

# Banking Product Factory 3.3

User Guide

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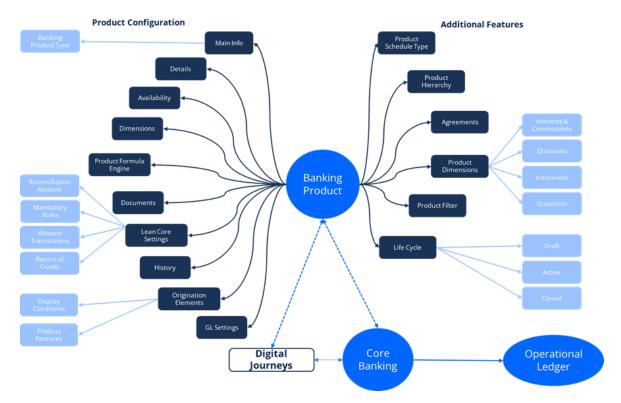
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## Overview

The **Banking Product Factory** facilitates a wide range of business processes, including but not limited to digital onboarding, loan origination, product portfolio management, and approval flows. Financial institutions can create banking products such as bank accounts, term and mortgage loans, overdrafts, deposits, cards, and credit cards to offer the best service to their customers.

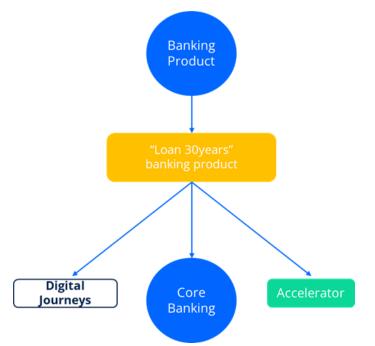
The diagram below shows the **Banking Product Factory** capabilities to create complex banking products to meet your business requirements.



Additional features are available when **Banking Product Factory** is implemented along with Core Banking, for example, transactions that can be performed on a banking product, reconciliation account associated with the product, mandatory roles for contract approval, payment allocation settings, or closing contract settings. Also, you can set the specific accounts to be used by Operational Ledger for transactions performed on contracts based on a banking product.

You can use **Banking Product Factory** to create a loan type with a specific amount interval, availability period, interest rate, commission, credit scoring criteria, etc. Then you can use this type of loan as one of the options that are available to the applicant in a loan application digital journey. Used in conjunction with Core Banking, you can create banking contracts for your customers based on the previously defined products.

Products defined with **Banking Product Factory** can be used in your digital journeys or you can edit existing digital journeys created in our accelerators such as Buy Now, Pay Later.



As your product portfolio evolves and you add new types of loans, modify some of the conditions for your products, or retire products, the options that show up (or no longer show up) in the loan application digital journey change automatically.

#### HINT

If you want to learn more about designing your banking product, check the Banking Product Factory course, available through the FintechOS Academy.

## Installing Banking Product Factory

Follow the steps described below to perform an automatic installation of the Banking Product Factory. This is a process of running a script, the install\_SysPack.bat file, on your environment. The script automatically imports the content of the **Banking Product Factory v3.3** into your Innovation Studio.

#### **IMPORTANT!**

You must run the script on the machine where Innovation Studio is installed. Make sure you have access rights to Studio's database.

### Dependencies

In order to install **Banking Product Factory v3.3**, first you need to install the following:

- Innovation Studio minimum version v22.1.1
- SySDigitalSolutionPackages v22.1.1000

#### **IMPORTANT!**

If you are installing **Banking Product Factory v3.3** on top of anther version of Banking Product then you must previously run a **correction package**, named BPFixInit.zip. Find this package in the same **Banking Product Factory v3.3** archive file.

### Pre-Installation Checklist

The SysPack has unique constraints on some of the standard entities like: FTOS\_DFP\_ FlowSettings, FTOS\_DFP\_ProcessorSettings, FTOS\_VersionSettings, FTOS\_VersionSettingsItem, FTOS\_EntityStatusSettings, FTOS\_MKT\_ AudienceSegments, FTOS\_MKT\_Audience, and for all Banking Product entities.

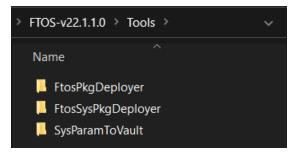
If you have already moved data using the **Configuration Data Deployment Package** menu, then you probably have already configured some unique constraints.

Before running the script, make sure you:

- Disable the constraints that you have created on your environment, allowing the system to create the new ones after the Banking Product Factory v3.3 is imported.
- 2. Use the new **Configuration Data Definitions** imported with the Banking Product Factory v3.3 file when you export the data.

### Installation Steps

- 1. Unzip your Banking Product v3.3.zip archive file.
- 2. Locate the FtosSysPkgDeployer folder in the FintechOS installation kit (the path is <unzipped\_install\_archive>\Tools\FtosSysPkgDeployer). You need it to install the Banking Product Factory v3.3.



- 3. Select and copy the *FtosSysPkgDeployer* folder.
- 4. Navigate to the location where you have unzipped the Banking Product v3.3.zip (let's call this location ckg\_deployer\_dir>), then paste the FtosSysPkgDeployer folder there, within each and every zip file that comes with the package.

> Banking Product v3.3	
Name O1.BPFixInit v3.3 O2.Backup Settings v3.3 O3.Banking Product Factory v3.3 O4.Banking Product Factory Generic Secur	ity Roles v3.3
Banking Product v3.3 > 01.BPFixInit v3.3	Banking Product v3.3 > 02.Backup Settings v3.3
Name BPF_InitFix FtosSysPkgDeployer BPF_FixInit.zip	Name Backup Restore Settings FtosSysPkgDeployer Backup Settings.zip
Banking Product v3.3 > 03.Banking Product F	actory v3.3
Name   Banking Product Factory SDK  FtosSysPkgDeployer  Banking_Product_Factory.zip  README_install_dependencies.txt  README_ReleaseNotes.txt	
Banking Product v3.3 > 04.Banking Product F	actory Generic Security Roles v3.3
Name	

FtosSysPkgDeployer

Banking\_Product\_Factory\_Security\_Roles.zip

#### **IMPORTANT!**

Each zip file within the Banking Product v3.3.zip must be extracted and

installed separately, in the given order!

If you decide not to use the default security roles that come with the

package, simply skip the Banking Product Factory Generic Security Roles zip file.

- 5. Create a new or edit a previous install\_Syspack.bat file. Replace the parameters described in the "install\_SysPack.bat Parameters Explanation" on page 12 section with your own values. Save and close the file.
- 6. Right-click install\_SysPack.bat » Run, for each package.

The script starts running in your Windows console. Wait for it to finish. If your parameter values were correct, Innovation Studio has the **Banking Product** menu items visible after a refresh:

#### BANKING PRODUCT FACTORY USER GUIDE

<b>Q</b> Type here to search		Product Factory
器 Evolutive Data Core	>	Banking Products
Digital Experience	>	Banking Agreements
器 Automation Blocks	>	Banking Product Hierarchy
Product Factory	>	Product Class
A ECOSYSTEM	>	Product SubClass
5. Analytics	>	Product Category
Configuration Management	>	Product SubCategory
⇒ Advanced	>	Banking Product Filter
Security	>	Banking Product Dimensions
Admin	>	Commissions
券 Git Tool	>	Commission Lists
		Interests
<b>FI</b> fintechOS		Interest Lists
App v22.1.1.0 / Db v22.1.1.0		Insurances

The install\_SysPack.bat file allows you to import both the data model and the data:

#### install\_SysPack.bat syntax for Data Model import

```
FtosSysPkgDeployer.exe -i -s "<StudioLink>" -u <AdminStudioUser> -p
<user_password> -z <DataBaseServer> -v <DB_user> -k <DB_user_
password> -d "<TheNameOfTheDataBase>" -r "<syspack_path>\01
DeploymentPackages\*.zip"
```

install\_SysPack.bat syntax for Data import

```
FtosSysPkgDeployer.exe -g -s "<StudioLink>" -u <AdminStudioUser> -p
<user_password> -r "<syspack_path>\02
ConfigurationDataDeploymentPackages\*.zip"
```

#### NOTE

The syntax presented here is for information purposes only. Please run the actual install\_SysPack.bat file.

### install\_SysPack.bat Parameters Explanation

- <StudioLink> The web URL of the Innovation Studio installation, for example http://localhost/ftos\_studio.
- <AdminStudioUser> The username of the Innovation Studio user under which this import is executed. The user has to exist in Innovation Studio prior to this operation.
- <user\_password> The password for the Innovation Studio user.
- <DataBaseServer> The name of the database server where the FintechOS installation database was created.
- <DB\_user> The username of the SQL Server user with administration rights on the FintechOS installation database.
- <DB\_user\_password> The password for the above mentioned SQL user.
- <TheNameOfTheDataBase> The name of the database where the Banking Product v3.3 is deployed.

 <syspack\_path> - The physical path to the unzipped Banking Product v3.3 previously downloaded.

#### NOTE

For more information about the script, please run FtosSysPackageDeployer.exe without any arguments to see the built-in help.

#### **IMPORTANT!**

If you're using **SQL Server Integrated Authentication**, make sure that the Windows user used for running the script has access to the FTOS database, with read/ write rights. Run the command without the SQL username/ password parameters. If you're using **SQL Server Build In Authentication**, make sure that the SQL Server user has read/ write access to the FTOS database. Run the command with the SQL username/ password parameters.

## Security Role for Banking Product Factory

A security role is a set of privileges and levels of access to various actions/ functions within the High Productivity Fintech Infrastructure. Read the Security Roles topic for detailed information.

Banking Product Factory has a predefined security role specific for banking-related business needs. Financial institutions can use the security role to grant their employees access rights within its systems. Read the Users topic for information about associating the security role to users in Innovation Studio.

You can also create a new security role to fit your financial institution's business needs. Read the Creating Security Roles topic for information about creating a new security role in Innovation Studio.

### Predefined Banking Product Factory Security Role

Banking Product Factory comes with the following predefined security role that grant specific access rights to the users associated with such a role to the High Productivity Fintech Infrastructure's actions and functions:

 Banking Product Admin - Users with this security role have read, insert, update and delete access rights to the banking product records within their organization. They can access and update all the entities related to the definition of banking products, and they can access all the banking menu items within the Product Factory menu.

#### **IMPORTANT!**

If your user has more than one role, then your access rights are cumulative and you are granted the highest access right.

Read the following sections for detailed information about each security role's access rights to entities and endpoints within the High Productivity Fintech Infrastructure:

### Banking Product Admin

A user with this security role has the following access rights to records in High Productivity Fintech Infrastructure's entities:

Entity	Read	Insert	Update	Delete
Account	Yes	No	No	No
approvalTask	Yes	Yes	Yes	No
AssociatedTransactions	Yes	Yes	Yes	Yes
attribute	Yes	No	No	No
entity	Yes	Yes	Yes	Yes
entitystatus	Yes	Yes	Yes	No
Log_sp_exec	Yes	Yes	Yes	Yes
Agreement	Yes	Yes	Yes	Yes
BandedInterest	Yes	No	No	No
BankingProduct	Yes	Yes	Yes	Yes
BankingProduct_BW	Yes	Yes	Yes	Yes
BankingProduct_BWA	Yes	Yes	Yes	Yes
BankingProduct_X_	Yes	Yes	Yes	Yes
ProductQuestion	Tes	res	Tes	res
BankingProductAgreement	Yes	Yes	Yes	Yes
BankingProductDiscount	Yes	Yes	Yes	Yes
BankingProductDocument	Yes	Yes	Yes	Yes
BankingProductMandatoryRoles	Yes	Yes	Yes	Yes
BankingProductType	Yes	No	No	No
BankingProductXBankingProduct	Yes	Yes	Yes	Yes
BankingProductXInterestCalcType	Yes	Yes	Yes	Yes
BankingProductXPaymentSchedTy	Yes	Yes	Yes	Yes
ре	103	103	103	103
BankingProductXProductDestType	Yes	Yes	Yes	Yes
BankingProductXProductGuarante e	Yes	Yes	Yes	Yes

#### BANKING PRODUCT FACTORY USER GUIDE

Entity	Read	Insert	Update	Delete
Category	Yes	Yes	Yes	Yes
Class	Yes	Yes	Yes	Yes
ClassificationType	Yes	Yes	Yes	Yes
CollateralType	Yes	Yes	Yes	Yes
Commission	Yes	Yes	Yes	Yes
CommissionList	Yes	Yes	Yes	Yes
CommissionListXCommission	Yes	Yes	Yes	Yes
CommissionSchema	Yes	Yes	Yes	Yes
CommissionType	Yes	Yes	Yes	Yes
CommissionValue	Yes	Yes	Yes	Yes
Covenant	Yes	Yes	Yes	Yes
Discount	Yes	Yes	Yes	Yes
Feature	Yes	Yes	Yes	Yes
Filter	Yes	Yes	Yes	Yes
FilterValue	Yes	Yes	Yes	Yes
Formula	Yes	Yes	Yes	Yes
FormulaType	Yes	Yes	Yes	Yes
GLAccounts	Yes	Yes	Yes	Yes
Insurance	Yes	Yes	Yes	Yes
Insuranceltem	Yes	Yes	Yes	Yes
InsuranceItemFilter	Yes	Yes	Yes	Yes
InsuranceList	Yes	Yes	Yes	Yes
InsuranceValue	Yes	Yes	Yes	Yes
InsuranceXInsuranceList	Yes	Yes	Yes	Yes
Interest	Yes	Yes	Yes	Yes
InterestCalculationType	Yes	Yes	Yes	Yes
InterestCommissionFilter	Yes	Yes	Yes	Yes
InterestCommissionFilterValue	Yes	Yes	Yes	Yes
InterestCommissionItem	Yes	Yes	Yes	Yes
InterestCommissionItemFilter	Yes	Yes	Yes	Yes
InterestList	Yes	Yes	Yes	Yes
InterestListXInterest	Yes	Yes	Yes	Yes
InterestRateMatrix	Yes	No	No	No
InterestValue	Yes	Yes	Yes	Yes
PaymentScheduleType	Yes	Yes	Yes	Yes
PaymentScheduleType_BW	Yes	Yes	Yes	No
PaymentScheduleTypeDetail	Yes	Yes	Yes	Yes

