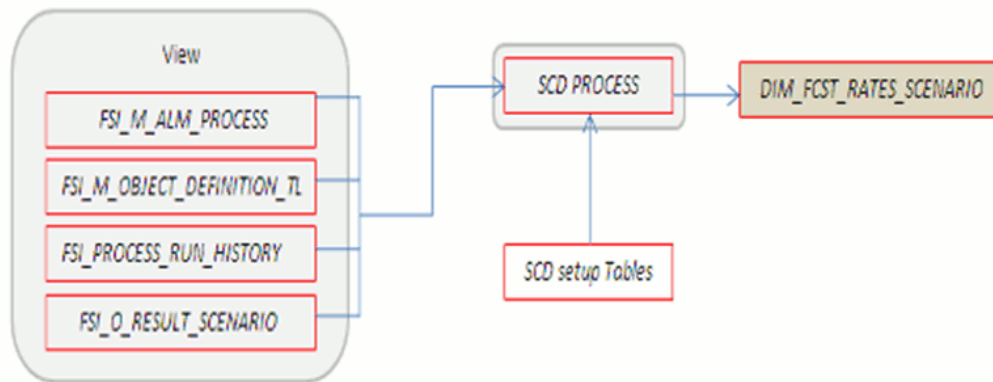
### **DIM\_PROCESS**

This table stores all Stochastic Processes with relevant details.



### **DIM\_FCST\_RATES\_SCENARIO**

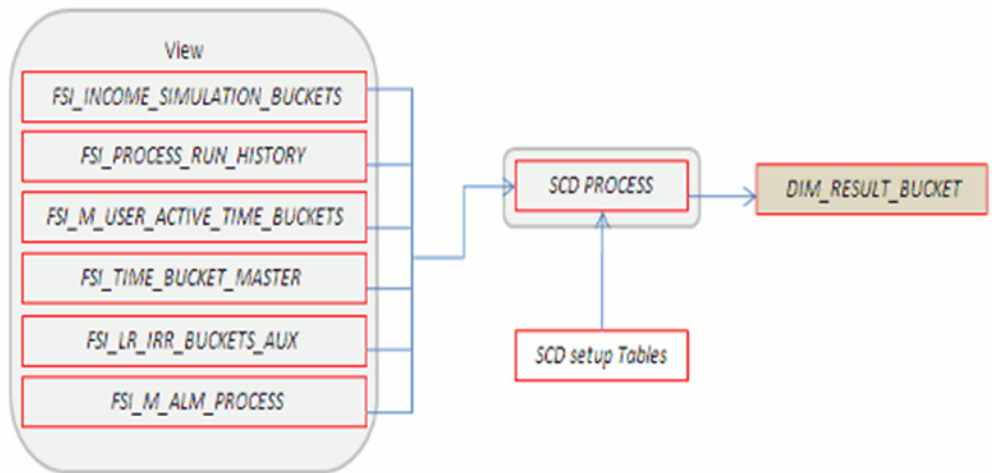
This table stores all Deterministic Processes with relevant details.



### **DIM\_RESULT\_BUCKET**

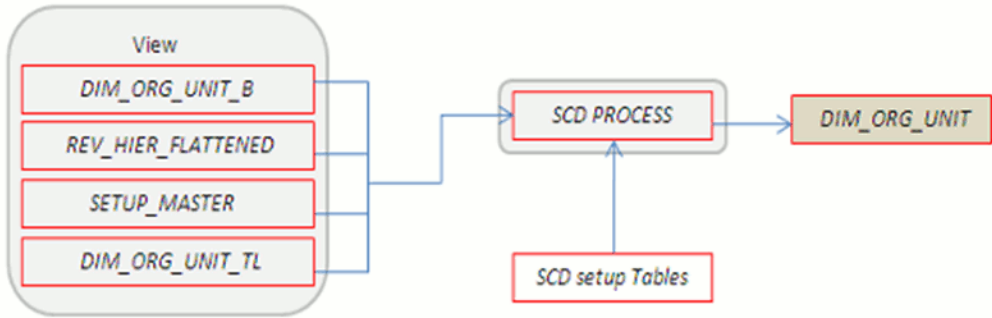
This table stores Income Simulation, Liquidity Risk Gap and Interest Rate Gap Bucket information for each process.





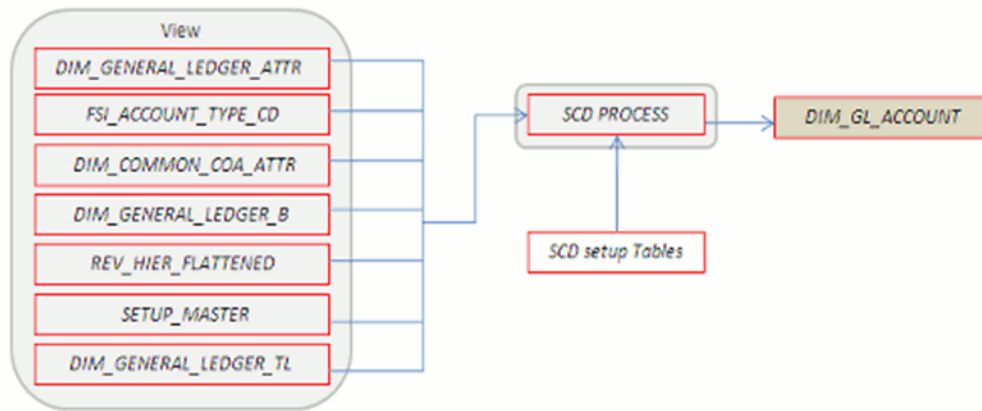
### DIM\_ORG\_UNIT

This table stores Organization Unit dimension information.



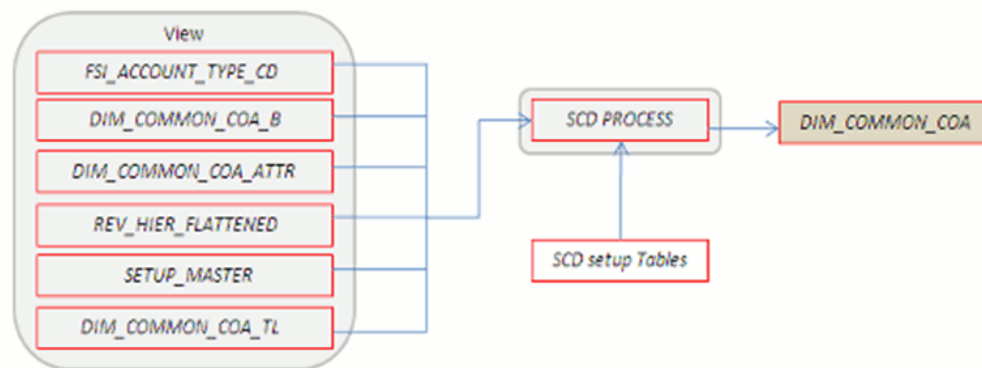
### DIM\_GL\_ACCOUNT

This table stores General Ledger Account information.



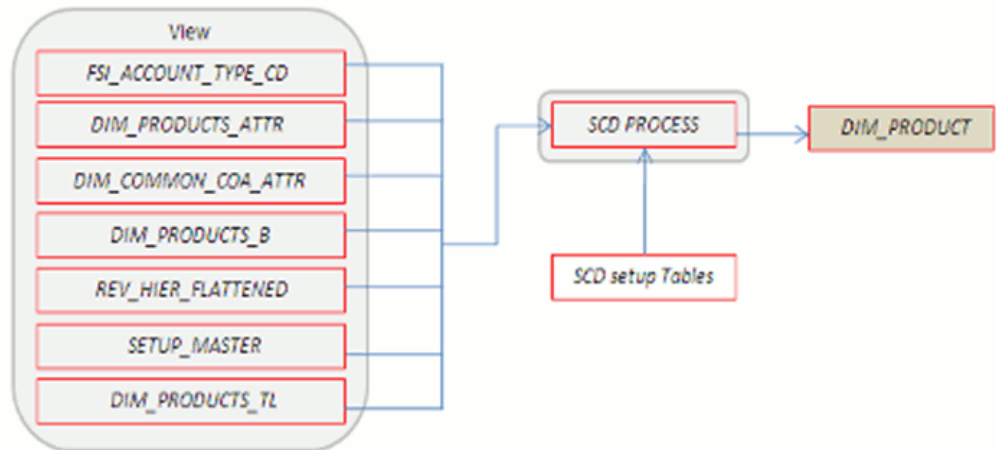
### DIM\_COMMON\_COA

This table stores Dimensional Attributes of the COMMON\_COA dimension.



### DIM\_PRODUCT

This table stores Dimensional Attributes of the PRODUCT dimension.



## DIM\_RUN Population

The DIM\_RUN table is the dimension object which stores dimensional data for both Stochastic and Deterministic ALM Processes. A Data Transformation process is provided to populate the DIM\_RUN table.

The following topics are covered in this section:

- Overview of the DIM\_RUN process , page 3-23
- Pre-requisites, page 3-23
- Tables used for DIM\_RUN process, page 3-24
- Executing the DIM\_RUN process, page 3-24
- Checking the execution status, page 3-25

## Overview of DIM\_RUN Process

The database components used by this transformation are:

- Database function: FN\_DIM\_RUN\_ALM
- Database procedure POP\_DIM\_RUN that is invoked by the function FN\_DIM\_RUN\_ALM mentioned earlier.

## Pre-requisites

1. All the post install steps mentioned in the *Oracle Financial Services Analytical*

*Applications Infrastructure (OFSAAI) Installation and Configuration guide* and the solution installation manuals of *Asset Liability Management* and *Asset Liability Analytics* have to be completed successfully.

2. Application users must be mapped to a role which has the seeded batch execution function (BATPRO)
3. Before executing a batch check if the following services are running on the application server (For more information on how to check if the services are up and on, and how to start the services if you find them not running, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*).
  - Iccserver
  - Router
  - AM
  - Messageserver
4. Batches will have to be created for executing the function. This is explained in the Executing the DIM\_RUN Process, page 3-24 section

## Table used to Populate RUN details

The physical table used in the ALM BI data model is:

`DIM_RUN` (FSI\_PROCESS\_RUN\_HISTORY, FSI\_M\_ALM\_PROCESS & FSI\_M\_OBJECT\_DEFINITION\_TL are the source tables which are used to populate DIM\_RUN)

This table stores the Run details to be used for building the ALMBI reports. Refer to the *Oracle Financial Services Analytical Applications Data Model Data Dictionary* or the *ALM BI Erwin Data Model* for viewing the structure of the earlier table.

## Executing the DIM\_RUN Process

The following steps describe how to execute the DIM\_RUN component from the OFSAAI Batch Processing framework:

1. From the **Home** menu, select **Operations**, then select **Batch Maintenance**.
2. Click **New Batch** ('+' symbol in Batch Name container) and enter the Batch Name and description.
3. Click **Save**.
4. Select the Batch you have created in the earlier step by clicking on the checkbox in the Batch Name container.

5. Click **New Task** ('+' symbol in Task Details container).
6. Enter the Task ID and Description.
7. Select **Transform Data**, from the components list.
8. Click **Parameters**. A pop up window will open, enter the following values and then click **Save**:
  - Rule Name: Select **Populate\_Dim\_Run\_ALM** from the list of all available transformations. (This is a seeded Data Transformation process which is installed as part of the ALM BI application installer, if you don't see this process in the list, contact Oracle support).
  - Parameter List: Not Required.

**Note:** You cannot execute this process from the simplified batch window.

## Checking the execution status

The status of the execution can be monitored using the batch monitor window. You can access by going to the following on the Left Hand Side menu

From the **Home** menu, select **Operations**, then select **Batch Monitor**.

**Note:** For a more comprehensive coverage, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

The status messages in Batch Monitor are :

N - Not Started

O - On Going

F - Failure

S – Success

The execution log and the detailed Dim Run population component log can be accessed on the application server by going to the following directory \$FIC\_DB\_HOME/log/date.

The file name will have the batch execution id.

Sample Path: /dbfiles/home/oracle/OFSAAI/ficdb/log/date

The database level operations log can be accessed by querying the fsi\_message\_log table. The batch run id column can be filtered for identifying the relevant log.

**Note:** Check the .profile file in the installation home if you are not able to find the paths mentioned earlier.

## Time Dimension Population

ALM Business data is commonly represented as of a point in time or across a range of time periods. For this reason, creation of a Time Dimension in OBI EE is an important capability. The following section describes how the time dimension is created and managed for use in ALM BI.

The following topics are covered in this section:

- Overview of Time Dimension Population, page 3-26
- Pre-requisites, page 3-26
- Table used for Time Dimension Population, page 3-27
- Executing the Time Dimension Population, page 3-27
- Checking the execution status, page 3-28

## Overview of Time Dimension Population

The Time Dimension is treated as a Calendar dimension in OBIEE, which contains all dates for a specified period. The data is used on a day to day basis to populate the Account Summary Tables and many of the ALM BI FACT Tables. The Time Dimension population process is used to populate the DIM\_DATES table with values (between two dates) specified by the user.

The database components used by this process are:

- Database function: **FN\_DIM\_DATES**
- Database procedure: **PROC\_DIM\_DATES\_POPULATION** is invoked by the function **FN\_DIM\_DATES**

## Pre-requisites

1. All the post install steps mentioned in the *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration guide* and the solution installation manuals of Asset Liability Management and Asset Liability Analytics have to be completed successfully.
2. Application users must be mapped to a role which has the seeded batch execution function (BATPRO).

3. Before executing a batch check if the following services are running on the application server (For more information on how to check if the services are up and on, and how to start the services if you find them not running, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.).
  - Iccserver
  - Router
  - AM
  - Messageserver
4. Batches will have to be created for executing the function. This is explained in the Executing the Time Dimension Population, page 3-27 process section

### Table used to Populate the Time Dimension

The physical table used to store the time dimension in the ALM BI data model is:

**DIM\_DATES**

This table holds the date details to be used for building the ALMBI reports.

### Executing the Time Dimension Population process

The following steps describe how to execute the Time Dimension Population process from the OFSAAI Batch Processing framework:

**Note:** For a more comprehensive coverage of configuration and execution of a batch, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

1. From the **Home** menu, select **Operations**, then select **Batch Maintenance**.
2. Click **New Batch** ('+' symbol in Batch Name container) and enter the Batch Name and description.
3. Click **Save**.
4. Select the Batch you have created in the earlier step by clicking on the checkbox in the Batch Name container.
5. Click **New Task** ('+' symbol in Task Details container).
6. Enter the Task ID and Description.

7. Select **Transform Data**, from the components list.
8. Click **Parameters**. A pop up window will open, enter the following values and then click **Save**:
  - Rule Name - Select **Dim\_Dates\_Population** from the list of all available transformations. (This is a seeded Data Transformation which is installed as part of the ALM BI application installer, if you don't see this in the drop down contact Oracle support)
  - Parameter List – Start Date, End Date (must be in 'yyyymmdd' format). This is a mandatory parameter, for example, '19000101','20120101'Explanation for the parameter list is:
  - Start Date – This is the date starting from which the Transformation will populate DIM\_DATES table.
  - End Date - This is the date up to which the Transformation will populate DIM\_DATES table.
9. Save and execute the batch from the Batch Execution window.

**Note:** You can execute this process from the simplified batch window. For more details refer Appendix : Simplified Batch Execution, page C-1

The function can also be executed directly on the database through SQLPLUS. Details are:

Function Name : FN\_DIM\_DATES

Parameters : p\_batch\_run\_id, p\_as\_of\_date, P\_ST\_DT, P\_ED\_DT

Sample parameter values : 'Batch1','20091231', '19000101','19050101'

## Checking the execution status

The status of the execution can be monitored using the batch monitor window. You can access by going to the following on the Left Hand Side menu

From the **Home** menu, select **Operations**, then select **Batch Monitor**.

**Note:** For a more comprehensive coverage, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

The status messages in Batch Monitor are :

N - Not Started



O - On Going

F - Failure

S – Success

The Batch Process execution log and the detailed Time Dimension component log can be accessed on the application server by going to the following directory  
\$FIC\_DB\_HOME/log/date.

The file name will have the batch execution id.

Sample Path: /dbfiles/home/oracle/OFSAAI/ficdb/log/date

The database level operations log can be accessed by querying the fsi\_message\_log table. The batch run id column can be filtered for identifying the relevant log.

**Note:** Check the .profile file in the installation home if you are not able to find the paths mentioned earlier.



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## ALM Results Transformation

This chapter describes the steps required to setup and execute the ALM Result transformation process.

ALM Results Transformation is the process of pushing the ALM Results from the ALM Processing area to the ALM BI Mart. It transforms both Deterministic and Stochastic ALM results as well as other related information such as forecast rates and detailed cash flows, based on the type of process and processing options selected.

This chapter covers the following topics:

- Overview of the ALM Results Transformation process
- Pre-requisites
- Tables populated by ALM Results Transformation
- Executing the ALM Results Transformation process
- Checking the execution status
- Support of multiple hierarchies

### Overview of the ALM Results Transformation process

ALM Results Transformation is used to move ALM result data from ALM Processing Tables to ALM BI FACT Tables for Reporting.

Database components used by the ALM Results Transformation are:

- **FN\_ALM\_BI\_TRANSFORMATION** – Oracle database function.
- **PKG\_ALM\_BI\_TRANSFORMATIONS** – Oracle database Package invoked by the above function.

## Pre-requisites

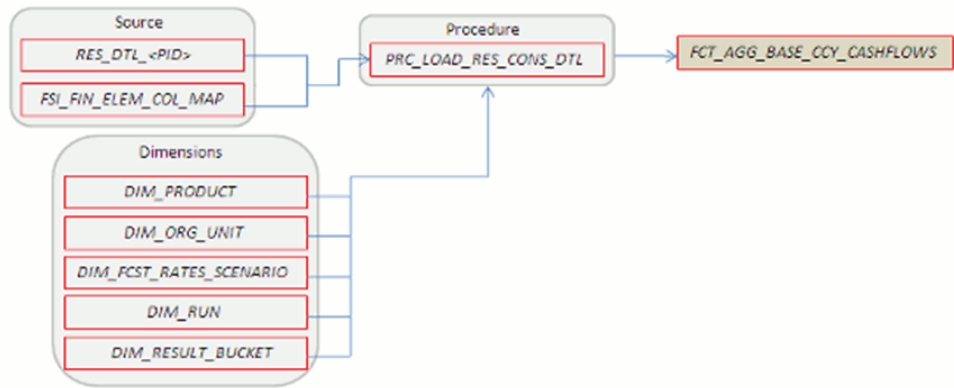
1. An ALM Process(es) (Stochastic or Deterministic) has been executed successfully, that is produced results.
2. Hierarchy Transformation is executed successfully.
3. Dimension Movement (SCD) and DIM\_RUN population executed successfully.
4. All the post install steps mentioned in the *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration guide* and the solution installation manuals of *Asset Liability Management* and *Asset Liability Analytics* have to be completed successfully.
5. Application users must be mapped to a role which has the seeded batch execution function (BATPRO).
6. Before executing a batch check if the following services are running on the application server (For more information on how to check if the services are up and on, and how to start the services if you find them not running, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*).
  - Iccserver
  - Router
  - AM
  - Messageserver
7. Batches will have to be created for executing the function. This is explained in the Executing the ALM Results Transformation process, page 4-12 section.

## Tables populated by ALM Results Transformation

One or more of the following tables may be included in the ALM Results Transformation process, depending on the calculation element and audit selections in the specific process being transformed. For example, if you have selected to produce only standard cash flow output and are not consolidating multi-currency results, then only the FCT\_AGG\_BASE\_CCY\_CASHFLOWS table will be populated by the transformation process. If currency consolidation is selected, and you have multiple currencies in your data set, then additionally, the consolidated results table will be populated. Similarly, when the Interest Rate Gap or Liquidity Gap calculation elements are selected in the ALM Process, then results will also be written to the corresponding FCT\_ tables. The following are the primary target FCT\_ tables populated by the ALM

Results Transformation process:

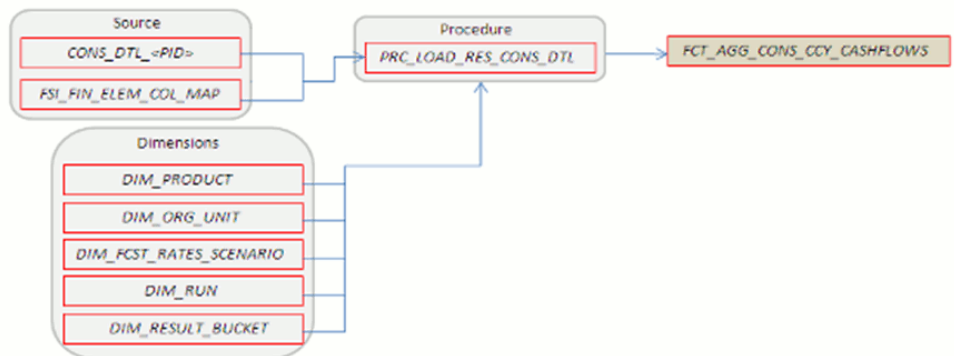
- **FCT\_AGG\_BASE\_CCY\_CASHFLOWS**



Where:

RES\_DTL\_<Process ID>, contains the standard (base currency) cash flow output for all current position and forecast balances, across all forecast rate scenarios.

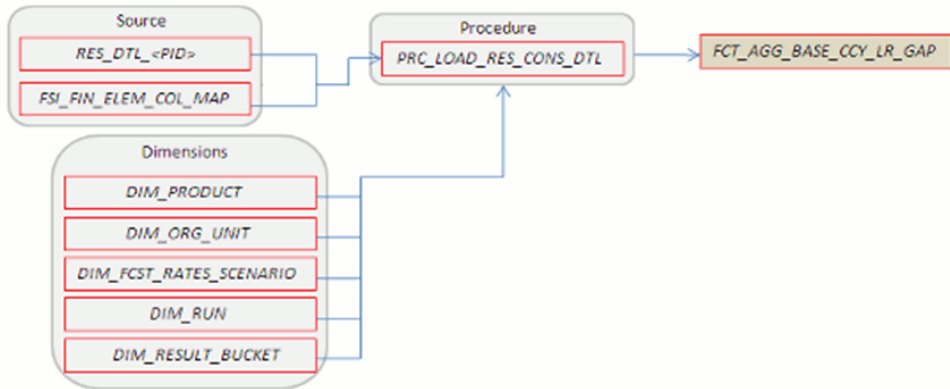
- **FCT\_AGG\_CONS\_CCY\_CASHFLOWS**



Where:

CONS\_DTL\_<Process ID>, contains standard (consolidated to reporting currency) cash flow output for all current position and forecast balances, across all forecast rate scenarios.

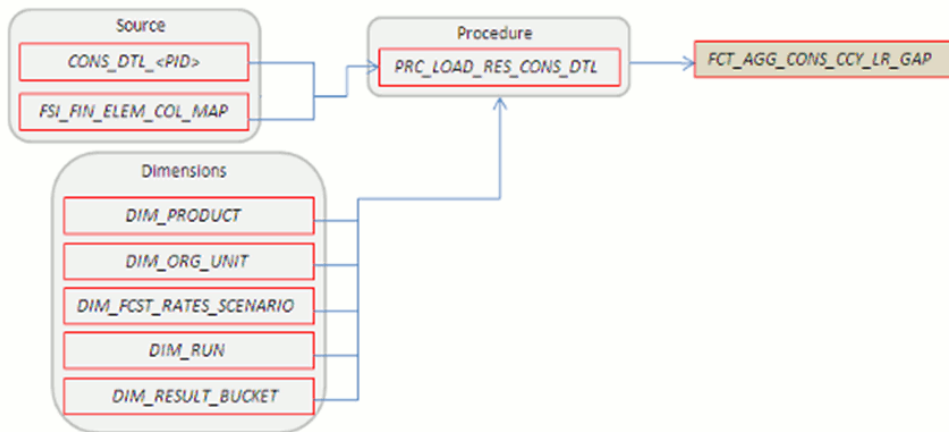
- **FCT\_AGG\_BASE\_CCY\_LR\_GAP**



Where:

RES\_DTL\_<Process ID>, contains Liquidity Gap Financial Element (base currency) cash flow output for all current position balances, across all forecast rate scenarios.

