MOODY'S ANALYTICS

$pageProperty.from("doctype")

Real Time ECL - Technical Documentation

Author

$pageProperty.from("author")

Contact

Moody's Analytics Support
+1-212-553-1653
MA_TechSupport@moodys.com
http://www.moodysanalytics.com/support

$pageProperty.from("summary")

© 2019 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved. CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND CREDIT RATINGS AND RESEARCH PUBLICATIONS PUBLISHED BY MOODY'S ("MOODY'S PUBLICATIONS") MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from $1,500 to approximately $2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively. MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000. MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

DISCLAIMER

Information regarding products, features, specifications and functionality in Moody's Analytics product roadmaps is intended to outline Moody's Analytics general product direction but is not guaranteed. Future products will be sold only when and if available. Moody's Analytics reserves our right to change the development, release, and timing of features and functionality discussed in our product roadmap at any time.

TRADEMARK

Moody's Analytics, Moody's, and all other names, logos, and icons identifying Moody's Analytics and/or its products and services are trademarks of Moody's Analytics, Inc. or its affiliates. Third-party trademarks referenced herein are the property of their respective owners.

Table of Contents

1 Assumptions 5

2 Webservice call 6

3 Request/Response information for the webservice call 6

3.1 JSON Information 11

4 Real time in Spark 16

5 Real Time ECL Analysis Workflow 17

5.1 Global Data Retrieval Chain: 17

5.2 Deal Retrieval Chain: 17

5.3 Deal Calculation Chain: 18

6 Instrument Mapping (clean up later) 19

7 Performance statistics 39

8 Pending items & Bug Tracking 39

Description:	Core Technical design for Real Time ECL API
Functional Category:	
Author/Developer:	Jayachandran, Ramya
Product Lead:	Marengo, Fanny
QA Lead:	Viswanathan, Archana
Functional Specification:	ECL Real time API
Test Plan from QA:	https://erswiki.analytics.moodys.net/download/attachments/137265192/QA_TestPlan_RealTimeECL.docx?api=v2

- Assumptions
- Webservice call
- Request/Response information for the webservice call
  - JSON Information
- Real time in Spark
- Real Time ECL Analysis Workflow
  - Global Data Retrieval Chain:
  - Deal Retrieval Chain:
  - Deal Calculation Chain:
- Instrument Mapping (clean up later)
- Performance statistics
- Pending items & Bug Tracking

1 Assumptions

1. Context ID, Process setting name and Deal (and optional security and supporting data) will be passed as input
2. Account Set not applicable, all behaviors come from scenario
3. Multiple deals will be sent in one JSON

2 Webservice call

Through Webservice: http://jayachar-7w1:8088/rco/service/runanalysis/realtime/ecl

From Testharness: -type runAnalysis -eclInputJsonFile "<input Json file>"

Example: -type runAnalysis -eclInputJsonFile "C:\\dev\\realtimeEcl\\ECL_REAL_TIME_DEAL_1_fixed.json"

3 Request/Response information for the webservice call

UI is expected to send these input parameters

1. Deal and deal related information will be in JSON format and each deal will have context and process setting information in it.
2. Security for the instrument (REPO/REV_REPO/SECURITY_POSITIONS) will be provided in the JSON. Refer Security.Json for the format. Security Reference in the instrument JSON should match the security reference of the BOND
3. Supporting Data (Interest Rate, Exchange Rate, Import CF, Stages, Rating, Collateral) will be provided in the JSON (Refer table below).
   a. Interest Rate and Exchange Rate data will default to the input set from Scenario if its not provided in the JSON.
   b. Import CF, Stages, Rating, Collateral Has to be provided in the JSON. Will not default to the tables.
4. All the information (Instrument, Interest Rate, Exchange Rate, Import CF, Stages, Rating, Collateral) have to be in one JSON. See Attached:

5. Response JSON format

6. Break down of all the JSON information is below

Instrument	JSON	Mapping (DB to JSON)
LOAN		
DEPOSIT		
SECURITY POSITIONS		

Instrument	JSON	Mapping (DB to JSON)
FACILITY		
REPO		
SECURITY	Security Reference in the instrument JSON should match the security reference of the BOND	

Supporting Data (Has to be appended at the end of instrument Data, if needed)	JSON	Mapping (DB to JSON)

Supporting Data (Has to be appended at the end of instrument Data, if needed)	JSON	Mapping (DB to JSON)
Interest Rate data	If there is user provided IR input a. The user provided input will be attached to the input set defined in the scenario. b. else scenario curve information from the scenario will be used 	
Exchange Rate data	If there is user provided FX input a. The user provided input will be attached to the input set defined in the scenario. b. else scenario exchange rate information from the scenario will be used 	

Supporting Data (Has to be appended at the end of instrument Data, if needed)	JSON	Mapping (DB to JSON)
Imported CF data	a. Cash Flow contract reference and table name should match the instrument's contract reference and table name resp. b. Will be read if the ImportCF flag in the instrument JSON is set to TRUE 	
Staging Data	a. Base contract reference and table Name should match the instrument's contract reference and table name resp.. 	

Supporting Data (Has to be appended at the end of instrument Data, if needed)	JSON	Mapping (DB to JSON)
Rating Data	a. contract reference and table Name should match the instrument's contract reference and table name resp.. 	
Collateral Data	a. contract reference and table Name should match the instrument's contract reference and table name resp.. 	