Entity	Read	Insert	Update	Delete
PaymentScheduleTypeDetailSourc	Maria	Mark	Net	Mark
e	Yes	Yes	Yes	Yes
ProductAdminConfiguration	Yes	Yes	Yes	Yes
ProductAvailabilityItemFilter	Yes	Yes	Yes	Yes
ProductClassification	Yes	Yes	Yes	Yes
ProductCovenant	Yes	Yes	Yes	Yes
ProductDestinationType	Yes	Yes	Yes	Yes
ProductDisbursement	Yes	Yes	Yes	Yes
ProductDiscountItemFilter	Yes	Yes	Yes	Yes
ProductGrace	Yes	Yes	Yes	Yes
ProductGuarantee	Yes	Yes	Yes	Yes
ProductGuaranteeStructure	Yes	Yes	Yes	Yes
ProductQuestion	Yes	Yes	Yes	Yes
ProductQuestion_BW	Yes	Yes	Yes	Yes
ProductQuestion_BWA	Yes	Yes	Yes	Yes
ScheduleElementClass	Yes	Yes	Yes	Yes
ScheduleTypeColumn	Yes	Yes	Yes	Yes
SubCategory	Yes	Yes	Yes	Yes
SubClass	Yes	Yes	Yes	Yes
SubClass_x_Account	Yes	Yes	Yes	Yes
TestScenario	Yes	Yes	Yes	Yes
TestScenarioOutput	Yes	Yes	Yes	Yes
Formula	Yes	No	No	No
FormulaInput	Yes	No	No	No
AllocationMethod	Yes	Yes	Yes	Yes
AllocationMethodDetail	Yes	Yes	Yes	Yes
Bank	Yes	Yes	Yes	Yes
BankAccount	Yes	Yes	Yes	Yes
BankAccountOperation	Yes	Yes	Yes	Yes
BankAccountOperationType	Yes	Yes	Yes	Yes
BankAccountTransaction	Yes	Yes	Yes	Yes
CalendarHoliday	Yes	Yes	Yes	Yes
ControlPanel	Yes	No	No	No
Holiday	Yes	Yes	Yes	Yes
OperationItem	Yes	Yes	Yes	Yes
PeriodicityType	Yes	Yes	Yes	Yes
TransactionFee	Yes	Yes	Yes	Yes
TransactionFeeItem	Yes	Yes	Yes	Yes

#### BANKING PRODUCT FACTORY USER GUIDE

Entity	Read	Insert	Update	Delete
TransactionFeeItemFilter	Yes	Yes	Yes	Yes
TransactionFeeList	Yes	Yes	Yes	Yes
TransactionFeeValue	Yes	Yes	Yes	Yes
TransactionOperationType	Yes	Yes	Yes	Yes
TransactionProcessor	Yes	Yes	Yes	Yes
WeekDay	Yes	Yes	Yes	Yes
Country	Yes	Yes	Yes	Yes
Currency	Yes	Yes	Yes	Yes
EntityStatusSettings	Yes	Yes	Yes	Yes
AccountingChart	Yes	No	No	No
AccountingScope	Yes	No	No	No
AccountingSystem	Yes	No	No	No
TransactionAccountingModel	Yes	No	No	No
TransactionItemAccountingConfig	Yes	No	No	No
TransactionType	Yes	Yes	Yes	Yes
TransactionValueType	Yes	No	No	No
VersionSettings	Yes	No	No	No
VersionSettingsItem	Yes	No	No	No
HolidayShiftCountries	Yes	Yes	Yes	Yes
optionset	Yes	No	No	No
optionsetitem	Yes	Yes	Yes	Yes
report	Yes	No	No	No

A user with this security role can access the following endpoints:

Endpoints
CallFormula
CheckFromToDates
CheckMandatoryRoleXLimitType
CommissionSchemaDetail
EntityVersion
Formula_CreateDataMapping
GetAvailabilityFiltersOnProduct
GetAvailablePaymentsSchedule
GetAvailableProductDiscounts
GetAvailableProductFeatures
GetAvailableProductImage
GetAvailableProducts
GetAvailableProductsExtra
GetBankingProductDetails

Endpoints
GetBankingProductTypeValues
GetCommissionDetail
GetCommissionInfo
GetInterestDetail
GetMainBank
GetPeriodicityTypeInfo
GetPrimaryAttribute
GetProductDocuments
GetProductInsuranceList
GetProductInterestCommissionList
GetProductType
GetScheduleFields
GetSubClassInfo
IsEditableForm
Simulate
TestCallFormula
CountQuestionsOnProduct
GetQuestionsOnProduct
SaveCustomQuestion
CheckGL
CheckLicense
Entity Version
EntityDuplicate
IsRelatedEntities
GetTransactionTypesForClawback

## Managing Banking Products

The Banking Product Factory allows you to create, adjust and maintain banking products such as bank accounts, term and mortgage loans, overdrafts, deposits, cards, and credit cards.

Below you can see how to manage these banking products and how to change their statuses through their life cycle.

1. In the main menu, click **Product Factory** > **Banking Product Factory**, and the **Banking** 

¢						l	+ Insert 🛈 Delete	L Export Q Advanced find
Bankin	g Products list							
	Code	Name	Class	SubClass	Category	SubCategory	Status	
	٩	٩	٩	٩	٩	٩.	Q	
	SLICE	SLICE Loan					Approved	1
	SL_BU	Slice BU					Approved	1
	TLTL2	TLTL2 - Term Ioan Eur					Approved	1
	M_BU	Mortgage test BU					Draft	1

Products List page opens.

- On the Banking Products List page, you can create a new banking product, edit an existing banking product from the list by double-clicking it, delete, export or find a product.
- Once you have created the banking product, you can duplicate it, create a new version, or open the banking product workflow transition list.

CURRENT STATUS: NEXT STATUS: APPROVED > CLOSED	S:	SLICE S	PRODUCT START DATE SLICE Loan 05/09/2020	END DATE VERSION 31/12/2030 3	VERSION DATE 08/09/2021 10:44	00	😋 Save and reload	Business Transactions
1 Main Info 2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	e 6 Documents	7 Lean Core Settings	8 History	9 Origination Ele	ments 10 GL Settings
Main Information								
Banking Product Type	Currency		Banking Product Code	External Code	SI	tart Date	End Da	te
Banking Product Type Term Loan	Currency RON	¥	Banking Product Code	External Code SLICE	St	art Date 05/09/2020		z/2030
		Ŷ						2/2030

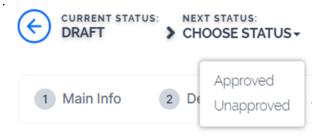
#### NOTE

For banking products in Active status, you can't change any of their related entities (such as features, discounts, product guarantee, interest or commission item, formula, test scenario, product covenant, product disbursement, product availability item filter). To change any of the product's related entities, create a new version of the banking product record.

### **Duplicating a Product**

If you want to duplicate a new product, basically creating a clone of the existing one that you can customize according to your needs and save time during this process, follow the steps below:

- 1. On the **Banking Product list** page, select and open the product you want to duplicate.
- Click the *Duplicate* button available on the page, and the duplicated product is created containing all the settings of the preexisting one.
- Customize the duplicated product according to your needs, editing the settings already populated. The Banking Product code and Name should be changed according to your business needs.
- 4. Click the Save and Reload button.
- 5. Approve the product to use it in your digital journeys or in **Core Banking** right away.



### Versioning an Approved Product

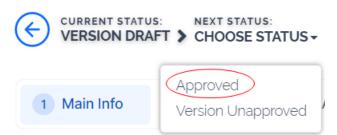
In Banking Product Factory, the products are set up for versioning. Thus, if you want to update the details of an approved product, that is already in use, then you must create a new version of the product.

To create a new version for a product with the **Approved** status, follow these steps:

- 1. Open the product that you want to update and click the **New Version** button.
- 2. View the new version of the product created by Banking Product Factory, with **Version Draft** status.



- 3. Edit the desired fields.
- 4. Approve the new version before you start using it. If it is not approved, then the initial version can still be used.



If you approve the product in **Version Draft** status, then the original record transitions into the **Version Closed** status and the secondary version becomes the **Approved** currently active product record.

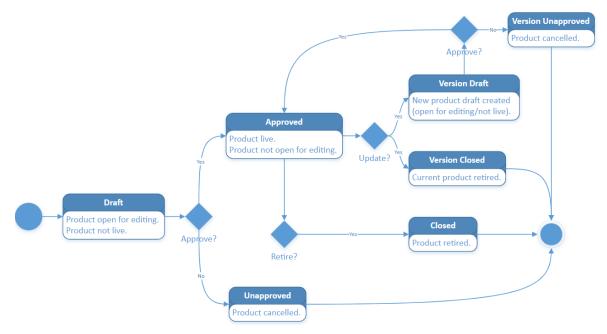
Read more details about versioning a record on the How to Version an Entity Record page.

### Changing Banking Products Statuses

You can manage a banking product's life cycle by changing its status from the top left corner of the screen.

CURRENT STATUS: NEXT STATUS: DRAFT > CHOOSE STATUS -

The product status transitions are illustrated below:



- Every product version starts in **Draft** status and must go through an approval process before going live.
- Once a product is **Approved**, its settings can no longer be modified.
- If you want to update an approved product, you must create a new product version.
- When you create a new product version, the current version is retired. The new version has to be approved before you start using it. If it is not approved, then

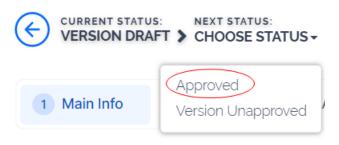
the initial version can still be used.

• Only one version of a product can be live at one time.

### Approving a Product

To approve a product, follow the steps below:

- 1 Select a product in **Draft** (or **Version Draft**) status.
- 2 Change its status into **Approved**.



3. Click **Yes** to confirm your action.

status?
No

If Banking Product Factory performs all the validations successfully, then the current status of the product changes to **Approved** and you can't perform any other changes. Now you can use your product in digital journeys or **Core Banking**.

### Term Loans

A term loan is a banking product which defines a loan for a specific amount that has a repayment schedule and either a fixed or floating interest rate.

#### **Creating Term Loans**

To create a new term loan from scratch, navigate to main menu > **Banking Product Factory** > **Banking Products**, and click the **Insert** button. A new page opens, with a series of tabs that assist you in configuring the banking product.

#### NOTE

Alternatively, you can create a term loan by duplicating an existing one. Click the **Duplicate** button on the **Banking Products List** page. Make sure you change the **Banking Product Code** and **Name** according to your business needs.

### 1. Enter Basic Information

You can set the basic elements for creating the product, such as name, code, currency, validity, or product classification, in the **Main Info** tab.

Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6	Documents 7 Lean 0	Core Setting	s 8 History 9	Originati	on Elements	10 GL Setti	ngs
Main Informati	on											
Banking Product	Туре	Currency		Banking Product Code		External Code		Start Date		End Date		
Term Loan	۰ ا	EUR	¥	TLGEO		EXT44		01/04/2020		17/04/2025		
lame				Class		SubClass		Category		SubCategory		
Term Loan G				Corporate	¥	Loan Term	÷	Loan Term Unsecured	¥			
Description						Product Classification						
Term Loan bar	king product								+ In	sert existing	× Remove exi	isting
						Code	Name	Classification Type	Vali	d From	Valid To	
						٩	٩	٩	٩		٩	Ö
						Classification	REG2	Regulatory	01/	03/2021	31/03/2021	

#### NOTE

Your product type selection influences the next steps. For term loans, select the **Term Loan** option in **Banking Product Type**.

### Main Information

- In the Main Information section, select the Banking Product Type from the available list.
- 2. Choose the **Currency** for the banking product.
- 3. Enter the product code in the Banking Product Code field. It can have 10 characters, and it is used in the contract. It uses a sequencer and the code of the product type.
- 4. Set the product validity by selecting the date when the product becomes available (Start Date) and the last date from when the product is available (End Date).
- 5. Enter the product Name.
- 6. Optionally you can set the following fields:
  - External Code: Select the code of the product imported from an external system, if applicable. It can have 10 characters and it is not used in the contract.
  - Class: Select the class of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Subclass: Select the subclass of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Category: Select the category of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400

- SubCategory: Select the subcategory of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
- **Description:** Enter any description or additional text related to your new product.
- 7. Click the **Save and Reload** button. The product is now saved and you can further edit it for your needs.

### Product Classification

After saving the product, the **Product Classification** section is populated with more options for your term loan. You can insert or remove existing product classification items.

1. To add a product classification item, click **Insert Existing** and select an already existing item.

oduct	Classification				
				+ Insert existing	× Remove existing
	Code	Name	Classification Type	Valid From	Valid To
	٩	٩	٩	۹ ۵	۹ 🖬
	REG1	Classification	Regulatory	01/01/2020	31/12/2030

- You can also create a new product classification item by clicking the Insert existing button and then the Insert button.
- 3. On the newly displayed Add Product Classification page, fill in the fields:

•				····· / [	Save and close	G Save and reload	Save and new
Add Product Classification							
Main Information							
Name	Code	Valid From	Valid To	Classification Type		is Default	
Classification Restructuring Level	RESTRUCTLI	20/04/2022	30/04/2028	Restructuring	۰ ا		
Classified Banking Products							

- Name: Enter the name of the classification item.
- Code: Enter the unique code of the classification item.

- Valid From: Select the date from which the product classification item is valid.
- Valid To: Select the date until when the product classification item is valid.
- **Classification Type:** Choose the classification type of the item. Possible values: Regulatory, Restructuring.
- Is Default: Select the checkbox if this classification item is default.

The **Classified Banking Products** section is displayed after you save the classification item record and allows you to insert existing banking products. The following information is displayed here: **Code, Name, Class, SubClass, Category, SubCategory** and **Status.** 

For more information on how to create a new product classification, see Banking Product Classification.

4. Click the Save and Reload button.

### 2. Add Details

You can set elements such as general data, disbursement settings, payment schedule types and templates, product guarantees, tranches, and holiday settings in the **Details** tab.

#### **BANKING PRODUCT FACTORY USER GUIDE**

1 Main Info	2 Details	3 Availability	4 Dimensions	B Product Formula E	ngine	6 Document	s (7) Lean Core	e Settings	History	9 Origin	ation Elements	10 GL Settings
General Data												
Is Revolving		Allow Refinancing		Allow Restructuring		Allow CoE	ebtor	Max No. O	f CoDebtors			
										2		
Disburse Settir	ngs					Product	Guarantees					
Autodisbursemer	nt	Max No Disburser	nents	Activ Tranche On Doc Su	bmission	Is Guarant	eed	Collateral	Cover Percer	t		al Partial Release
•			5			•				100	$\checkmark$	
Product Tranch	nes					Allowed	Guarantee Types					
			+ Insert × I	Delete	Ø Refresh				(+	Insert X	Delete	(port Ø Refresh
									Ċ			****
Name			Tranche P Star	t Month From Interest I	Percent		Guarantee Type			Max Accepted	d Covering Percent	
٩			م م	٩			٩			٩		
Trans	ia 1		50.0000		2.0000		FixDeposit					100.00
Trans	a 2		50.0000		2.0000							
Payment Schee	dule Types											
Period Type			Periodicity Type			Grace Typ			P	oduct Grace		
Months			Monthly		4	Both				GracePeriod		¥ /
Months		·	Monthly		Ť	Both			) (	GracePeriod		••
Schedule Temp	plates					Holiday	Settings					
			(+)	nsert existing X Remo	ove existing	Holiday SI	ift For Repayment Insta	ilments	D	efer Due Date	Ho	iday Shift Method
			<u> </u>			•				0	6	Forward •
Name												
٩						Country	Calendars					
Equal	I Installment Monthly	360									Insert existing	× Remove existing
Equal	Installment Monthly	365								Ľ		
Equal	Installment Monthly	Actual/Actual						Name				
Equal	I principal Monthly 30	/360						٩				
Equal	principal Monthly 30	/365						Thailand				
Equal	principal Monthly Ac	tual/Actual										

### **Product Behavior**

- 1. In the **General Data** section, you can optionally set the following fields:
  - Is Revolving: If selected, allows a business to borrow money as needed for funding working capital needs and continuing operations such as meeting payroll and playable.