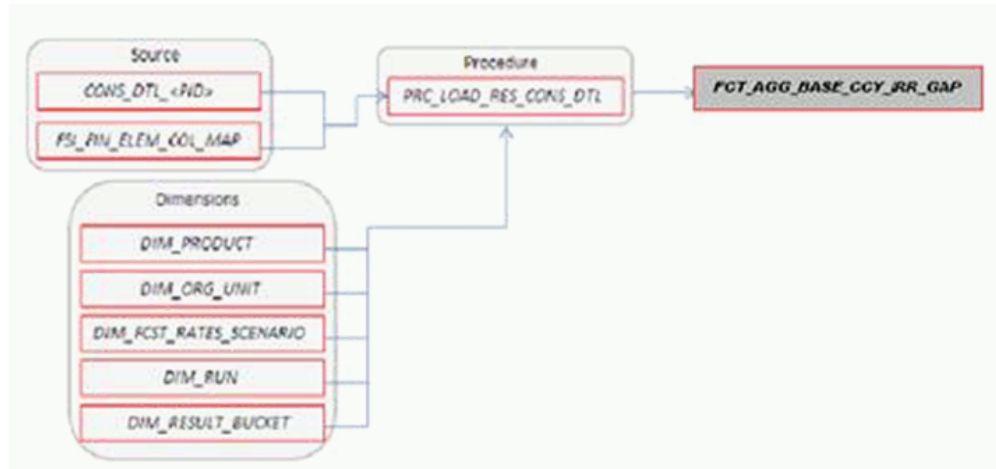
- **FCT\_AGG\_CONS\_CCY\_LR\_GAP**



Where:

CONS\_DTL\_<Process ID>, contains Liquidity Gap Financial Element (consolidated to reporting currency) cash flow output for all current position balances, across all forecast rate scenarios.

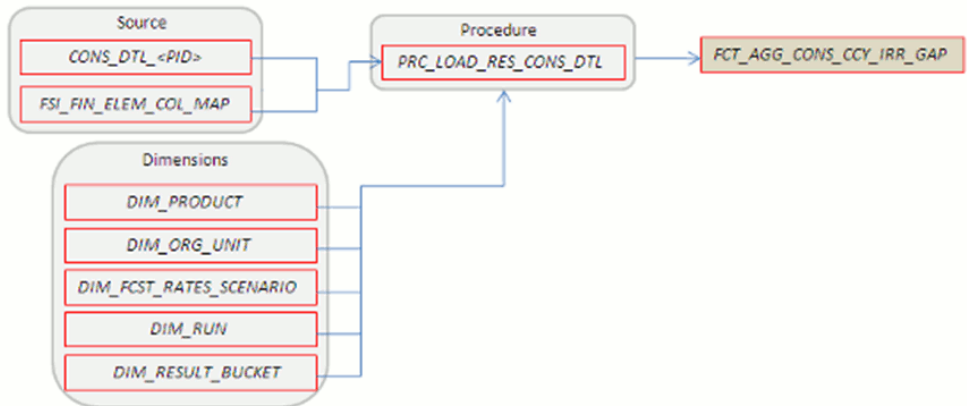
- **FCT\_AGG\_BASE\_CCY\_IRR\_GAP**



Where:

CONS\_DTL\_<Process ID>, contains Repricing Gap Financial Element (consolidated to reporting currency) cash flow output for all current position balances, across all forecast rate scenarios.

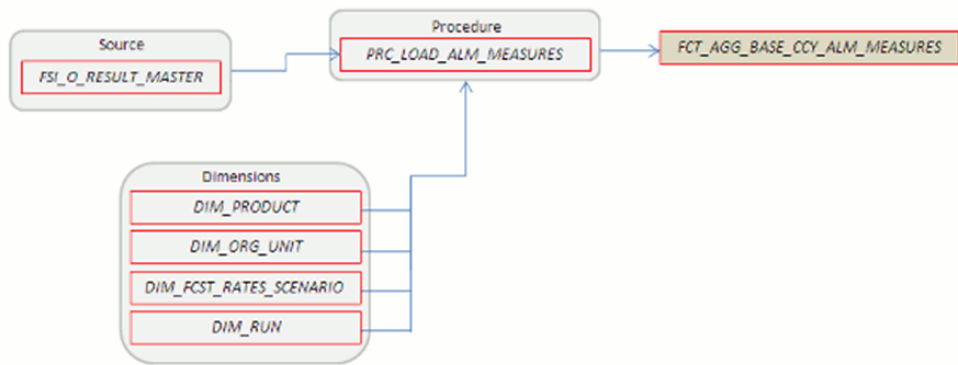
- **FCT\_AGG\_CONS\_CCY\_IRR\_GAP**



Where:

CONS\_DTL\_<Process ID>, contains Repricing Gap Financial Element (consolidated to reporting currency) cash flow output for all current position balances, across all forecast rate scenarios.

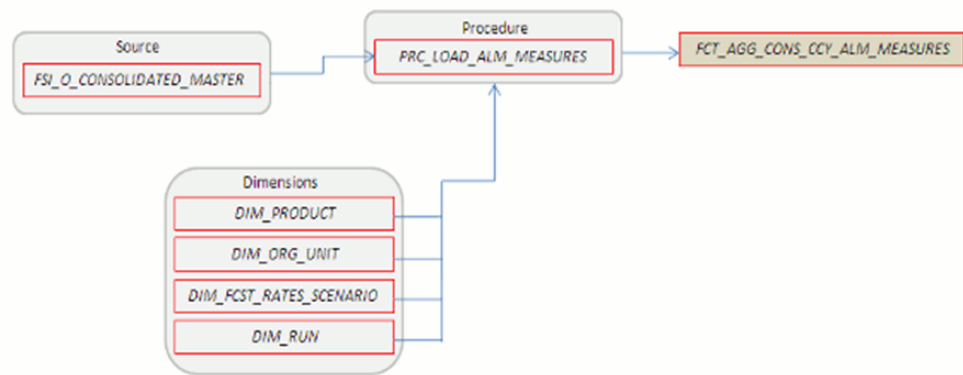
- **FCT\_AGG\_BASE\_CCY\_ALM\_MEASURES**



Where:

FSI\_O\_RESULT\_MASTER, contains Market Value, Duration and Convexity information (base currency) for all current position balances, across all forecast rate scenarios.

- **FCT\_AGG\_CONS\_CCY\_ALM\_MEASURES**

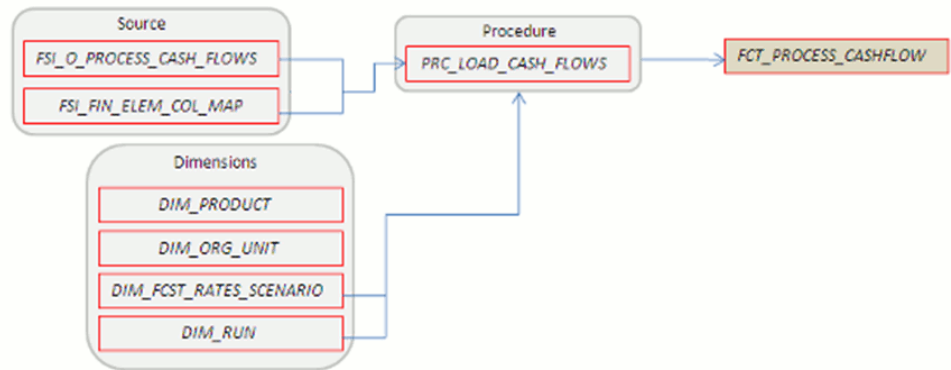


Where:

FSI\_O\_CONSOLIDATED\_MASTER, contains Market Value, Duration and Convexity information (consolidated to reporting currency) for all current position balances, across all forecast rate scenarios.

- **FCT\_PROCESS\_CASHFLOW**

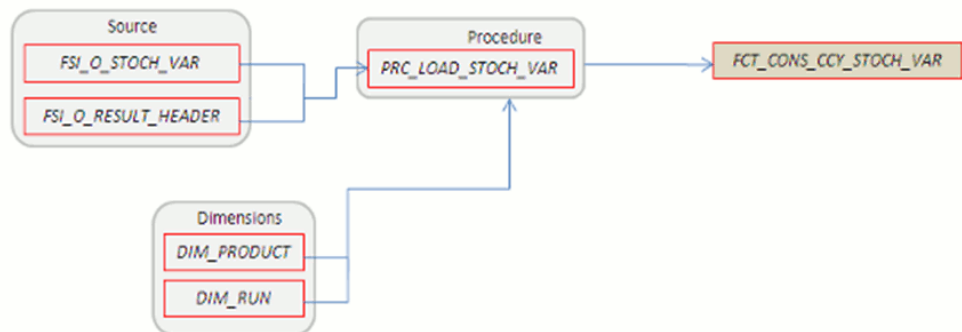




Where:

FSI\_O\_PROCESS\_CASH\_FLOWS, contains account level detailed cash flow information for the number of instrument records selected on the Audit block of the ALM Process.

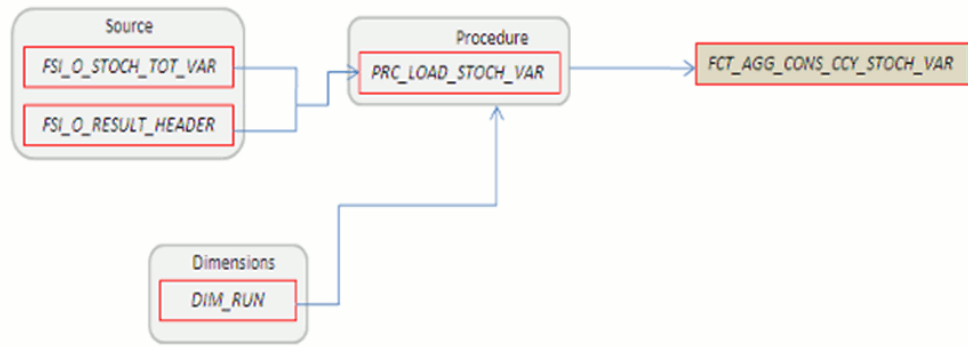
- **FCT\_CONS\_CCY\_STOCH\_VAR**



Where:

FSI\_O\_STOCH\_VAR, contains Value at Risk information (in Consolidated Currency) for each Monte Carlo rate path at the Product COA level.

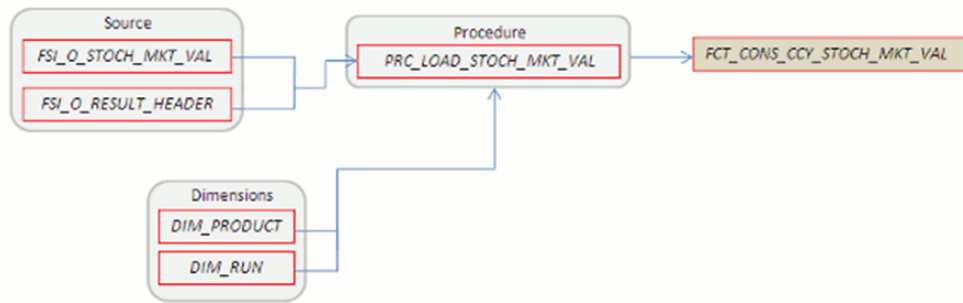
- **FCT\_AGG\_CONS\_CCY\_STOCH\_VAR**



Where:

FSI\_O\_STOCH\_TOT\_VAR, contains Value at Risk information (in Consolidated Currency) for each Monte Carlo rate path at the Portfolio level.

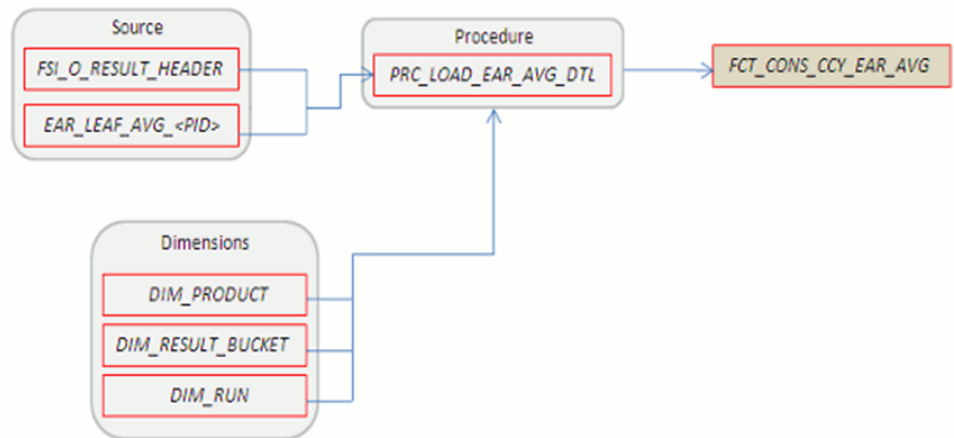
- **FCT\_CONS\_CCY\_STOCH\_MKT\_VAL**



Where:

FSI\_O\_STOCH\_MKT\_VAL, contains Market Value information (in Consolidated Currency) for each Monte Carlo rate path at the Product COA level.

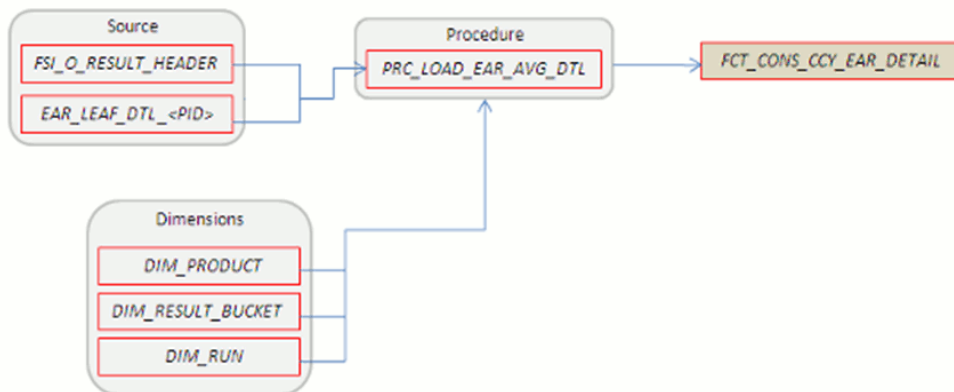
- **FCT\_CONS\_CCY\_EAR\_AVG**



Where:

EAR\_LEAF\_AVG\_<Process ID>, contains the average Earnings at Risk information (in Consolidated Currency) across all Monte Carlo rate paths at the Product COA level.

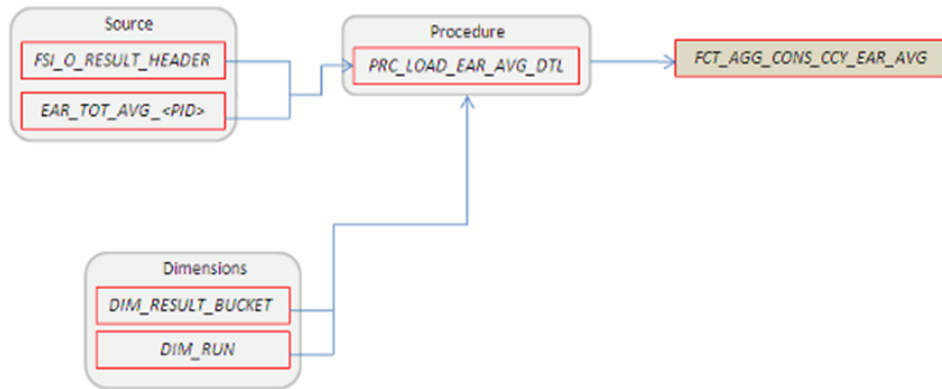
- **FCT\_CONS\_CCY\_EAR\_DETAIL**



Where:

EAR\_LEAF\_DTL\_<Process ID>, contains Earnings at Risk information (in Consolidated Currency) for each Monte Carlo rate path at the Product COA level.

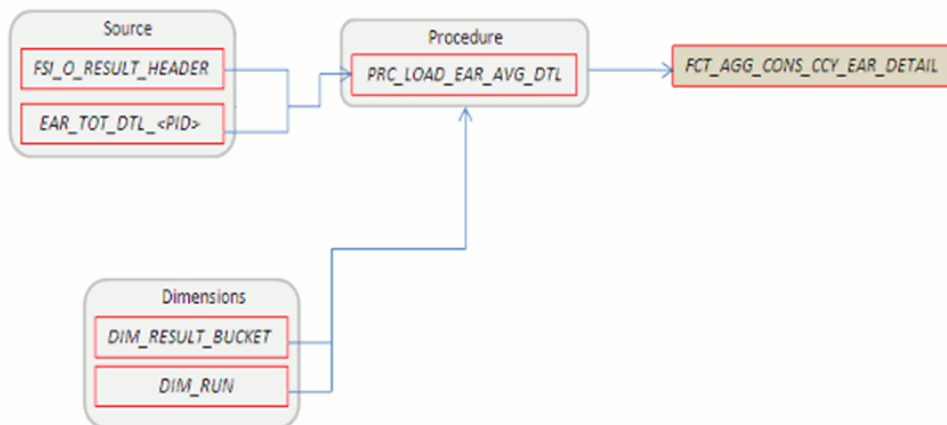
- **FCT\_AGG\_CONS\_CCY\_EAR\_AVG**



Where:

EAR\_TOT\_AVG\_<Process ID>, contains average Earnings at Risk information (in Consolidated Currency) across all Monte Carlo rate paths at the Portfolio level (net interest income – net interest expense).

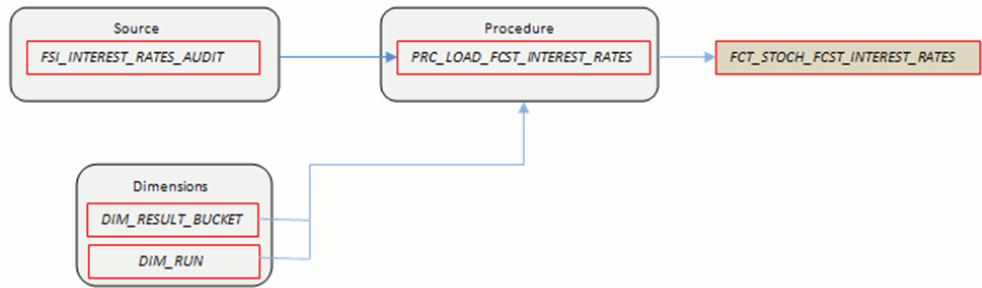
- **FCT\_AGG\_CONS\_CCY\_EAR\_DETAIL**



Where:

EAR\_TOT\_DTL\_<PID>, contains Earnings at Risk information (in Consolidated Currency) for each Monte Carlo rate path at the Portfolio level (net interest income – net interest expense).

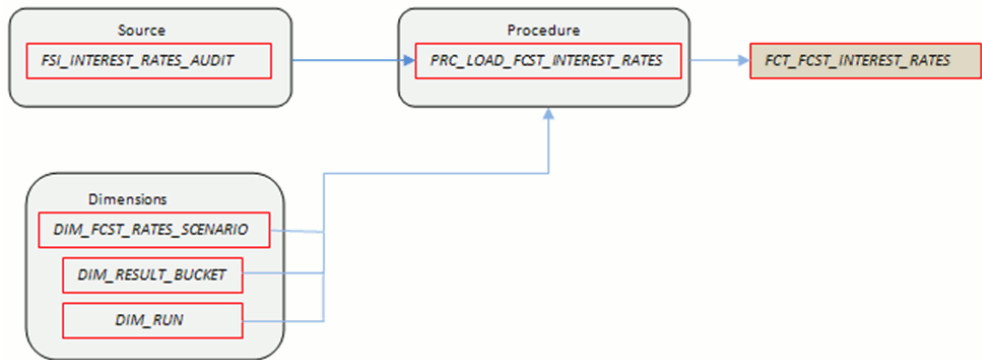
- **FCT\_STOCH\_FCST\_INTEREST\_RATES:**



Where:

FCT\_STOCH\_FCST\_INTEREST\_RATES, contains 1M forward rates output from the Monte Carlo process for each scenario, typically used for Audit purposes.

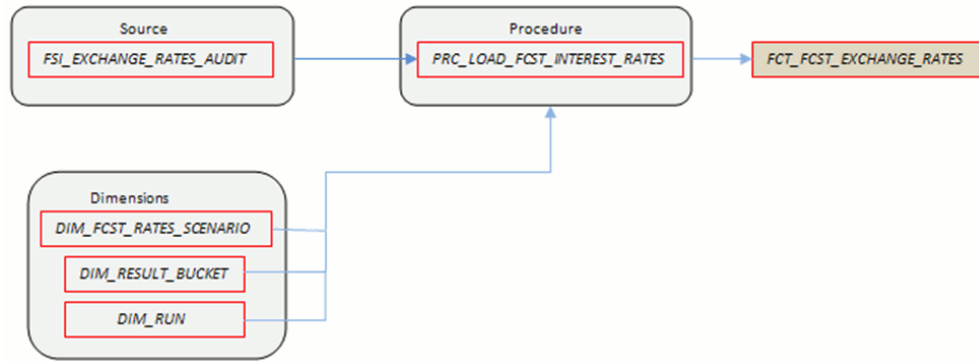
- FCT\_FCST\_INTEREST\_RATES:



Where:

FCT\_FCST\_INTEREST\_RATES, contains forecast interest rates for each ALM Deterministic Process, for each scenario.

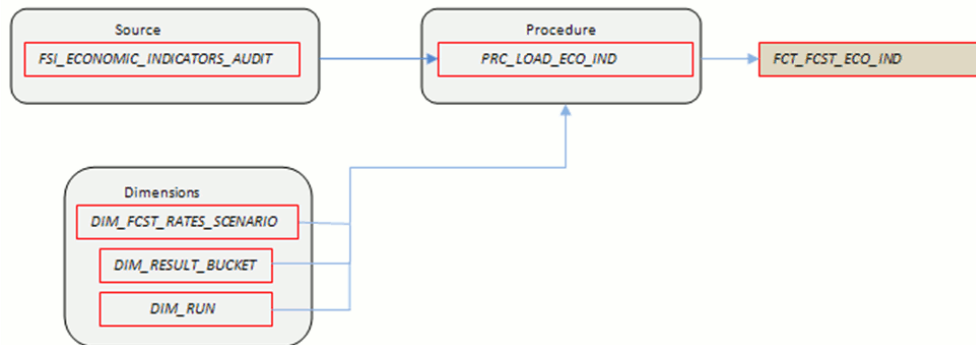
- FCT\_FCST\_EXCHANGE\_RATES:



Where:

FCT\_FCST\_EXCHANGE\_RATES, contains forecast currency exchange rates for each ALM Deterministic Process, for each scenario.

- **FCT\_FCST\_ECO\_IND:**



Where:

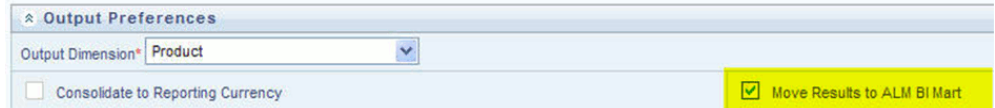
FCT\_FCST\_ECO\_IND, contains forecast Economic Indicators for each ALM Deterministic Process, for each scenario.

Refer to *Oracle Financial Services Analytical Applications Data Model Data Dictionary* or the *ALM BI Erwin Data Model* to view the detailed structure of the earlier tables.

## Executing the ALM Results Transformation process

There are 4 ways to execute the ALM Results Transformation process. Depending on your preference and particular use case, you can choose to run ALM Results Transformation using any of these methods.

1. Select the ALM Results transformation option within the ALM Processing > Output Preferences block (check box). When this option has been selected, ALM BI transformation will run automatically when the ALM process is run.



2. From the ALM Processing Summary page, select any ALM Process and then select the Transform ALM Results option. This will trigger the immediate execution of the ALM BI transformation process.



3. Create and run a batch process using the infrastructure Batch Processing capability.
4. Create and run a batch process using the simplified batch window. For more details refer Appendix : Simplified Batch Execution, page C-1.

The following steps describe how to execute the ALM Results Transformation process from the OFSAAI Batch Processing framework:

- From the **Home** menu, select **Operations**, then select **Batch Maintenance**.
- Click **New Batch** ('+' symbol in Batch Name container) and enter the Batch Name and description.
- Click **Save**.
- Select the Batch you have created in the earlier step by clicking on the checkbox in the Batch Name container.
- Click **New Task** ('+' symbol in Task Details container).
- Enter the Task ID and Description.
- Select **Transform Data**, from the components list.
- Click **Parameters**. A pop up window will open, enter the following values and then click **Save**:
  - Rule Name - Select **ALM\_BI\_TRANSFORMATION** from the list of all available transformations. (This is a seeded Data Transformation which is installed as part of the ALM BI application installer, if you don't see this in the list contact Oracle support)
  - Parameter List – Process Id, Re-run Flag  
(Refer the following for details on Parameter list)

### Explanation for the parameter list:

Process Id indicates the process for which the data is to be transformed from ALM operational tables to ALM BI tables. This is a mandatory parameter.