3.1 JSON Information

JSON Fields - GENERAL	Possible values/Format
All Tenor fields	nnYnnMnnD
All Date fields	mm/dd/yyyy
All Boolean fields	true/false (case insensitive)

JSON Fields - Instrument/Common	Possible values/Format
tableName	• LOANDEPO • SECURITY_POSITIONS • LINE_OF_CREDIT • REPO • ACCOUNT
calcDayConvention, payDayConventionN	• NONE • NO_DATE_ADJUSTMENT • NEXT_GOOD_BUSINESS_DAY • PREVIOUS_GOOD_BUSINESS_DAY • MODIFIED_FOLLOWING • END_OF_MONTH_NO_ADJUSTMENT • END_OF_MONTH_NEXT_GOOD_BUSINESS_DAY • END_OF_MONTH_PREVIOUS_GOOD_BUSINESS_DAY
payDayConvention	• NO_DATE_ADJUSTMENT • NEXT_GOOD_BUSINESS_DAY • PREVIOUS_GOOD_BUSINESS_DAY • MODIFIED_FOLLOWING
loanAmortizationMethod	• IN_FINE • LINEAR • CONSTANT_INSTALLMENT • INCREASING_AMOUNT • FIXED_AMOUNT • FIXED_AMOUNT_INCREASING • SUM_OF_DIGIT • OTHER

JSON Fields - Instrument/Common	Possible values/Format
interestPeriodicity, compoundFrequency, annuityResetFrequency	• DEFAULT • ANNUAL • SEMI_ANNUAL • QUARTERLY • MONTHLY
accrualBasis	• ACTUAL_365_FIXED • ACTUAL_360 • BASIS_30E_360 • ACTUAL_ACTUAL • BASIS_30_360 • BASIS_30A_360
rateType	• FIXED • FLOATING
importCF	• ALL_CF • PRINCIPAL_CF • PRINCIPAL_INT_CF • PRINCIPAL_COMPENSATION_CF • COMPENSATION_CF • ALL_WITH_INTEREST_SCHEDULE • RECOVERY_CF • NONE
brokenPeriod	• NONE • START_SHORT • START_LONG • END_SHORT

JSON Fields - Instrument/Common	Possible values/Format
	• END_LONG
capFloorStartDateConvention	• ORIGINATION_DATE • TRADE_DATE • RELEASING_DAY • VALUE_DATE
annuityComputationMethod	• STANDARD • INDEXED
negAmTreatment	• CAPITALIZE_INTEREST • PAY_LATER • LOSS_OF_INTEREST
cashFlowPriority	• PAY_ALL • PAY_INTEREST_FIRST • PAY_PRINCIPAL_FIRST
firstAmortizationMethod	• STANDARD • FIRST_AMORTIZATION_DATE
fixingRule	• NONE • PRE_FIXED • POST_FIXED • OVERNIGHT_INDEXED_SWAP • READ_ALL_VALUES • CONTRACTUAL_READ_ALL_VALUES
indexationRule	• NONE • RCPN • YONY

JSON Fields - Instrument/Common	Possible values/Format
	• OATI • RANN
originationCountry	
nextCouponDate	
paymentDayRule	• C • N • M • E • A
paymentDayRuleN	• C • N • M • E
repaymentType	• E • A
performingStatus	• C • D • F • P • T
interestType	• E • A • I
fixingPeriodicity	• A • S

JSON Fields - Instrument/Common	Possible values/Format
	• Q • M • N
longShort	• LONG • SHORT • NONE

JSON Fields - IMPORTED_CF	Possible values/Format
cashFlowQuality	• CERTAIN • ESTIMATED • COMPENSATION • OUTPAYMENT • NONE
cashFlowType	• NOMINAL • INTEREST • NONE

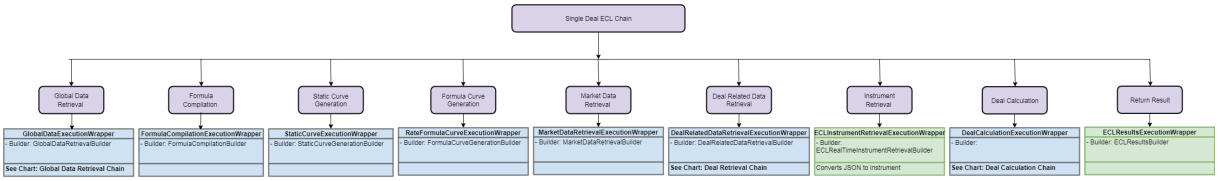
JSON Fields - CREDIT_RATING	Possible values/Format
ratingApproach	• OTHER • STANDALONE • INFERRED

4 Real time in Spark

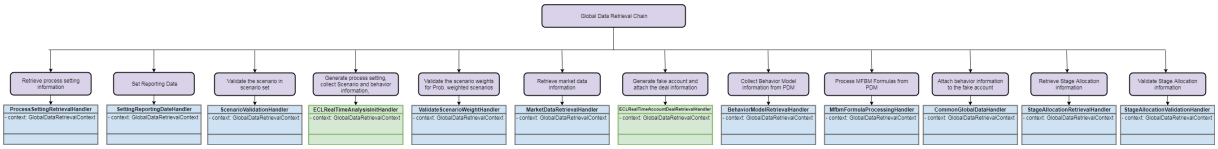
--To be updated--

5 Real Time ECL Analysis Workflow

1. New classes are marked in green.
2. Run in parallel with other analysis (do not store any information on DB so the analysis wont crash when running in parallel)
3. Will be run like test harness without submitting to Spark.
4. Wrappers will be used instead of Builders so the tasks will not be distributed.
5. ExecutableTest class will be called through command line from the webservice call.



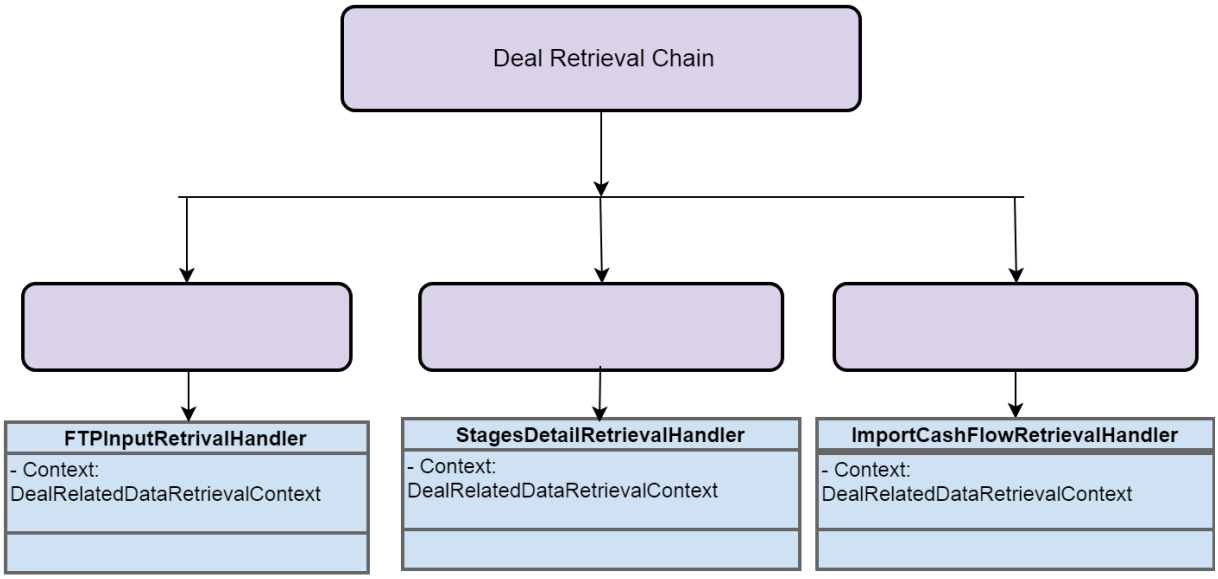
5.1 Global Data Retrieval Chain:



5.2 Deal Retrieval Chain:

Confirm if the following handlers are needed:

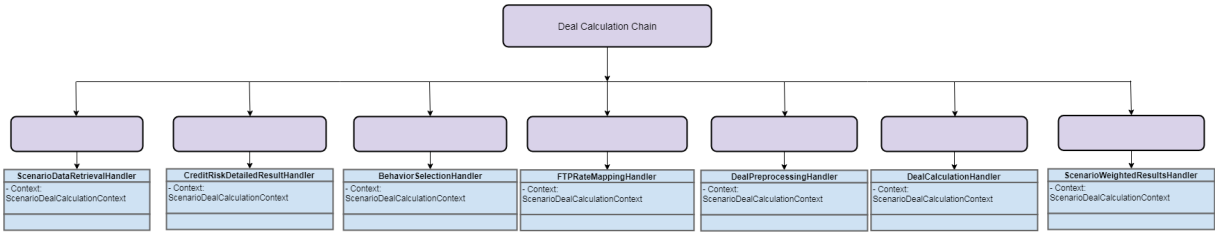
1. FacilityLimitsRetrievalHandler
2. DealLinkedFacilityRetrievalHandler
3. DealAnalyticDataRetrievalHandler



5.3 Deal Calculation Chain:

Confirm if the following handlers are needed:

1. FacilityPostSplitHandler
2. FacilityLimitsCalculationHandler
3. SimulatedLinkedLoansHandler
4. ExternalCodesSubmitHandler
5. ExternalModelDataHandler
6. RegulatoryTransformationHandler
7. LiquidityMgmtPreprocessHandler
8. FacilityLinkedLoansResultHandler



PD/LGD name retrieval Catalog in instrument retrieval:

PdLgdInputSetNameCollectionHandler
EntityCollectionHandler => saves to analysis_batch_entity, find out where its used (might not need it)
SecurityCollectionHandler => saves to ANALYSIS_BATCH_SEC, find out where its used (might not need it)
CreditBehaviorCollectionHandler => collected credit behavior
RiskCalcRequestCollectionHandler
RatingToPdConversionHandler

pdRetrievalDataSetSpecificCatalog =>

PdRetrievalHandler => need a new class to collect by all dataset Names
PdGenerationHandler => can reuse the existing one

lgdRetrievalDataSetSpecificCatalog =>
LgdRetrievalHandler => need a new class
LgdGenerationHandler => can reuse the existing one

creditDataScenarioSpecificCatalog => RiskCalcLgdRetrievalHandler

creditDataNonScenarioSpecificCatalog => ExternalCodeRetrievalHandler

DEAL CALCULATION:

CalculationSummaryHandler

EngineDealResultsProcessingHandler

EngineTimeSegmentProcessingHandler

EngineKeyRateSensitivityProcessingHandler

CflAggregateHandler

6 Instrument Mapping (clean up later)

- Repo instrument mappin

AMOUNT_1	"amount1" : null,
AMOUNT_1_CCY	"amount1Ccy" : null,
AMOUNT_2	"amount2" : null,
AMOUNT_2_CCY	"amount2Ccy" : null,
ATTRIBUTE_1	"attribute1" : null,
ATTRIBUTE_10	"attribute10" : null,
ATTRIBUTE_11	"attribute11" : null,
ATTRIBUTE_12	"attribute12" : null,

ATTRIBUTE_13	"attribute13" : null,
ATTRIBUTE_14	"attribute14" : null,
ATTRIBUTE_15	"attribute15" : null,
ATTRIBUTE_16	"attribute16" : null,
ATTRIBUTE_17	"attribute17" : null,
ATTRIBUTE_18	"attribute18" : null,
ATTRIBUTE_19	"attribute19" : null,
ATTRIBUTE_2	"attribute2" : null,
ATTRIBUTE_20	"attribute20" : null,
ATTRIBUTE_3	"attribute3" : null,
ATTRIBUTE_4	"attribute4" : null,
ATTRIBUTE_5	"attribute5" : null,
ATTRIBUTE_6	"attribute6" : null,
ATTRIBUTE_7	"attribute7" : null,
ATTRIBUTE_8	"attribute8" : null,
ATTRIBUTE_9	"attribute9" : null,
BOOK_CODE	"bookCode" : null,
BROKEN_PERIOD_TYPE	"brokenPeriod" : null,
BUSINESS	"business" : null,
CALC_DAY_CONVENTION	"calcDayConvention" : null,
CALENDAR_CODE	"calendarCode" : null,
CASH_ACCRUAL_BASIS	"accrualBasis" : null,
CASH_AMORTIZED_COST	"amortizedCost" : null,
CASH_CURRENCY	"currency" : null,
CASH_FIXING_RULE	"fixingRule" : null,
CASH_INITIAL_YIELD	"initialYield" : null,
CASH_INTEREST_RATE	"rateValue" : null,
CASH_NOMINAL	"nominal" : null,
CENTRAL_BANK	"centralBank" : null,
CLIENT_PROPRIETARY	"clientProprietary" : null,
CONTRACT_REFERENCE	"contractReference" : null,
CONTRACT_TYPE	"contractType" : null,
COUNTERPARTY_CODE	"counterparty" : null,