#### NOTE

If a term loan is revolving, its attached limit must also be revolving, meaning that the Available Amount of the limit is replenished either on each repayment of the principal or on loan contract closure.

- Allow Refinancing: Select if the account can be refinanced for this product.
- Allow Restructuring: Select if the loan can be restructured.
- Allow CoDebtor: Select if another debtor exists for this product.
- Max No. of CoDebtors: Set the maximum number of codebtors possible for this product.
- 2. Click the Save and Reload button.

### **Disbursement**

- In the Disburse Settings section, check the Auto Disbursement box, and the disbursement is automatically performed when the contract is approved.
- 2. You can optionally set the following fields:
  - Max No Disbursements: Enter the maximum number of disbursements that can be configured for this product.
  - Active Tranche On Doc: If you select this checkbox, then the tranches are activated (disbursements are created and approved) after certain documents are submitted. It is the Financial Institution's responsibility to verify the content of the submitted documents.
- 3. Click the Save and Reload button.

### **Product Tranches**

The **Product Tranches** section is displayed if you selected the **Active Tranche On Doc** checkbox. You can insert existing disbursement tranches or create new ones, configured to fit the product. Usually used for corporate loans, such dividend payments or cash outflows are not done in equal amounts and usually trigger a recalculation in terms of interest.

Product Tranches

+	+ Insert X Delete Export Ø Refresh							
		Name		Tranche Percent	Start Month From Acti	Interest Percent		
		Q	Q		Q	Q		
		Tranche 1		50.0000		2.0000		
		Tranche 2		50.0000		2.0000		

- To add multiple such disbursements, Click the Insert button. The Add Product Disbursement section is displayed and you can set the following fields:
  - Name: Enter the name of the new disbursement.
  - Tranche Percent (%): Enter the percentage of the final amount that goes towards the disbursement.
  - Start Month From Activation: Enter the start month for the disbursement. It can be any month in the loan availability period.
  - Interest Percent (%): Enter the interest percent for that particular disbursement.
  - Unusage Commission Percent (%): Enter a commission paid for the loan amount unused.
- 2. Click the Save and Reload button.

### Product Guarantees and Allowed Guarantee Types

Product Guarantees		
Is Guaranteed	Collateral Cover Percent	Allow Collateral Partial Release
Allowed Guarantee Types	+ Insert	🗙 Delete 📔 Export 🛛 🛱 Refresh
Guarantee Type	Max Acc	cepted Covering Percent
Q	٩	
FixDeposit		85.00

- 1 In the **Product Guarantees** section, set the following fields:
  - Is Guaranteed: If selected marks the product as secured.

#### NOTE

The Collateral Cover Percent, Allow Collateral Partial Release fields, and the Allowed Guarantee Types section appear when you select the Is Guaranteed checkbox.

- **Collateral Cover Percent:** Enter the percent that the collateral person on the contract pays. It usually is over 100%.
- Allow Collateral Partial Release: A partial release is a mortgage provision that allows some of the collateral to be released from a mortgage after the borrower pays a certain amount of the loan.

The **Allowed Guarantee Types** section is displayed after you check the **Is Guaranteed** option. You can insert or delete allowed guarantee types:  To insert a guarantee type, Click the Insert button and fill in the name, maximum accepted covering percent, and select the guarantee type.

dd Product Guarantee Structur	e				
Product Guarantee Structure					
Banking Product	Card		Guarantee Type	FixDeposit	**
Max Accepted Covering Percent	8	15	Name	Deposit	

3. Click the Save and Reload button.

### Payment Schedule Types



 Select the regularity of payments in the Periodicity Type. You can choose: Once (the whole amount is paid at maturity), Weekly, Monthly, Bimonthly, Trimestrial, 4 Weeks, Semestrial, Annual or 30Days.

#### NOTE

If the measurement unit of the selected
Periodicity Type = Days, then Holiday Shift
For Repayment Installments = False and it
cannot be changed.

- 2. Optionally you can set the following fields:
  - **Period Type:** Select the period of availability for the product: **Days, Weeks, Months, Years** or **Once**.

#### NOTE

The period type must be the same as the

measurement unit of the Periodicity Type.

- Grace Type: Select whether the product grace should apply to the principal, the interest, or both. Select an option from the list: Both, Principal or Interest.
- Product Grace: Select an option from the list. This is the amount of time that the bank can offer to a customer at the beginning of the contract without repayments of principal or principal + interest (however, most probably the bank capitalizes the interest for that period).
- 3. Click the Save and Reload button.

### Schedule Templates

In the **Schedule Templates** section, you can associate/ delete payment schedule types to/ from the banking product.

Schedule	e lemplates		
		+ Insert existing ×	Remove existing
	Name		
	Q		
	Credit Card Installments		
	One principal installment		

 To associate a payment schedule type to the banking product, click Insert Existing and select one of the already defined types. Go to "Payment Schedule Types" on page 405 to read more about this.

#### **IMPORTANT!**

When creating a new Term Loan, Mortgage, or Overdraft banking product, you must select at least one payment schedule type, otherwise you can't approve the product. If the **Schedule Templates** section has no records, an error message is displayed upon transitioning the product into the **Approved** status.

2. Click the Save and Reload button.

### Holiday Settings

In the Holiday Settings section, the following fields are available:

Holiday S	Settings		
Holiday Sh	ift For Repayment Installments	Defer Due Date	Holiday Shift Method
Country	Calendars		
		+ Insert	existing X Remove existing
	Name		
	٩		
	Romania		

1. Select the **Holiday Shift For Repayment Installments** checkbox for holidays to be taken into consideration when calculating the maturity program.

#### NOTE

The **Country Calendars** section and the **Defer Due Date** and **Holiday Shift Method** fields appear if you select the **Holiday Shift For Repayment Installments** checkbox.

The **Defer Due Date** option is selected by default. If selected, the payment schedule calculates the next payment amount as if the due date has not changed even when the due date falls on a holiday.

- From the Holiday Shift Method, you can select the method to be used when calculating the due date if that date falls on a holiday. The due date can be shifted before or after the holiday. The possible values you can choose are:
  - None the due date is not shifted.
  - Forward the due date is shifted to the next working day after the initially calculated due date.
  - **Backward** the due date is shifted to the last working day before the initially calculated due date.

#### **IMPORTANT!**

The Holiday Shift Method doesn't work if you selected Periodicity Type = Days.

### **Country Calendars**

In the **Country calendars** section, you can insert or delete calendars. You can work with multiple calendars as well. To insert a calendar:

- Click the Insert Existing button and add the country's name. If the maturity date coincides with a holiday, it is allocated automatically on the next business day.
- 2. Click the Save and Reload button.

### 3. Configure Availability

You can determine the monetary range and the time frame when the product is available for customers in the **Availability** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	6 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Element	ts 10 GL Settings
Product Availa	bility								
Minimum Amoun	t	Maximum Amour	nt	Minimum Period	Maximum Period	,	dinimum Advance	Maximun	n Advance
	1,500		400,000	1		240		0	60
Start Period For Activation(Month Availability Ru	1	Maximum Period		Minimum Principal For Early Repayment					
Product Availa	bility Item Filters				Product Covena	nts			
			+ Insert	Delete Export Ø Refresh			(+ Ins	sert X Delete	Export Ø Refresh
Desc	ription				Туре	Covenant		Valid From Va	lid to Value
٩					٩	٩		۹ ۵ .	۹ 🖬 ۹
					Affirma	i Borrowers should	d perform tax obligations	01/01/2021 31	1/01/2030
		N	lo data		Financi	l Lender can moni	tor borrower's current r	30/12/2020 3	1/01/2040
					Negativ	e Lender posses ti	ne righ to prevent merg	01/01/2021 31	1/01/2040

### Product Availability

- 1. Fill in the following fields:
  - Minimum Amount and Maximum Amount: Enter the minimum and the maximum amount of the product for which the bank opens a contract.
  - Minimum Period and Maximum Period: Enter the minimum and the maximum duration of the product mentioned in the contract.

- Minimum Advance and Maximum Advance: Enter the minimum and maximum advance percentage from the contract's financed value applicable at the contract level.
- Start Period For Unusage After Activation (Months): Enter the start period for unused amount after the activation, in months.
- Maximum Period For Disbursement After Activation (Months): Enter the maximum period of disbursement after the this option is set, in months. The number of months during which the disbursement must be made.
- Minimum Principal For Early Repayment: Enter the minimum principal for when early repayments are made.
- 2. Click the Save and Reload button.

### Availability Rules

In the **Availability Rules** section you can select the item filters for your banking product.

Availabi	lity Rules	
Product	Availability Item Filters	
		+ Insert X Delete Export Ø Refresh
	Description	
	٩	
	CA >< 1 - 50000	

- 1. Click the Insert button, the Add Product Availability Item Filter is displayed.
- 2. Select the desired filter from the Filter option.
- 3. Add the attributes of the selected filter.

- 4. Optionally, add a description for the added item filter.
- 5. Click the Save and Reload button.

For more details, see "Product Filter" on page 462.

### **Product Covenants**

In the **Product Covenants** section you can set certain conventions that applicants must abide by after getting the loan. This is usually applicable for corporate clients that must meet certain requirements in order to continue to receive disbursements.

Product Cov	enants					
		+ 1	nsert	X Delete	Export	Ø Refresh
Тур	e Cov	venant	1	Valid From	Valid to	Value
٩	c	٤		۹ 🖬	۹ 🖬	٩
Affi	rmati Bo	rrowers should perform tax obligations		19/04/2022	20/04/2030	
Fina	ancial Ler	nder can monitor borrower's current r		19/04/2022	20/04/2030	

- Click the **Insert** button to add a covenant to the product. Each covenant can be attributed a value, an availability period, and a review frequency in months. Read more about covenants in the "Covenant" on page 477 page.
- 2. Click the Save and Reload button.

### 4. Manage Dimensions

You can insert, delete or export interest, commissions, insurances, discounts or questions valid for your product in the **Manage Dimensions** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	(10) GL Settings
Interest & Com	nissions				Insurances				
			+ Insert × De	lete			(+ Ir	nsert X Delete Exp	ort Ø Refresh
Item N	ame				Item	Name			
٩					٩				
MCA					Hou	se Insurance			
Discounts					Questions				
			+ Insert × De	lete				+ Insert existing	× Remove existing
Name	Dis	count E	End Date Start	Date Value Discount	Ques	tion		Business Status	
٩	C		۹ 🖬 ۹	<b>Q</b>	٩			٩	
					Que	stion1		Active	
		N	lo data		Que	stion2		Active	

To add a new one, click **Insert** and fill-in the fields detailed in the sections below.

#### NOTE

To configure the interest and commissions separately, navigate to **Main** > **Product Factory** > **Banking Product Dimensions menu** which contains several other embedded menus.

### Interest & Commissions

- To add an interest or a commission, click Insert in the Interest & Commissions section. The Add Interest & Commission Item page is displayed.
- 2. Select the banking product from the Banking Product list.
- 3. Enter the Item Name.
- 4. Enter the **Start Date** when the interest/ commission becomes effective and the **End Date** for the interest/ commission.
- 5. Fill in the following fields:
  - **Code:** Enter a code for this particular interest/ commission.
  - Interest List: Select from which list the interest is a part of.

- **Commissions List:** Select from which list the commission is a part of.
- Minimum Interest Rate (%): Enter the percent applicable as a minimum interest rate at the contract level.
- Is Negotiable: Select the checkbox to specify that every interest, commission or margin field at the contract level is negotiable and can be edited.
- 6. Click the Save and Reload button.
- 7. In the **Interest & Commission Item Filters** section, click **Insert** to insert an item filter.
- 8. Select a filter created earlier in the "Product Filter" on page 462.
- 9. Set the following fields:
  - Value/ Date: Select the beginning value/ date for the filter.
  - Until Value/ Until Date: Select the maximum value/ date for the filter.
  - **Description:** This field is automatically filled in after clicking the **Save and Reload** button. The values/ dates inserted above are turned into an expression.

For Lookup attributes, the following fields are available:

- Filter Entity: Entity on which the filter was defined.
- **Description:** It is left blank. Add a description if needed.
- Grid of Options: This field is automatically filled in after clicking the Save and Reload button. The values of the option set are displayed. Select the Boolean for the values you wish to include in the filter.
- 10. Click the Save and Reload button.

Interest & C	Commission Item Filter		
Aain Informatio	on		
ilter	• AL_Amount	V /	
alue	•	1 Until Value	• 50,00
escription			
AL_Amount ><	1 - 50000		

### Insurances

For any banking product, you can select a pre-existing insurance or create a new one.

- To add a new insurance, in the Insurances section, Click the Insert button and set the following fields:
  - Banking Product: Select the banking product.
  - **Code:** Insert a code for this particular insurance.
  - Item Name: Insert a name.
  - **Start Date:** Enter the start date when the insurance becomes effective.
  - End Date: Enter the end date for the insurance.
  - **Details:** It is left blank. Add a description if needed.
  - Insurance List: Select from which list the insurance is a part of.
- 2. Click the Save and Reload button.
- 3. In the **Insurance Item Filters** section, click **Insert** and fill in the following fields:

- Filter: The name inserted earlier.
- Value: The starting value for the attribute.
- Until Value: The ending value of the interval.
- Description: Insert the proper description for the availability filter.
- 4. Click the Save and Reload button.

							8	) Save and close	G Save and r
Insurance Item	n								
lain Information									
lanking Product	Code	2	Item Name	nsurance List		Start Date		End Date	
Duplicate	↓ 🖉 🛛 🛛	IS	H Insurance	InsuranceListRON	× /	19/04/2022		20/04/2030	
letails									
nsurance Item Fi	ilters					+	Insert X D	elete	t Ø Refres
Description									
٩									
Amount In:	surance >< 1000 - 30000								

### **Discounts**

For any banking product, you can add discounts of any nature. You can select a pre-existing discount or create a new one.

- To add a new discount, Click the Insert button in the Discounts section.
- 2. In the **Details Page**, insert the appropriate **Name** for the discount.
- 3. Choose one of the pre-configured types of discounts available in the **Discount** field, or create a new one. According to the selected type, new fields appear on the page requiring to be filled in.
- 4. Insert the value of the discount to be applied, e.g. 15.
- 5. Set the start date when the discount becomes effective (Start date), and the end date for the discount (End date).