Re-run flag indicates whether the current run is a fresh run or a re-run for the same process ID. 'N' indicates a fresh run and 'Y' indicates a re-run.

When ALM Results Transformation is executed for a new ALM process, it is treated as a new run. Note, BI\_TRANSFORM\_STATUS will be NULL in FSI\_PROCESS\_RUN\_HISTORY for the Process and As-of-date combination.

When the Transformation is performed for an existing process, it becomes a re-run which means the related FACT table records are first deleted for the process and new results are re-inserted. Note, BI\_TRANSFORM\_STATUS will be "1" in FSI\_PROCESS\_RUN\_HISTORY for the Process and As-of-date combination.

Sample parameters for this task are: 40006526, 'Y' (uppercase required)

5. Save and execute the batch from the Batch Execution window.

**Note:** *When prompted for the execution date, select the 'As of Date' corresponding to the ALM results that you want to transform. If some other date is selected, the ALM Result Transformation will not run for the expected data set.*

The function can also be executed directly on the database through SQLPLUS. Details are:

Function Name: FN\_ALM\_BI\_TRANSFORMATION

Parameters: p\_batch\_run\_id, p\_as\_of\_date, pid, p\_re\_run\_flag

Sample parameter values: 'Batch1','20111231', '40006526','Y'

## Checking the execution status

The status of the execution can be monitored using the batch monitor window. You can access by going to the following on the Left menu

From the **Home** menu, select **Operations**, then select **Batch Monitor**.

**Note:** For a more comprehensive coverage, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

The status messages in Batch Monitor are :



N - Not Started

O - On Going

F - Failure

S – Success

The Batch Process execution log and the detailed ALM Transformation component log can be accessed on the application server by going to the following directory \$FIC\_DB\_HOME/log/date.

The file name will have the batch execution id.

Sample Path: /dbfiles/home/oracle/OFSAAI/ficdb/log/date

The database level operations log can be accessed by querying the fsi\_message\_log table. The batch run id column can be filtered for identifying the relevant log.

To monitor the progress of the transformation program query the table FSI\_MESSAGE\_LOG with process ID and batch run ID as follows.

```
select * from fsi_message_log where a.process_id=<ProcessID> and  
batch_run_id=<Batch Run ID>;
```

**Note:** Check the .profile file in the installation home if you are not able to find the paths mentioned earlier.

## Support of multiple hierarchies

Multiple hierarchies on a single dimension can be setup in ALMBI.

One can view multiple hierarchies in a report in a single view through the following steps:

1. Create your product hierarchy (for example, Product Hierarchy 1)
2. Perform Hierarchy Transformation
3. Run the SCD process
4. Run the ALM Results Transformation process for a particular As of Date

Records will be populated into the relevant FACT tables for the earlier mentioned hierarchy and As of Date.

Similarly, perform earlier mentioned steps for multiple hierarchies and run the ALMBI Transformation accordingly.

From this point, you will be able to select any of the multiple hierarchies while designing a new report.



---

## Account Summary Population

This chapter describes how and when to execute the data movement processes needed to populate account level data in the reporting mart.

Account Summary tables are account level BI tables that are used to consolidate information from the various product specific tables used in both the Staging Area and Operational Processing areas. The Account Summary tables in the ALM BI data model are loaded from both the Staging Area tables and operational Instrument Tables using the Table to Table (T2T) component of OFSAAI framework.

This chapter covers the following topics:

- Overview of Account Summary Tables
- Overview of Account Summary Population
- Pre-requisites
- Tables used by the Account Summary Population T2T process
- Executing the Account Summary Population T2T
- Checking the execution status

### Overview of Account Summary Tables

Within ALM BI, customer account level data from both the OFSAA Staging Area and Instrument tables and consolidated into the standardized relational ALM BI data model. This consolidation is done to organize all of the relevant account level data into a single Fact structure to be used for reporting.

This relational BI model consists of 2 vertically partitioned Account Summary tables that are organized by application subject area.

- **FCT\_COMMON\_ACCOUNT\_SUMMARY** – This table, which is shared by all OFSAA BI applications, contains dimensional values, attributes and financial measures which are generally applicable to the individual account records. This data is sourced directly from the staging area.

- FCT\_ALM\_ACCOUNT\_SUMMARY – This table contains ALM specific financial measures and is sourced from the operational Instrument Tables.

## Overview of Account Summary Population

Upon installation of the ALM BI application, you will see one T2T process definition for each Instrument table. Each T2T process maps instrument table data to the 2 Account Summary tables noted above. The T2T process definitions are primarily direct column to column mappings from Instrument to Fact table and in certain cases might have expressions which apply SQL functions or do arithmetic operations on instrument columns before moving them to the Fact table.

### Example

Data base functions are used for conversion if there is a data type difference between the mapped columns of an Instrument Table Example,

TO\_NUMBER(TO\_CHAR(NEXT\_PAYMENT\_DATE,'YYYYMMDD')) or an arithmetic operation if a currency conversion is required for a balance column (Example, FSI\_D\_CREDIT\_CARDS.GROSS\_FEE\_INCOME \* FSI\_EXCHANGE\_RATE\_HIST.EXCHANGE\_RATE).

In addition a surrogate key is populated in Fact (BI) table dimension columns by doing SQL joins between the Instrument tables and Dimension tables, based on the relevant ID column and populating the surrogate key from the Dimension table for each Instrument dimension ID value.

While moving data using the T2T processes, the account number linkage between Staging, Instrument and Fact table records is preserved since the movement happens at an account level. In addition the unique Account Number links the data flowing into Fact tables from both EPM instrument tables and ERM account level tables.

## Pre-requisites

1. All the post install steps mentioned in the *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration guide* and the solution installation manuals of *Asset Liability Management* and *Asset Liability Analytics* have to be completed successfully.
2. Application users must be mapped to a role which has the seeded batch execution function (BATPRO).
3. Before executing a batch check if the following services are running on the application server (For more information on how to check if the services are up and on, and how to start the services if you find them not running, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.
  - Iccserver

- Router
  - AM
  - Messageserver
4. Batches will have to be created for executing the function. This is explained in the "Executing the Account Summary Population T2T" section.
  5. The Dimension Table Population step should have been done before you execute the T2T batch. For more details, see Executing the Account Summary Population T2T, page 5-6.

## Tables used by the Account Summary Population T2T process

The source table for the T2T process is the instrument table:

FSI\_D\_<instrument name>

### Example

FSI\_D\_TERM\_DEPOSITS.

There are separate T2T definitions configured for each instrument table, which are used to populate each of - FCT\_COMMON\_ACCOUNT\_SUMMARY and FCT\_ALM\_ACCOUNT\_SUMMARY

The following table lists the seeded T2T Definitions with related Source Table and Destination tables:

S.No	Definition Name	Source Table	Destination Table
1	T2T_STG_ANNUITY_CONTRACTS_CAS	STG_ANNUITY_CONTRACTS	FCT_COMMON_ACCOUNT_SUMMARY
2	T2T_STG_BORROWINGS_CAS	STG_BORROWINGS	FCT_COMMON_ACCOUNT_SUMMARY
3	T2T_STG_CARDS_CAS	STG_CARDS	FCT_COMMON_ACCOUNT_SUMMARY
4	T2T_STG_CASA_CAS	STG_CASA	FCT_COMMON_ACCOUNT_SUMMARY
5	T2T_STG_FX_CONTRACTS_CAS	STG_FX_CONTRACTS	FCT_COMMON_ACCOUNT_SUMMARY

S.No	Definition Name	Source Table	Destination Table
6	T2T_STG_GUARANTEES_CAS	STG_GUARANTEES	FCT_COMMON_ACCOUNT_SUMMARY
7	T2T_STG_INVESTMENTS_CAS	STG_INVESTMENTS	FCT_COMMON_ACCOUNT_SUMMARY
8	T2T_STG_LC_CAS	STG_LC_CONTRACTS	FCT_COMMON_ACCOUNT_SUMMARY
9	T2T_STG_LEASES_CONTRACTS_CAS	STG_LEASES_CONTRACTS	FCT_COMMON_ACCOUNT_SUMMARY
10	T2T_STG_LOANS_CAS	STG_LOAN_CONTRACTS	FCT_COMMON_ACCOUNT_SUMMARY
11	T2T_STG_MM_CAS	STG_MM_CONTRACTS	FCT_COMMON_ACCOUNT_SUMMARY
12	T2T_STG_OD_CAS	STG_OD_ACCOUNTS	FCT_COMMON_ACCOUNT_SUMMARY
13	T2T_STG_OPTIONS_CAS	STG_OPTION_CONTRACTS	FCT_COMMON_ACCOUNT_SUMMARY
14	T2T_STG_RETIREMENT_ACCOUNTS_CAS	STG_RETIREMENT_ACCOUNTS	FCT_COMMON_ACCOUNT_SUMMARY
15	T2T_STG_TD_CONTRACTS_CAS	STG_TD_CONTRACTS	FCT_COMMON_ACCOUNT_SUMMARY
16	T2T_FCT_ALM_ACCOUNT_ANNUIT	FSI_D_ANNUITY_CONTRACTS	FCT_ALM_ACCOUNT_SUMMARY
17	T2T_FCT_ALM_ACCOUNT_BORROWINGS	FSI_D_BORROWINGS	FCT_ALM_ACCOUNT_SUMMARY
18	T2T_FCT_ALM_ACCOUNT_BREAK_FUNDING	FSI_D_BREAK_FUNDING_CHARGES	FCT_ALM_ACCOUNT_SUMMARY
19	T2T_FCT_ALM_ACCOUNT_CASA	FSI_D_CASA	FCT_ALM_ACCOUNT_SUMMARY

S.No	Definition Name	Source Table	Destination Table
20	T2T_FCT_ALM_ACCOUNT_CREDIT_LINES	FSI_D_CREDIT_LINES	FCT_ALM_ACCOUNT_SUMMARY
21	T2T_FCT_ALM_ACCOUNT_CREDITCARDS	FSI_D_CREDIT_CARDS	FCT_ALM_ACCOUNT_SUMMARY
22	T2T_FCT_ALM_ACCOUNT_DEPOSITS	FSI_D_TERM_DEPOSITS	FCT_ALM_ACCOUNT_SUMMARY
23	T2T_FCT_ALM_ACCOUNT_FORWARDS	FSI_D_FORWARD_RATE_AGMENTS	FCT_ALM_ACCOUNT_SUMMARY
24	T2T_FCT_ALM_ACCOUNT_FUTURES	FSI_D_FUTURES	FCT_ALM_ACCOUNT_SUMMARY
25	T2T_FCT_ALM_ACCOUNT_FX_CONTRACTS	FSI_D_FX_CONTRACTS	FCT_ALM_ACCOUNT_SUMMARY
26	T2T_FCT_ALM_ACCOUNT_GUARANTEES	FSI_D_GUARANTEES	FCT_ALM_ACCOUNT_SUMMARY
27	T2T_FCT_ALM_ACCOUNT_INVESTMENTS	FSI_D_INVESTMENTS	FCT_ALM_ACCOUNT_SUMMARY
28	T2T_FCT_ALM_ACCOUNT_LEASES	FSI_D_LEASES	FCT_ALM_ACCOUNT_SUMMARY
29	T2T_FCT_ALM_ACCOUNT_LEDGER_STAT	FSI_D_LEDGER_STAT_INSTRUMENT	FCT_ALM_ACCOUNT_SUMMARY
30	T2T_FCT_ALM_ACCOUNT_LOANS	FSI_D_LOAN_CONTRACTS	FCT_ALM_ACCOUNT_SUMMARY
31	T2T_FCT_ALM_ACCOUNT_MM_CONTRACTS	FSI_D_MM_CONTRACTS	FCT_ALM_ACCOUNT_SUMMARY
32	T2T_FCT_ALM_ACCOUNT_MORTGAGE_BACK_SEC	FSI_D_MORTGAGE_BACK_SEC	FCT_ALM_ACCOUNT_SUMMARY

S.No	Definition Name	Source Table	Destination Table
33	T2T_FCT_ALM_ACCOUNT_MORTGAGES	FSI_D_MORTGAGES	FCT_ALM_ACCOUNT_SUMMARY
34	T2T_FCT_ALM_ACCOUNT_OPTIONS	FSI_D_OPTIONS	FCT_ALM_ACCOUNT_SUMMARY
35	T2T_FCT_ALM_ACCOUNT_RETIREMENT	FSI_D_RETIREMENT_ACCOUNTS	FCT_ALM_ACCOUNT_SUMMARY
36	T2T_FCT_ALM_ACCOUNT_SWAPS	FSI_D_SWAPS	FCT_ALM_ACCOUNT_SUMMARY
37	T2T_FACT_AGG_FSA_ACCOUNT_SUMMARY	FCT_COMMON_ACCOUNT_SUMMARY	FCT_AGG_FSA_ACCOUNT_SUMMARY

Refer to *Oracle Financial Services Analytical Applications Data Model Data Dictionary* or the *ALM BI Erwin Data Model* to view the detailed structure of the earlier tables.

## Executing the Account Summary Population T2T

The following steps describe how to execute the ALM BI Account Summary T2T processes from the OFSAAI Batch Processing framework:

1. From the **Home** menu, select **Operations**, then select **Batch Maintenance**.
2. Click **New Batch** ('+' symbol in Batch Name container) and enter the Batch Name and Description.
3. Click **Save**.
4. Select the Batch you created in the earlier step by clicking the check box in the Batch Name container.
5. Enter the Task ID and Description.
6. Select **Load Data**, from the Components list.
7. Select the following from the Dynamic Parameters List and then click **Save**:
  - Datastore Type - Select the appropriate datastore from the list



- Datastore Name - Select the appropriate name from the list
  - IP address - Select the IP address from the list
  - Load Mode - Select **Table to Table** from the list
  - Source Name - Select **PROCESSING** from the list. (This is seeded with the ALM BI solution install.)
  - File Name - Select the T2T name for the instrument you want to process. (This is a seeded T2T name installed as part of the ALM BI solution installer , if you don't see this in the drop down contact Oracle support)
  - Data file Name: NULL
  - Default Value : Enter the reporting currency value in the following format.
  - [RCY]='XXX' (where 'xxx' denotes reporting currency code, for example, 'USD').
8. Execute the Batch

**Note:** You cannot execute this process from the simplified batch window.

## Checking the execution status

The status of the execution can be monitored using the batch monitor window.

**Note:** For a more comprehensive coverage, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

The status messages in Batch Monitor are :

N - Not Started

O - On Going

F - Failure

S – Success

The Batch Process execution log and the detailed Time Dimension component log can be accessed on the application server by going to the following directory  
\$FIC\_DB\_HOME/log/t2t.

The file name will have the batch execution id.



---

## FSA Reports

### How to Populate DIM\_REG\_FSA\_PRODUCTS

FSA regulatory products are stored in the DIM\_REG\_FSA\_PRODUCTS table.

A reclassification rule reclassifies the Bank's products into equivalent DIM\_REG\_FSA\_PRODUCTS table, within the FCT table.

Following are the steps to populate the table DIM\_REG\_FSA\_PRODUCTS.

1. Create Business Metadata:

Create the following Metadata, under Business Metadata Manager:

1. Dataset, with the following specifications:

- Tables:

DIM\_PRODUCT, DIM\_REG\_FSA\_PRODUCTS,  
FCT\_COMMON\_ACCOUNT\_SUMMARY

- JOIN:

DIM\_PRODUCT.N\_PROD\_SKEY =  
FCT\_COMMON\_ACCOUNT\_SUMMARY.N\_PROD\_SKEY AND  
DIM\_REG\_FSA\_PRODUCTS.N\_REG\_FSA\_PROD\_SKEY =  
FCT\_COMMON\_ACCOUNT\_SUMMARY.N\_REG\_FSA\_PROD\_SKEY

2. Hierarchy for Products, based on the DIM\_PRODUCT table (on the code and description fields).

3. Hierarchy for Regulatory Products, based on the DIM\_REG\_FSA\_PRODUCTS table (on the code and description fields).

2. Create reclassification rule:

Under Rules Framework > Designer, create a new Reclassification rule with

1. Dataset: dataset created in Step 1.1 above.
2. Source Hierarchy: Hierarchy created in Step 1.2 above.
3. Target Hierarchy: Hierarchy created in Step 1.3 above.
4. Reclassification matrix between Source and Target Hierarchies as per the requirement.

3. Note the Sys-id of this rule, from PR2\_MASTER table available in the configuration schema.

4. Create ICC Batch:

Under Operations > Batch Maintenance, create a new ICC Batch with 1 task with the following details:

1. Component Type : RUN RULE
2. Task Parameters: Code=<<Sys-id noted earlier in step-3 >>

5. Execute ICC Batch for the required As-Of-Dates .
6. Execute the above T2T for the required as-of-dates.

1. Steps 1 through 4 are one-time/setup activities.
2. The reclassification rule detailed above assumes that Product alone can be used to derive the regulatory-product. If, for example, customer-type too is to be included to derive the regulatory-product, the following are the additional steps:
  1. Create additional hierarchy on the customer-type, upon the table DIM\_CUSTOMER\_TYPE.
  2. Include the DIM\_CUSTOMER\_TYPE table holding the customer-type in the dataset.
  3. In the reclassification rule, include the customer-type hierarchy in the source.

---

# Overview of ALM BI Dashboards and Reports

This chapter describes the seeded reports and dashboards.

This chapter covers the following topics:

- ALM BI Application
- Advantages of ALM BI
- Accessing the Standard Reports and Dashboards
- Getting Seeded Reports to show results
- ALM BI List of Dashboards
- ALM BI List of Seeded Reports
- ALM BI Seeded Report Details
- Liquidity Risk (LR) Seeded Reports for Liquidity Risk Management (LRM) Run

## ALM BI Application

The ALM BI application integrates the results generated by the Oracle Asset Liability Management application with Oracle Business Intelligence, giving users the ability to perform queries on ALM Results. This ability enables the user to access seeded reports and dashboards and to quickly develop new reports on a wide variety of information.

Standard reports and dashboards are part of the installation of ALM BI. You can implement these reports as-is, or modify them to the specifications of your users. Within minutes, you can access valuable information such as Gap Reports, Market Value Sensitivity and Income Simulation results for quick decision making.

This chapter describes the advantages of ALM BI and discusses how to access seeded reports.

## Advantages of ALM BI

ALM BI leverages Oracle Business Intelligence Enterprise Edition, to provide out of the box reporting of your Asset Liability Management results. It includes an ALM Reporting Data Mart, Transformation and Data Movement processes to populate the data mart, the OBIEE Repository file containing all required data elements, join relationships, calculations and hierarchies, and the OBIEE Web Catalog containing definitions of the seeded reports and dashboards.

Through OBIEE, you have access to a robust reporting engine for managing all of your Business Intelligence needs. The key elements are:

- Tabular and Pivot Table reporting
- Drill down and Drill across capability
- Dashboard publishing
- Graphing and charting
- Export options, such as Excel, Word, Powerpoint and PDF

## Accessing the Standard Reports and Dashboards

After installing the ALM BI application, (refer to the ALM BI Installation Guide for details), you will be able to access the standard Dashboards and seeded reports by accessing the OBIEE end user URL and logging in to the application. When you sign-on to the application, you will be directed to your Home Page, which will show basic summary reports.

At the top of the window, you will see a drop box containing the listing of all of the seeded dashboards that you can select for navigating to the desired location. Within each dashboard, you will see the associated seeded reports, which are typically providing two views, for example - Base Currency and Consolidated Currency. Depending on the data being processed, one or both of these views may be relevant.

From the dashboard, you will have the option to Modify any of the reports or alternatively, you can choose the option from the top of the page to navigate to the report writer, where you will be able to access all of the seeded reports. You will also be able to access the Presentation Layer from the report writer if you wish to begin creating new reports.

## Getting Seeded Reports to show results

Each seeded dashboard contains a set of Prompts at the top of the page, which require selections in order for the reports to produce results. Make the appropriate selections

for each prompt to correctly filter the query for your results.

## **ALM BI List of Dashboards**

The following dashboards are available in ALMBI.

- 01 ALM Home
- 02 Repricing Gap
- 03 Financial Results
- 04 Earnings At Risk
- 05 Liquidity Risk
- 06 Market Value
- 07 Value At Risk
- 08 Rates
- 09 Assumptions
- 10 Audit
- 11 FSA

## **ALM BI List of Seeded Reports**

The following seeded reports are available in ALM BI .

### **02 Repricing Gap**

1. Repricing Gap Summary in Base Currency, page 7-7
2. Repricing Gap Summary in Consolidated Currency, page 7-7
3. Repricing Gap Across Dates in Base Currency, page 7-8
4. Repricing Gap Across Dates in Consolidated Currency, page 7-8
5. Repricing Gap Detail in Base Currency , page 7-9
6. Repricing Gap Detail in Consolidated Currency, page 7-9

### **03 Financial Results**

7. Forecast Income Statement in Base Currency, page 7-11
8. Forecast Income Statement in Consolidated Currency, page 7-11
9. Forecast Balance Sheet Summary in Base Currency, page 7-13
10. Forecast Balance Sheet Summary in Consolidated Currency, page 7-13
11. Net Interest Income Across Scenarios in Base Currency, page 7-14
12. Net Interest Income Across Scenarios in Consolidated Currency, page 7-14
13. Income Statement Detail in Base Currency, page 7-15
14. Income Statement Detail in Consolidated Currency, page 7-15
15. Forecast Balance Sheet Detail in Base Currency, page 7-16
16. Forecast Balance Sheet Detail in Consolidated Currency, page 7-16
17. Historical Income and Balance Summary, page 7-17
18. Historical Income and Balance Detail, page 7-18
19. Detail Cash Flow/Activity in Base Currency, page 7-19
20. Detail Cash Flow /Activity in Consolidated Currency, page 7-19

#### **04 Earnings at Risk**

21. Net Income Confidence Intervals, page 7-21
22. EAR Frequency Distribution, page 7-22
23. Yearly EAR Frequency Distribution, page 7-23
24. EAR Distribution By Year Forecasted, page 7-24
25. Interest Rate Cloud, page 7-25
26. Income Distribution Min / Max / Avg, page 7-25
27. Income Distribution Min3 / Max 3 / Avg , page 7-26
28. Interest Dispersion, page 7-27

#### **05 Liquidity Risk**

29. Liquidity Gap Summary in Base Currency , page 7-28



- 30. Liquidity Gap Summary in Consolidated Currency, page 7-28
- 31. Liquidity Gap Across Time in Base Currency, page 7-29
- 32. Liquidity Gap Across Time in Consolidated Currency, page 7-29
- 33. Liquidity Gap Detail – Product in Base Currency, page 7-30
- 34. Liquidity Gap Detail – Product in Consolidated Currency, page 7-30
- 35. Liquidity Gap – Business Type in Base Currency , page 7-31
- 36. Liquidity Gap – Business Type in Consolidated Currency, page 7-32
- 37. Distribution Profile of Term Deposits, page 7-32

**06 Market Value**

- 38. Market Value Summary in Base Currency, page 7-33
- 39. Market Value Summary in Consolidated Currency, page 7-33
- 40. Market Value Scenarios in Base Currency, page 7-34
- 41. Market Value Scenarios in Consolidated Currency, page 7-34
- 42. Duration Summary in Base Currency , page 7-35
- 43. Duration Summary in Consolidated Currency , page 7-35
- 44. Duration Scenarios in Base Currency, page 7-36
- 45. Duration Scenarios in Consolidated Currency, page 7-36
- 46. Market Value Detail in Base Currency, page 7-37
- 47. Market Value Detail in Consolidated Currency, page 7-37
- 48. Market Value Product Detail Scenario Comparison in Base Currency, page 7-38
- 49. Market Value Product Detail Scenario Comparison in Consolidated Currency, page 7-38
- 50. Duration Detail in Base Currency, page 7-38
- 51. Duration Detail in Consolidated Currency, page 7-39
- 52. Duration Detail by Scenario in Base Currency, page 7-39

- 53. Duration Detail by Scenario in Consolidated Currency , page 7-39
- 54. Top N Market Value in Base Currency, page 7-40
- 55. Top N Duration in Base Currency, page 7-41
- 07 Value at Risk**
- 56. Value at Risk Probabilities, page 7-42
- 57. VaR Probabilities Detail, page 7-43
- 08 Rates**
- 58. IRC History Across Term, page 7-43
- 59. IRC Forecast Across Term, page 7-44
- 60. IRC History Across Dates, page 7-45
- 61. IRC Forecast Across Dates, page 7-46
- 62. IRC Benchmark, page 7-46
- 63. IRC Fcst x Days, page 7-47
- 64. History and Forecast – Interest Rates , page 7-49
- 65. History and Forecast - Economic Indicators, page 7-49
- 66. History and Forecast – Currency Rates, page 7-50
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- 70. Economic Indicator Forecast , page 7-53
- 71. IRC – Economic Indicator – FX Rates Forecast, page 7-53
- 09 Assumptions**
- 72. ALM Process – Deterministic Assumption Map, page 7-55
- 73. ALM Process – Stochastic Assumption Map, page 7-55
- 74. Maturity Strategies, page 7-56

- 75. Pricing Margins, page 7-57
- 76. Discount Rates, page 7-58
- 77. Product Characteristics, page 7-58
- 78. Prepayments, page 7-59
- 79. Prepayment Models, page 7-60
- 10 Audit Errors**
- 80. Process Errors , page 7-61
- 81. Detail Cash Flows, page 7-62

## ALM BI Seeded Report Details

**Note:** The following section provides information on report content for the majority of seeded reports. Some report details have been excluded in cases where report structure is redundant or where report content is intended for illustrative purposes only. All of the following content is available within the installed the ALM BI web catalog by navigating to Answers and opening the desired report in edit mode.