CURVE_NAME	"curveName" : null,
DIM1	"dim1" : null,
DIM10	"dim10" : null,
DIM11	"dim11" : null,
DIM12	"dim12" : null,
DIM13	"dim13" : null,
DIM14	"dim14" : null,
DIM15	"dim15" : null,
DIM16	"dim16" : null,
DIM17	"dim17" : null,
DIM18	"dim18" : null,
DIM19	"dim19" : null,
DIM2	"dim2" : null,
DIM20	"dim20" : null,
DIM3	"dim3" : null,
DIM4	"dim4" : null,
DIM5	"dim5" : null,
DIM6	"dim6" : null,
DIM7	"dim7" : null,
DIM8	"dim8" : null,
DIM9	"dim9" : null,
DISCOUNT_CURVE_NAME	"discountCurveName" : null,
FAMILY	"family" : null,
FEES	"fees" : null,
FIXING_CURRENT_VALUE	"fixingCurrentValue" : null,
FIXING_PERIOD_TENOR	"fixingPeriodicityTenor" : null,
FIXING_PERIODICITY	"fixingPeriodicity" : null,
GROSS_CARRYING_VALUE	"gcv" : null,
IMPORT_CF	"importCF" : null,
IMPORT_SOURCE	"importSource" : null,
INTEREST_PERIOD_TENOR	"periodicityTenor" : null,
INTEREST_PERIODICITY	"interestPeriodicity" : null,
IRR_POSITION_DATE	"irrPositionDate" : null,

LGD	"lgd" : null,	
LGD_EFF	"lgdEff" : null,	
LIQ_SUB_TYPE	"liquiditySubtype" : null,	
MARKET_SPREAD	"marketSpread" : null,	
MATURITY_DATE	"maturityDate" : null,	
NDIM1	"ndim1" : null,	
NDIM10	"ndim10" : null,	
NDIM11	"ndim11" : null,	
NDIM12	"ndim12" : null,	
NDIM13	"ndim13" : null,	
NDIM14	"ndim14" : null,	
NDIM15	"ndim15" : null,	
NDIM16	"ndim16" : null,	
NDIM17	"ndim17" : null,	
NDIM18	"ndim18" : null,	
NDIM19	"ndim19" : null,	
NDIM2	"ndim2" : null,	
NDIM20	"ndim20" : null	
NDIM3	"ndim3" : null,	
NDIM4	"ndim4" : null,	
NDIM5	"ndim5" : null,	
NDIM6	"ndim6" : null,	
NDIM7	"ndim7" : null,	
NDIM8	"ndim8" : null,	
NDIM9	"ndim9" : null,	
NEXT_FIXING_DATE	"fixingNextDate" : null,	
NOTICE_PERIOD	"noticePeriod" : null,	
OPEN_MATURITY	"openMaturity" : null,	
ORIGINATION_COUNTRY	"originationCountry" : null,	Not there in E2E
PAST_DUE_DAYS	"pastDueDays" : null,	
PAY_DAY_CONVENTION	"payDayConvention" : null,	
PAY_DAY_CONVENTION_N	"payDayConventionN" : null,	
PAYMENT_DAY_RULE	"paymentDayRule" : null,	

PAYMENT_DAY_RULE_N	"paymentDayRuleN" : null,
PAYMENT_DAY_VALUE	"paymentDayValue" : null,
PAYMENT_DAY_VALUE_N	"paymentDayValueN" : null,
PERFORMING_STATUS	"performingStatus" : null,
PRODUCT_GL_CRITERIA	"productGLCriteria" : null,
RATE_DEF_TYPE	"rateType" : null,
RATE_MARKET_CONVENTION_ID	"rateMarketConventionId" : null,
REPO_TYPE	"repoType" : null,
RISK_COUNTRY	"riskCountry" : null,
SECURITY_NOMINAL	"securityNominal" : null,
SECURITY_REFERENCE	"securityReference" : null,
SUB_TYPE	"subType" : null,
TENOR	"tenor" : null,
TENOR_BASED_FREQUENCY	"tenorBasedFrequency" : null,
TRADE_DATE	"tradeDate" : null,
VALUE_DATE	"valueDate" : null,

- Deposit instrument mapping

ACCRUAL_BASIS	"accrualBasis" : null,
ACCRUALS	"accruals" : null,
AMORTIZED_COST	"amortizedCost" : null,
AMOUNT_1	"amount1" : null,
AMOUNT_1_CCY	"amount1Ccy" : null,
AMOUNT_2	"amount2" : null,
AMOUNT_2_CCY	"amount2Ccy" : null,
ATTRIBUTE_1	"attribute1" : null,
ATTRIBUTE_10	"attribute10" : null,
ATTRIBUTE_11	"attribute11" : null,
ATTRIBUTE_12	"attribute12" : null,
ATTRIBUTE_13	"attribute13" : null,
ATTRIBUTE_14	"attribute14" : null,
ATTRIBUTE_15	"attribute15" : null,
ATTRIBUTE_16	"attribute16" : null,

ATTRIBUTE_17	"attribute17" : null,
ATTRIBUTE_18	"attribute18" : null,
ATTRIBUTE_19	"attribute19" : null,
ATTRIBUTE_2	"attribute2" : null,
ATTRIBUTE_20	"attribute20" : null,
ATTRIBUTE_3	"attribute3" : null,
ATTRIBUTE_4	"attribute4" : null,
ATTRIBUTE_5	"attribute5" : null,
ATTRIBUTE_6	"attribute6" : null,
ATTRIBUTE_7	"attribute7" : null,
ATTRIBUTE_8	"attribute8" : null,
ATTRIBUTE_9	"attribute9" : null,
BALANCE	"balance" : null,
BOOK_CODE	"bookCode" : null,
BUSINESS	"business" : null,
CALC_DAY_CONVENTION	"calcDayConvention" : null,
CALENDAR_CODE	"calendarCode" : null,
CAP	"cap" : null,
CAPFLOOR_PERIOD_LENGTH	"capfloorPeriodLength" : null,
CAPFLOOR_PERIOD_START	"capFloorStartDateConvention" : null,
CAPITALIZATION_RATE	"capitalizationRate" : null,
CENTRAL_BANK	"centralBank" : null,
CLIENT_PROPRIETARY	"clientProprietary" : null,
COMPOUND_PERIODICITY	"compoundFrequency" : null,
COMPOUND_PERIOD_TENOR	"compoundFrequencyTenor" : null,
ACCOUNT_REFERENCE	"contractReference" : null,
ACCOUNT_TYPE	"contractType" : null,
COUNTERPARTY_CODE	"counterparty" : null,
CURRENCY	"currency" : null,
CURVE_NAME	"curveName" : null,
DIM1	"dim1" : null,
DIM10	"dim10" : null,
DIM11	"dim11" : null,