- 6. Optionally, you can fill in the following fields:
  - Applied to dimension: Specifies for which product dimension this discount is applicable (interest, commission or insurance). This is autocompleted by the selected discount's dimension.
  - Commission type: This field appears if the selected Discount = Commission discount or Management Fee Discount. Specifies for which commission type this discount is applicable. This is autocompleted by the selected discount's default commission type.

  - Insurance class: This field appears if the selected discount = Discount Life Insurance or Interest Discount. Specifies for which insurance class this discount is applicable (credit, home, life or other insurance class). This is autocompleted by the selected discount's insurance class.
  - Insurance: This field appears if the selected discount = Discount Life Insurance. Specifies for which insurance this discount is applicable. This is autocompleted by the selected discount's insurance.
  - Interest type: This field appears if the selected discount
     = Interest discount. Specifies for which interest type this discount is applicable.
  - Use Banking Formula: If you select this checkbox, the discount is calculated using the Banking Formula engine.

- Is optional discount? : Selecting this checkbox results in the discount being applied only if the customer agrees to the discount.
- Is percentage: If you select this checkbox, the discount is calculated as a percentage from the contract's amount.
- Destination entity: Select the entity where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- Destination entity attribute: Select the attribute where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- 7. Click the Save and Close button.
- 8. In the **Product Discount Item Filter** section, click **Insert** and fill in the fields as specified in the **Product Filter page**. The fields displayed depend on the selected filter.
- 9. Click the Save and Close button.

### Questions

You can choose one or more questions to add to the banking product, or insert a new one.

- To insert a new question, in the Questions section, Click the Insert existing button, then click Insert.
- 2. In the **Add Banking Product Question** page, fill in the following fields:
  - Question: Enter the appropriate name.
  - Answer Type: Select the type of answer the customer has to give: text, numeric or option set.

- Answer Entity: Select the entity where the answer is stored.
- Answer Field: Select the attribute where the answer is stored.
- 3. Click the Save and Reload button.

The **Banking Products List** shows where the question is used.



4. Click the Save and Close button.

For example, this is how a question is displayed in a digital journey in the FintechOS Portal:

EDIT LOAN APPL				
		Eligibility Questions		
	We ask for this information	n so that we can carry out the checks needed to consider y	ou for a mortgage	
DEPOSIT SOU	RCE	Select	٥	
RETIREMENT	DATE		٥	
RETIRED		Yes  No	l≽.	
			Finish	

### 5. Configure Product Formula Engine

The **Product Formula Engine** tab keeps formulas built with Formula Engine for the banking product. Such formulas can be used to determine the eligibility of a customer.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	10 GL Settings
Banking Pro	luct Formulas		+ Insert X Dele	te Export Ø Refresh	Test Scena	arios	+	insert X Delete Exp	port Ø Refresh
Nam		Formula Type		Formula		ame		Test Formula Type	
CA		Commission	Formula	commissionByAmount	D	uplicate-19:04:2022_11:07:57		CommissionFormula	

### **Banking Product Formulas**

In the **Banking Product Formulas** section, choose an already defined formula or click **Insert** to configure a new one, for example a formula for eligibility or scoring purposes. For information on how to build a formula, see Define Formula Inputs.

 In the Add Banking Product Formula page, fill in the following fields:

Ð			Save and close
dit Banking Product Formul	a		
Main Information			
Name	Banking Product	Formula Type	Formula
CA	Duplicate	V 🖌 CommissionFormula	V CommissionByAmount
Data Mapping			
BPFormulaType_Test Formula_164	7267821582_formula	÷ #	
			Map Data

- Name: Enter an appropriate name.
- Formula Type: Select the type of formula configured before, e.g. scoring /eligibility.
- Formula: Select the previously configured formula.

**IMPORTANT!** The formula must be activated before attaching it to a product.

• Data Mapping: Select the previously configured data mapping.

The name of the banking product is inserted automatically in **Banking Product**.

- 2. After selecting the desired formula, click **Save and reload**, then click **Map Data**.
- 3. In the **Formula Mapping** page, click **Input** and configure the input data for the formula.
- 4. Click **Output** and configure the output for the formula.

Definition     (2) Input     (3) Output			🖹 Save	and close G Save and reload
	1 Definition	2 Input	3 Output	
ETOS CB Contract - Output	FTOS_CB_Contract - Output			

#### 5. Click the Save and Close button.

Such formulas can be used in digital journey steps, for example when the customer inserts their financial data.

EDIT RETAIL APPLICANT DATA			
	Income & Outgoings		
We	use your expected income and outgoings to work out how lend and to ensure that any mortgage we may offer you		
WHAT IS YOUR ANNUAL SALARY BEFORE TAX?	ARE YOU MARRIED?	EDUCATION LEVEL:	
e	[none]	[none]	
PAYING MONTHLY FOR OTHER LOANS:	NUMBER OF CHILDREN.	EMPLOYMENT STATUS	
6	0 0	[none]	
TOTAL CREDIT CARDS LIMITS:	CHILDCARE AND EDUCATION COSTS:	EMPLOYMENT MONTHS:	
TOTAL CREDIT CARDS LIMITS:	CHILDCARE AND EDUCATION COSTS: €	EMPLOYMENT MONTHS:	

## Test Scenarios

in Information			
it Formula Type	CommissionForm	ala	4
Key		Value	
٩		٩	
Amount			23.45
			Save Output Data
st Scenario Outputs			

A good practice is to test the formula before displaying it in a digital journey. You can do that in the **Test Scenarios** section:

- 1. Click the **Insert** button to open the **Add Test Scenario** page.
- 2. Insert a **Test Scenario Type** from the option set. The keys and the values are shown.
- 3. Click the Save and Reload button.
- 4. Click the **Calculate** button. The outputs are displayed in the **Test Scenario Outputs** section.
- 5. You can save these outputs by selecting the **Save Output Data** checkbox next to **Calculate**.

### 6. Add Documents

You can manage all the attached documents available for a product and all the agreements that a customer needs to go through in the **Documents** tab.

1 Main In	fo (2) Details	3 Availability	(4) Dimensions	8 Product Formula Engine	6	Documents	7 Lean Core Settings	8 History	9 Origination Elements	(10) GL Settings
Banking	Product Documents					Banking Produ	ict Agreements			
			+ Insert × De	elete				+ 1	nsert 🗙 Delete 📑 Exp	ort Ø Refresh
	Report	Banking Cop	xies No	Operation Code		Code				
	٩	٩		٩		٩				
	Status overview of the que	ues	2	TC						
								No data		

### **Banking Product Documents**

Any previously associated documents are displayed in the **Banking Product Documents** section.

 To attach a new document to the banking product, in the Banking Product Documents section, click Insert. The Add Banking Product Document page is displayed.

Banking Product Document				
Banking Product Document				
Operation Code	Banking Copies No	Report	Document Type	
PASS		2	↓ ✓ Passport	•
s Mandatory	Includes Debtor	Includes Coborrower	Requires Signature	
Yes No	🔵 Yes 💿 No	Ves 💿 No	🗌 Yes 💿 No	

- 2. Set the following fields:
  - **Operation Code:** Enter a code for the document.
  - Banking Copies: Insert the number of copies made.
  - **Report:** Select a document from the list.
  - **Document Type:** Select a document type from the list.
  - Is Mandatory: Select if the document is mandatory.
  - Includes Debtor: Select if the document includes the debtor.
  - Includes Coborrower: Select if the document includes the co-borrower.
  - **Requires Signature:** Select if the document requires to be signed.
  - Is accord: Select if the document represents the accord.
- 3. Click the Save and Reload button.

### **Banking Products Agreements**

The agreements that a customer needs to go through are displayed in the **Banking Products Agreements** section.

 To attach a new agreement to the banking product, in the Banking Products Agreements section, click Insert. The Add Banking Products Agreements page is displayed.

Edit Banking Product Agreement					Save and close 🗘 Save and reload
Main Information					
Agreement	Code		Banking Product		is Mandatory
Popescu Broker	AGR	1	SLICE Loan	41	

- 2. Fill in the following fields:
  - Agreements: Select an agreement from the list.
  - Banking Product: It is automatically filled in.
  - **Code:** Insert the corresponding code.
  - Is Mandatory: Select if the agreement is mandatory for the product.
- 3. Click the Save and Reload button.

For more information on how to configure a contract or an agreement, see the Digital Document Processor.

### 7. Configure Lean Core Settings

#### NOTE

The Lean Core Settings tab is available only when Banking Product Factory is implemented along with Core Banking.

Transactions types that are performed to and from a banking product are displayed in the **Lean Core Settings** tab. The tab also holds information about the reconciliation account associated with the products, mandatory roles for contract approval, payment allocation settings, the treatment of returned goods for contracts based on this banking product (only for Term Loans and Mortgage banking products), and closing contract settings.

#### **BANKING PRODUCT FACTORY USER GUIDE**

1 Main Info 2 Details 3 Availability	Dimensions     S Product Formula Engine	Cocuments     Core Settings     B History     Dirigination Elements     B CL Settings
Self Bank Account Associated With The Product		Payment Allocation Settings
Reconciliation Account Negative bala Reconciliation EUR V NoMessag		Repayment Allocation Method     Grace Days for Repayment     Penalty for grace period       CostOrder          ✓ ✓
Mandatory Roles for Contract Approval	+ Insert X Delete Export Ø Refres	Allowed Transactions  h
Role     Q	Search Limit (All)	Name           Q
Beneficiary		Top Up Account Transfer between my bank accounts
Closing Contract Settings		Withdraw
Buffer Close Days Close Real Tir	ne Closing Is Flexible	
Contract Is Closed Automatically		

# Reconciliation Account Associated With The Product

 In the Self Bank Account Associated with the Product, for each banking product, you must select a reconciliation account, which is the bank account to be used for transactions, for money movements.

Reconciliation Account	Negative balance treatment	
Reconciliation EUR	↓ NoMessage •	
NOTE		
_	int must have the same cu	rrency as the
This acco	int must have the same cu because the conversions ar	

2. Select a value for the **Negative Value Treatment** drop-down to specify how Core Banking treats situations when the funds of the reconciliation account associated with the banking product used in the contract would go below zero if a

disbursement event would be approved. The possible values are:

- Error there is an error message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can't be approved and the balance can't go below zero. Select this value if you want to block any transactions that would result in a negative balance of the reconciliation account associated to the banking product.
- Warning there is a warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.
- NoMessage there is no error or warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.

#### NOTE

Core Banking also has a system parameter, ReconciliationAccountTreatment. That is a system-wide setting, applicable to events for contracts based on all banking products without a specified Negative balance treatment value. Core Banking takes into consideration the settings used at the banking product level (the Negative balance treatment field's value). Thus, if the value is specified at the banking product level, then that value takes precedence over the system parameter's setting.

If you associate the same reconciliation account to more than one banking product, then the setting selected in banking product A is applied for contract events based on banking product A, while for the banking product B, Core Banking would apply the setting selected at the level of banking product B.

### Payment Allocation Settings

In the **Payment Allocation Settings** section you can decide which allocation method should be used to determine the order in which credit items are prioritized when repaying loans, credit accounts, and so on. You can also define the grace period settings.

Payment Allocation Setting	S			
Repayment Allocation Method	¥ 🖉	Grace Days for Repayment	5	Penalty for grace period
Direct Debit Settlement Accoun	t			

- 1. Fill in the following fields:
  - Payment Allocation Method: The payment allocation method represents the recovery order of amounts from payment notifications. Select a payment allocation method from the list.
  - Grace Days for Repayment: Insert the number of days for which the bank expects a payment without calculating penalty.

- Penalty for grace period: If you select the checkbox, the penalty interest is applied on the loan contract without taking into consideration the grace period defined at contract level, being calculated for the difference between system date - due date, if the grace period passed and the customer didn't pay the due amounts. If you leave this checkbox unselected, the penalty interest is applied on the loan contract taking into consideration the grace period defined at contract level, being calculated for system date - due date + grace days for repayment.
- Direct Debit Settlement Account: If you select the checkbox, the banking product has the automated settlement of repayment notification functionality (the payment allocation) turned on by default at the contract level. You can turn the automated settlement off either at the banking product level or at the contract level in Core Banking. Default value: true.

**NOTE** The automated settlement of repayment notification, or direct debit settlement account, is the functionality whereby, if funds are available on the settlement account and the contract has repayment notifications pending for recovery, Core Banking automatically uses the available balance up to full settlement of repayment notifications. In Core Banking, the automated settlement of Installment type repayment notification functionality (the payment allocation) can be turned on or off, thus allowing the financial institution to manage the contracts in case of blocked accounts and control the allocation of funds to outstanding notifications in case of need to impose a block on the settlement account, or manage the settlement of multiple loans from the same settlement account when short on funds and exceptional rules might apply.

If the functionality is turned off, the contract is pending for manual allocation. You can turn it back on and leave Core Banking to allocate the funds according to its automated processes, using any funds that become available in the settlement account in order to cover pending notifications.

2. Click the Save and Reload button.

### Mandatory Roles for Contract Approval

In the **Mandatory Roles** section you can add the roles of the participants that are mandatory to exist at the contract level for contracts based on this banking product. In other words, when creating contracts based on banking products with Merchant role in this section, you must add a customer with the same Merchant role as contract participant, otherwise, the contract cannot be approved. When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role, in this case Merchant Exposure.

Mandatory Roles for Contract Approval

	+ Insert X Delete Export 7 Refresh
Role	Search Limit
Q	(All)
Beneficiary	

1. In the **Mandatory Roles** section, click **Insert** and fill in the following fields:

${igodot}$		원 Save and close
Add Mandatory Role		
Main Information		
Banking Product	Role	Search Limit
Duplicate	4 Merchant	- / 🗹

- **Banking Product:** The banking product for which you define mandatory roles. This is automatically completed with the current banking product.
- **Role:** Select the role of the participants that are mandatory to exist at the contract level for contracts based on this banking product.
- Search Limit: When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role. If you select a role not associated with a customer limit type in Core Banking, the Search Limit field becomes read-only and unselected.
- 2. Click the Save and Reload button.



In the **Return Of Goods,** you can define whether a contract based on the banking product can have Returned Amount or Goods transactions or not, and the specific conditions for these transactions. The Returned Amount or Goods transaction type can be used when a customer returns all or part of a loan or mortgage in a short while after contract creation, if the banking product was defined to allow such transactions. You can set up Return Fee type commissions, to return all or some of the claimed commission to the borrower.