- 1. Repricing Gap Summary in Base Currency
- 2. Repricing Gap Summary in Consolidated Currency

---

<b>Report Name(s)</b>	IRR BucketWise Summary  IRR BucketWise Summary Cons Currency
<b>Description</b>	Summary Repricing Gap Report. This report is a view of repricing gap results shown at the level of Rate Sensitive Assets, Rate Sensitive Liabilities, NetGap and Cumulative Gap
<b>Dashboards Prompts</b>	Prompt Interest Rate 01  - Process  - Scenario

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	Prompt Interest Rate 02
	- As of Date
	- Currency
	- Result Type
	Prompt Interest Rate 03
	- Dynamic Gap Date
	- Bucket End Date
<b>Report Criteria</b>	Time Buckets.Start Date
	Time Buckets.End Date
	Currency.Base Currency
	Repricing Gap.Gap Runoff (660) Asset
	Repricing Gap.Gap Runoff (660) Liability
	Repricing Gap.Gap Runoff (660) Receivable
	Repricing Gap.Gap Runoff (660) Payable
	Repricing Gap.Gap Runoff (660) Net Gap
	Repricing Gap.Gap Runoff (660) Net Gap
<b>Conditions</b>	Product.Account Type IN (100, 110, 300, 310, 800)
<b>Compound Layout</b>	Title
	Pivot Table

---

**3. Repricing Gap Across Dates in Base Currency**

**4. Repricing Gap Across Dates in Consolidated Currency**

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<b>Report Name(s)</b>	IRR Across Period 11g
	IRR Across Period Consolidated Currency

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<b>Description</b>	Summary Repricing Gap Report showing the net gap amount for a specific time period over historical time
<b>Dashboards Prompts</b>	<p>Prompt Interest Rate 01</p> <ul style="list-style-type: none"> <li>- Process</li> <li>- Scenario</li> </ul> <p>Prompt Interest Rate 02</p> <ul style="list-style-type: none"> <li>- As of Date</li> <li>- Currency</li> <li>- Result Type</li> </ul> <p>Prompt Interest Rate 03</p> <ul style="list-style-type: none"> <li>- Dynamic Gap Date</li> <li>- Bucket End Date</li> </ul> <p>Prompt Interest Rate 03</p>
<b>Report Criteria</b>	<p>Time Buckets.Start Date</p> <p>Time Buckets.End Date</p> <p>Calendar - ALM Results.As-of-Date</p> <p>Currency.Base Currency</p> <p>Repricing Gap.Gap Runoff (660) Net Gap</p> <p>Repricing Gap.Gap Runoff (660) Net Gap</p>
<b>Conditions</b>	Product.Account Type IN (100, 110, 300, 310, 800)
<b>Compound Layout</b>	<p>Title</p> <p>Pivot Table</p>

---

### 5. Repricing Gap Detail in Base Currency

### 6. Repricing Gap Detail in Consolidated Currency

---

<b>Report Name(s)</b>	IRR BucketWise Detail  IRR BucketWise Detail Cons Currency
<b>Description</b>	Detailed Repricing Gap Report showing the gap amount for individual Product Hierarchy Line Items
<b>Dashboards Prompts</b>	Prompt Interest Rate 01 - Process - Scenario  Prompt Interest Rate 02 - As of Date - Currency - Result Type Prompt Interest Rate 03 - Dynamic Gap Date - Bucket End Date
<b>Report Criteria</b>	Time Buckets.Start Date  Time Buckets.End Date  Product.Product Name Level 19  <b>Product.Account Type</b> < formula >: case when "Repricing Gap"."Leg Type" =0 then case WHEN Product."Account Type" = 100.00 then 'Rate Sensitive Assets' WHEN Product."Account Type" = 300.00 then 'Rate Sensitive Liabilities' else 'Others' end when "Repricing Gap"."Leg Type" =2 then case WHEN Product."Account Type" = 100.00 then 'Rate Sensitive Assets' WHEN Product."Account Type" = 300.00 then 'Rate Sensitive Liabilities' WHEN Product."Account Type" IN (110.00, 800.00) then 'Off BS Receivable' else 'Others' end when "Repricing Gap"."Leg Type" =1 then case WHEN Product."Account Type" = 100.00 then 'Rate Sensitive Assets' WHEN Product."Account Type" = 300.00 then 'Rate Sensitive Liabilities' WHEN Product."Account Type" IN (310.00, 800.00) then 'Off BS Payable' else 'Others' end else 'Others' end

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**Product.Sort Order** < formula >: case when "Repricing Gap"."Leg Type" =0 then case WHEN Product."Account Type" = 100.00 then 1 WHEN Product."Account Type" = 300.00 then 2 else 5 end when "Repricing Gap"."Leg Type" =2 then case WHEN Product."Account Type" = 100.00 then 1 WHEN Product."Account Type" = 300.00 then 2 WHEN Product."Account Type" IN (110.00, 800.00) then 3 else 5 end when "Repricing Gap"."Leg Type" =1 then case WHEN Product."Account Type" = 100.00 then 1 WHEN Product."Account Type" = 300.00 then 2 WHEN Product."Account Type" IN (310.00, 800.00) then 4 else 5 end else 5 end

Currency.Base Currency

Repricing Gap.Gap Runoff (660)

**Conditions** < NONE >

**Compound Layout** Title

Pivot Table

---

### 7. Forecast Income Statement in Base Currency

### 8. Forecast Income Statement in Consolidated Currency

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**Report Name(s)** Forecast Income Statement in Base Currency

Forecast Income Statement in Consolidated Currency

**Description** Income Simulation Forecast Report. Includes both current and new business.

**Dashboards Prompts** Prompt Financial Results 01

- Process

- Scenario

---

---

	Prompt Financial Results 02
	- As of Date
	- Currency
	- Result Type
	- Bucket End Date
<b>Report Criteria</b>	Time Buckets.Start Date
	Time Buckets.End Date
	Product.Account Type
	Currency.Base Currency
	Standard Cash Flow Results.Interest Income
	Standard Cash Flow Results.Interest Expense
	Standard Cash Flow Results.Off B/S Income
	Standard Cash Flow Results.Net Interest Income
	Standard Cash Flow Results.Net Non-interest Income
	Standard Cash Flow Results.Net Income Before Taxes
	Standard Cash Flow Results.Divdends (940)
	Standard Cash Flow Results.Federal Taxes (930)
	Standard Cash Flow Results.Local Taxes (935)
	Standard Cash Flow Results.Income After Taxes
	Standard Cash Flow Results.Non Interest Income (455)
	Standard Cash Flow Results.Non Interest Expense (457)
	Standard Cash Flow Results.Net Income Before Taxes

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**Conditions** < NONE >

**Compound Layout** Title

Pivot Table

---

## 9. Forecast Balance Sheet Summary in Base Currency

## 10. Forecast Balance Sheet Summary in Consolidated Currency

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**Report Name(s)** Forecast Balance Sheet Summary in Base Currency

Forecast Balance Sheet Summary in Cons Currency

**Description** Balance Sheet Forecast Report. Provides views of both Ending and Average Balance, across time buckets.

**Dashboards Prompts** Prompt – Income Scenario2

- Process

- Bench Scenario

Prompt – Income Scenario 03

- Date

- Currency

- Result Type

- Bucket End Date

**Report Criteria** Product < formula > case WHEN Product."Account Type" IN (100.00, 200.00) then 'Total Assets' WHEN Product."Account Type" IN (300, 400.00, 500.00) then 'Total Liabilities & Equity' end

Product.Product Name Level 19

Standard Cash Flow Results.Average Balance (140)

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---

	Standard Cash Flow Results.Ending Balance (100)
	Time Buckets.Start Date
	Time Buckets.End Date
	Currency.Base Currency
<b>Conditions</b>	Product.Account Type IN (100,200,300,400,500)
<b>Compound Layout</b>	Title
	View Selector
	Pivot Table - Average and Ending Balance
	Pivot Table2 - Average Balance
	Pivot Table3 - Ending Balance

---

### 11. Net Interest Income Across Scenarios in Base Currency

### 12. Net Interest Income Across Scenarios in Consolidated Currency

---

<b>Report Name(s)</b>	Income - Scenario Report
	Income - Scenario Report in Consolidated Currency
<b>Description</b>	Forecast Income results across scenarios, including change versus bench scenario and percentage change versus bench scenario.
<b>Dashboards Prompts</b>	Prompt Financial Results 01
	Prompt Financial Results 02
<b>Report Criteria</b>	Process Scenario.Scenario Name
	Standard Cash Flow Results.Net Interest Income
	Standard Cash Flow Results.Net Interest Income (Delta toBench)

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	Standard Cash Flow Results.Net Interest Income (Pct to Bench)
	Standard Cash Flow Results.Interest CF (Bench)
	Currency.Base Currency
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title 3
	Pivot Table 2 (Chart)
	Pivot Table

---

### 13. Income Statement Detail in Base Currency

### 14. Income Statement Detail in Consolidated Currency

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<b>Report Name(s)</b>	Forecast Income Statement Detail Product in Base Graph 11g
	Forecast Income Statement Detail Product in Cons Graph 11g
	Forecast Income Statement Detail Product in Base Tab 11g
	Forecast Income Statement Detail Product in Cons Tab 11g
<b>Description</b>	Forecast Income Statement across time buckets with Product level detail
<b>Dashboards Prompts</b>	Prompt Financial Results 01
	Prompt Financial Results 02
<b>Report Criteria</b>	Time Buckets.Start Date
	Time Buckets.End Date
	Product.Account Type
	Product.Product Name Level19

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---

	Standard Cash Flow Results.Interest Accrued (440)
	Currency.Base Currency
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title
	Pivot Table 2 (Chart)
	Pivot Table

---

**15. Forecast Balance Sheet Detail in Base Currency**

**16. Forecast Balance Sheet Detail in Consolidated Currency**

---

<b>Report Name(s)</b>	Forecast Balance Sheet Detail in Base Currency
	Forecast Balance Sheet Detail in Consolidated Currency
<b>Description</b>	Forecast Balance Sheet across time buckets, with Product level detail and option to choose Avg + End, Avg Only or End Only.
<b>Dashboards Prompts</b>	Prompt Financial Results 01
	Prompt Financial Results 02
<b>Report Criteria</b>	Product < formula >: case WHEN "Product"."Account Type" IN(100.00, 200.00) then 'Total Assets' WHEN "Product"."Account Type" IN (300, 400.00, 500.00) then 'Total Liabilities' end
	Time Buckets.Start Date
	Time Buckets.End Date
	Product.Product Name Level18
	Standard Cash Flow Results.Ending Balance (100)
	Currency.Base Currency

---

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<b>Conditions</b>	Product.Account Type in (100,200,300,400,500)
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<b>Compound Layout</b>	Title
------------------------	-------

View Selector

Pivot Table - Average and Ending Balance

Pivot Table2 - Average Balance

Pivot Table3 - Ending Balance

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## 17. Historical Income and Balance Summary

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<b>Report Name(s)</b>	History Income Statement Summary
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<b>Description</b>	Income Statement summary report for historical time periods
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<b>Dashboards Prompts</b>	Prompt - Hist Balance Sheet
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<b>Report Criteria</b>	Calendar - Fact Data.Calendar Date
------------------------	------------------------------------

Time Buckets.Start Date

Ledger Stat.Value (Avg Balance)

Ledger Stat.Interest Income

Ledger Stat.InterestExpense

Ledger Stat.Off B/S Income

Ledger Stat.Net Interest Income

Ledger Stat.Non Interest Expense

Ledger Stat.Net Non-interest Income

Ledger Stat.Net Income Before Taxes

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	Ledger Stat.Dividends
	Ledger Stat.Federal Taxes
	Ledger Stat.Local Taxes
	Ledger Stat.Income After Taxes
	Currency.Currency Cd
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title
	Pivot Table

---

### 18. Historical Income and Balance Detail

---

<b>Report Name(s)</b>	History Income Statement Detail
<b>Description</b>	Income Statement detail report for historical time periods
<b>Dashboards Prompts</b>	Prompt - Hist Balance Sheet
<b>Report Criteria</b>	Calendar - Fact Data.Calendar Date
	Ledger Stat.FINANCIAL_ELEM_ID
	Product.Account Type
	Ledger Stat.Value#1
	Currency.Currency Cd
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title
	Pivot Table

---

## 19. Detail Cash Flow/Activity in Base Currency

## 20. Detail Cash Flow /Activity in Consolidated Currency

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<b>Report Name(s)</b>	Detail Cash Flow Activity in Base Currency  Detail Cash Flow Activity in Consolidated Currency
<b>Description</b>	Reporting against detail cash flow / Audit results, across time buckets
<b>Dashboards Prompts</b>	Prompt Financial Results 01  Prompt Financial Results with Product Leaf
<b>Report Criteria</b>	Calendar -ALM Results.As-of-Date  Process Scenario.Process Name  Process Scenario.Scenario Name  Time Bucket.Start Date  Time Bucket.End Date  Standard Cash Flow Results.Beginning Balance (60)  Standard Cash Flow Results"."Beginning Net Rate (80)  Standard Cash Flow Results"."Reprice Balance (250)  Standard Cash Flow Results"."Before Reprice Net Rate (280)  Standard Cash Flow Results"."After Reprice Net Rate (290)  Standard Cash Flow Results.Payment Runoff - Positive (190)+Standard Cash Flow Results.Maturity Runoff - Negative (197)  Standard Cash Flow Results"."Maturity Runoff - Positive (195)"+"Standard Cash Flow Results"."Maturity Runoff - Negative (197)  "Standard Cash Flow Results"."Prepay Runoff - Positive (180)"+"Standard Cash Flow Results"."Prepay Runoff - Negative (182)"

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---

Standard Cash Flow Results."Annual Prepay Rate (510)"

ifnull("Standard Cash Flow Results"."Total Runoff - Positive (210)" , 0)  
+ ifnull("Standard Cash Flow Results"."Total Runoff - Negative (212)" ,  
0)

"Standard Cash Flow Results"."Total Runoff Net Rate (230)"

"Standard Cash Flow Results"."Interest Cash Flow (430)"

"Standard Cash Flow Results"."Interest Credited (480)"

"Standard Cash Flow Results"."Total Runoff - Positive  
(210)"+"Standard Cash Flow Results"."Total Runoff - Negative  
(212)"+"Standard Cash Flow Results"."Interest Cash Flow  
(430)"+"Standard Cash Flow Results"."Interest Credited (480)"

"Standard Cash Flow Results"."Interest Accrued (440)"

"Standard Cash Flow Results"."Deferred Runoff (540)"

"Standard Cash Flow Results"."New Add Balance (340)"

"Standard Cash Flow Results"."New Add Net Rate (360)"

"Standard Cash Flow Results"."Roll Add Balance (380)"

"Standard Cash Flow Results"."Roll Add Net Rate (400)"

"Standard Cash Flow Results"."New Add Balance (340)"+"Standard  
Cash Flow Results"."Roll Add Balance (380)"

"Standard Cash Flow Results"."End Balance (100)"

"Standard Cash Flow Results"."Ending Net Rate (120)"

"Standard Cash Flow Results"."Fully Indexed Net Rate (330)"

"Standard Cash Flow Results"."Average Balance (140)"

"Standard Cash Flow Results"."Avg Net Rate (160)"

"Standard Cash Flow Results"."Warm (500)"

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	"Standard Cash Flow Results"."Interest Accrued Net (441)"
	"Standard Cash Flow Results"."Non Interest Expense (457)"
	"Standard Cash Flow Results"."Balance Before Prepay (515)"
	Currency.Currency Cd
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title
	Pivot Table

---

## 21. Net Income Confidence Intervals

---

<b>Report Name(s)</b>	Net Income Confidence Intervals
<b>Description</b>	Report display Earnings at Risk outputs for specified confidence intervals
<b>Dashboards Prompts</b>	Prompt EAR_002
<b>Report Criteria</b>	Stochastic Process Details.Process Name
	"Time Buckets"."End Date"
	"Earnings-at-Risk"."Rate Path Num"
	NTILE("Earnings-at-Risk"."Net Income",50)
	PERCENTILE("Earnings-at-Risk"."Net Income")
	AVG("Earnings-at-Risk"."Net Income" by "Time Buckets"."End Date")
	STDDEV("Earnings-at-Risk"."Net Income")
	Avg("Earnings-at-Risk"."Net Income")*-1

---

---

<b>Conditions</b>	STDDEV("Earnings-at-Risk"."Net Income") >= 0.99  STDDEV("Earnings-at-Risk"."Net Income") >= 0.95
<b>Compound Layout</b>	Title  Graph  Table

---

## 22. EAR Frequency Distribution

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<b>Report Name(s)</b>	EAR Frequency Distribution
<b>Description</b>	Report displays the frequency distribution of EaR earnings results
<b>Dashboards Prompts</b>	Prompt Earning at Risk
<b>Report Criteria</b>	"Earnings-at-Risk".Earnings  BIN: floor(@{EAR_001}{20}*(Case when "Earnings-at-Risk".Earnings = min("Earnings-at-Risk".Earnings) then 0.01 when "Earnings-at-Risk".Earnings = max("Earnings-at-Risk".Earnings) then 0.99 else ("Earnings-at-Risk".Earnings-min("Earnings-at-Risk".Earnings)) / (max("Earnings-at-Risk".Earnings)-MIN("Earnings-at-Risk".Earnings)) end))+1  ntile("Earnings-at-Risk".Earnings,10)  COUNT(DISTINCT "Earnings-at-Risk"."Rate Path Num")  "Earnings-at-Risk"."Rate Path Num"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Pivot Table

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Graph

Pivot Table 2

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### 23. Yearly EAR Frequency Distribution

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<b>Report Name(s)</b>	Yearly EAR Frequency Distribution
<b>Description</b>	Report displays the frequency distribution of EaR earnings results distributed by forecast year
<b>Dashboards Prompts</b>	Prompt EAR_002
<b>Report Criteria</b>	"Calendar - ALM Results"."Per Name Year"  "Earnings-at-Risk".Earnings  "Earnings-at-Risk"."Rate Path Num"  floor(@{EAR_001}{20}*(Case when "Earnings-at-Risk".Earnings = min("Earnings-at-Risk".Earnings) then 0.01 when "Earnings-at-Risk".Earnings = max("Earnings-at-Risk".Earnings) then 0.99 else ("Earnings-at-Risk".Earnings- min("Earnings-at-Risk".Earnings)) / (max("Earnings-at-Risk".Earnings) -MIN("Earnings-at-Risk".Earnings)) end))+1  max("Earnings-at-Risk".Earnings by (floor(@{EAR_001}{20}*(Case when "Earnings-at-Risk".Earnings = min("Earnings-at-Risk".Earnings) then 0.01 when "Earnings-at-Risk".Earnings = max("Earnings-at-Risk".Earnings) then 0.99 else ("Earnings-at-Risk".Earnings- min("Earnings-at-Risk".Earnings)) / (max("Earnings-at-Risk".Earnings) -MIN("Earnings-at-Risk".Earnings)) end))+1 )
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Graph

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Graph (2)

Graph (3)

Pivot Table

Pivot Table (3)

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## 24. EAR Distribution by Year Forecasted

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<b>Report Name(s)</b>	EAR Distrubution By Year Forecasted
<b>Description</b>	Reports displays earnings results with each year of forecast aligned for comparison
<b>Dashboards Prompts</b>	Prompt EAR_002
<b>Report Criteria</b>	"Calendar - ALM Results"."Per Name Year"  "Earnings-at-Risk".Earnings  "Earnings-at-Risk"."Rate Path Num"  floor(@{EAR_001}{20}*(Case when "Earnings-at-Risk".Earnings = min("Earnings-at-Risk".Earnings by "Calendar - ALM Results"."Per Name Year") then 0.01 when "Earnings-at-Risk".Earnings = max("Earnings-at-Risk".Earnings by "Calendar - ALM Results"."Per Name Year" ) then 0.99 else ("Earnings-at-Risk".Earnings-min("Earnings-at-Risk".Earnings by "Calendar - ALM Results"."Per Name Year" )) / (max("Earnings-at-Risk".Earnings by "Calendar - ALM Results"."Per Name Year" ) -MIN("Earnings-at-Risk".Earnings by "Calendar - ALM Results"."Per Name Year" ) end))+1
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Pivot Table

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Pivot Table (2)

Graph

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## 25. Interest Rate Cloud

---

<b>Report Name(s)</b>	Interest Rate Cloud
<b>Description</b>	Report displays the 1m Interest Rates generated by the Monte Carlo process for all rate paths including forward rates
<b>Dashboards Prompts</b>	Prompt Interest Rate Cloud  Prompt Interest Rate Cloud New
<b>Report Criteria</b>	"Calendar - ALM Results"."As-of-Date"  "Time Buckets"."Bucket Id"  "Fact Stochastic Interest Rates"."Net Rate"  "Fact Stochastic Interest Rates"."Rate Path Num"
<b>Conditions</b>	Fact Stochastic Interest Rates"."Rate Path Num" <= @{PATH}{100}
<b>Compound Layout</b>	Title  Graph

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## 26. Income Distribution Min / Max / Avg

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<b>Report Name(s)</b>	Net_Income_25_3
<b>Description</b>	Report displays average earnings across all rates paths along with minimum and maximum earnings results from the simulation over forecast time buckets

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---

<b>Dashboards Prompts</b>	Prompt EAR_002
<b>Report Criteria</b>	"Stochastic Process Details"."Process Id" "Time Buckets"."End Date" "Earnings-at-Risk"."Rate Path Num" "Earnings-at-Risk"."Net Interest Income" AVG("Earnings-at-Risk"."Net Interest Income" by "Time Buckets"."End Date") Max("Earnings-at-Risk"."Net Interest Income" by "Time Buckets"."End Date") Min("Earnings-at-Risk"."Net Interest Income" by "Time Buckets"."End Date")
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title Graph

---

## 27. Net Income Distribution Min 3 / Max 3 / Avg

---

<b>Report Name(s)</b>	Net_Income_25_5
<b>Description</b>	Report displays average earnings across all rates paths along with top 3 and bottom 3 earnings results from the simulation over forecast time buckets
<b>Dashboards Prompts</b>	Prompt EAR_002
<b>Report Criteria</b>	"Time Buckets"."End Date" "Earnings-at-Risk"."Rate Path Num"

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AVG("Earnings-at-Risk"."Net Interest Income" by "Time Buckets"."End Date")

Max("Earnings-at-Risk"."Net Interest Income" by "Time Buckets"."End Date")

Min("Earnings-at-Risk"."Net Interest Income" by "Time Buckets"."End Date")

CASE WHEN RANK("Earnings-at-Risk"."Net Interest Income" BY "Time Buckets"."End Date") = 2 THEN "Earnings-at-Risk"."Net Income" END

CASE WHEN RANK("Earnings-at-Risk"."Net Interest Income" BY "Time Buckets"."End Date") = (max (RANK("Earnings-at-Risk"."Net Interest Income" BY "Time Buckets"."End Date"))) -1) THEN "Earnings-at-Risk"."Net Income" END

CASE WHEN RANK("Earnings-at-Risk"."Net Interest Income" BY "Time Buckets"."End Date") = 3 THEN "Earnings-at-Risk"."Net Income" END

CASE WHEN RANK("Earnings-at-Risk"."Net Interest Income" BY "Time Buckets"."End Date") = (max (RANK("Earnings-at-Risk"."Net Interest Income" BY "Time Buckets"."End Date"))) -1) THEN "Earnings-at-Risk"."Net Income" END

**Conditions** < None >

**Compound Layout** Title  
Graph

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## 28. Interest Dispersion

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**Report Name(s)** Net Income 100

**Description** Report displays earnings for all rate paths across time buckets

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<b>Dashboards Prompts</b>	Prompt EAR_002
<b>Report Criteria</b>	"Stochastic Process Details"."Process Id" "Time Buckets"."End Date" "Earnings-at-Risk"."Rate Path Num" "Earnings-at-Risk"."Net Income" AVG("Earnings-at-Risk"."Net Income" by "Time Buckets"."End Date")
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Graph

---

### 29. Liquidity Gap Summary in Base Currency

### 30. Liquidity Gap Summary in Consolidated Currency

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<b>Report Name(s)</b>	Liquidity Gap Summary in Base Currency  Liquidity Gap Summary in Consolidated Currency
<b>Description</b>	Report displays a summary view of liquidity gap cash flows over liquidity gap time buckets.
<b>Dashboards Prompts</b>	Prompt As of Date  Prompt Liquidity Gap 01 Test1 11g  Prompt Liquidity Gap 01 Test3 11g  Prompt Liquidity Gap 02 New  Prompt Liquidity Gap 03

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<b>Report Criteria</b>	"Time Buckets"."Start Date"
	"Time Buckets"."End Date"
	"Time Buckets"."Bucket Name"
	"Time Buckets"."Bucket Id"
	"Liquidity Risk Gap"."Total Inflows Base"
	"Liquidity Risk Gap"."Total Outflows Base"
	"Liquidity Risk Gap"."Net Liquidity Gap Base"
	"Liquidity Risk Gap"."Net Gap as % of Total Outflows Base"
	"Liquidity Risk Gap"."Cumulative Liquidity Gap Base"
	"Liquidity Risk Gap"."Gap Limit"
	"Liquidity Risk Gap"."Net Gap as % of Total Outflows Base"- "Liquidity Risk Gap"."Gap Limit"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title
	Graph

---

### 31. Liquidity Gap Across Time in Base Currency

### 32. Liquidity Gap Across Time in Consolidated Currency

---

<b>Report Name(s)</b>	Liquidity Gap Across Time in Base Currency
	Liquidity Gap Across Time in Consolidated Currency
<b>Description</b>	Report displays the Gap Amount trend over historical time for a single gap bucket.