DIM12	"dim12" : null,
DIM13	"dim13" : null,
DIM14	"dim14" : null,
DIM15	"dim15" : null,
DIM16	"dim16" : null,
DIM17	"dim17" : null,
DIM18	"dim18" : null,
DIM19	"dim19" : null,
DIM2	"dim2" : null,
DIM20	"dim20" : null,
DIM3	"dim3" : null,
DIM4	"dim4" : null,
DIM5	"dim5" : null,
DIM6	"dim6" : null,
DIM7	"dim7" : null,
DIM8	"dim8" : null,
DIM9	"dim9" : null,
DISCOUNT_CURVE_NAME	"discountCurveName" : null,
FAMILY	"family" : null,
FEES	"fees" : null,
FIRST_COUPON_DATE	"firstCouponDate" : null,
FIRST_FIXING_DATE	"firstFixingDate" : null,
FIXING_CURRENT_VALUE	"fixingCurrentValue" : null,
FIXING_NEXT_DATE	"fixingNextDate" : null,
FIXING_NB_DAYS	"fixingNumberOfDays" : null,
FIXING_PERIODICITY	"fixingPeriodicity" : null,
FIXING_RULE	"fixingRule" : null,
FLOOR	"floor" : null,
GROSS_CARRYING_VALUE	"gcv" : null,
IMPORT_CF	"importCF" : null,
IMPORT_SOURCE	"importSource" : null,
INITIAL_YIELD	"initialYield" : null,
PERIODICITY	"interestPeriodicity" : null,

IRR_POSITION_DATE	"irrPositionDate" : null,
LGD	"lgd" : null,
LGD_EFF	"lgdEff" : null,
LIQ_SUB_TYPE	"liquiditySubtype" : null,
MULT_SPREAD	"marginFactor" : null,
MKT_SPREAD	"marketSpread" : null,
NDIM1	"ndim1" : null,
NDIM10	"ndim10" : null,
NDIM11	"ndim11" : null,
NDIM12	"ndim12" : null,
NDIM13	"ndim13" : null,
NDIM14	"ndim14" : null,
NDIM15	"ndim15" : null,
NDIM16	"ndim16" : null,
NDIM17	"ndim17" : null,
NDIM18	"ndim18" : null,
NDIM19	"ndim19" : null,
NDIM2	"ndim2" : null,
NDIM20	"ndim20" : null
NDIM3	"ndim3" : null,
NDIM4	"ndim4" : null,
NDIM5	"ndim5" : null,
NDIM6	"ndim6" : null,
NDIM7	"ndim7" : null,
NDIM8	"ndim8" : null,
NDIM9	"ndim9" : null,
NEXT_COUPON_DATE	"nextCouponDate" : null,
ORIGINATION_COUNTRY	"originationCountry" : null,
PAST_DUE_DAYS	"pastDueDays" : null,
PAY_DAY_CONVENTION	"payDayConvention" : null,
PAY_DAY_CONVENTION_N	"payDayConventionN" : null,
PERFORMING_STATUS	"performingStatus" : null,
PERIODICITY_TENOR	"periodicityTenor" : null,

PRODUCT_GL_CRITERIA	"productGLCriteria" : null,	
RATE_TYPE	"rateType" : null,	
INTEREST_RATE	"rateValue" : null,	
RISK_COUNTRY	"riskCountry" : null,	
SUB_TYPE	"subType" : null,	
TENOR	"tenor" : null,	
TENOR_BASED_FREQUENCY	"tenorBasedFrequency" : null,	
VALUE_DATE	"valueDate" : null,	
EVERGREEN_PRODUCT	"everGreenProduct" : null,	
NUMBER_OF_CONTRACTS	"numberOfContracts" : null,	
OPERATIONAL_BALANCE	"operationalBalance" : null,	
ORIGINAL_BALANCE	"originalBalance" : null,	
PEL_PRODUCT	"pelProduct" : null,	
PROFILE	"profile" : null,	
PROTECTED_BALANCE	"protectedBalance" : null,	
RATE		Transient field
RESET_FREQ_TENOR	"resetFrequency" : null,	
RESET_FREQUENCY	"resetFrequencyTenor" : null,	
TIERED_DEPOSIT	"tieredDeposit" : null,	
TRANSACTIONAL_ACCOUNT	"transactionalAccount" : null,	
TRUNCATION_DATE	"truncationDate" : null,	
VOLATILITY	"volatility" : null,	
VOLATILITY_TYPE	"volatilityType" : null,	

- Security mapping

ACCRUAL_BASIS	"accrualBasis" : null,
ACCRUED_INTEREST	"accruedInterest" : null,
AMORTIZING_AMOUNT	"amortizingAmount" : null,
AMORTIZING_PERIOD_TENOR	"amortizingPeriodTenor" : null,
AMORTIZING_PERIODICITY	"amortizingFrequency" : null,
AMORTIZING_TYPE	"loanAmortizationMethod" : null,
AMOUNT_1	"amount1" : null,