Return Of Goods				
Allow Return Of Goods	Accepted Days For Return		Return Message	
	15	)	Warning	-

- 1. Fill in the following fields:
  - Allow Return Of Goods: Select this checkbox if the contracts based on this banking product accept Return of Goods transactions. Default value: False. If selected, the Accepted Days For Return and Return Message fields are displayed, otherwise, these fields are not visible.
  - Accepted Days For Return: Specify the number of days after contract creation during which the return of goods transaction can be created and approved.
  - Return Message: Select the behavior of messages generated by Core Banking for situations when the Returned Amount or Goods transaction's approval date + the number of accepted days for return >= the current date. Possible values are taken from the Warning Error Treatment option set. According to the desired behavior, choose:

- Error, if the transaction should not be approved and an error message should be displayed;
- Warning, if the transaction can be approved, but a warning message should be displayed;
- NoMessage, if the transaction can be approved without any messages.
- 2. Click the Save and Reload button.

**NOTE** If Allow Return Of Goods = True, then the Returned Amount of Goods transaction is automatically added to the **Transaction Types** section.

### **Contract Settings**

In the **Closing Contract Settings** section, you can configure the default closure settings for contracts based on this banking product.

Closing Contract Settings		
Buffer Close Days	Close Real Time	Closing Is Flexible
Contract Is Closed Automatically		

- 1. Fill in the following fields:
  - Buffer Close Days: Enter the number of days used as buffer before automatically closing the contract when the contract reaches maturity and its balance reaches zero. If Buffer Close Days > 0, then Contract Is Closed Automatically = False.

- Close Real Time: If you select this checkbox, the contract based on this banking product is closed in real-time, when the contract reaches maturity and its balance reaches zero, without waiting for the end of day processes. If Close Real Time = True, then Buffer Close Days = 0 and Contract Is Closed Automatically = True.
- **Closing Is Flexible:** If you select this checkbox, the closure details of the contract based on this banking product can be modified at the contract creation.
- Contract Is Closed Automatically: If you select this checkbox, the contract based on this banking product is closed automatically at maturity, if the balance reaches zero. If Contract Is Closed Automatically = False, then Close Real Time = False.
- 2. Click the Save and Close button.

### Allowed Transactions

In the **Allowed Transactions** section, you can associate possible transaction types with the selected banking product:

- Click Insert existing and select the desired transaction types to be associated.
- 2. Double-click a selected transaction type to edit it.

Settings										
Name	Transaction C	ode	Process Type		Edit Form		Transaction Operat	ion Type	Is System Transaction	
Disbursement	DSB		Disbursement	+	FTOS_C8_EventDisburs	ement 4	Disbursement	+		
s Automatic Transaction	Real Time Process	Only One Draft	Generate Nev	w Contract	Commission Type			Return Commission	n Type	
			Version				4			
Accounting Configurations	OL Master En	iity			Purge Configurations	Purge Nu	mber of Days	Master Purge Entity	у	
Accounting Configurations	OL Master En					Purge Nu		•		
Accounting Configurations	OL Master En	thy ContractEvent		• •	To Be Purged	•	30	Master Purge Entity FTOS_C8_Control		
Accounting Configurations	OL Master En		X Defete	© •	To Be Purged	•	30	•		
Accounting Configurations	OL Master En	ContractEvent			To Be Purged	•	30 ations	FTOS_CB_Contr	x Delete	
Accounting Configurations interates Accounting Entry	GL Master En	ContractEvent + Insert		Ø Refresh	To the Purged	unting Configur	30 ations	FTOS_CB_Contro	x Delete	
Accounting Configurations Generates Accounting Entry Transaction Value Types Transaction Type	GL Master Er	Value Type Name	In Header Value (AB) • Q	Ø Refresh	To the Purged	Accounting	30 ations	FTOS_CB_Contra + Insert	X Delete Export	D Re Take Pro

- 3. In the Edit Transaction Type > Settings section, fill in the following fields:
  - Name: Enter the name of the transaction type.
  - **Transaction Code:** Enter the code of the transaction type.
  - **Process Type:** This field associates the process type with the transaction operation type, which makes the connection with the transaction motor of bank accounts. Select one of the processes defined within the system.

**NOTE** There is no integration at this point with a payment gateway.

- Edit Form: Select the form used to edit this transaction type. You can choose only from the forms defined on the Contract Event entity.
- Transaction Operation Type: The transaction operation type makes the connection with the transaction motor of bank accounts. Select one of the transaction operation types defined within the system.

- Is System Transactions: If you select this checkbox the transaction is marked as being neither a credit of the account, nor an allocation of funds, but a transaction that does not influence other transactions within the account. System transactions are meant to be used only for accounting.
- Is Automatic Transaction: If you select this checkbox here, then you cannot select it within the contract operations. The Is Automatic Transaction checkbox marks the transaction as automatic.
- Real Time Process: This checkbox marks the transaction as to be processed in real-time. If selected, then the transaction is processed right away. If not selected, then the transaction is inserted as a bank account transaction queue record.
- Only One Draft: If you select this checkbox, there can be only one record of this transaction type in Draft status created at the contract level.
- Generate New Contract Version: This checkbox allows you to specify if a new contract version should be generated by this transaction type.
- **Commission Type:** Select the commission type applicable for this transaction type. Return fee commissions are filtered out and can't be selected.
- Return Commission Type: Select the return fee commission type applicable for this transaction type.
   Only return fee commissions can be selected.
- Is Clawback Transaction: If selected, this checkbox marks the transaction as generating a clawback commission. The transaction type is to be used in thirdparty management invoicing activities. Default value: False.

- 4. In the Edit Transaction Type > Accounting Configurations section, fill in the following fields:
  - Generates Accounting Entry: Select this checkbox to create an entry in the Operational Ledger. It generates records in the Accounting Entry entity.
  - **OL Master Entity:** Select the entity referenced by the accounting systems.
- 5. In the Edit Transaction Type > Purge Configurations section, fill in the following fields:
  - To Be Purged: This checkbox marks the transaction as purgeable. If you select it, you can purge or archive records in Draft status.
  - Purge Number of Days: Enter the default number of calendar days that a record can be kept in Draft status before it is purged. For additional information, see the Core Banking System Parameters page. This field is displayed only when To Be Purged = True.
  - Master Purge Entity: Select the master purge entity under which the draft records are. This field is displayed only when To Be Purged = True.
- 6. You can also edit the information in the Transaction Value Types, Transaction Item Accounting Configurations and Transaction Accounting Models sections. Read more details about Transaction Types in the Operational Ledger User Guide.
- 7. Click the Save and Close button.

# Transaction types typically used for term loans

- Accruals and Provisions System transaction. If added at banking product level, the accruals and provisions for contracts can be calculated on a daily basis.
  - This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.
- Disbursement If added at banking product level, the requested funds are transferred into the customer's account. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- Early repayment If added at banking product level, the customer can make a payment earlier than the stated maturity date of the contract. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- Payment Holiday If added at banking product level, the official bank holidays are considered when calculating a payment schedule. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- Repayment If added at banking product level, the customer can make a payment to cover the scheduled repayment amount.
   This transaction type is not added automatically.
   Make sure you insert it in the Associated
   Transactions tab.

 Repayment Notification - If added at banking product level, the system generates and displays in the contract a repayment notification after each disbursement, containing the total amount to be paid off.

This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.

- Reschedule Overdues If added at banking product level, the system extends or adds extra time to an existing contract. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- Reschedule Debt If added at banking product level, the system recalculates the entire payment schedule by extending the time period for loan repayment.

This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.

 Returned Amount or Goods - If added at banking product level, the Returned Amount of Goods transaction type can be used when a customer returns all or part of a loan in a short while after contract creation. You can set up Return Fee type commissions, to return all or some of the claimed commission to the borrower. This transaction type is not added automatically.

Make sure you select the Allow Return Of Goods checkbox in the **Return of Goods** section within the **Associated Transactions** tab.

- Revert Disbursement If added at banking product level, disbursements performed at contract level can be reverted after being performed. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- Revert Transfer between my bank accounts

   System transaction. If added at banking product level, transfers between the same customer's bank account can be reverted after being performed. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- Transfer between my bank accounts If added at banking product level, the customer is allowed to move funds between their accounts at the contract level.

### 8. View History

You can find the versions of the banking product, their workflow status and the user who modified the product in the **History** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula	la Engine	6 Documents	7 Lean	Core Settings	8 History	9 Or	igination Elements	0 GL Settings
History												
											Ø	Refresh Export
Label			Name		attributeVersionDat	e		attributeVersion			Modified by user	
٩			٩		٩			٩			٩	
Draft			Duplicate		19/04/2022 10:2	9				1		

Here you can track the product's life cycle and review older versions that are no longer active (for details, see Banking Products' Life Cycle).

### 9. Manage Origination Elements

You can set the elements required in the origination journey, such as product benefits, display conditions, features, destination types, or associated products in the **Origination Elements** tab.

1 Main Info 2 Details 3 A	vailability (4) Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	10 GL Settings
Product Image ProductPC.JPO X Add file or Drop file here	Document ProductPresentation Add file or Dro	Doc.pdf x					
Benefits			Display Condition	ons			
File - Edit - Insert - View - Format - Ta	able - Tools -		File - Edit - In	isert - View - Format - Tabl	e - Tools -		
		8 🖬 🖷 🐨 🖬	🖘 🥐 Format	s × B I <u>A</u> × E Ξ	∃ ■ 日・旧	· = = 8 = • •	Ð
Low Interest Rates							
Product Features		Product Destination Types		Asso	ciated Products		
+ Insert X Delete	e Export Ø Refresh	(	+ Insert existing	K Remove existing		+ Insert existing	× Remove existing
Feature DisplayNa	me Show Order ()	Display Name			Name		
٩	٩	٩			٩		
NMNGTFEES No Mana	igement 1	Personal			Current Account	t USD	

- 1. Fill in the following fields:
  - Product Image: Insert an image representative for the product.
  - Document: Insert the document representative for the product.
  - **Benefits:** Insert the advantages of owning the banking product. You can format the text in the text editor window.
  - **Display Conditions:** Insert the conditions for the applicant, e.g. age limit, annual turnover, education level, income, registration documents.
- 2. Click the Save and Reload button.

### **Product Features**

In the **Product Features** section, you can insert, delete or export features.

 To add a feature, Click the Insert button and fill in the following fields:

- Feature: Enter the name of the product feature.
- Is Main Feature: Select the checkbox if it is the major feature.
- Display Name: Enter the display name of the feature.
- 2. Click the Save and Reload button.

### **Product Destination Types**

In the **Product Destination Types** section , you can insert or remove the existing product destination types:

- 1. Click **Insert existing** and select one of the existing destination types, or insert a new one.
- To create a new destination type, insert a name and specify if it is default. For this case, the following have been configured: Loan Collateral, Loan disbursements, Personal, Repayments.

### Associated Products

In the **Associated Products** section you can insert or remove an existing products. It is especially useful when you wish to create a link between two products.

Associa	ted Products		
		+ Insert existing	× Remove existing
	Name		
	٩		
	Current Account USD		

To insert or remove a product from the list or create a new one:

- 1. Click **Insert existing** and select one of the existing destination types, or insert a new one.
- 2. Click the Save and Reload button.

### 10. Configure Operational Ledger Settings

#### NOTE

The **OL Settings** tab is available only when Banking Product Factory is implemented along with **Operational Ledger Add-On**.

In the **Banking Product GL Accounts** section, you can set specific accounts to be used by the Operational Ledger system for transactions performed on contracts based on this banking product. Thus, you can overwrite the generic settings of the Operational Ledger, instructing it to use the accounts specified at banking product level.

1 Main Info	2 Details	3 Availability	(4) Dimensions	5 Product Formula	a Engine 6 D	ocuments 7 L	ean Core Settings	8 History	9 Origination Elements	0 GL Settings
Banking Prod	uct GL Accounts									
								( + In:	sert X Delete Exp	ort Ø Refresh
Produ	zt		Accounting System		Accounting Scope		Item		GL Account	
٩			۹		٩		٩		٩	
Dupli	cate		0001		FixDeposit		Loan Admin Fee		20110 Commercial loans	

 To add specific accounts to be used by Operational Ledger, click Insert and fill in the following fields in the displayed Add Banking Product GL Account page::

)								B Save and close	Save and reload	Save and new
d Banking Product GL A	Account	t								
Main Information										
Product		Accounting System		Accounting Scope		Item		GL Account		
Duplicate	+ 1	0001	•	FixDeposit	¥	Loan Admin Fee	¥	20110 Commercial Ioans	Ŷ	

• **Product:** Select from the list the banking product. Automatically completed with the banking product you are currently editing.

- Accounting System: Select from the list the desired accounting system. The list contains the records created in the Accounting System entity.
- Accounting Scope: Select from the list the corresponding accounting scope. The list contains the records created in the Accounting Scope entity.
- Item: Select from the list the corresponding transaction item. The list contains the records created in the Transaction Item Accounting Config entity.
- **GL Account:** Select from the list the corresponding GL account. The list is filtered based on the previously selected accounting system. It contains the accounts defined in the Accounting Chart entity that were added to the chosen accounting system record.
- 2. Click the Save and Reload button.

## Mortgage Loans

A mortgage is a type of financial product in the form of a loan taken out to buy property or land. In general, mortgages run for a period of 25 or 30 years, but that depends on the applicant applying for the loan. Such types of loans are secured against the value of the property or land until it's paid off.

### **Creating Mortgage Loans**

To create a new mortgage loan from scratch, navigate to main menu > **Banking Product Factory** > **Banking Products**, and click the **Insert** button. A new page opens, with a series of tabs that assist you in configuring the banking product.

> **NOTE** Alternatively, you can create a mortgage loan by duplicating an existing one. Click

the **Duplicate** button on the **Banking Products List** page. Make sure you change the **Banking Product Code** and **Name** according to your business needs.

### 1. Enter Basic Information

You can set the basic elements for creating the product, such as name, code, currency, validity, or product classification, in the **Main Info** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine		5 Documents (7) Lean Core Settin		e Setting	8 History 9 Origina		nation Elements 10 GL S		ngs
Main Informatic	on												
Banking Product 1	Гуре	Currency		Banking Product Code		External Code			Start Date		End Date		
Mortgage	0	EUR	¥	M_BU					01/03/2022		31/03/2022		
Name				Class		SubClass			Category		SubCategory		
Mortgage test	BU				¥			¥		¥			¥
Description						Product Classi	fication						
										+ In	sert existing	× Remove exis	sting
						Code		Name	Classification Type	Vali	i From	Valid To	
						٩		٩	٩	٩		٩	

#### NOTE

Your product type selection influences the next steps. For mortgage loans, select the **Mortgage** option in **Banking Product Type**.