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---

**Dashboards Prompts** Prompt Liquidity Gap 01 Test1\_new  
Prompt Liquidity Gap 01 Across Time  
Prompt Liquidity Gap 02 (Across Time New)  
Prompt Liquidity Gap 03

**Report Criteria** "Time Buckets"."Start Date"  
"Time Buckets"."End Date"  
"Time Buckets"."Bucket Id"  
"Time Buckets"."Bucket Name"  
"Calendar - ALM Results"."As-of-Date"  
"Currency"."Base Currency"  
"Liquidity Risk Gap"."Net Liquidity Gap Base"  
rsum("Liquidity Risk Gap"."Net Liquidity Gap")

**Conditions** < None >

**Compound Layout** Title  
View Selector  
Narrative  
Pivot Table 4

---

### 33. Liquidity Gap Detail - Product in Base Currency

### 34. Liquidity Gap Detail - Product in Consolidated Currency

---

<b>Report Name(s)</b>	Liquidity Gap Detail - Product in Base Currency  Liquidity Gap Detail - Product in Consolidated Currency
<b>Description</b>	Report displays the Gap Amount by Product across liquidity time buckets
<b>Dashboards Prompts</b>	Prompt Liquidity Gap 01  Prompt Liquidity Gap 02  Prompt Liquidity Gap 03
<b>Report Criteria</b>	"Time Buckets"."Start Date"  "Time Buckets"."End Date"  "Time Buckets"."Bucket Name"  case when Product."Account Type" in (100,110) then 'Total Inflows' when Product."Account Type" in (800) and "Liquidity Risk Gap"."Leg Type"=2 then 'Total Inflows' when Product."Account Type" in (300,310) then 'Total Outflows' when Product."Account Type" in (800) and "Liquidity Risk Gap"."Leg Type"=1 then 'Total Outflows' else 'Others' end  Product."Product Name Level18"  "Currency"."Base Currency"  ifnull("Liquidity Risk Gap"."LR Gap Principal Runoff (1661)"+"Liquidity Risk Gap"."LR Interest CF Net (1672)",0)
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Pivot Table

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### 35. LR BucketWise Summary Business Type Bucket Name

### 36. LR BucketWise Summary Business Type in Cons Currency Bucket Name

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<b>Report Name(s)</b>	LR BucketWise Summary Business Type Bucket Name  LR BucketWise Summary Business Type in Cons Currency Bucket Name
<b>Description</b>	Report displays the Gap Amount by Result Type across liquidity time buckets
<b>Dashboards Prompts</b>	Prompt Liquidity Gap 01  Prompt Liquidity Gap 02 (Business Type)  Prompt Liquidity Gap 03
<b>Report Criteria</b>	"Time Buckets"."Start Date"  "Time Buckets"."End Date"  "Time Buckets"."Bucket Name"  "Result Type"."Result Type"  "Currency"."Base Currency"  Liquidity Risk Gap."Net Liquidity Gap"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Pivot Table 3

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### 37. Distribution Profile of Term Deposits

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<b>Report Name(s)</b>	Distribution Profile of Term Deposits
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<b>Description</b>	Report displays the balance of Term Deposit funding across Organization Unit
<b>Dashboards Prompts</b>	Prompt - Distribution Profile of Term Deposits
<b>Report Criteria</b>	<p>Remaining Term Bucket."Bucket Name"</p> <p>Organizational Unit."Org Unit Name Level16"</p> <p>Organizational Unit."Org Unit Leaf Name"</p> <p>ifnull("Account Summary"."Cur Net Book Bal C"/1000000,0)</p> <p>"Currency"."Base Currency"</p> <p>Liquidity Risk Gap."Net Liquidity Gap"</p>
<b>Conditions</b>	Prod Type Desc is equal to/is in TERM DEPOSIT
<b>Compound Layout</b>	<p>Title</p> <p>Pivot Table</p> <p>Pivot Table 2</p>

---

### 38. Market Value Summary in Base Currency

### 39. Market Value Summary in Consolidated Currency

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<b>Report Name(s)</b>	<p>Market Value Summary in Base Currency</p> <p>Market Value Summary in Consolidated Currency</p>
<b>Description</b>	Report displays summary Market Value and Market Value of Equity results over historical time
<b>Dashboards Prompts</b>	Prompt Market Value 1

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---

	Prompt Market Value
<b>Report Criteria</b>	Calendar - ALM Results."As-of-Date"
	Master Results."Market Value (Asset)"
	Master Results."Market Value (Liabilities)"
	Master Results."Net Market Value"
	Product."Account Type"
	Currency."Base Currency"   ' )'
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title
	Pivot Table (2)
	Pivot Table

---

#### 40. Market Value Scenarios in Base Currency

#### 41. Market Value Scenarios in Consolidated Currency

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<b>Report Name(s)</b>	Market Value of Equity Pivot
	Market Value of Equity Pivot in Cons Currency
<b>Description</b>	Report displays Market Value Results across scenarios with change versus bench scenario comparison
<b>Dashboards Prompts</b>	Prompt Market Value 1
	Prompt Market Value
<b>Report Criteria</b>	Calendar - ALM Results."As-of-Date"
	Product."Account Type"

---

---

	Currency."Base Currency"   ' )'
	Process Scenario."Scenario Name"
	case when "Process Scenario (Bench)"."Scenario Name"="Process Scenario"."Scenario Name" then 1 end
	Master Results."Market Value"
	Master Results."Market Value (Bench)"
	Master Results."Market Value (Delta To Bench)"
	Master Results."Market Value (Pct To Bench)"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Graph
	Pivot Table

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#### 42. Duration Summary in Base Currency

#### 43. Duration Summary in Consolidated Currency

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<b>Report Name(s)</b>	Duration Summary in Base Currency
	Duration Summary in Consolidated Currency
<b>Description</b>	Report displays summary Duration and Duration of Equity results over historical time
<b>Dashboards Prompts</b>	Prompt Market Value 1
	Prompt Market Value
<b>Report Criteria</b>	Calendar - ALM Results."As-of-Date"
	Master Results."Duration (Asset)"

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---

	Master Results."Duration (Liabilities)"
	Master Results."Net Duration"
	Product."Account Type"
	Currency."Base Currency"   ' )'
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title
	Pivot Table (2)
	Pivot Table

---

#### 44. Duration Scenarios in Base Currency

#### 45. Duration Scenarios in Consolidated Currency

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<b>Report Name(s)</b>	Duration of Equity Pivot
	Duration of Equity Pivot in Cons Currency
<b>Description</b>	Report displays Duration Results across scenarios with change versus bench scenario comparison
<b>Dashboards Prompts</b>	Prompt Market Value 1
	Prompt Market Value
<b>Report Criteria</b>	Calendar - ALM Results."As-of-Date"
	Product."Account Type"
	Currency."Base Currency"   ' )'
	Process Scenario."Scenario Name"

---



---

case when "Process Scenario (Bench)"."Scenario Name" = "Process Scenario"."Scenario Name" then 1 end

Master Results."Net Duration"

Master Results."Net Duration (Delta To Bench)"

**Conditions** < None >

**Compound Layout** Title

Pivot Table (2)

Pivot Table

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#### 46. Market Value Detail in Base Currency

#### 47. Market Value Detail in Consolidated Currency

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**Report Name(s)** Market Value Detail Product Wise

Market Value Detail Product Wise Cons Currency

**Description** Report displays market value results for detailed products

**Dashboards Prompts** Prompt Market Value 1

Prompt Market Value

**Report Criteria** Calendar - ALM Results."As-of-Date"

Product."Account Type"

Product."Product Name Level18"

Master Results."Market Value"

**Conditions** < None >

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**Compound Layout** Title (2)

Pivot Table

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**48. Market Value Product Detail scenario comparison in Base Currency**

**49. Market Value Product Detail scenario comparison in Consolidated Currency**

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**Report Name(s)** Market Value Product Detail by Scenario in Base Currency

Market Value Product Detail by Scenario in Cons Currency

**Description** Report displays market value results for a selected product with comparison across scenarios

**Dashboards Prompts** Prompt Market Value 1

Prompt Market Value

**Report Criteria** Calendar - ALM Results."As-of-Date"

Product."Product Name Level18"

case when "Process Scenario (Bench)"."Scenario Name"="Process Scenario"."Scenario Name" then 1 end

Master Results."Market Value"

Master Results."Market Value (Bench)"

Master Results."Market Value (Delta To Bench)"

Master Results."Market Value (Pct To Bench)"-100

**Conditions** < None >

**Compound Layout** Title

Pivot Table

---

**50. Duration Detail in Base Currency**

## 51. Duration Detail in Consolidated Currency

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<b>Report Name(s)</b>	Duration Detail Product Wise in Base Currency Duration Detail Product Wise Cons Currency
<b>Description</b>	Report displays Duration results for detailed products
<b>Dashboards Prompts</b>	Prompt Market Value 1 Prompt Market Value
<b>Report Criteria</b>	Calendar - ALM Results."As-of-Date" Product."Account Type" Product."Product Name Level18" Master Results.Duration
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title (2) Pivot Table

---

## 52. Duration Detail by Scenario in Base Currency

## 53. Duration Detail by Scenario in Consolidated Currency

---

<b>Report Name(s)</b>	Duration Product Detail by Scenario in Base Currency Duration Product Detail by Scenario in Cons Currency
<b>Description</b>	Report displays Duration results for a selected product with comparison across scenarios
<b>Dashboards Prompts</b>	Prompt Market Value 1 Prompt Market Value

---

---

<b>Report Criteria</b>	Calendar - ALM Results."As-of-Date"
	Currency."Base Currency"
	Product."Product Name Level18"
	Process Scenario."Scenario Name"
	case when "Process Scenario (Bench)"."Scenario Name"="Process Scenario"."Scenario Name" then 1 end
	Master Results.Duration
	Master Results."Duration (Bench)"
	Master Results."Duration (Delta To Bench)"
	Master Results."Duration (Pct To Bench)"-100

**Conditions** < None >

**Compound Layout** Title  
Pivot Table

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#### 54. Top N Market Value

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<b>Report Name(s)</b>	Top N Market Value
<b>Description</b>	Report displays a ranking of Products based on Market/Book ratio
<b>Dashboards Prompts</b>	Prompt MV Ranks 1 Prompt Market Value Prompt - Top N Rank
<b>Report Criteria</b>	Product."Product Leaf Name"

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	Master Results."Market Value (Rank)"
	Master Results."Market Value"
	Master Results."Cur Par Bal"+"Master Results"."Cur Defer Bal C"
	Master Results."Market Value"/("Master Results"."Cur Par Bal"+"Master Results"."Cur Defer Bal C")*100
	Master Results.Duration
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title
	Table
	Graph

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## 55. Top N Duration

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<b>Report Name(s)</b>	Top N Duration
<b>Description</b>	Report displays a ranking of Products based on Duration
<b>Dashboards Prompts</b>	Prompt - Duration Ranks 1
	Prompt Market Value
	Prompt - Top N Duration
<b>Report Criteria</b>	Product."Product Leaf Name"
	Master Results."Duration (Rank)"
	Master Results."Market Value"
	Master Results."Cur Par Bal"+"Master Results"."Cur Defer Bal C"

---

---

	Master Results."Market Value"/("Master Results"."Cur Par Bal"+"Master Results"."Cur Defer Bal C")*100
	Master Results.Duration
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title
	Table
	Graph

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## 56. Value at Risk Probabilities

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<b>Report Name(s)</b>	VaR Probabilities
<b>Description</b>	Report displays Total VaR results by Probability Decile
<b>Dashboards Prompts</b>	Prompt VaR Probabilities Dtl
<b>Report Criteria</b>	Stochastic Process Details."Process Type And Id"
	cast("Value-at-Risk"."Var Term" as char)    ' - '    "Value-at-Risk"."Var Term Mult"
	cast("Value-at-Risk"."Var Term" as char(2))    ' - '    "Value-at-Risk"."Var Term Mult"
	Value-at-Risk."Value At Risk"
	Value-at-Risk."Probability Decile"
	Value-at-Risk."Avg Probability"
	Value-at-Risk."Gross Probability"
<b>Conditions</b>	< None >

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<b>Compound Layout</b>	Title
	Graph
	Graph (2)
	Pivot Table

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### 57. Value at Risk Probabilities Detail

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<b>Report Name(s)</b>	VaR Probabilities Detail
<b>Description</b>	Report displays VaR results by Probability Decile
<b>Dashboards Prompts</b>	Prompt VaR Probabilities Dtl
<b>Report Criteria</b>	Stochastic Process Details."Process Name"  Value-at-Risk."Rate Path Num"  cast("Value-at-Risk"."Var Term" as char(3))    ' - '    "Value-at-Risk"."Var Term Mult"  Value-at-Risk."Value At Risk"  Value-at-Risk."Avg Probability"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title
	Graph
	Pivot Table

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### 58. IRC History across term

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<b>Report Name(s)</b>	IRC History Across Term
<b>Description</b>	Report displays interest rates for a selected IRC over historical time
<b>Dashboards Prompts</b>	Prompt IRC Name and Currency  Prompt Historical Dates
<b>Report Criteria</b>	Calendar - Fact Data."Calendar Date"  - Interest Rate Curve Master."Iso Currency Cd"  - Interest Rate Curve Master."Irc Name"  - Interest Rate Curve Master."Irc Term"  - IRC Rates (History)."Interest Rate (Avg)"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Pivot Table

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### 59. IRC Forecast across term

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<b>Report Name(s)</b>	IRC Forecast Across Term
<b>Description</b>	Report displays interest rates for a selected IRC over forecast time buckets
<b>Dashboards Prompts</b>	Prompt IRC Name and Currency  Prompt - Process Scenario  Prompt - Buckets(end date)
<b>Report Criteria</b>	Time Buckets."End Date"

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	- Interest Rate Curve Master."Iso Currency Cd"
	- Interest Rate Curve Master."Irc Name"
	- Interest Rate Curve Master."Irc Term"
	Calendar - ALM Results."As-of-Date"
	- Interest Rate Curve Master."Irc Term (# Of Days)"
	- IRC Rates (Forecast)."Interest Rate Fcst (Avg)"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title
	Pivot Table

---

## 60. IRC History across dates

---

<b>Report Name(s)</b>	IRC History Across Dates
<b>Description</b>	Report plots individual term points for a selected IRC over historical time
<b>Dashboards Prompts</b>	Prompt IRC Name and Currency
	Prompt - Historical Dates
<b>Report Criteria</b>	Calendar - Fact Data."Calendar Date"
	- Interest Rate Curve Master."Iso Currency Cd"
	- Interest Rate Curve Master."Irc Name"
	- Interest Rate Curve Master."Irc Term"
	- IRC Rates (History)."Interest Rate (Avg)"

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**Conditions** < None >

**Compound Layout** Title

Pivot Table

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## 61. IRC Forecast across dates

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**Report Name(s)** IRC Forecast Across Dates

**Description** Report plots individual term points for a selected IRC over Forecast time

**Dashboards Prompts** Prompt IRC Name and Currency

Prompt - Process Scenario.

Prompt - Buckets (End date)

**Report Criteria** Time Buckets."End Date"

- Interest Rate Curve Master."Iso Currency Cd"

- Interest Rate Curve Master."Irc Name"

- Interest Rate Curve Master."Irc Term"

- IRC Rates (Forecast)."Interest Rate Fcst (Avg)"

Calendar - ALM Results."As-of-Date"

**Conditions** < None >

**Compound Layout** Title

Pivot Table

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## 62. IRC Benchmark

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<b>Report Name(s)</b>	IRC Benchmark
<b>Description</b>	Report compares forecast rates per scenario to benchmark scenario rates
<b>Dashboards Prompts</b>	Prompt - Forecast Date  Prompt - IRC Name and Currency  Prompt - Process Scenario  Prompt - Buckets(End date)
<b>Report Criteria</b>	Time Buckets."End Date"  Process Scenario."Process Name"  Process Scenario."Scenario Num"  Process Scenario."Scenario Name"  - IRC Rates (Forecast)."Interest Rate Fcst (Avg)"  - IRC Rates (Forecast)."Interest Rate Fcst (Bench Avg)"  - IRC Rates (Forecast)."Interest Rate Fcst (Pct To Bench)"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Graph  Graph(2)  Graph(3)  Graph(4)

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### 63. IRC Fcst x Days

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<b>Report Name(s)</b>	IRC Fcst Over Time 11g
<b>Description</b>	Report shows Forecast Rates - (entire yield curve) for selected scenarios across time
<b>Dashboards Prompts</b>	<p>Prompt - Forecast Date</p> <p>Prompt - IRC Name and Currency</p> <p>Prompt - Process Scenario</p> <p>Prompt - Buckets(End date)</p>
<b>Report Criteria</b>	<p>- IRC Rates (Forecast)."Interest Rate Fcst (Avg)"</p> <p>- Interest Rate Curve Master."Irc Term"</p> <p>Time Buckets."Start Date"</p> <p>Time Buckets."End Date"</p> <p>- Interest Rate Curve Master."Irc Term (# Of Days)"</p> <p>- Interest Rate Curve Master."Irc Name"</p> <p>Process Scenario."Process Name"</p> <p>Process Scenario."Process Id"</p> <p>- Interest Rate Curve Master."Iso Currency Cd"</p>
<b>Conditions</b>	< None >
<b>Compound Layout</b>	<p>Title</p> <p>Pivot Table(2)</p> <p>Pivot Table(3)</p> <p>Pivot Table</p>

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## 64. History and Forecast – Interest Rates

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<b>Report Name(s)</b>	IRC History and Forecast
<b>Description</b>	Report shows historical rates and forecast rates on a single graph
<b>Dashboards Prompts</b>	Prompt - Historical Dates  Prompt - Process Scenario  Prompt - Buckets(End date)  Prompt - IRC Name and Currency (single selection)
<b>Report Criteria</b>	Calendar - Fact Data."Calendar Date"  Time Buckets"."End Date"  - IRC Rates (Forecast)."Interest Rate Fcst (Avg)"  - IRC Rates (History)."Interest Rate (Avg)"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Graph

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## 65. History and Forecast – Economic Indicators

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<b>Report Name(s)</b>	Eco Ind History and Forecast
<b>Description</b>	Report shows historical and forecast Economic Indicators on a single graph
<b>Dashboards Prompts</b>	Prompt - Historical Dates  Prompt - Process Scenario  Prompt - Buckets(End date)

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	Prompt - Economic Indicator Names (single selection)
<b>Report Criteria</b>	Calendar - Fact Data."Calendar Date"  - Economic Indicator (History)."Economic Indicator Value Chg"  Time Buckets."End Date"  - Economic Indicator (Forecast)."Economic Indicator Value Chg"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Graph

---

## 66. History and Forecast – Currency Rates

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<b>Report Name(s)</b>	FX History and Forecast
<b>Description</b>	Report shows historical and forecast Currency Rates on a single graph
<b>Dashboards Prompts</b>	Prompt - Historical Dates  Prompt - Process Scenario  Prompt - Buckets(End date)  Prompt FX Currency (From-To)
<b>Report Criteria</b>	Calendar - Fact Data."Calendar Date"  - Exchange Rates (History)."Fx Rate Hist (Avg)"  Time Buckets."End Date"  - Exchange Rates (Forecast)."Fx Rate Audit"
<b>Conditions</b>	< None >

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<b>Compound Layout</b>	Title
	Graph

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### 67 FX History

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<b>Report Name(s)</b>	FX History
<b>Description</b>	Report shows historical FX Rates (average, moving average, minimum, maximum)
<b>Dashboards Prompts</b>	Prompt FX Currency Hist
<b>Report Criteria</b>	- Exchange Rate Master."From -To Currency"  Calendar - Fact Data."Calendar Date"  - Exchange Rates (History)."Fx Rate Hist (Avg)"  - Exchange Rates (History)."Fx Rate Hist (Mavg)"  - Exchange Rates (History)."Fx Rate Hist (Min)"  - Exchange Rates (History)."Fx Rate Hist (Max)"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Pivot Table  Pivot Table(2)

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### 68. FX Forecast

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<b>Report Name(s)</b>	FX Forecast
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<b>Description</b>	Report shows forecast FX Rates
<b>Dashboards Prompts</b>	Prompt FX Currency  Prompt - Process Scenario  Prompt - Buckets(End date)
<b>Report Criteria</b>	Calendar - ALM Results."As-of-Date"  Time Buckets."Start Date"  Time Buckets."End Date"  - Exchange Rate Master."From -To Currency"  - Exchange Rates (Forecast)."Fx Rate Audit"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Pivot Table  Pivot Table(2)

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## 69. Economic Indicator History

---

<b>Report Name(s)</b>	Key Economic Indicators - History
<b>Description</b>	Report shows historical Economic Indicators
<b>Dashboards Prompts</b>	Prompt - Economic Indicator Names  Prompt - Historical Dates
<b>Report Criteria</b>	Calendar - Fact Data."Calendar Date"  - Economic Indicator (History)."Economic Indicator Value Chg"

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	- Economic Indicator Master."Economic Indicator Name"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title
	Graph

---

## 70. Economic Indicator Forecast

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<b>Report Name(s)</b>	Key Economic Indicators - Fcst
<b>Description</b>	Report shows forecast Economic Indicators
<b>Dashboards Prompts</b>	Prompt - Economic Indicator Names
	Prompt - Process Scenario
	Prompt - Buckets (End date)
<b>Report Criteria</b>	Calendar - ALM Results."As-of-Date"
	Time Buckets."End Date"
	- Economic Indicator (Forecast)."Economic Indicator Value Chg"
	- Economic Indicator Master."Economic Indicator Name"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title
	Pivot Table

---

## 71. IRC – Econ Ind – FX Rates Forecast

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<b>Report Name(s)</b>	IRC Fcst vs Related Economic Indicators Fcst vs FX Fcst
<b>Description</b>	Report compares Forecast Interest Rates, Forecast Currency Rates and Forecast Economic Indicators across time buckets
<b>Dashboards Prompts</b>	<p>Prompt - IRC Name and Currency</p> <p>Prompt FX Currency (From-To)</p> <p>Prompt - Economic Indicator Names</p> <p>Prompt - Historical Dates</p> <p>Prompt - Forecast Date</p> <p>Prompt - Process Scenario</p> <p>Prompt - Buckets(End date)</p>
<b>Report Criteria</b>	<ul style="list-style-type: none"> <li>- Economic Indicator (Forecast)."Economic Indicator Value Chg"</li> <li>- Economic Indicator Master."Economic Indicator Name"</li> <li>- IRC Rates (Forecast)."Interest Rate Fcst (Avg)"</li> <li>- Exchange Rate Master."From -To Currency"</li> <li>- IRC Rates (Forecast)."Interest Rate Fcst (Avg)"</li> <li>- Interest Rate Curve Master."Irc Name"</li> <li>Calendar - ALM Results."As-of-Date"</li> <li>Time Buckets."End Date"</li> </ul>
<b>Conditions</b>	< None >
<b>Compound Layout</b>	<p>Title</p> <p>Pivot Table</p>