AMOUNT_1_CCY	"amount1Ccy" : null,
AMOUNT_2	"amount2" : null,
AMOUNT_2_CCY	"amount2Ccy" : null,
ATTRIBUTE_1	"attribute1" : null,
ATTRIBUTE_10	"attribute10" : null,
ATTRIBUTE_11	"attribute11" : null,
ATTRIBUTE_12	"attribute12" : null,
ATTRIBUTE_13	"attribute13" : null,
ATTRIBUTE_14	"attribute14" : null,
ATTRIBUTE_15	"attribute15" : null,
ATTRIBUTE_16	"attribute16" : null,
ATTRIBUTE_17	"attribute17" : null,
ATTRIBUTE_18	"attribute18" : null,
ATTRIBUTE_19	"attribute19" : null,
ATTRIBUTE_2	"attribute2" : null,
ATTRIBUTE_20	"attribute20" : null,
ATTRIBUTE_3	"attribute3" : null,
ATTRIBUTE_4	"attribute4" : null,
ATTRIBUTE_5	"attribute5" : null,
ATTRIBUTE_6	"attribute6" : null,
ATTRIBUTE_7	"attribute7" : null,
ATTRIBUTE_8	"attribute8" : null,
ATTRIBUTE_9	"attribute9" : null,
BID_PRICE	"bidPrice" : null,
BOND_TYPE	"bondType" : null,
BROKEN_PERIOD_TYPE	"brokenPeriod" : null,
CALC_DAY_CONVENTION	"calcDayConvention" : null,
CALL_PRICE	"callPrice" : null,
CAP	"cap" : null,
CAPFLOOR_PERIOD_LENGTH	"capfloorPeriodLength" : null,
CAPFLOOR_PERIOD_START	"capfloorPeriodStart" : null,
CLEAN_DIRTY	"cleanDirty" : null,
COMPOUND_PERIOD_TENOR	"compoundFrequencyTenor" : null,

COMPOUND_PERIODICITY	"compoundFrequency" : null,	
COUPON_PERIOD_TENOR	"couponPeriodicity" : null,	
COUPON_PERIODICITY	"couponPeriodicityTenor" : null,	
CURRENCY_CODE	"currency" : null,	
CURVE_NAME	"curveName" : null,	
DIM1	"dim1" : null,	
DIM10	"dim10" : null,	
DIM11	"dim11" : null,	
DIM12	"dim12" : null,	
DIM13	"dim13" : null,	
DIM14	"dim14" : null,	
DIM15	"dim15" : null,	
DIM16	"dim16" : null,	
DIM17	"dim17" : null,	
DIM18	"dim18" : null,	
DIM19	"dim19" : null,	
DIM2	"dim2" : null,	
DIM20	"dim20" : null,	
DIM3	"dim3" : null,	
DIM4	"dim4" : null,	
DIM5	"dim5" : null,	
DIM6	"dim6" : null,	
DIM7	"dim7" : null,	
DIM8	"dim8" : null,	
DIM9	"dim9" : null,	
DISCOUNT_CURVE_NAME	"discountCurveName" : null,	
DISCOUNT_RATE		engine is mapped to DISCOUNT_CURVE_NAME
DISCOUNTED	"discounted" : null,	
EXERCISE_FREQ_TENOR	"exerciseFrequencyTenor" : null,	
EXERCISE_TYPE	"exerciseType" : null,	
FIRST_AMORTIZING_DATE	"firstAmortizationDate" : null,	

FIXING_CURRENT_VALUE	"fixingCurrentValue" : null,	
FIXING_NEXT_DATE	"fixingNextDate" : null,	
FIXING_PERIOD_TENOR	"fixingPeriodicityTenor" : null,	
FIXING_PERIODICITY	"fixingPeriodicity" : null,	
FIXING_RULE	"fixingRule" : null,	
FLOOR	"floor" : null,	
GUARANTOR_CODE	"guarantorCode" : null,	
IMPORT_CF	"importCF" : null,	
IMPORT_SOURCE		not in E2E
INDEXATION_DELAY	"indexationDelay" : null,	
INDEXATION_INITIAL_VALUE	"indexationInitialValue" : null,	
IRR_POSITION_DATE	"irrPositionDate" : null,	
ISSUE_DATE	"issueDate" : null,	
ISSUER_CODE	"counterparty" : null,	
LGD	"lgd" : null,	
LGD_EFF	"lgdEff" : null,	
LIQ_SUB_TYPE	"liquiditySubtype" : null,	
LOCKOUT_DATE	"lockoutDate" : null,	
MATURITY_DATE	"maturityDate" : null,	
MKT_SPREAD	"marketSpread" : null,	
MOD_DURATION		not in E2E
MULT_SPREAD	"marginFactor" : null,	
NATIONAL_MARKET	"nationalMarket" : null,	
NDIM1	"ndim1" : null,	
NDIM10	"ndim10" : null,	
NDIM11	"ndim11" : null,	
NDIM12	"ndim12" : null,	
NDIM13	"ndim13" : null,	
NDIM14	"ndim14" : null,	
NDIM15	"ndim15" : null,	
NDIM16	"ndim16" : null,	
NDIM17	"ndim17" : null,	
NDIM18	"ndim18" : null,	

NDIM19	"ndim19" : null,	
NDIM2	"ndim2" : null,	
NDIM20	"ndim20" : null	
NDIM3	"ndim3" : null,	
NDIM4	"ndim4" : null,	
NDIM5	"ndim5" : null,	
NDIM6	"ndim6" : null,	
NDIM7	"ndim7" : null,	
NDIM8	"ndim8" : null,	
NDIM9	"ndim9" : null,	
NEXT_COUPON_DATE		only equity has it?
OFFER_PRICE	"offerPrice" : null,	
OPTION_TYPE	"optionType" : null,	
PAST_DUE_DAYS	"pastDueDays" : null,	
PAY_DAY_CONVENTION	"payDayConvention" : null,	
PERFORMING_STATUS	"performingStatus" : null,	
PRICE_INDICATOR	"priceIndicator" : null,	
PUT_PRICE	"putPrice" : null,	
QUOTED	"quoted" : null,	
RATE		transient
RATE_MARKET_CONVENTION_ID	"rateMarketConventionId" : null,	
RATE_TYPE	"rateType" : null,	
RATE_VALUE	"rateValue" : null,	
SECURED	"secured" : null,	
SECURITY_FAMILY	"securityFamily" : null,	
SECURITY_REFERENCE	"securityReference" : null,	
SECURITY_TYPE	"securityType" : null,	
SPREAD_CURVE_NAME	"spreadCurveName" : null,	
SPREAD_DISCOUNT_METHOD	"spreadDiscountedMethod" : null,	
SPREAD_MTRX_NAME	"spreadMatrixName" : null,	
SUB_TYPE		not in E2E
SUBORDINATED	"subordinated" : null,	