### Main Information

- In the Main Information section, select the Banking Product Type from the available list.
- 2. Choose the **Currency** for the banking product.
- 3. Enter the product code in the **Banking Product Code** field. It can have 10 characters, and it is used in the contract. It uses a sequencer and the code of the product type.
- 4. Set the product validity by selecting the date when the product becomes available (Start Date) and the last date from when the product is available (End Date).
- 5. Enter the product **Name**.
- 6. Optionally you can set the following fields:

- External Code: Select the code of the product imported from an external system, if applicable. It can have 10 characters and it is not used in the contract.
- Class: Select the class of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
- Subclass: Select the subclass of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
- **Category:** Select the category of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
- SubCategory: Select the subcategory of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
- **Description:** Enter any description or additional text related to your new product.
- 7. Click the **Save and Reload** button. The product is now saved and you can further edit it for your needs.

### Product Classification

After saving the product, the **Product Classification** section is populated with more options for your term loan. You can insert or remove existing product classification items.

1. To add a product classification item, click **Insert Existing** and select an already existing item.

oduct Classificati	on			
			+ Insert existing	× Remove existing
Code	Name	Classification Type	Valid From	Valid To
٩	٩	٩	۹ 🖬	٩
REG1	Classification	Regulatory	01/01/2020	31/12/2030

- You can also create a new product classification item by clicking the Insert existing button and then the Insert button.
- On the newly displayed Add Product Classification page, fill in the fields:

${igodot}$				Save and close	😳 Save and reload 🛛 🗟 Save and new
Add Product Classification					
Main Information					
Name	Code	Valid From	Valid To	Classification Type	is Default
Classification Restructuring Level	RESTRUCTL1	20/04/2022	30/04/2028	Restructuring S -	U
<b>Classified Banking Products</b>					

- Name: Enter the name of the classification item.
- Code: Enter the unique code of the classification item.
- Valid From: Select the date from which the product classification item is valid.
- Valid To: Select the date until when the product classification item is valid.
- **Classification Type:** Choose the classification type of the item. Possible values: Regulatory, Restructuring.
- Is Default: Select the checkbox if this classification item is default.

The **Classified Banking Products** section is displayed after you save the classification item record and allows you to insert existing banking products. The following information is displayed here: **Code, Name, Class, SubClass, Category, SubCategory** and **Status.** 

For more information on how to create a new product classification, see Banking Product Classification.

4. Click the Save and Reload button.

# 2. Add Details

You can set elements such as general data, disbursement settings, payment schedule types and templates, product guarantees, tranches, and holiday settings in the **Details** tab.

1 Main Info	2 Details	3 Availability	(4) Dimensions	S Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	Origination Elements	10 GL Settings
General Data Is Revolving		Allow Refinancing		Allow Restructuring	Allow CoDebtor	M	fax No. Of CoDebtors	2	
Disburse Settings					Product Guaran	tees			
Autodisbursement		Max No Disbursement	3	Activ Tranche On Doc Submission	Is Guaranteed	c	Collateral Cover Percent	t Allow Coll	ateral Partial Release
Product Tranches					Allowed Guaran	tee Types			
			+ Insert	X Delete	]			+ Insert X Delete	Export     Ø Refresh
Name				art Month From A Interest Percent		tee Type		Max Accepted Covering Percent	
٩		٩		۹	٩			٩	
		No c	ata		Reside	intial Real Estate			80.00
Payment Schedule	e Types								
Period Type			Periodicity Type		Grace Type			Product Grace	
Months		•	Monthly		↓ [none]		•		↓ <i>↓</i>
Schedule Templat	es				Holiday Setting:	5			
			(	+ Insert existing X Remove existing	Holiday Shift For R	epayment Installments		Defer Due Date	Holiday Shift Method
Name									
٩					Country Calend	lars			
		No c	ata					+ Insert ex	isting X Remove existing
					Name				
					٩				
					Roman	nia			

# **Product Behavior**

1. In the **General Data** section, you can optionally set the following fields:

- Is Revolving: If selected, allows a business to borrow money as needed for funding working capital needs and continuing operations such as meeting payroll and playable.
- Allow Refinancing: Select if the account can be refinanced for this product.
- Allow Restructuring: Select if the loan can be restructured.
- Allow CoDebtor: Select if another debtor exists for this product.
- Max No. of CoDebtors: Set the maximum number of codebtors possible for this product.
- 2. Click the Save and Reload button.

## **Disbursement**

- In the Disburse Settings section, check the Auto Disbursement box, and the disbursement is automatically performed when the contract is approved.
- 2. You can optionally set the following fields:
  - Max No Disbursements: Enter the maximum number of disbursements that can be configured for this product.
  - Active Tranche On Doc: If you select this checkbox, then the tranches are activated (disbursements are created and approved) after certain documents are submitted. It is the Financial Institution's responsibility to verify the content of the submitted documents.
- 3. Click the Save and Reload button.

# **Product Tranches**

The **Product Tranches** section is displayed if you selected the **Active Tranche On Doc** checkbox. You can insert existing disbursement tranches or create new ones, configured to fit the product. Usually used for corporate loans, such dividend payments or cash outflows are not done in equal amounts and usually trigger a recalculation in terms of interest.

Product Tranches

(+ In	sert 🗙 Delete 🖿 Export 🖉 Ref	iresh		
	Name	Tranche Percent	Start Month From Acti	Interest Percent
	Q	Q	Q	Q
	Tranche 1	50.0000		2.0000
	Tranche 2	50.0000		2.0000

- To add multiple such disbursements, click the Insert button. The Add Product Disbursement section is displayed and you can set the following fields:
  - Name: Enter the name of the new disbursement.
  - Tranche Percent (%): Enter the percentage of the final amount that goes towards the disbursement.
  - Start Month From Activation: Enter the start month for the disbursement. It can be any month in the loan availability period.
  - Interest Percent (%): Enter the interest percent for that particular disbursement.
  - Unusage Commission Percent (%): Enter a commission paid for the loan amount unused.
- 2. Click the Save and Reload button.

# Product Guarantees and Allowed Guarantee Types

Product Guarantees		
Is Guaranteed	Collateral Cover Percent	Allow Collateral Partial Release
Allowed Guarantee Types	+ Insert	X Delete Export
Guarantee Type	Max Acc	cepted Covering Percent
Q	٩	
FixDeposit		85.00

- 1 In the **Product Guarantees** section, set the following fields:
  - Is Guaranteed: If selected marks the product as secured.

#### NOTE

The Collateral Cover Percent, Allow Collateral Partial Release fields, and the Allowed Guarantee Types section appear when you select the Is Guaranteed checkbox.

- **Collateral Cover Percent:** Enter the percent that the collateral person on the contract pays. It usually is over 100%.
- Allow Collateral Partial Release: A partial release is a mortgage provision that allows some of the collateral to be released from a mortgage after the borrower pays a certain amount of the loan.

The **Allowed Guarantee Types** section is displayed after you check the **Is Guaranteed** option. You can insert or delete allowed guarantee types:  To insert a guarantee type, click the Insert button and fill in the name, maximum accepted covering percent, and select the guarantee type.

Add Product Guarantee Structure					
Product Guarantee Structure					
Banking Product	Card		Guarantee Type	FixDeposit	**
• Max Accepted Covering Percent	85	5	• Name	Deposit	

3. Click the Save and Reload button.

# Payment Schedule Types



 Select the regularity of payments in the Periodicity Type. You can choose: Once (the whole amount is paid at maturity), Weekly, Monthly, Bimonthly, Trimestrial, 4 Weeks, Semestrial, Annual or 30Days.

#### NOTE

If the measurement unit of the selected
Periodicity Type = Days, then Holiday Shift
For Repayment Installments = False and it
cannot be changed.

- 2. Optionally, you can set the following fields:
  - **Period Type:** Select the period of availability for the product: **Days, Weeks, Months, Years** or **Once**.

#### NOTE

The period type must be the same as the

measurement unit of the Periodicity Type.

- Grace Type: Select whether the product grace should apply to the principal, the interest, or both. Select an option from the list: Both, Principal or Interest.
- Product Grace: Select an option from the list. This is the amount of time that the bank can offer to a customer at the beginning of the contract without repayments of principal or principal + interest (however, most probably the bank capitalizes the interest for that period).
- 3. Click the Save and Reload button.

# Schedule Templates

In the **Schedule Templates** section, you can associate/ delete payment schedule types to/ from the banking product.

Schedulo	e lemplates		
		+ Insert existing	× Remove existing
	Name		
	٩		
	Credit Card Installments		
	One principal installment		

 To associate a payment schedule type to the banking product, click Insert Existing and select one of the already defined types. Go to "Payment Schedule Types" on page 405 to read more about this.

#### **IMPORTANT!**

When creating a new Term Loan, Mortgage, or Overdraft banking product, you must select at least one payment schedule type, otherwise you can't approve the product. If the **Schedule Templates** section has no records, an error message is displayed upon transitioning the product into the **Approved** status.

2. Click the Save and Reload button.

# Holiday Settings

In the Holiday Settings section, the following fields are available:

Holiday Settings		
Holiday Shift For Repayment Installments	Defer Due Date	Holiday Shift Method Forward
Country Calendars		
	+ Inser	t existing X Remove existing
Name		
٩		
Romania		

1. Select the **Holiday Shift For Repayment Installments** checkbox for holidays to be taken into consideration when calculating the maturity program.

#### NOTE

The **Country Calendars** section and the **Defer Due Date** and **Holiday Shift Method** fields appear if you select the **Holiday Shift For Repayment Installments** checkbox.

The **Defer Due Date** option is select by default. If selected, the payment schedule calculates the next payment amount as if the due date has not changed even when the due date falls on a holiday.

- 2. From the Holiday Shift Method, you can select the method to be used when calculating the due date if that date falls on a holiday. The due date can be shifted before or after the holiday. The possible values you can choose are:
  - None the due date is not shifted.
  - Forward the due date is shifted to the next working day after the initially calculated due date.
  - **Backward** the due date is shifted to the last working day before the initially calculated due date.

Default value: Forward.

## **Country Calendars**

In the **Country calendars** section, you can insert or delete calendars. You can work with multiple calendars as well. To insert a calendar:

- Click the Insert Existing button and add the country's name. If the maturity date coincides with a holiday, it is allocated automatically on the next business day.
- 2. Click the Save and Reload button.

# 3. Configure Availability

You can determine the monetary range and the time frame when the product is available for customers in the **Availability** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Setting	gs (8) History	Origination Ele	ments (1	0 GL Settings
Product Availab	ility									
Minimum Amount		Maximum Amount		Minimum Period	Maximum Period		Minimum Advance	Maxi	imum Advance	
	1,500		400,000	1		240		0		60
Start Period For U Activation(Months	) 1	Maximum Period D Activation (Months		Minimum Principal For Early Repaymen	t					
Product Availab					Product Coven:	ants				
			+ Insert	Delete	)		+	Insert X Delete	Export	Ø Refresh
Descrip	tion				Туре	Covenant		Valid From	Valid to	Value
٩					٩	٩		٩	٩	٩
					Affirma	ti Borrowers sho	ould perform tax obligations	01/01/2021	31/01/2030	
		No	data		Financi	al Lender can m	onitor borrower's current r	30/12/2020	31/01/2040	
					Negativ	Lender posses	s the righ to prevent merg	01/01/2021	31/01/2040	

# Product Availability

- 1. Fill in the following fields:
  - Minimum Amount and Maximum Amount:Enter the minimum and the maximum amount of the product for which the bank opens a contract.
  - Minimum Period and Maximum Period: Enter the minimum and maximum duration of the product mentioned in the contract.
  - Minimum Advance and Maximum Advance: Enter the minimum and maximum advance percentage from the contract's financed value applicable at the contract level.
  - Start Period For Unusage After Activation (Months): Enter the start period for unused amount after the activation, in months.

- Maximum Period For Disbursement After Activation (Months): Enter the maximum period of disbursement after the this option is set, in months. The number of months during which the disbursement must be made.
- Minimum Principal For Early Repayment: Enter the minimum principal for when early repayments are made.
- 2. Click the Save and Reload button.

# Availability Rules

In the **Availability Rules** section you can select the item filters for your banking product.

Availabi	lity Rules	
Product	Availability Item Filters	
		+ Insert X Delete Export & Refresh
	Description	
	٩	
	CA >< 1 - 50000	

- Click the Insert button, the Add Product Availability Item Filter is displayed.
- 2. Select the desired filter from the Filter option.
- 3 Add the attributes of the selected filter.
- 4. Optionally, add a description for the added item filter.
- 5. Click the Save and Reload button.

For more details, see "Product Filter" on page 462.

## **Product Covenants**

In the **Product Covenants** section you can set certain conventions that applicants must abide by after getting the loan. This is usually applicable for corporate clients that must meet certain requirements in order to continue to receive disbursements.

Product Covenants				
	+ Insert	X Delete	Export	Ø Refresh
Туре	Covenant	Valid From	Valid to	Value
٩	٩	۹ 🖬	۹ 🖬	٩
Affirmati	Borrowers should perform tax obligations	19/04/2022	20/04/2030	
Financial	Lender can monitor borrower's current r	19/04/2022	20/04/2030	

- Click the Insert button to add a covenant to the product. Each covenant can be attributed a value, an availability period, and a review frequency in months. Read more about covenants in the "Covenant" on page 477 page.
- 2. Click the Save and Reload button.

# 4. Manage Dimensions

You can insert, delete or export interest, commissions, insurances, discounts or questions valid for your product in the **Manage Dimensions** tab.

) Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula	Engine	6 Documents	7 Lean Core Settings	8 History	<ol> <li>Origination Elements</li> </ol>	(10) GL Settings
nterest & Com	missions					Insurances				
			+ Insert	elete	Ø Refresh			+	Insert X Delete	xport Ø Refre
Item N	lame					L Item	Name			
٩						٩				
MCA						Hou	se Insurance			
iscounts						Questions				
			+ Insert	elete	Ø Refresh				+ Insert existing	× Remove exist
Name		Discount	End Date Sta	rt Date Value	Discount	Que	tion		Business Status	
٩		٩	Q 0			٩			٩	
						Que	stion1		Active	
			No data			Que	stion2		Active	

To add a new one, click **Insert** and fill-in the fields detailed in the sections below.

#### NOTE

To configure the interest and commissions separately, navigate to **Main** > **Product Factory** > **Banking Product Dimensions menu** which contains several other embedded menus.

## Interest & Commissions

- To add an interest or a commission, click Insert in the Interest
   & Commissions section. The Add Interest & Commission Item page is displayed.
- 2. Select the banking product from the Banking Product list.
- 3. Enter the Item Name.
- 4. Enter the **Start Date** when the interest/ commission becomes effective and the **End Date** for the interest/ commission.
- 5. Fill in the following fields:
  - Code: Enter a code for this particular interest/ commission.
  - Interest List: Select from which list the interest is a part of.
  - **Commissions List:** Select from which list the commission is a part of.
  - Minimum Interest Rate (%): Enter the percent applicable as a minimum interest rate at the contract level.
  - Is Negotiable: Select the checkbox to specify that every interest, commission or margin field at the contract level is negotiable and can be edited.
- 6. Click the Save and Reload button.