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## 72. ALM Process Deterministic Assumption Map

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<b>Report Name(s)</b>	Assumptions - RM Std Assumption Map
<b>Description</b>	Reports displays deterministic ALM Processes with related embedded assumption rules
<b>Dashboards Prompts</b>	< None >
<b>Report Criteria</b>	Process Assumption Matrix."Result Sys Id"  Process Assumption Matrix."Result Header Desc Short"  Process Assumption Matrix."Leaf Characteristics Desc Short"  Process Assumption Matrix."Discount Rate Desc Short"  Process Assumption Matrix."Pre Payments Desc Short"  Process Assumption Matrix."Rates Desc Short"  Process Assumption Matrix."Pricing Margin Desc Short"  Process Assumption Matrix."Forecast Bal Desc Short"  Process Assumption Matrix."Maturity Auxiliary Desc Short"  Process Assumption Matrix."Transactions Desc Short"  Process Assumption Matrix."Formula Leaves Desc Short"  Process Assumption Matrix."Filter Desc Short"
<b>Conditions</b>	Process Assumption Matrix.Rates Sys ID <> -1
<b>Compound Layout</b>	Title  Table

---

## 73. ALM Process Stochastic Assumption Map

---

<b>Report Name(s)</b>	Assumptions - RM Stoch Assumption Map
<b>Description</b>	Reports displays stochastic ALM Processes with related embedded assumption rules
<b>Dashboards Prompts</b>	< None >
<b>Report Criteria</b>	Process Assumption Matrix."Result Sys Id"  Process Assumption Matrix."Result Header Desc Short"  Process Assumption Matrix."Pre Payments Desc Short"  Process Assumption Matrix."Pricing Margin Desc Short"  Process Assumption Matrix."Forecast Bal Desc Short"  Process Assumption Matrix."Maturity Auxiliary Desc Short"  Process Assumption Matrix."Transactions Desc Short"  Process Assumption Matrix."Formula Leaves Desc Short"  Process Assumption Matrix."Filter Desc Short"
<b>Conditions</b>	Process Assumption Matrix.Rates Sys ID = -1
<b>Compound Layout</b>	Title  Table

---

#### 74. Maturity Strategies

---

<b>Report Name(s)</b>	Assumptions - Maturity Strategies
<b>Description</b>	Reports displays Maturity Mix assumptions
<b>Dashboards Prompts</b>	Prompt - Maturity Auxiliary Desc

---

---

<b>Report Criteria</b>	Product."Product Leaf Name"
	Maturity Auxiliary."Maturity Term"
	Maturity Auxiliary."Amrt Term"
	Maturity Auxiliary."Alloc Percent"

**Conditions** < None >

**Compound Layout** Title

Graph

Table

---

## 75. Pricing Margins

---

<b>Report Name(s)</b>	Assumptions – Pricing Margins
<b>Description</b>	Reports displays Maturity Mix assumptions
<b>Dashboards Prompts</b>	< None >
<b>Report Criteria</b>	Pricing Margin."Pricing Margin Desc Short"
	Product."Product Leaf Name"
	Pricing Margin.Bucket
	Pricing Margin."Gross Rate"
	Pricing Margin."Net Rate"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title

---

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Graph

Pivot Table

---

## 76. Discount Methods

---

<b>Report Name(s)</b>	Assumptions - Discount Rates
<b>Description</b>	Reports displays Discount Method assumptions
<b>Dashboards Prompts</b>	Prompt - Discount Desc
<b>Report Criteria</b>	Product."Product Leaf Name"  Discount Rate."Ccy Cd"  Discount Rate."Discount Rate Method"  - Interest Rate Curve Master."Irc Name"  Discount Rate."Interest Component Type"  Discount Rate."Switches Description"  Discount Rate."Rate Spread"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Table

---

## 77. Product Characteristics

---

<b>Report Name(s)</b>	Assumptions - RM Product Characteristics
<b>Description</b>	Reports displays Product Characteristic assumptions

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---

<b>Dashboards Prompts</b>	Prompt - Product Characteristics
<b>Report Criteria</b>	Product Characteristics."Product Characteristics Desc" Product."Product Leaf Name" Currency."Currency Cd" Product Characteristics."Gross Rates Flg" Product Characteristics."Model With Gross Rates" Product Characteristics."Interest Credited" Product Characteristics."Percent Taxable" Product Characteristics."Currency Gain Loss Basis" Product Characteristics."Pay Equivalent Compound Conversion" Product Characteristics."Interest Rate Cd" Product Characteristics."Amortization Type Code" Product Characteristics."Adjustable Type Code" Product Characteristics."Interest Type" Product Characteristics."Reprice Freq X Mult" Product Characteristics."Payment Freq X Mult"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title Table

---

## 78. Prepayments

---

<b>Report Name(s)</b>	Assumptions - Prepayments
<b>Description</b>	Reports displays Prepayment assumptions
<b>Dashboards Prompts</b>	Prompt - Prepayments_Id
<b>Report Criteria</b>	Prepayment."Prepayment Desc Short"  Product."Product Leaf Number"  Product."Product Leaf Name"  Prepayment."Calc Method"  Prepayment."Cash Flow Treatment Cd"  Prepayment.Quote  Prepayment."Rate Term"  "Prepayment"."Seasonality Flg"  Prepayment."End Origination Date"  Prepayment."Const Ppmt Rate"
<b>Conditions</b>	< None >
<b>Compound Layout</b>	Title  Table

---

## 79. Prepayment Models

---

<b>Report Name(s)</b>	Assumptions - Prepayment Table
<b>Description</b>	Reports displays Prepayment Model assumptions
<b>Dashboards Prompts</b>	Prompt - Prepayments

---



---

<b>Report Criteria</b>	Prepayment."Prepayment Desc Short"
	Prepayment."Origination Term"
	Prepayment."Reprice Term"
	Prepayment."Remaining Term"
	Prepayment."Expired Term"
	Prepayment."Term To Reprice"
	Prepayment."Coupon Rate"
	Prepayment."Market Rate"
	Prepayment."Rate Difference"
	Prepayment."Rate Ratio"
	Prepayment."Ppmt Rate"

**Conditions** < None >

**Compound Layout** Title  
Table

---

## 80. Process Errors

---

<b>Report Name(s)</b>	Audit - Process Errors
<b>Description</b>	Reports displays results from the Process Errors table
<b>Dashboards Prompts</b>	Prompt - Process Error_new
<b>Report Criteria</b>	Dim Process(For Process Errors)."Process Name"
	Dim Process(For Process Errors)."Process Id"

---

---

Process Errors Master."Error Description"
Process Errors Master."Error Code"
Process Errors Master.Severity
Product."Product Leaf Name"
Process Errors Master."Table Name"
Process Errors Master."Id Number"
Process Errors Master."Field Name"
Process Errors Master."Field Value"
Process Errors Master."Corrected Value"

**Conditions** < None >

**Compound Layout** Title  
Table

---

### 81. Detail Cash Flows

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<b>Report Name(s)</b>	Audit - Detail Cash Flows
<b>Description</b>	Reports displays results from the detail cash flow - audit table
<b>Dashboards Prompts</b>	Prompt - Process Cash Flow 1 Prompt - Process Cash Flow
<b>Report Criteria</b>	Process Scenario."Process Name" Process Cash Flows Master."Id Number" Product."Product Leaf Name"

---

---

Process Cash Flows Master."Cashflow Date"

Process Cash Flows Details."End Balance"

Process Cash Flows Details."Ending Gross Rate"/"Process Cash Flows Details"."End Balance"\*100

Process Cash Flows Details."Ending Net Rate"/"Process Cash Flows Details"."End Balance"\*100

Process Cash Flows Details."Ending Transfer Rate"/"Process Cash Flows Details"."End Balance"\*100

Process Cash Flows Details."Prepay Runoff - Positive"

Process Cash Flows Details."Payment Runoff - Positive"

Process Cash Flows Details."Maturity Runoff - Positive"

Process Cash Flows Details."Total Runoff - Positive"

Process Cash Flows Details."Total Runoff Gross Rate"/"Process Cash Flows Details"."Total Runoff - Positive"\*100

Process Cash Flows Details."Total Runoff Net Rate"/"Process Cash Flows Details"."Total Runoff - Positive"\*100

Process Cash Flows Details."Total Runoff Transfer Rate"/"Process Cash Flows Details"."Total Runoff - Positive"\*100

Process Cash Flows Details."Repricing Balance"

Process Cash Flows Details."Before Repricing Gross Rate"/"Process Cash Flows Details"."Repricing Balance"\*100

Process Cash Flows Details."After Repricing Gross Rate"

Process Cash Flows Details."Before Repricing Net Rate"/"Process Cash Flows Details"."Repricing Balance"\*100

Process Cash Flows Details."After Repricing Net Rate"/"Process Cash Flows Details"."Repricing Balance"\*100

---

---

Process Cash Flows Details."Fully Indexed Gross Rate"/"Process Cash Flows Details"."Repricing Balance"\*100

Process Cash Flows Details."Fully Indexed Net Rate"/"Process Cash Flows Details"."Repricing Balance"\*100

Process Cash Flows Details."Interest Cash Flow"

Process Cash Flows Details."Interest Cash Flow Gross"

Process Cash Flows Details."Discount Rate"

Process Cash Flows Details."Annual Prepayment Rate"/"Process Cash Flows Details"."Balance Before Prepay"\*100

Process Cash Flows Details."Balance Before Prepay"

Process Cash Flows Details."Market Value"

Process Cash Flows Details.Duration/"Process Cash Flows Details"."Market Value"

**Conditions** < None >

**Compound Layout** Title

Table

---

## Liquidity Risk (LR) Seeded Reports for Liquidity Risk Management (LRM) Run

For LRM (Liquidity Risk Management) related Runs, the Prompts 'Dynamic Gap Date' and 'Bucket End Date' are not applicable. Hence, the prompt 'Dynamic Gap Date' should be selected to '(Null)' and the second prompt 'Bucket End Date' should be defaulted to blank and no selection to be made while generating LR Report as shown in the following snapshot.

The image shows a configuration dialog box with a light blue background. It contains two dropdown menus at the top. The first dropdown is labeled "Dynamic Gap Date" and currently shows "(Null)". The second dropdown is labeled "Bucket End Date" and is empty. Below the dropdowns are two buttons: "Apply" and "Reset".

To display '(Null)' value in the prompt 'Dynamic Gap Date', Navigate to *05 Liquidity Risk > Liquidity Gap* and configure the following steps.

- Edit the prompt 'Dynamic Gap Date' definition.
- Select 'Choice List Values' to 'SQL Results' and enter the following SQL Statement.  

```
SELECT "Time Buckets"."Parent Start Date" FROM "ALM BI" Where "Time Buckets"."Bucket Type" in ('LR','LRM') order by "Time Buckets"."Parent Start Date" ASC
```
- Click **Ok** and save the Prompt Definition.

**Note:** The above configuration is applicable for ALMBI 5.6 with LRM 2.0 version.



## Creating a custom report

This section provides an example of how to create a custom report using OBIEE + ALM BI.

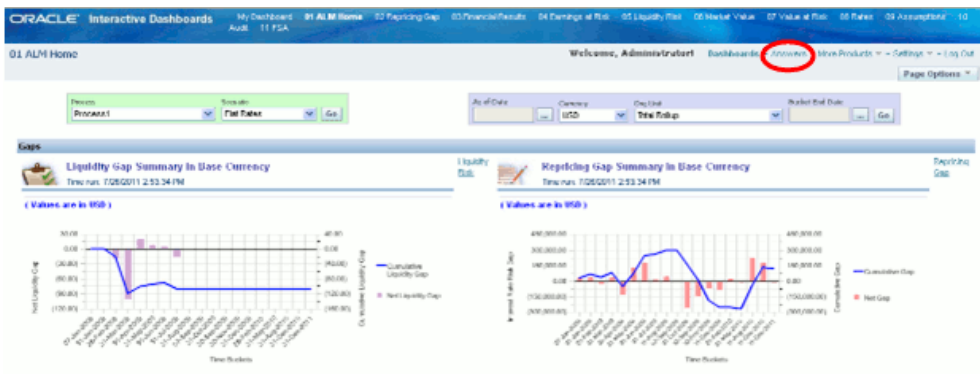
This appendix covers the following topics:

- Steps for Creating a custom report

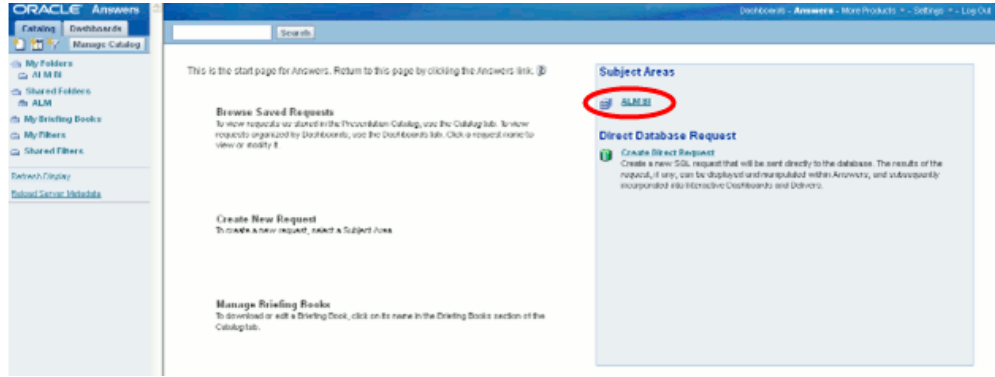
### Steps for Creating a custom report

To create a custom report and add it to an existing Dashboard page, perform the following steps.

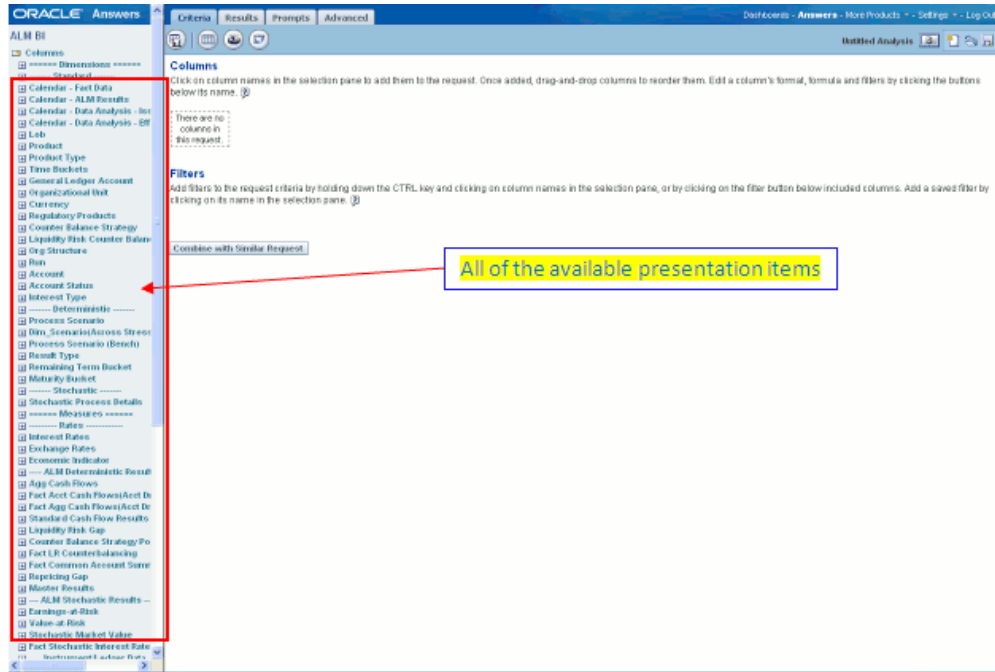
1. Log in to the ALMBI application and click the Answers link available at the top right corner as shown in the following screenshot.



2. Click the Subject Area **ALM BI** to see all the metadata objects available to build the report.

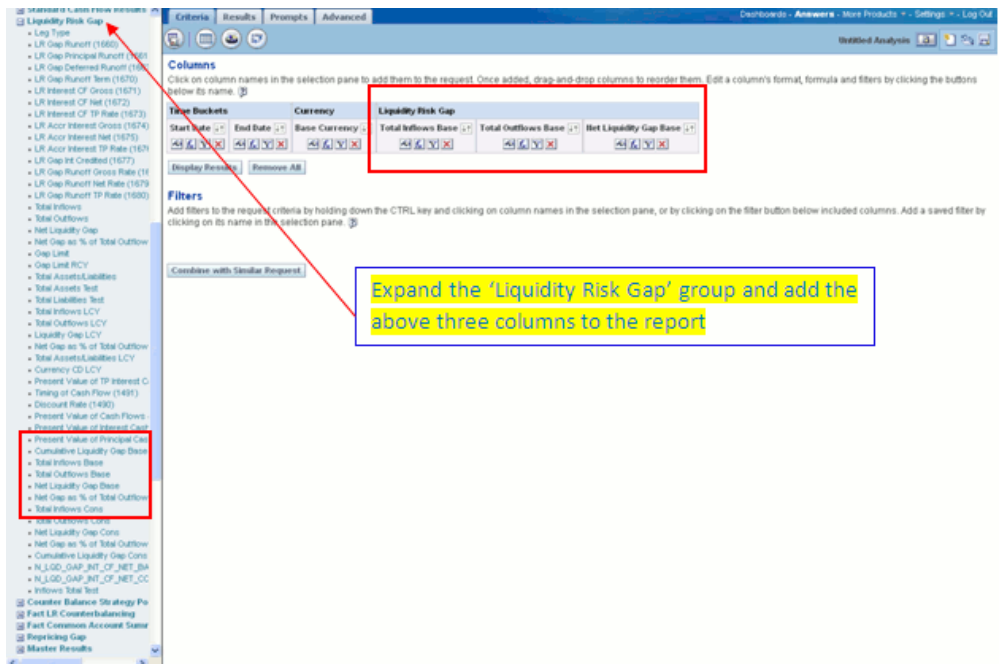
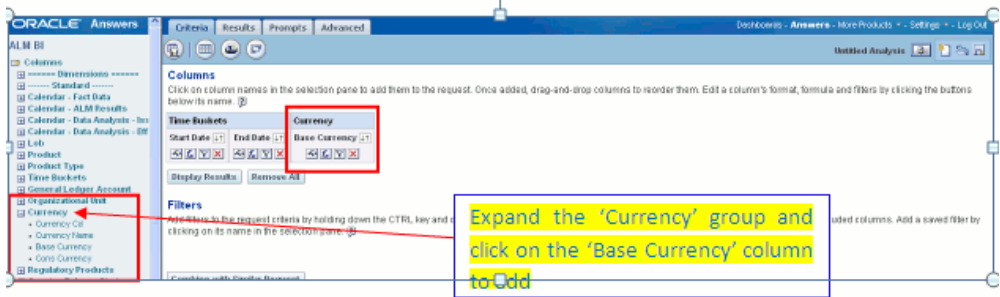
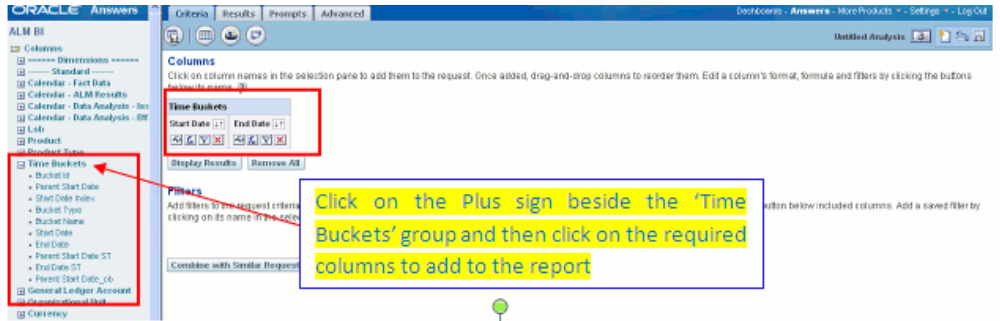


- Once you select the Subject Area ALM BI you can see all of the presentation items available on the left hand side as shown in the following screenshot.

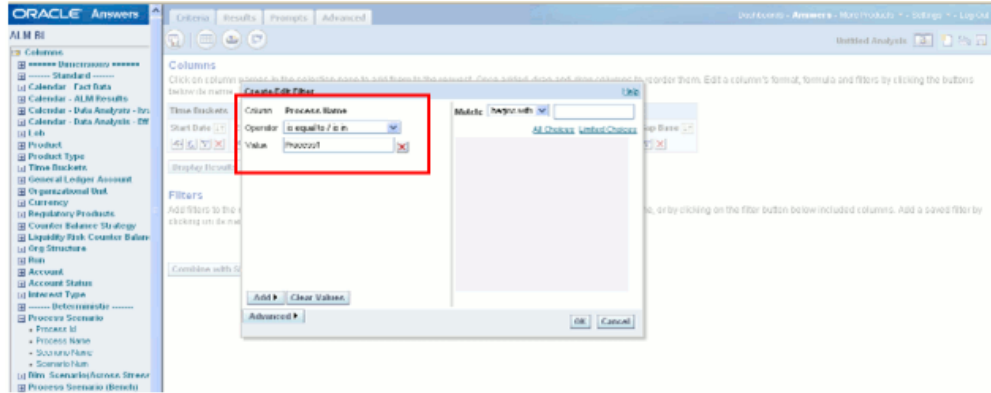


- Select the following columns one after the other from the left as shown in the following screenshot.

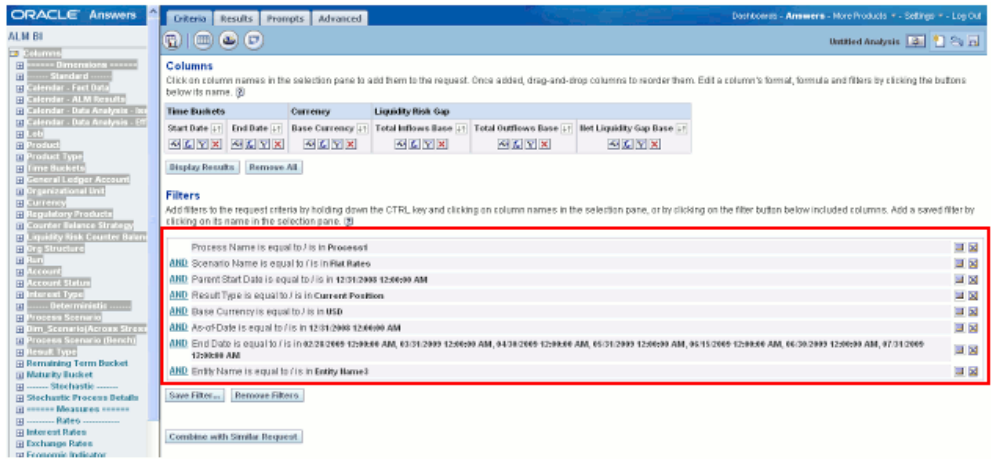




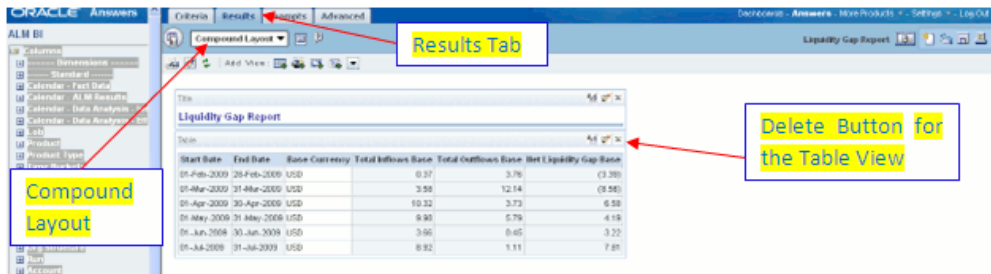
5. You can put filters to restrict the data. To apply filters, **Ctrl+Click** the respective Dimension columns and then provide the filter values as shown in the following screenshot.