TENOR	"tenor" : null,	
TENOR_BASED_FREQUENCY	"tenorBasedFrequency" : null,	
UNITY_NOMINAL	"unityNominal" : null,	
VOLATILITY	"volatility" : null,	
VOLATILITY_TYPE	"volatilityType" : null,	
YIELD		not in E2E

- SECURITY_POSITIONS mapping

ACCRUALS	"accruals" : null,
ACTUAL_CREDIT_SPREAD	"actualCreditSpread" : null,
AMORTIZED_COST	"amortizedCost" : null,
AMOUNT_1	"amount1" : null,
AMOUNT_1_CCY	"amount1Ccy" : null,
AMOUNT_2	"amount2" : null,
AMOUNT_2_CCY	"amount2Ccy" : null,
ATTRIBUTE_1	"attribute1" : null,
ATTRIBUTE_10	"attribute10" : null,
ATTRIBUTE_11	"attribute11" : null,
ATTRIBUTE_12	"attribute12" : null,
ATTRIBUTE_13	"attribute13" : null,
ATTRIBUTE_14	"attribute14" : null,
ATTRIBUTE_15	"attribute15" : null,
ATTRIBUTE_16	"attribute16" : null,
ATTRIBUTE_17	"attribute17" : null,
ATTRIBUTE_18	"attribute18" : null,
ATTRIBUTE_19	"attribute19" : null,
ATTRIBUTE_2	"attribute2" : null,
ATTRIBUTE_20	"attribute20" : null,
ATTRIBUTE_3	"attribute3" : null,
ATTRIBUTE_4	"attribute4" : null,
ATTRIBUTE_5	"attribute5" : null,
ATTRIBUTE_6	"attribute6" : null,

ATTRIBUTE_7	"attribute7" : null,
ATTRIBUTE_8	"attribute8" : null,
ATTRIBUTE_9	"attribute9" : null,
BOOK_CODE	"bookCode" : null,
BUSINESS	"business" : null,
CALENDAR_CODE	"calendarCode" : null,
CCF_ADV	"ccfAdv" : null,
CENTRAL_BANK	"centralBank" : null,
CLIENT_PROPRIETARY	"clientProprietary" : null,
CONTRACT_TYPE	"contractType" : null,
CPTY_CODE	"counterparty" : null,
DEFERMENT_BEGIN_TENOR	"defermentBeginTenor" : null,
DEFERMENT_END_TENOR	"defermentEndTenor" : null,
DEFERMENT_MATURITY	"defermentMaturity" : null,
DEFERMENT_METHOD	"defermentMethod" : null,
DEFERMENT_RATE	"defermentRate" : null,
DIM1	"dim1" : null,
DIM10	"dim10" : null,
DIM11	"dim11" : null,
DIM12	"dim12" : null,
DIM13	"dim13" : null,
DIM14	"dim14" : null,
DIM15	"dim15" : null,
DIM16	"dim16" : null,
DIM17	"dim17" : null,
DIM18	"dim18" : null,
DIM19	"dim19" : null,
DIM2	"dim2" : null,
DIM20	"dim20" : null,
DIM3	"dim3" : null,
DIM4	"dim4" : null,
DIM5	"dim5" : null,
DIM6	"dim6" : null,

DIM7	"dim7" : null,	
DIM8	"dim8" : null,	
DIM9	"dim9" : null,	
FAMILY	"family" : null,	
FEES	"fees" : null,	
IMPORT_SOURCE	"importSource" : null,	
INDEXATION_BUYING_VALUE	"indexationBuyingValue" : null,	
INITIAL_YIELD	"initialYield" : null,	
ISSUE		Not in E2E
LIQ_PRODUCT_TYPE	"liquidityProductType" : null,	
LONG_SHORT	"longShort" : null,	
NDIM1	"ndim1" : null,	
NDIM10	"ndim10" : null,	
NDIM11	"ndim11" : null,	
NDIM12	"ndim12" : null,	
NDIM13	"ndim13" : null,	
NDIM14	"ndim14" : null,	
NDIM15	"ndim15" : null,	
NDIM16	"ndim16" : null,	
NDIM17	"ndim17" : null,	
NDIM18	"ndim18" : null,	
NDIM19	"ndim19" : null,	
NDIM2	"ndim2" : null,	
NDIM20	"ndim20" : null	
NDIM3	"ndim3" : null,	
NDIM4	"ndim4" : null,	
NDIM5	"ndim5" : null,	
NDIM6	"ndim6" : null,	
NDIM7	"ndim7" : null,	
NDIM8	"ndim8" : null,	
NDIM9	"ndim9" : null,	
NOMINAL	"nominal" : null,	
ORIGINAL_COST	"originalCost" : null,	

ORIGINATION_COUNTRY	"originationCountry" : null,	Not in E2E
POSITION_INITIAL_VALUE	"positionInitialValue" : null,	
PREMIUM_ACTUAL	"premiumActual" : null,	
PREMIUM_BUYING	"premiumBuying" : null,	
PRODUCT_GL_CRITERIA	"productGLCriteria" : null,	
RATE	"rate" : null,	
RISK_COUNTRY	"riskCountry" : null,	
SECURITY_REFERENCE	"securityReference" : null,	
SUB_TYPE	"subType" : null,	
TRADE_DATE	"tradeDate" : null,	
VALUE_DATE	"valueDate" : null,	