- 7. In the Interest & Commission Item Filters section, click Insert to insert an item filter.
- 8 Select a filter created earlier in the "Product Filter" on page 462.
- 9. Set the following fields:
  - Value/ Date: Select the beginning value/ date for the filter.
  - Until Value/ Until Date: Select the maximum value/ date for the filter.
  - Description: This field is automatically filled in after clicking the Save and Reload button. The values/ dates inserted above are turned into an expression.

For Lookup attributes, the following fields are available:

- Filter Entity: Entity on which the filter was defined.
- **Description:** It is left blank. Add a description if needed.
- Grid of Options: This field is automatically filled in after clicking the Save and Reload button. The values of the option set are displayed. Select the Boolean for the values you wish to include in the filter.

 $\langle \boldsymbol{\epsilon} \rangle$ 🖹 Save and close 🔅 Save and reload Edit Interest & Commission Item Filter Main Information Filter AL\_Amount 4 1 Until Value Value 50.000 Description AL\_Amount >< 1 - 50000

#### 10. Click the Save and Reload button.

### Insurances

For any banking product, you can select a pre-existing insurance or create a new one.

- 1. To add a new insurance, in the **Insurances** section, Click the **Insert** button and set the following fields:
  - Banking Product: Select the banking product.
  - Code: Insert a code for this particular insurance.
  - Item Name: Insert a name.
  - **Start Date:** Enter the start date when the insurance becomes effective.
  - End Date: Enter the end date for the insurance.
  - **Details:** It is left blank. Add a description if needed.
  - Insurance List: Select from which list the insurance is a part of.
- 2. Click the Save and Reload button.
- 3. In the **Insurance Item Filters** section, click **Insert** and fill in the following fields:
  - Filter: The name inserted earlier.
  - Value: The starting value for the attribute.
  - Until Value: The ending value of the interval.
  - **Description**: Insert the proper description for the availability filter.

#### 4. Click the Save and Reload button.

Banking Product		Code	Item Name	Insurance List		Start Date	End Date	
Duplicate	÷ /	INS	H Insurance	InsuranceListRON	* /	19/04/2022	20/04/2030	

## Discounts

For any banking product, you can add discounts of any nature. You can select a pre-existing discount or create a new one.

- To add a new discount, Click the Insert button in the Discounts section.
- 2. In the **Details Page**, insert the appropriate **Name** for the discount.
- 3. Choose one of the pre-configured types of discounts available in the **Discount** field, or create a new one. According to the selected type, new fields appear on the page requiring to be filled in.
- 4. Insert the value of the discount to be applied, e.g. 15.
- 5. Set the start date when the discount becomes effective (Start date), and the end date for the discount (End date).
- 6. Optionally, you can fill in the following fields:
  - Applied to dimension: Specifies for which product dimension this discount is applicable (interest, commission or insurance). This is autocompleted by the selected discount's dimension.

- Commission type: This field appears if the selected Discount = Commission discount or Management Fee Discount. Specifies for which commission type this discount is applicable. This is autocompleted by the selected discount's default commission type.
- Insurance class: This field appears if the selected discount = Discount Life Insurance or Interest Discount. Specifies for which insurance class this discount is applicable (credit, home, life or other insurance class). This is autocompleted by the selected discount's insurance class.
- Insurance: This field appears if the selected discount = Discount Life Insurance. Specifies for which insurance this discount is applicable. This is autocompleted by the selected discount's insurance.
- Interest type: This field appears if the selected discount
   Interest discount. Specifies for which interest type this discount is applicable.
- Use Banking Formula: If you select this checkbox, the discount is calculated using the Banking Formula engine.
- Is optional discount? : Selecting this checkbox results in the discount being applied only if the customer agrees to the discount.
- Is percentage: If you select this checkbox, the discount is calculated as a percentage from the contract's amount.

- Destination entity: Select the entity where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- Destination entity attribute: Select the attribute where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- 7. Click the Save and Close button.
- 8. In the **Product Discount Item Filter** section, click **Insert** and fill in the fields as specified in the **Product Filter page**. The fields displayed depend on the selected filter.
- 9. Click the Save and Close button.

## Questions

You can choose one or more questions to add to the banking product, or insert a new one.

- To insert a new question, in the Questions section, Click the Insert existing button, then click Insert.
- 2. In the **Add Banking Product Question** page, fill in the following fields:
  - **Question:** Enter the appropriate name.
  - Answer Type: Select the type of answer the customer has to give: text, numeric or option set.
  - Answer Entity: Select the entity where the answer is stored.
  - **Answer Field**: Select the attribute where the answer is stored.
- 3. Click the Save and Reload button.

The Banking Products List shows where the question is used.

#### **IMPORTANT!**

The question has to be activated in order for it to be added to the banking product.

4. Click the Save and Close button.

For example, this is how a question is displayed in a digital journey in the FintechOS Portal:

				Questions		7
		We ask for this information	so that we can carry o	ut the checks needed to consider y	ou for a mortgage	
	DEPOSIT SOURCE			Select		-
, I	RETIREMENT DATE					
F	RETIRED			Yes  No	₽.	12

## 5. Configure Product Formula Engine

The **Product Formula Engine** tab keeps formulas built with Formula Engine for the banking product. Such formulas can be used to determine the eligibility of a customer.

1 Main Info	2 Details	3 Availability 4 Din	ensions (5) Product Formula Engine	6 Documents	Zean Core Settings	8 History	Origination Elements	(10) GL Settings
Banking	Product Formulas	+ Ins	ert 🛛 🗶 Delete ) 🔳 Export ) 🖉 Re	Test Scenario	98	(+ In	isert ) 🗙 Delete ) 🔳 Exp	port
	Name	Formula Type	Formula	Name			Test Formula Type	
	CA	CommissionFormula	commissionByAmount		cate-19:04:2022_11:07:57		CommissionFormula	

## **Banking Product Formulas**

In the **Banking Product Formulas** section, choose an already defined formula or click **Insert** to configure a new one, for example a formula for eligibility or scoring purposes. For information on how to build a formula, see Define Formula Inputs.

 In the Add Banking Product Formula page, fill in the following fields:

Edit Banking Product Formula			Save and close ♥ Save and close	and reload
Main Information				
Name	Banking Product	Formula Type	Formula	
CA	Duplicate	V 🖉 CommissionFormula	↓ ✓ commissionByAmount	+ /
Data Mapping BPFormulaType_Test Formula_16472	57821582_formula	* *		
				Map Data

- Name: Enter an appropriate name.
- Formula Type: Select the type of formula configured before, e.g. scoring /eligibility.
- Formula: Select the previously configured formula.

**IMPORTANT!** The formula must be activated before attaching it to a product.

• Data Mapping: Select the previously configured data mapping.

The name of the banking product is inserted automatically in **Banking Product**.

- 2. After selecting the desired formula, click **Save and reload**, then click **Map Data**.
- 3. In the **Formula Mapping** page, click **Input** and configure the input data for the formula.
- 4. Click **Output** and configure the output for the formula.



#### 5. Click the Save and Close button.

Such formulas can be used in digital journey steps, for example when the customer inserts their financial data.

EDIT RETAIL APPLICANT DATA			
	Income & Outgoing	s	
We	use your expected income and outgoings to work out he lend and to ensure that any mortgage we may offer		
	Noted and to ansure that any morigage we may one :		
WHAT IS YOUR ANNUAL SALARY BEFORE TAX?	ARE YOU MARRIED?	EDUCATION LEVEL:	
€	[none]	[none]	
PAYING MONTHLY FOR OTHER LOANS.	NUMBER OF CHILDREN	EMPLOYMENT STATUS:	
€	<b>o o</b>	[none]	
TOTAL CREDIT CARDS LIMITS	CHILDCARE AND EDUCATION COSTS	EMPLOYMENT MONTHS:	
€	€		
	HOW MANY FINANCIAL DEPENDANTS:	YOUR RESIDENCE IS	
OTHER SPENDINGS:			

# Test Scenarios

)		Save and close
t Test Scenario		
Main Information		
Fest Formula Type	CommissionFormula	Ψ.
Key	Valce	
Q	٩.	
Amount		23.45
		Save Output Data Celout
est Scenario Outputs		
		+ Insert X Delete Export Ø Refresh
Name		

A good practice is to test the formula before displaying it in a digital journey. You can do that in the **Test Scenarios** section:

- 1. Click the Insert button to open the Add Test Scenario page.
- 2. Insert a **Test Scenario Type** from the option set. The keys and the values are shown.
- 3. Click the Save and Reload button.
- 4. Click the **Calculate** button. The outputs are displayed in the **Test Scenario Outputs** section.
- 5. You can save these outputs by selecting the **Save Output Data** checkbox next to **Calculate**.

## 6. Add Documents

You can manage all the attached documents available for a product and all the agreements that a customer needs to go through in the **Documents** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	B Product Formula Engl	ine 🤇	Documents	7 Lean Core Settings	8 History	9 Origination Elements	(10) GL Settings
Banking Proc	luct Documents					Banking Produ	ict Agreements			
			+ Insert × De	iete Export C	3 Refresh			+	Insert X Delete Ex	port Ø Refresh
C Report	rt.	Banking Copi	es No	Operation Code		Code				
٩		٩		٩		٩				
State	is overview of the queu	es	2	TC						
								No data		

# **Banking Product Documents**

Any previously associated documents are displayed in the **Banking Product Documents** section.

 To attach a new document to the banking product, in the Banking Product Documents section, click Insert. The Add Banking Product Document page is displayed.

Banking Product Document				
Banking Product Document				
Operation Code	Banking Copies No	Report	Document Type	
PASS		2	↓ ✓ Passport	•
s Mandatory	Includes Debtor	Includes Coborrower	Requires Signature	
Yes No	🔵 Yes 💿 No	Ves 💿 No	🗌 Yes 💿 No	

- 2. Set the following fields:
  - **Operation Code:** Enter a code for the document.
  - Banking Copies: Insert the number of copies made.
  - **Report:** Select a document from the list.
  - **Document Type:** Select a document type from the list.
  - Is Mandatory: Select if the document is mandatory.
  - Includes Debtor: Select if the document includes the debtor.
  - Includes Coborrower: Select if the document includes the co-borrower.
  - **Requires Signature:** Select if the document requires to be signed.
  - Is accord: Select if the document represents the accord.
- 3. Click the Save and Reload button.

## Banking Products Agreements

The agreements that a customer needs to go through are displayed in the **Banking Products Agreements** section.

 To attach a new agreement to the banking product, in the Banking Products Agreements section, click Insert. The Add Banking Products Agreements page is displayed.

Edit Banking Product Agreement					Save and close 🗘 Save and reload
Main Information					
Agreement	Code		Banking Product		is Mandatory
Popescu Broker	AGR	1	SLICE Loan	41	

- 2. Fill in the following fields:
  - Agreements: Select an agreement from the list.
  - Banking Product: It is automatically filled in.
  - **Code:** Insert the corresponding code.
  - Is Mandatory: Select if the agreement is mandatory for the product.
- 3. Click the Save and Reload button.

For more information on how to configure a contract or an agreement, see the Digital Document Processor.

# 7. Configure Lean Core Settings

#### NOTE

The Lean Core Settings tab is available only when Banking Product Factory is implemented along with Core Banking.

Transactions types that are performed to and from a banking product are displayed in the **Lean Core Settings** tab. The tab also holds information about the reconciliation account associated with the products, mandatory roles for contract approval, payment allocation settings, the treatment of returned goods for contracts based on this banking product (only for Term Loans and Mortgage banking products), and closing contract settings.

#### **BANKING PRODUCT FACTORY USER GUIDE**

1 Main Info 2 Details 3 Availability	Dimensions     S Product Formula Engine	Cocuments     Core Settings     B History     Dirigination Elements     B CL Settings
Self Bank Account Associated With The Product		Payment Allocation Settings
Reconciliation Account Negative bala Reconciliation EUR V NoMessag		Repayment Allocation Method     Grace Days for Repayment     Penalty for grace period       CostOrder          ✓ ✓
Mandatory Roles for Contract Approval	+ Insert X Delete Export Ø Refres	Allowed Transactions  h
Role     Q	Search Limit (All)	Name           Q
Beneficiary		Top Up Account Transfer between my bank accounts
Closing Contract Settings		Withdraw
Buffer Close Days Close Real Tir	ne Closing Is Flexible	
Contract Is Closed Automatically		

# Reconciliation Account Associated With The Product

 In the Self Bank Account Associated with the Product, for each banking product, you must select a reconciliation account, which is the bank account to be used for transactions, for money movements.

Reconciliation Account		Negative balance treatment
Reconciliation EUR	¥	NoMessage •
NOTE		
-	ount m	nust have the same currency as the
This acco		nust have the same currency as the use the conversions are performed from

2. Select a value for the **Negative Value Treatment** drop-down to specify how Core Banking treats situations when the funds of the reconciliation account associated with the banking product used in the contract would go below zero if a

disbursement event would be approved. The possible values are:

- Error there is an error message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can't be approved and the balance can't go below zero. Select this value if you want to block any transactions that would result in a negative balance of the reconciliation account associated to the banking product.
- Warning there is a warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.
- NoMessage there is no error or warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.

#### NOTE

Core Banking also has a system parameter, ReconciliationAccountTreatment. That is a system-wide setting, applicable to events for contracts based on all banking products without a specified Negative balance treatment value. Core Banking takes into consideration the settings used at the banking product level (the Negative balance treatment field's value). Thus, if the value is specified at the banking product level, then that value takes precedence over the system parameter's setting.

If you associate the same reconciliation account to more than one banking product, then the setting selected in banking product A is applied for contract events based on banking product A, while for the banking product B, Core Banking would apply the setting selected at the level of banking product B.

## Payment Allocation Settings

In the **Payment Allocation Settings** section you can decide which allocation method should be used to determine the order in which credit items are prioritized when repaying loans, credit accounts, and so on. You can also define the grace period settings.

Payment Allocation Settings									
Repayment Allocation Method	¥ 🖉	Grace Days for Repayment	5	Penalty for grace period					
Direct Debit Settlement Accoun	t								

- 1. Fill in the following fields:
  - Payment Allocation Method: The payment allocation method represents the recovery order of amounts from payment notifications. Select a payment allocation method from the list.
  - Grace Days for Repayment: Insert the number of days for which the bank expects a payment without calculating penalty.

- Penalty for grace period: If you select the checkbox, the penalty interest is applied on the loan contract without taking into consideration the grace period defined at contract level, being calculated for the difference between system date due date, if the grace period passed and the customer didn't pay the due amounts. If you leave this checkbox unselected, the penalty interest is applied on the loan contract taking into consideration the grace period defined at contract level, being calculated for system date due date + grace days for repayment.
- Direct Debit Settlement Account: If you select the checkbox, the banking product has the automated settlement of repayment notification functionality (the payment allocation) turned on by default at the contract level. You can turn the automated settlement off either at the banking product level or at the contract level in Core Banking. Default value: true.