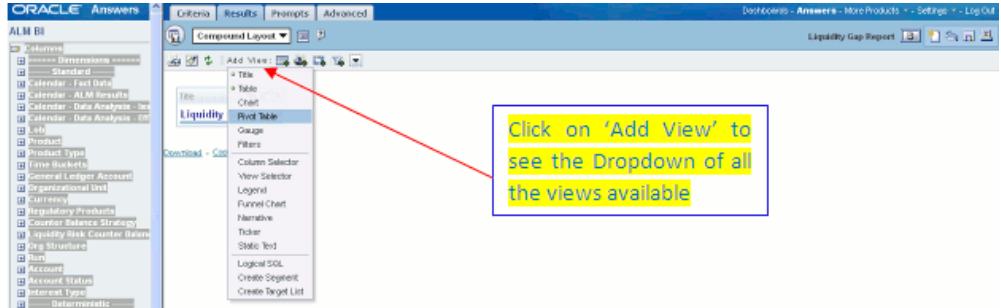
- Repeat the earlier step # 5 to add all the relevant filters to the earlier report and upon adding all the filters, the report should look similar to the one highlighted in red as seen in the following screenshot.



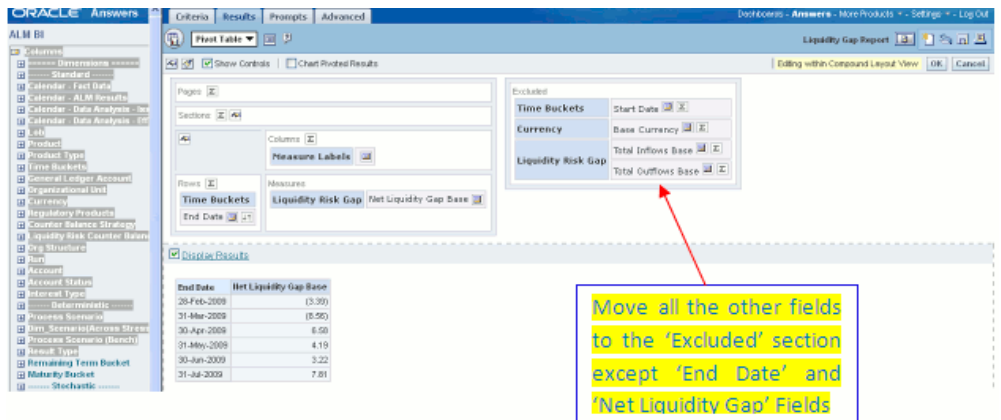
- Click the **Results** tab on the top and delete the Table view available in the Compound Layout by clicking the **delete** button available.



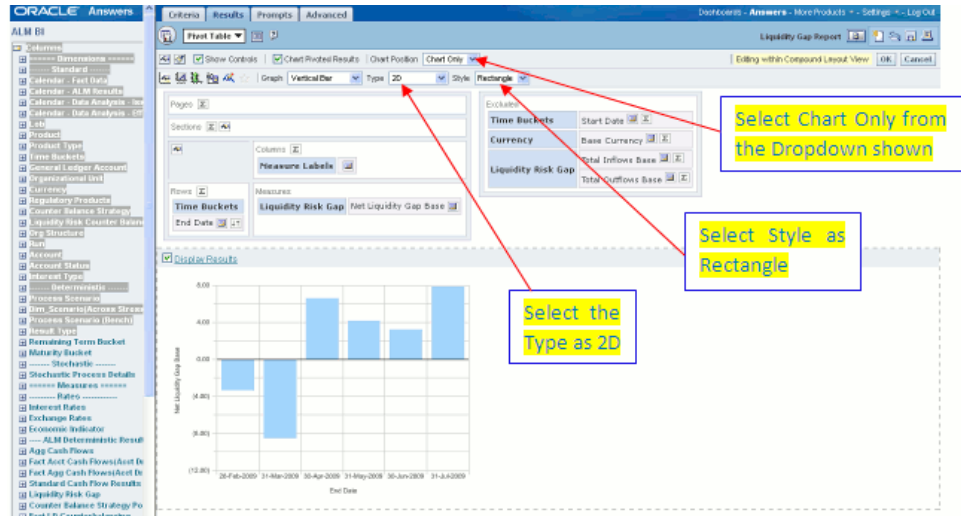
- After deletion of the Table view lets add one Pivot view to the compound layout by selecting it from the list, as shown in the following screenshot.



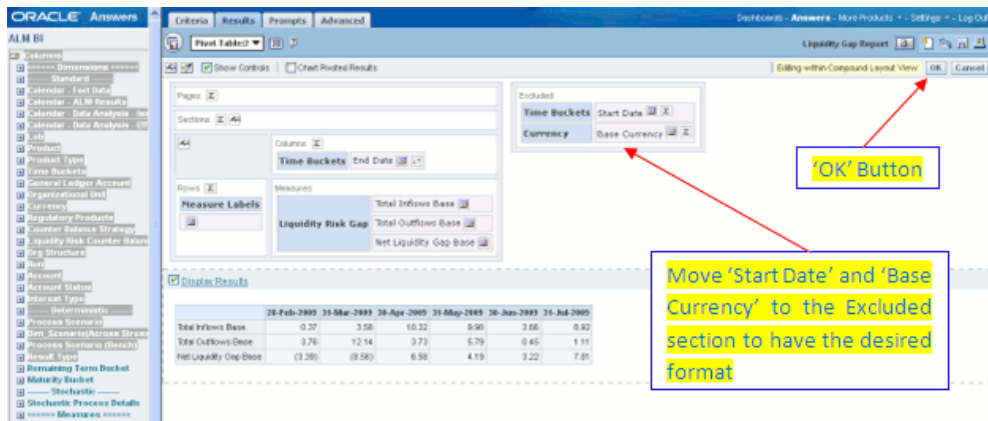
9. After adding the Pivot view lets change the format of the Pivot, as shown in the following screenshot.



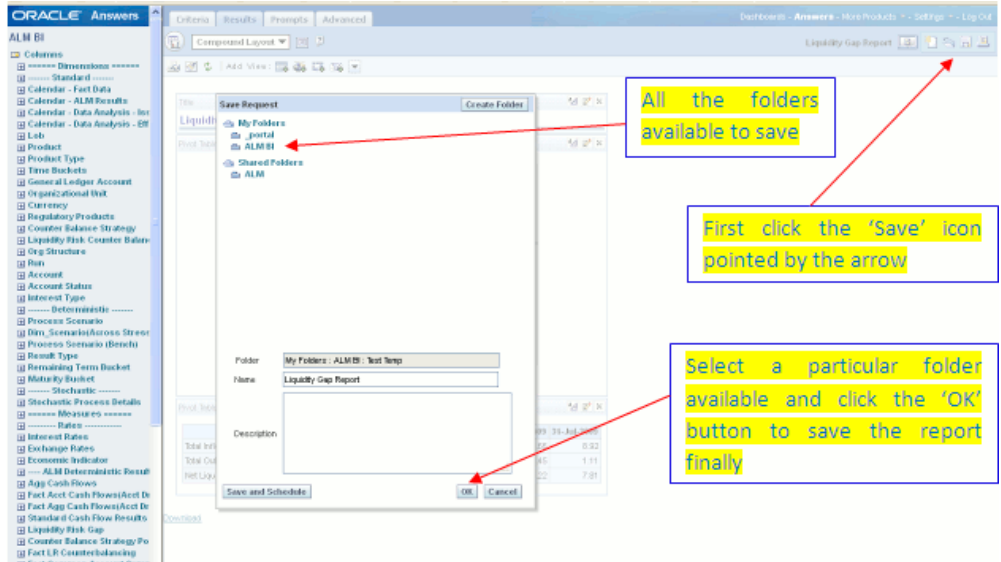
10. Select the check box **Chart Pivoted Results** and do the following changes to the pivot view to get the final Chart view shown in the following screenshot.



- Finally click the **OK** button on the right hand top corner which should take you to the Compound Layout and then repeat the Step # 8 to add one more 'Pivot' view. Then do the following adjustments as shown in the following screenshot.to the newly added 'Pivot' view.



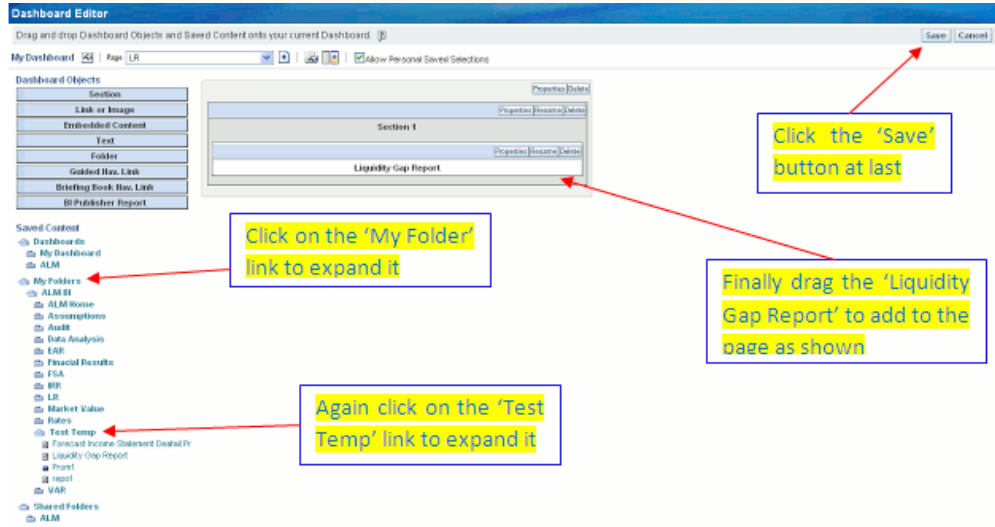
- Again click the **OK** button and move to the 'Compound Layout' and finally save the report one more time as shown in the following screenshot.



13. Add the newly created report to the **My Dashboard** page.



14. Finally add the newly created report to the earlier Dashboard page as shown in the following screenshot.



15. Click Save and the result is seen as follows.



---

## How to change the Product Dimension in ALM BI

This section describes how to change the Product dimension. The seeded product dimension is **PRODUCT**. Refer to the following section, if you need to change the product dimension to any other dimension.

This appendix covers the following topics:

- Overview on changing the Product Dimension
- Steps to point to a different product dimension in ALMBI

### Overview on changing the Product Dimension

ALM Product is a logical idea in the Presentation/Logical layer and in the physical layer, it can hold any one of the product dimension members that is available in ALM (can be DIM\_COMMON\_COA or DIM\_PRODUCT or DIM\_GL\_ACCOUNT or any other user-defined **Product** dimension).

As part of the released RPD (ALMBI5.2.2 version), ALM Product container was mapped to the DIM\_PRODUCT table in physical layer (containing PRODUCT\_ID). In an implementation however, users can point to any other product dimension table.

**Steps to point to a different product dimension in ALMBI** section describes the steps to change the Product Dimension in following 2 cases:

Case 1: Changing the Product Dimension from DIM\_COMMON\_COA to DIM\_PRODUCT.

Case 2: Changing the Product Dimension from DIM\_COMMON\_COA to DIM\_GL\_ACCOUNT.

# Steps to point to a different product dimension in ALMBI

## Overview

ALM Product is a logical idea in Presentation/Logical layer and in the physical layer, it can hold any one of the product dimension members that is available in ALM (can be from DIM\_COMMON\_COA or DIM\_PRODUCT or DIM\_GL\_ACCOUNT or any other user-defined dimension).

This section details the steps that need to be performed to enable this.

## Steps

Changes need to be done in the following places:

- RPD layer – change the references in physical layer.
- Database layer – change data in the FSI\_BI\_SETUP\_TABLE.

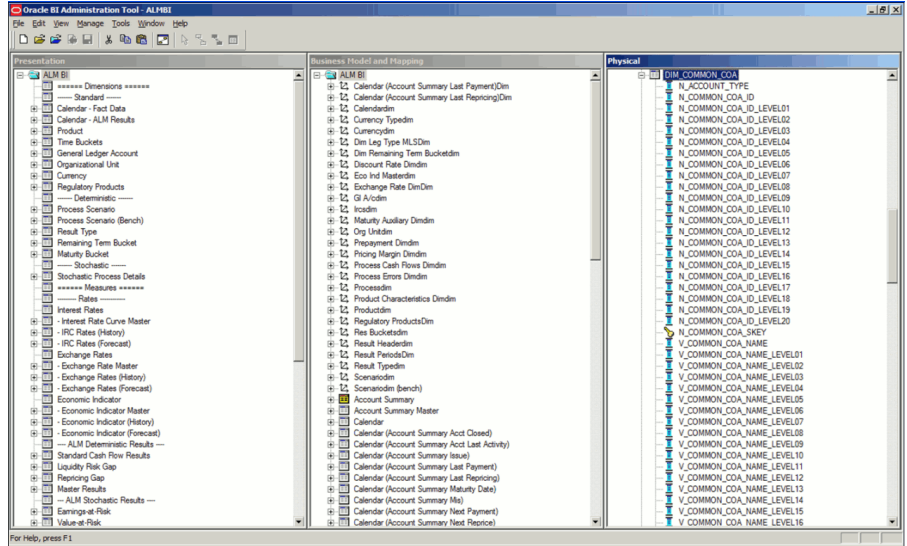
### Changes in RPD layer

Stop the BI Server and open the RPD file in offline mode. Expand the ALMBI folder in physical layer of the repository.

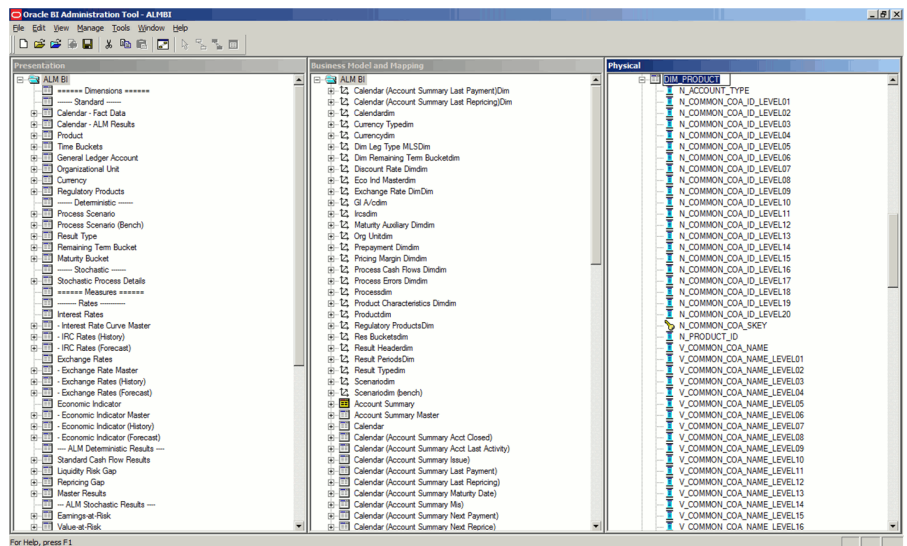
Take a backup of ALMBI RPD before doing any changes.

1. When the product dimension needs to be changed from DIM\_COMMON\_COA to DIM\_PRODUCT.
  1. Changes required in OBIEE Repository:
    - Repository physical layer will have DIM\_COMMON\_COA.



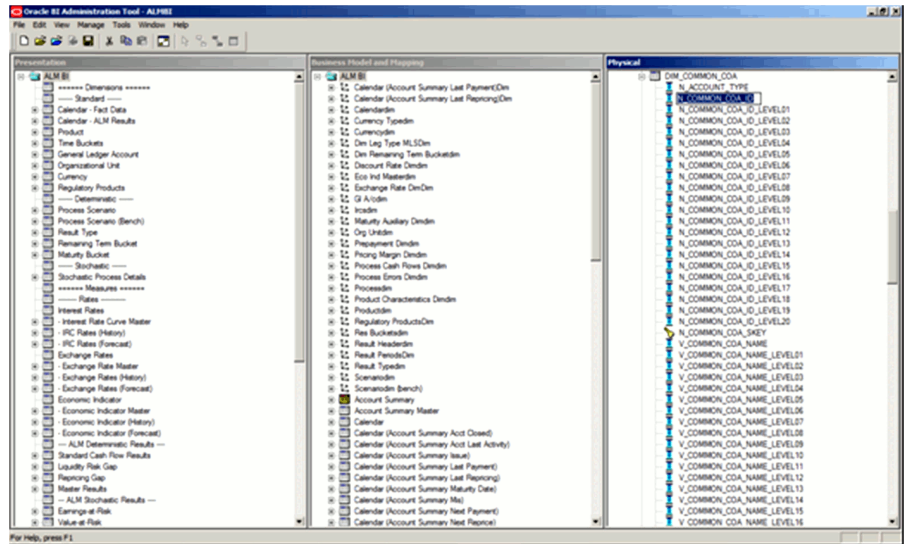
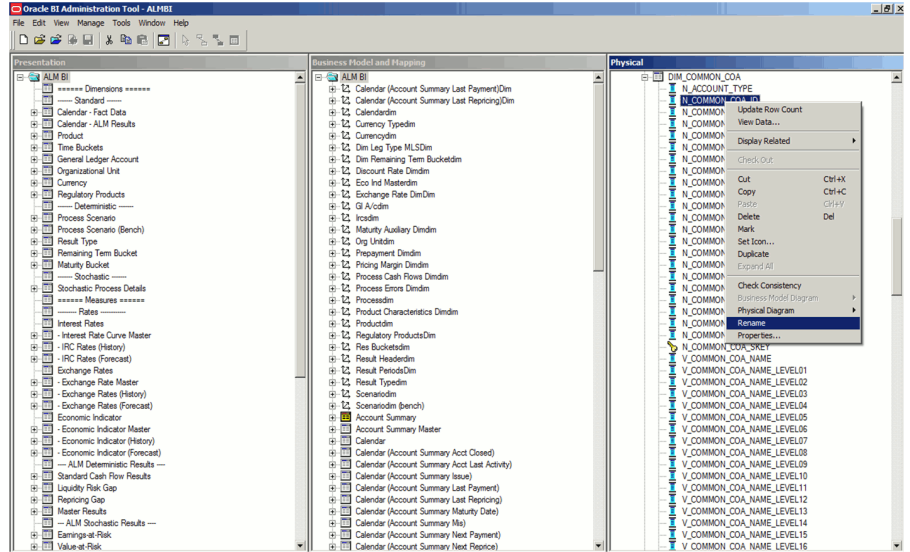


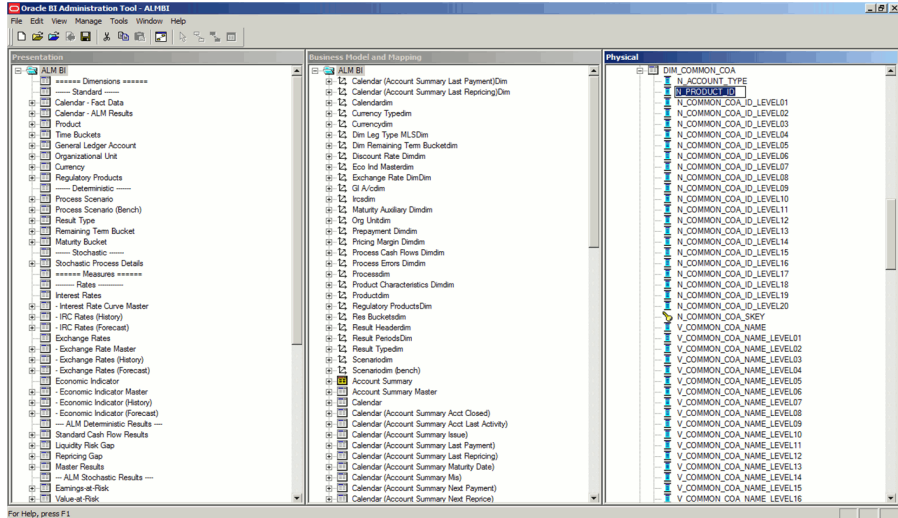
- Rename the table name from DIM\_COMMON\_COA to DIM\_PRODUCT.



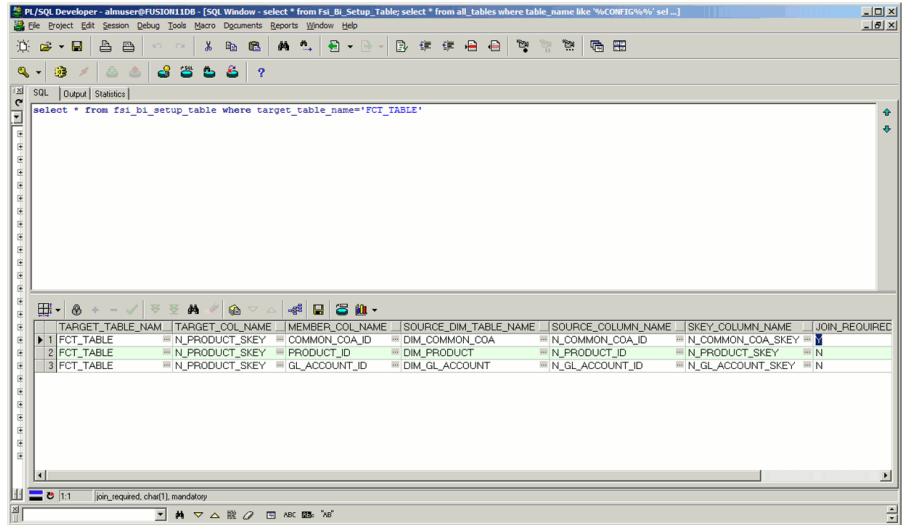
- Rename every column name of the DIM\_COMMON\_COA with COMMON\_COA to PRODUCT.

N\_COMMON\_COA\_ID -> N\_PRODUCT\_ID  
 N\_COMMON\_COA\_SKEY -> N\_PRODUCT\_SKEY  
 V\_COMMON\_COA\_NAME -> V\_PRODUCT\_NAME  
 N\_COMMON\_COA\_ID\_LEVEL20 -> N\_PRODUCT\_ID\_LEVEL20  
 N\_COMMON\_COA\_ID\_LEVEL19 -> N\_PRODUCT\_ID\_LEVEL19  
 N\_COMMON\_COA\_ID\_LEVEL18 -> N\_PRODUCT\_ID\_LEVEL18  
 N\_COMMON\_COA\_ID\_LEVEL17 -> N\_PRODUCT\_ID\_LEVEL17  
 N\_COMMON\_COA\_ID\_LEVEL16 -> N\_PRODUCT\_ID\_LEVEL16  
 N\_COMMON\_COA\_ID\_LEVEL15 -> N\_PRODUCT\_ID\_LEVEL15  
 N\_COMMON\_COA\_ID\_LEVEL14 -> N\_PRODUCT\_ID\_LEVEL14  
 N\_COMMON\_COA\_ID\_LEVEL13 -> N\_PRODUCT\_ID\_LEVEL13  
 N\_COMMON\_COA\_ID\_LEVEL12 -> N\_PRODUCT\_ID\_LEVEL12  
 N\_COMMON\_COA\_ID\_LEVEL11 -> N\_PRODUCT\_ID\_LEVEL11  
 N\_COMMON\_COA\_ID\_LEVEL10 -> N\_PRODUCT\_ID\_LEVEL10  
 N\_COMMON\_COA\_ID\_LEVEL09 -> N\_PRODUCT\_ID\_LEVEL09  
 N\_COMMON\_COA\_ID\_LEVEL08 -> N\_PRODUCT\_ID\_LEVEL08  
 N\_COMMON\_COA\_ID\_LEVEL07 -> N\_PRODUCT\_ID\_LEVEL07  
 N\_COMMON\_COA\_ID\_LEVEL06 -> N\_PRODUCT\_ID\_LEVEL06  
 N\_COMMON\_COA\_ID\_LEVEL05 -> N\_PRODUCT\_ID\_LEVEL05  
 N\_COMMON\_COA\_ID\_LEVEL04 -> N\_PRODUCT\_ID\_LEVEL04  
 N\_COMMON\_COA\_ID\_LEVEL03 -> N\_PRODUCT\_ID\_LEVEL03  
 N\_COMMON\_COA\_ID\_LEVEL02 -> N\_PRODUCT\_ID\_LEVEL02  
 N\_COMMON\_COA\_ID\_LEVEL01 -> N\_PRODUCT\_ID\_LEVEL01  
 V\_COMMON\_COA\_NAME\_LEVEL20 -> V\_PRODUCT\_NAME\_LEVEL20  
 V\_COMMON\_COA\_NAME\_LEVEL19 -> V\_PRODUCT\_NAME\_LEVEL19  
 V\_COMMON\_COA\_NAME\_LEVEL18 -> V\_PRODUCT\_NAME\_LEVEL18  
 V\_COMMON\_COA\_NAME\_LEVEL17 -> V\_PRODUCT\_NAME\_LEVEL17  
 V\_COMMON\_COA\_NAME\_LEVEL16 -> V\_PRODUCT\_NAME\_LEVEL16  
 V\_COMMON\_COA\_NAME\_LEVEL15 -> V\_PRODUCT\_NAME\_LEVEL15  
 V\_COMMON\_COA\_NAME\_LEVEL14 -> V\_PRODUCT\_NAME\_LEVEL14  
 V\_COMMON\_COA\_NAME\_LEVEL13 -> V\_PRODUCT\_NAME\_LEVEL13  
 V\_COMMON\_COA\_NAME\_LEVEL12 -> V\_PRODUCT\_NAME\_LEVEL12  
 V\_COMMON\_COA\_NAME\_LEVEL11 -> V\_PRODUCT\_NAME\_LEVEL11  
 V\_COMMON\_COA\_NAME\_LEVEL10 -> V\_PRODUCT\_NAME\_LEVEL10  
 V\_COMMON\_COA\_NAME\_LEVEL09 -> V\_PRODUCT\_NAME\_LEVEL09  
 V\_COMMON\_COA\_NAME\_LEVEL08 -> V\_PRODUCT\_NAME\_LEVEL08  
 V\_COMMON\_COA\_NAME\_LEVEL07 -> V\_PRODUCT\_NAME\_LEVEL07  
 V\_COMMON\_COA\_NAME\_LEVEL06 -> V\_PRODUCT\_NAME\_LEVEL06  
 V\_COMMON\_COA\_NAME\_LEVEL05 -> V\_PRODUCT\_NAME\_LEVEL05  
 V\_COMMON\_COA\_NAME\_LEVEL04 -> V\_PRODUCT\_NAME\_LEVEL04  
 V\_COMMON\_COA\_NAME\_LEVEL03 -> V\_PRODUCT\_NAME\_LEVEL03  
 V\_COMMON\_COA\_NAME\_LEVEL02 -> V\_PRODUCT\_NAME\_LEVEL02  
 V\_COMMON\_COA\_NAME\_LEVEL01 -> V\_PRODUCT\_NAME\_LEVEL01



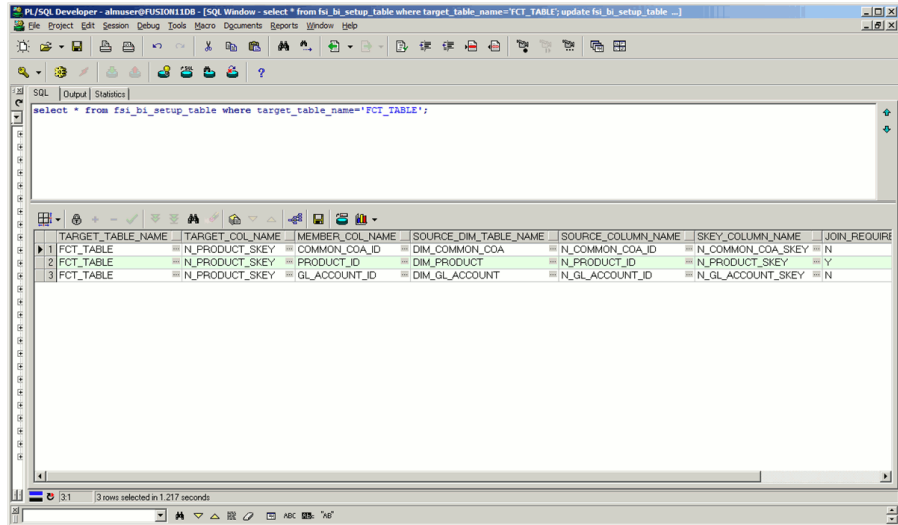


- Save the Repository file.
  - Start the BI Server.
2. Changes required in Database layer:
    - Execute the following query and it will return 3 rows as seen in the following screenshot.