- FACILITY mapping

ACCRUAL_BASIS	"accrualBasis" : null,
ACCRUALS	"accruals" : null,
AMOUNT	"amount" : null,
AMOUNT_1	"amount1" : null,
AMOUNT_1_CCY	"amount1Ccy" : null,
AMOUNT_2	"amount2" : null,
AMOUNT_2_CCY	"amount2Ccy" : null,
ATTRIBUTE_1	"attribute1" : null,
ATTRIBUTE_10	"attribute10" : null,
ATTRIBUTE_11	"attribute11" : null,
ATTRIBUTE_12	"attribute12" : null,
ATTRIBUTE_13	"attribute13" : null,
ATTRIBUTE_14	"attribute14" : null,
ATTRIBUTE_15	"attribute15" : null,
ATTRIBUTE_16	"attribute16" : null,
ATTRIBUTE_17	"attribute17" : null,
ATTRIBUTE_18	"attribute18" : null,
ATTRIBUTE_19	"attribute19" : null,
ATTRIBUTE_2	"attribute2" : null,
ATTRIBUTE_20	"attribute20" : null,

ATTRIBUTE_3	"attribute3" : null,
ATTRIBUTE_4	"attribute4" : null,
ATTRIBUTE_5	"attribute5" : null,
ATTRIBUTE_6	"attribute6" : null,
ATTRIBUTE_7	"attribute7" : null,
ATTRIBUTE_8	"attribute8" : null,
ATTRIBUTE_9	"attribute9" : null,
AVAILABLE_AMOUNT	"availableAmount" : null,
BOOK_CODE	"bookCode" : null,
BUSINESS	"business" : null,
CALC_DAY_CONVENTION	"calcDayConvention" : null,
CALENDAR	"calendarCode" : null,
CCF_ADV	"ccfAdv" : null,
CLIENT_PROPRIETARY	"clientProprietary" : null,
COMMITED	"commited" : null,
COMPOUND_FREQ_TENOR	"compoundFrequency" : null,
COMPOUND_FREQUENCY	"compoundFrequencyTenor" : null,
CONTRACT_TYPE	"contractType" : null,
COUNTERPARTY_CODE	"counterparty" : null,
CURRENCY	"currency" : null,
CURVE_NAME	"curveName" : null,
DIM1	"dim1" : null,
DIM10	"dim10" : null,
DIM11	"dim11" : null,
DIM12	"dim12" : null,
DIM13	"dim13" : null,
DIM14	"dim14" : null,
DIM15	"dim15" : null,
DIM16	"dim16" : null,
DIM17	"dim17" : null,
DIM18	"dim18" : null,
DIM19	"dim19" : null,
DIM2	"dim2" : null,

DIM20	"dim20" : null,
DIM3	"dim3" : null,
DIM4	"dim4" : null,
DIM5	"dim5" : null,
DIM6	"dim6" : null,
DIM7	"dim7" : null,
DIM8	"dim8" : null,
DIM9	"dim9" : null,
DISCOUNT_CURVE_NAME	"discountCurveName" : null,
EFFECTIVE_YIELD	"effectiveYield" : null,
FACILITY_LIQ_TYPE	"facilityLiquidityType" : null,
FACILITY_TYPE	"facilityType" : null,
FAMILY	"family" : null,
FEES	"fees" : null,
FIRST_FIXING_DATE	"firstFixingDate" : null,
FIRST_PAYMENT_DATE	"firstPaymentDate" : null,
FIXING_CURRENT_VALUE	"fixingCurrentValue" : null,
FIXING_RULE	"fixingRule" : null,
GROSS_CARRYING_VALUE	"gcv" : null,
IMPORT_CF	"importCF" : null,
IMPORT_SOURCE	"importSource" : null,
FREQUENCY	"interestPeriodicity" : null,
IRR_POSITION_DATE	"irrPositionDate" : null,
REVOLVING	"isRevolvingFacility" : null,
LAST_DRAWDOWN_DATE	"lastDrawdownDate" : null,
LGD	"lgd" : null,
LGD_EFF	"lgdEff" : null,
LIQ_SUB_TYPE	"liquiditySubtype" : null,
LONGER_TERM_DEBT	"longerTermDebt" : null,
LTV	"ltv" : null,
MULT_SPREAD	"marginFactor" : null,
MKT_SPREAD	"marketSpread" : null,
MATURITY_DATE	"maturityDate" : null,

NDIM1	"ndim1" : null,
NDIM10	"ndim10" : null,
NDIM11	"ndim11" : null,
NDIM12	"ndim12" : null,
NDIM13	"ndim13" : null,
NDIM14	"ndim14" : null,
NDIM15	"ndim15" : null,
NDIM16	"ndim16" : null,
NDIM17	"ndim17" : null,
NDIM18	"ndim18" : null,
NDIM19	"ndim19" : null,
NDIM2	"ndim2" : null,
NDIM20	"ndim20" : null
NDIM3	"ndim3" : null,
NDIM4	"ndim4" : null,
NDIM5	"ndim5" : null,
NDIM6	"ndim6" : null,
NDIM7	"ndim7" : null,
NDIM8	"ndim8" : null,
NDIM9	"ndim9" : null,
ORIGINATION_COUNTRY	"originationCountry" : null,
PAST_DUE_DAYS	"pastDueDays" : null,
PAY_DAY_CONVENTION	"payDayConvention" : null,
PERFORMING_STATUS	"performingStatus" : null,
FREQUENCY_TENOR	"periodicityTenor" : null,
PRODUCT_GL_CRITERIA	"productGLCriteria" : null,
INTEREST_RATE	"rate" : null,
RATE_TYPE	"rateType" : null,
RESET_FREQUENCY	"resetFrequency" : null,
RESET_FREQ_TENOR	"resetFrequencyTenor" : null,
RISK_COUNTRY	"riskCountry" : null,
SHORT_TERM_DEBT	"shortTermDebt" : null,
SUB_TYPE	"subType" : null,

TENOR	"tenor" : null,	
TENOR_BASED_FREQUENCY	"tenorBasedFrequency" : null,	
TRADE_DATE	"tradeDate" : null,	
TROUBLED_DBT_RESTRUCTURED	"troubledDbtRestructured" : null,	
USED_AMOUNT	"usedAmount" : null,	
VALUE_DATE	"valueDate" : null,	
CURRENT_LTV		Not in E2E

7 Performance statistics

8 Pending items & Bug Tracking

Items	Bug or Pending?	
Linked loans	De-Prioritized (Pending development)	Ramya