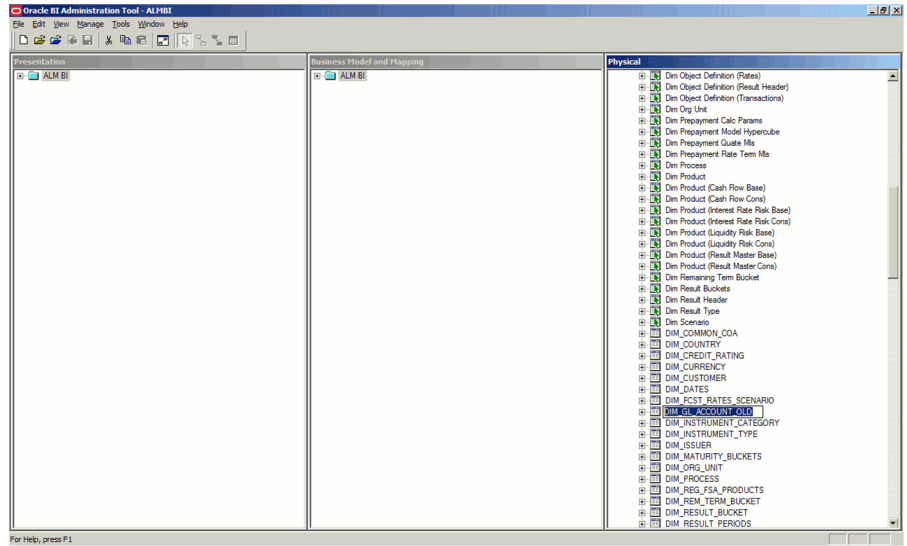
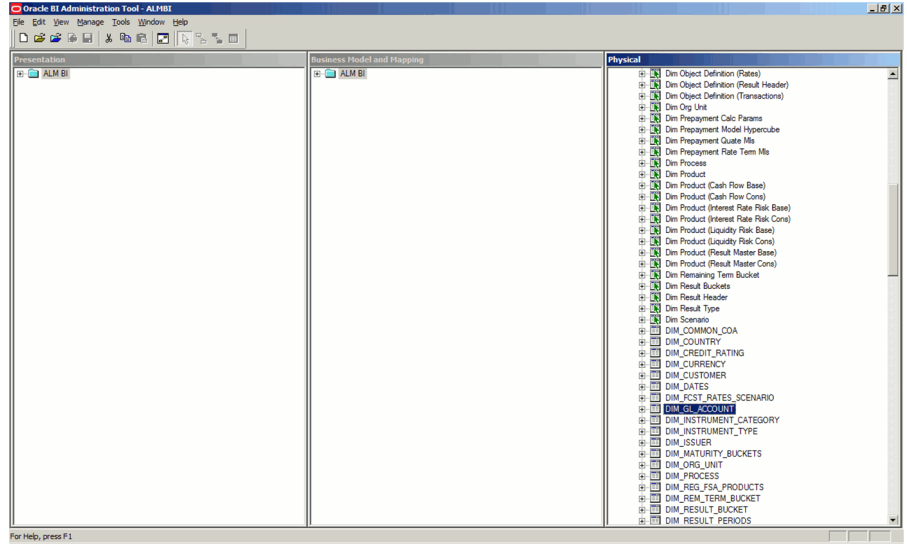


- By default the JOIN\_REQUIRED column will have 'Y' for the row where SOURCE\_DIM\_TABLE\_NAME='DIM\_COMMON\_COA'.
- Execute the following statements to change the value of JOIN\_REQUIRED column for DIM\_PRODUCT.
 

```
update fsi_bi_setup_table set JOIN_REQUIRED='N' where
target_table_name='FCT_TABLE' and
SOURCE_DIM_TABLE_NAME='DIM_COMMON_COA';
update fsi_bi_setup_table set JOIN_REQUIRED='Y' where
target_table_name='FCT_TABLE' and
SOURCE_DIM_TABLE_NAME='DIM_PRODUCT';
```
- Commit the transaction.
- It appears as seen in the following screenshot.



2. When the new product dimension is DIM\_GL\_ACCOUNT.
  1. Changes required in OBIEE Repository.
    - Rename existing DIM\_GL\_ACCOUNT table name to DIM\_GL\_ACCOUNT\_OLD.



- Rename the DIM\_COMMON\_COA to DIM\_GL\_ACCOUNT in the same way it has been stated above for DIM\_PRODUCT.
- Rename every column of DIM\_COMMON\_COA in the following way:

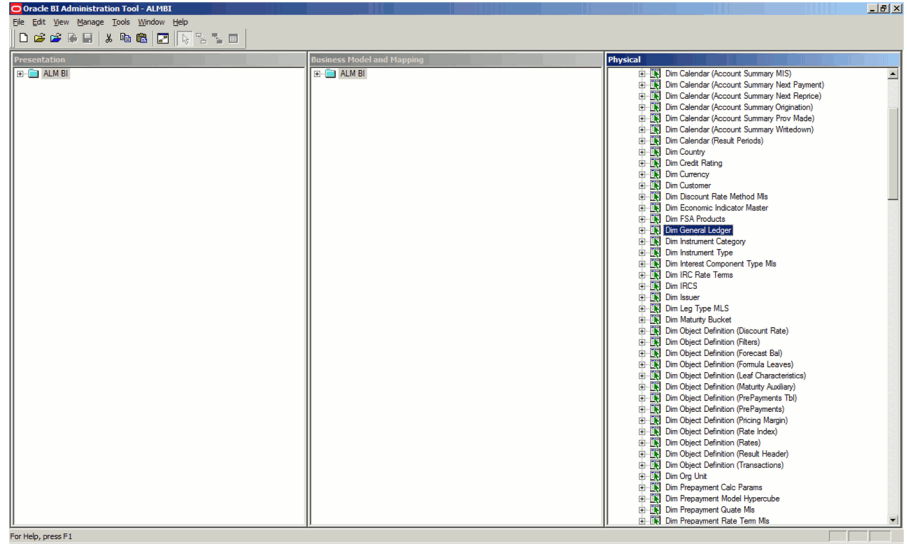
```

N_COMMON_COA_ID -> N_GL_ACCOUNT_ID
N_COMMON_COA_SKEY -> N_GL_ACCOUNT_SKEY
V_COMMON_COA_NAME -> V_GL_ACCOUNT_NAME
N_COMMON_COA_ID_LEVEL20 -> N_GL_ACCOUNT_ID_LEVEL20
N_COMMON_COA_ID_LEVEL19 -> N_GL_ACCOUNT_ID_LEVEL19
N_COMMON_COA_ID_LEVEL18 -> N_GL_ACCOUNT_ID_LEVEL18
N_COMMON_COA_ID_LEVEL17 -> N_GL_ACCOUNT_ID_LEVEL17
N_COMMON_COA_ID_LEVEL16 -> N_GL_ACCOUNT_ID_LEVEL16
N_COMMON_COA_ID_LEVEL15 -> N_GL_ACCOUNT_ID_LEVEL15
N_COMMON_COA_ID_LEVEL14 -> N_GL_ACCOUNT_ID_LEVEL14
N_COMMON_COA_ID_LEVEL13 -> N_GL_ACCOUNT_ID_LEVEL13
N_COMMON_COA_ID_LEVEL12 -> N_GL_ACCOUNT_ID_LEVEL12
N_COMMON_COA_ID_LEVEL11 -> N_GL_ACCOUNT_ID_LEVEL11
N_COMMON_COA_ID_LEVEL10 -> N_GL_ACCOUNT_ID_LEVEL10
N_COMMON_COA_ID_LEVEL09 -> N_GL_ACCOUNT_ID_LEVEL09
N_COMMON_COA_ID_LEVEL08 -> N_GL_ACCOUNT_ID_LEVEL08
N_COMMON_COA_ID_LEVEL07 -> N_GL_ACCOUNT_ID_LEVEL07
N_COMMON_COA_ID_LEVEL06 -> N_GL_ACCOUNT_ID_LEVEL06
N_COMMON_COA_ID_LEVEL05 -> N_GL_ACCOUNT_ID_LEVEL05
N_COMMON_COA_ID_LEVEL04 -> N_GL_ACCOUNT_ID_LEVEL04
N_COMMON_COA_ID_LEVEL03 -> N_GL_ACCOUNT_ID_LEVEL03
N_COMMON_COA_ID_LEVEL02 -> N_GL_ACCOUNT_ID_LEVEL02
N_COMMON_COA_ID_LEVEL01 -> N_GL_ACCOUNT_ID_LEVEL01
V_COMMON_COA_NAME_LEVEL20 -> V_GL_ACCOUNT_NAME_LEVEL20
V_COMMON_COA_NAME_LEVEL19 -> V_GL_ACCOUNT_NAME_LEVEL19
V_COMMON_COA_NAME_LEVEL18 -> V_GL_ACCOUNT_NAME_LEVEL18
V_COMMON_COA_NAME_LEVEL17 -> V_GL_ACCOUNT_NAME_LEVEL17
V_COMMON_COA_NAME_LEVEL16 -> V_GL_ACCOUNT_NAME_LEVEL16
V_COMMON_COA_NAME_LEVEL15 -> V_GL_ACCOUNT_NAME_LEVEL15
V_COMMON_COA_NAME_LEVEL14 -> V_GL_ACCOUNT_NAME_LEVEL14
V_COMMON_COA_NAME_LEVEL13 -> V_GL_ACCOUNT_NAME_LEVEL13
V_COMMON_COA_NAME_LEVEL12 -> V_GL_ACCOUNT_NAME_LEVEL12
V_COMMON_COA_NAME_LEVEL11 -> V_GL_ACCOUNT_NAME_LEVEL11
V_COMMON_COA_NAME_LEVEL10 -> V_GL_ACCOUNT_NAME_LEVEL10
V_COMMON_COA_NAME_LEVEL09 -> V_GL_ACCOUNT_NAME_LEVEL09
V_COMMON_COA_NAME_LEVEL08 -> V_GL_ACCOUNT_NAME_LEVEL08
V_COMMON_COA_NAME_LEVEL07 -> V_GL_ACCOUNT_NAME_LEVEL07
V_COMMON_COA_NAME_LEVEL06 -> V_GL_ACCOUNT_NAME_LEVEL06
V_COMMON_COA_NAME_LEVEL05 -> V_GL_ACCOUNT_NAME_LEVEL05
V_COMMON_COA_NAME_LEVEL04 -> V_GL_ACCOUNT_NAME_LEVEL04
V_COMMON_COA_NAME_LEVEL03 -> V_GL_ACCOUNT_NAME_LEVEL03
V_COMMON_COA_NAME_LEVEL02 -> V_GL_ACCOUNT_NAME_LEVEL02
V_COMMON_COA_NAME_LEVEL01 -> V_GL_ACCOUNT_NAME_LEVEL01

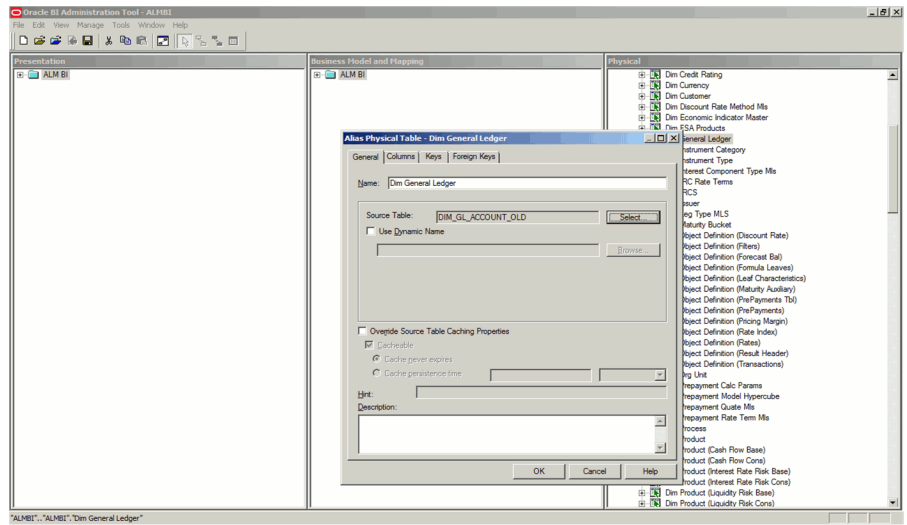
```

- Double click on the alias table **Dim General Ledger** in physical layer.

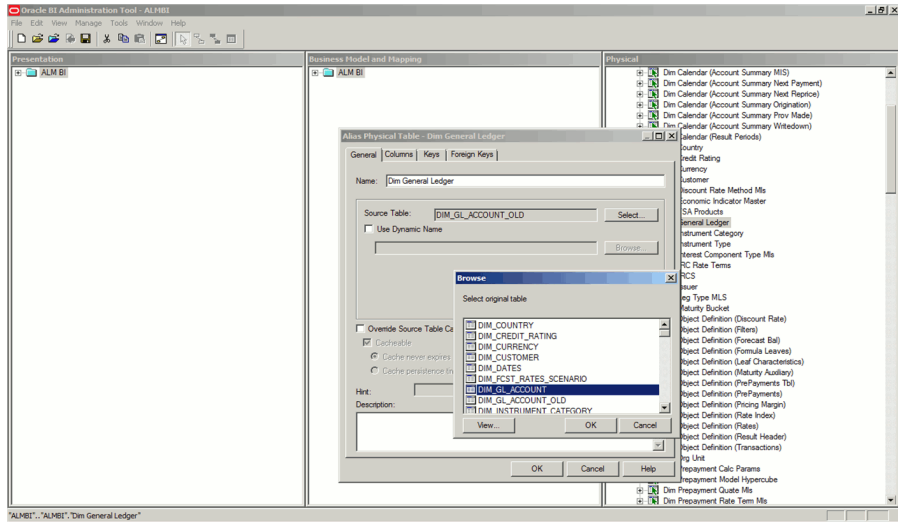




- At this time **Source Table** will show as **DIM\_GL\_ACCOUNT\_OLD**. Click the **Select** button next to that.



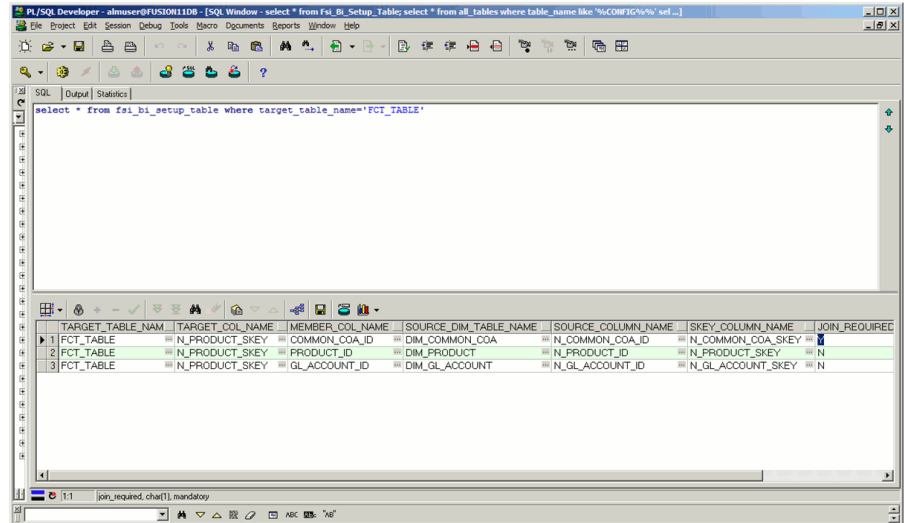
- Select the physical table **DIM\_GL\_ACCOUNT** and click **OK** and then **OK** again.



- Save the Repository file.
- Start the BI Server.

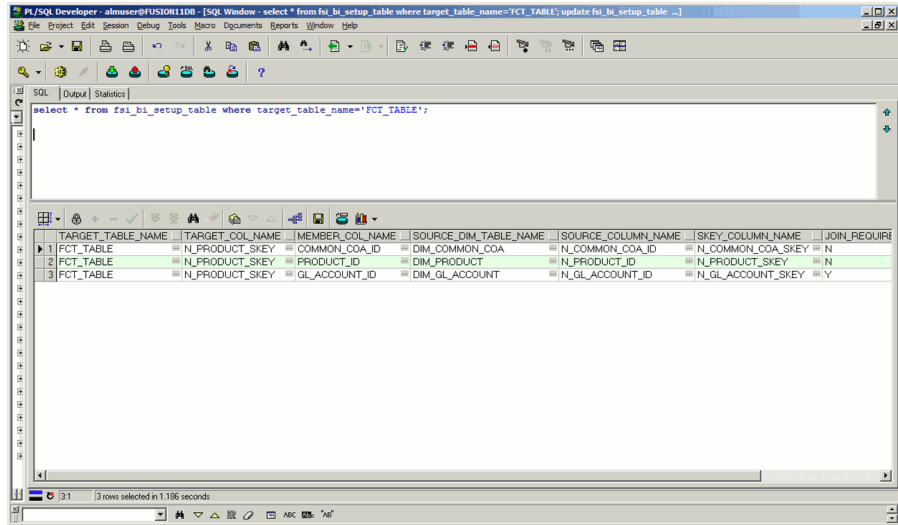
## 2. Changes required in Database layer:

- Execute the following query and it will return 3 rows as as seen in the following screenshot.



- By default the JOIN\_REQUIRED column will have 'Y' for the row where SOURCE\_DIM\_TABLE\_NAME='DIM\_COMMON\_COA'.
- Execute the following statements to change the value of JOIN\_REQUIRED column for DIM\_PRODUCT.
 

```
update fsi_bi_setup_table set JOIN_REQUIRED='N' where
target_table_name='FCT_TABLE' and
SOURCE_DIM_TABLE_NAME='DIM_COMMON_COA';
update fsi_bi_setup_table set JOIN_REQUIRED='Y' where
target_table_name='FCT_TABLE' and
SOURCE_DIM_TABLE_NAME='DIM_GL_ACCOUNT';
```
- Commit the transaction.
- It will look as seen in the following screenshot.



---

## Simplified Batch Execution

This section describes how to setup and execute a simplified batch for running required ALM BI processes.

This appendix covers the following topics:

- Steps for Simplified Batch Execution

### Steps for Simplified Batch Execution

To execute a procedure through the Simplified Batch user interface, create a batch through the following steps:

1. In the **Financial Service Application** menu, first select **Administration** and then select **Simplified Batch**.
2. Click **Add** (Tool bar action item) to add a new batch.
3. Enter the Name and Description of the batch that you wish to add. For example:  
Flatten hierarchy xxxxxxxx
4. Select Folder Name and Access Type.
5. Select Batch Execution Type: Parallel or Sequential
  - Parallel Execution signifies the list of tasks to be executed in Parallel
  - Sequential Execution signifies the list of tasks to be executed in sequential order
6. Click **Select Task** (Tool bar action item in Task Details pane)
7. Select Task Type and Source. (Refer the following mapping for more information.)

S.No	Procedure	Task Type	Folder or Source	Task Selector/Rule Name
1	Hierarchy Flattening Process	Transform Data	Not Applicable	batch_hierTransformation
2	ALMBI Transformation	Transform Data	Not Applicable	ALM_BI_TRANSFORMATION
3	Time Dimension Population	Transform Data	Not Applicable	Dim_Dates_Population
4	DIM RUN Population	Transform Data	Not Applicable	Populate_Dim_Run_ALM
5	Account Summary Population	Extract Data	<select the appropriate source>	<Choose the T2T name for the instrument you want to process>

8. Click **Search** to view list of Tasks based on the Task type.
9. In Task Selector pane, select Task. Drag and drop into the right pane. (That is, Rule Name which is a seeded Data Transformation procedure installed as part of the OFS ALM Analytics application installer , if you don't see this procedure in the list, contact Oracle support.
 

**Note:** User can deselect the task by drag and drop into the left pane.
10. Click the **ok** button.
11. In the Task details pane, select the Task by clicking on the checkbox and enter the optional parameters. Here the optional parameters would be the same parameter list as mentioned in the respective batch execution processes.
12. Click **Save**.
13. Select the Batch you created in the earlier step by clicking on the checkbox in the Simplified Batch Summary window.
14. Click **Run** to execute the batch.

---

## Troubleshooting

This section provides tips for troubleshooting problems encountered in ALM BI.

This appendix covers the following topics:

- Solutions for troubleshooting the problems

### Solutions for troubleshooting the problems

*Problem:* Batch Failed to Execute.

*Solution:* Before executing a batch check if the following services are running on the application server (For more information on how to check if the services are up and on, and how to start the services if you find them not running, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*).

- Iccserver
- Router
- AM
- Messageserver

*Problem:* SCD is not processing a particular Hierarchy.

*Solution:* A row will have to be inserted to **SETUP\_MASTER** table manually using a SQL Tool for the SCD to process that hierarchy. For more information refer section Tables used by the SCD component, page 3-12.

*Problem:* During execution of the ALMBI Transformation the program may not complete successfully.

*Solution:* Check for the existence of the PROCESS\_ID and LAST\_RUN\_AS\_OF\_DATE combination in FSI\_PROCESS\_RUN\_HISTORY table.

*Problem:* Failed to execute ALMBI Transformation after the SCD process has run.

**Solution:** Execute DIM\_RUN Population, page 3-23 as mentioned in the section prior to ALMBI Transformation.