**NOTE** The automated settlement of repayment notification, or direct debit settlement account, is the functionality whereby, if funds are available on the settlement account and the contract has repayment notifications pending for recovery, Core Banking automatically uses the available balance up to full settlement of repayment notifications. In Core Banking, the automated settlement of Installment type repayment notification functionality (the payment allocation) can be turned on or off, thus allowing the financial institution to manage the contracts in case of blocked accounts and control the allocation of funds to outstanding notifications in case of need to impose a block on the settlement account, or manage the settlement of multiple loans from the same settlement account when short on funds and exceptional rules might apply.

If the functionality is turned off, the contract is pending for manual allocation. You can turn it back on and leave Core Banking to allocate the funds according to its automated processes, using any funds that become available in the settlement account in order to cover pending notifications.

2. Click the Save and Reload button.

## Mandatory Roles for Contract Approval

In the **Mandatory Roles** section you can add the roles of the participants that are mandatory to exist at the contract level for contracts based on this banking product. In other words, when creating contracts based on banking products with Merchant role in this section, you must add a customer with the same Merchant role as contract participant, otherwise, the contract cannot be approved. When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role, in this case Merchant Exposure.

Mandatory Roles for Contract Approval

	+ Insert X Delete Export Ø Refresh
Role	Search Limit
٩	(All)
Beneficiary	

1. In the **Mandatory Roles** section, click **Insert** and fill in the following fields:

$\odot$		ରି Save and close 🗘 Save and reload 🛛 ରି Save and new
Add Mandatory Role		
Main Information		
Banking Product	Role	Search Limit
Duplicate	↓ Merchant	- / 🗹

- **Banking Product:** The banking product for which you define mandatory roles. This is automatically completed with the current banking product.
- **Role:** Select the role of the participants that are mandatory to exist at the contract level for contracts based on this banking product.
- Search Limit: When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role. If you select a role not associated with a customer limit type in Core Banking, the Search Limit field becomes read-only and unselected.
- 2. Click the Save and Reload button.



In the **Return Of Goods,** you can define whether a contract based on the banking product can have Returned Amount or Goods transactions or not, and the specific conditions for these transactions. The Returned Amount or Goods transaction type can be used when a customer returns all or part of a loan or mortgage in a short while after contract creation, if the banking product was defined to allow such transactions. You can set up Return Fee type commissions, to return all or some of the claimed commission to the borrower.

Return Of Goods				
Allow Return Of Goods	Accepted Days For Return		Return Message	
	•	15	Warning	•

- 1. Fill in the following fields:
  - Allow Return Of Goods: Select this checkbox if the contracts based on this banking product accept Return of Goods transactions. Default value: False. If selected, the Accepted Days For Return and Return Message fields are displayed, otherwise, these fields are not visible.
  - Accepted Days For Return: Specify the number of days after contract creation during which the return of goods transaction can be created and approved.
  - Return Message: Select the behavior of messages generated by Core Banking for situations when the Returned Amount or Goods transaction's approval date + the number of accepted days for return >= the current date. Possible values are taken from the Warning Error Treatment option set. According to the desired behavior, choose:

- Error, if the transaction should not be approved and an error message should be displayed;
- Warning, if the transaction can be approved, but a warning message should be displayed;
- NoMessage, if the transaction can be approved without any messages.
- 2. Click the Save and Reload button.

**NOTE** If Allow Return Of Goods = True, then the Returned Amount of Goods transaction is automatically added to the **Transaction Types** section.

## **Closing Contract Settings**

In the **Closing Contract Settings** section, you can configure the default closure settings for contracts based on this banking product.

Closing Contract Settings		
Buffer Close Days	Close Real Time	Closing Is Flexible
Contract Is Closed Automatically		

- 1. Fill in the following fields:
  - Buffer Close Days: Enter the number of days used as buffer before automatically closing the contract when the contract reaches maturity and its balance reaches zero. If Buffer Close Days > 0, then Contract Is Closed Automatically = False.

- Close Real Time: If you select this checkbox, the contract based on this banking product is closed in real-time, when the contract reaches maturity and its balance reaches zero, without waiting for the end of day processes. If Close Real Time = True, then Buffer Close Days = 0 and Contract Is Closed Automatically = True.
- **Closing Is Flexible:** If you select this checkbox, the closure details of the contract based on this banking product can be modified at the contract creation.
- Contract Is Closed Automatically: If you select this checkbox, the contract based on this banking product is closed automatically at maturity, if the balance reaches zero. If Contract Is Closed Automatically = False, then Close Real Time = False.
- 2. Click the Save and Close button.

## Allowed Transactions

In the **Allowed Transactions** section, you can associate possible transaction types with the selected banking product:

- Click Insert existing and select the desired transaction types to be associated.
- 2. Double-click a selected transaction type to edit it.

Settings											
Name	Transaction C	ode	Process Type		Edit Form		Transaction Opera	tion Type	ls System	n Transaction	
Disbursement	DSB		Disbursement	÷	FTOS_C8_EventDisb	ursement 4	Disbursement		•		
is Automatic Transaction	Real Time Process	Only One Draft		ate New Contract	Commission Type			Return Comm	ission Type		
			Versio	n			4				
Accounting Configuration	IS OL Master En	ñy.			Purge Configuration		umber of Days	Master Purge	Entity		
enerates Accounting Entry	OL Master En							•			
Accounting Configuration	OL Master En	tity ContractEvent		0 -	To Be Purged	Purge Ni	30	•	Entity ContractEvent		
Accounting Configuration	OL Master En			0 -	To Be Purged	Purge Ni	30	•			•
Accounting Configuration	OL Master En		× Defete		To Be Purged	Purge Ni	30	•	ContractEvent	) <b>b</b> Export	C Re
Accounting Configuration	OL Master En	ContractEvent + Insert	X Defete		To Be Purged	Purge Ni	30 rations	FTOS_CB_	t Defete	Derstional	_
enerates Accounting Entry	GL Master En	ContractEvent + Insert		oport Ø Refresh	To Be Purged	Purge Ni	30 rations	FTOS_CB_	t Defete		Ø Re
	OL Master En	ContractEvent + Insert Value Type Name	is Header	oport Ø Refresh Value Type Attribute	To Be Purged	Purge Ni	30 rations	FTOS_CB.	ContractEvent t X Delete Currency	Operational	D Re Take Fro

- 3. In the Edit Transaction Type > Settings section, fill in the following fields:
  - Name: Enter the name of the transaction type.
  - **Transaction Code:** Enter the code of the transaction type.
  - **Process Type:** This field associates the process type with the transaction operation type, which makes the connection with the transaction motor of bank accounts. Select one of the processes defined within the system.

**NOTE** There is no integration at this point with a payment gateway.

- Edit Form: Select the form used to edit this transaction type. You can choose only from the forms defined on the Contract Event entity.
- **Transaction Operation Type:** The transaction operation type makes the connection with the transaction motor of bank accounts. Select one of the transaction operation types defined within the system.

- Is System Transactions: If you select this checkbox the transaction is marked as being neither a credit of the account, nor an allocation of funds, but a transaction that does not influence other transactions within the account. System transactions are meant to be used only for accounting.
- Is Automatic Transaction: If you select this checkbox here, then you cannot select it within the contract operations. The Is Automatic Transaction checkbox marks the transaction as automatic.
- Real Time Process: This checkbox marks the transaction as to be processed in real-time. If selected, then the transaction is processed right away. If not selected, then the transaction is inserted as a bank account transaction queue record.
- Only One Draft: If you select this checkbox, there can be only one record of this transaction type in Draft status created at the contract level.
- Generate New Contract Version: This checkbox allows you to specify if a new contract version should be generated by this transaction type.
- **Commission Type:** Select the commission type applicable for this transaction type. Return fee commissions are filtered out and can't be selected.
- Return Commission Type: Select the return fee commission type applicable for this transaction type.
   Only return fee commissions can be selected.
- Is Clawback Transaction: If selected, this checkbox marks the transaction as generating a clawback commission. The transaction type is to be used in thirdparty management invoicing activities. Default value: False.

- 4. In the Edit Transaction Type > Accounting Configurations section, fill in the following fields:
  - Generates Accounting Entry: Select this checkbox to create an entry in the Operational Ledger. It generates records in the Accounting Entry entity.
  - **OL Master Entity:** Select the entity referenced by the accounting systems.
- 5. In the Edit Transaction Type > Purge Configurations section, fill in the following fields:
  - **To Be Purged:** This checkbox marks the transaction as purgeable. If you select it, you can purge or archive records in Draft status.
  - Purge Number of Days: Enter the default number of calendar days that a record can be kept in Draft status before it is purged. For additional information, see the Core Banking System Parameters page. This field is displayed only when To Be Purged = True.
  - Master Purge Entity: Select the master purge entity under which the draft records are. This field is displayed only when To Be Purged = True.
- 6. You can also edit the information in the Transaction Value Types, Transaction Item Accounting Configurations and Transaction Accounting Models sections. Read more details about Transaction Types in the Operational Ledger User Guide.
- 7. Click the Save and Close button.

# Transaction types typically used for mortgage loans

- Accruals and Provisions System transaction. If added at banking product level, the accruals and provisions for contracts can be calculated on a daily basis.
  - This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.
- Disbursement If added at banking product level, the requested funds are transferred into the customer's account. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- Early repayment If added at banking product level, the customer can make a payment earlier than the stated maturity date of the contract. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- LoanContract If added at banking product level, the loan contract accounting entries are generated automatically by the system when the contract is approved.
  - This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.
- Payment Holiday If added at banking product level, the official bank holidays are considered when calculating a payment schedule. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.

- Repayment If added at banking product level, the customer can make a payment to cover the scheduled repayment amount.
   This transaction type is not added automatically.
   Make sure you insert it in the Associated
   Transactions tab.
- Repayment Notification If added at banking product level, the system generates and displays in the contract a repayment notification after each disbursement, containing the total amount to be paid off.

This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.

- Returned Amount or Goods If added at banking product level, the Returned Amount of Goods transaction type can be used when a customer returns all or part of a loan in a short while after contract creation. You can set up Return Fee type commissions, to return all or some of the claimed commission to the borrower.
  - This transaction type is not added automatically. Make sure you select the Allow Return Of Goods checkbox in the **Return of Goods** section within the **Associated Transactions** tab.
- Reschedule Overdues If added at banking product level, the system extends or adds extra time to an existing contract. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.

- Reschedule Debt If added at banking product level, the system recalculates the entire payment schedule by extending the time period for loan repayment.
  - This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.
- Revert Disbursement If added at banking product level, disbursements performed at contract level can be reverted after being performed. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- Revert Transfer between my bank accounts

   System transaction. If added at banking product level, transfers between the same customer's bank account can be reverted after being performed. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- Transfer between my bank accounts If added at banking product level, the customer is allowed to move funds between their accounts at the contract level.

#### 8. View History

You can find the versions of the banking product, their workflow status and the user who modified the product in the **History** tab.

1 Main Info	2 Details	3 Availability	(4) Dimensions	5 Product Formul	la Engine	6 Documents	7 Lean	Core Settings	8 History	9 Or	igination Elements	(10) GL Settings
History												
											Ø	Refresh Export
Label			Name		attributeVersion	Date		attributeVersion			Modified by user	
٩			٩		٩			٩			٩	
Draft			Duplicate		19/04/2022 10	0:29				1		

Here you can track the product's life cycle and review older versions that are no longer active (for details, see Banking Products' Life Cycle).

### 9. Manage Origination Elements

You can set the elements required in the origination journey, such as product benefits, display conditions, features, destination types, or associated products in the **Origination Elements** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Setting	s 8 History	9 Origination Elements	10 GL Settings
Product Imag	-		Document ProductPresentation Add file or Dro	Doc.pdf X					
Benefits					<b>Display Conditi</b>	ons			
File - Edit	t - Insert - View -	Format - Table - Tools -			File - Edit - I	nsert - View - Format -	Table - Tools -		
S C F		<u>a - E E E E E E</u>		8 E 🕈 👁 E	th 👌 Forma	ts × B I A ×		· I I & I + • •	•
Low Interest									
Product Fe	atures			Product Destination Types			Associated Products		
	+ Insert	X Delete	t Ø Refresh		+ Insert existing	X Remove existing		+ Insert existing	× Remove existing
	Feature	DisplayName	Show Order	Display Name			Name		
	٩	٩	٩	٩			٩		
	NMNGTFEES	No Management	1	Personal			Current Accou	nt USD	

- 1. Fill in the following fields:
  - Product Image: Insert an image representative for the product.
  - Document: Insert the document representative for the product.
  - **Benefits:** Insert the advantages of owning the banking product. You can format the text in the text editor window.

- **Display Conditions:** Insert the conditions for the applicant, e.g. age limit, annual turnover, education level, income, registration documents.
- 2. Click the Save and Reload button.

#### **Product Features**

In the **Product Features** section, you can insert, delete or export features.

- To add a feature, Click the Insert button and fill in the following fields:
  - Feature: Enter the name of the product feature.
  - Is Main Feature: Select the checkbox if it is the major feature.
  - **Display Name:** Enter the display name of the feature.
- 2. Click the Save and Reload button.

### Product Destination Types

In the **Product Destination Types** section , you can insert or remove the existing product destination types:

- Click Insert existing and select one of the existing destination types, or insert a new one.
- To create a new destination type, insert a name and specify if it is default. For this case, the following have been configured: Loan Collateral, Loan disbursements, Personal, Repayments.

#### Associated Products

In the **Associated Products** section you can insert or remove an existing products. It is especially useful when you wish to create a link between two products.

Associa	ted Products	
		+ Insert existing × Remove existing
	Name	
	٩	
	Current Account USD	

To insert or remove a product from the list or create a new one:

- Click Insert existing and select one of the existing destination types, or insert a new one.
- 2. Click the Save and Reload button.

### 10. Configure Operational Ledger Settings

#### NOTE

The **OL Settings** tab is available only when Banking Product Factory is implemented along with **Operational Ledger Add-On**.

In the **Banking Product GL Accounts** section, you can set specific accounts to be used by the Operational Ledger system for transactions performed on contracts based on this banking product. Thus, you can overwrite the generic settings of the Operational Ledger, instructing it to use the accounts specified at banking product level.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula	a Engine 6 Do	cuments 7 Lear	n Core Settings	8 History	9 Origination Elements	10 GL Settings
Banking Produ	ict GL Accounts									
								+ Ins	ert X Delete Exp	ort Ø Refresh
Produc			Accounting System		Accounting Scope		Item		GL Account	
٩			٩		٩		٩		٩	
Duplic	ate		0001		FixDeposit		Loan Admin Fee		20110 Commercial loans	

 To add specific accounts to be used by Operational Ledger, click Insert and fill in the following fields in the displayed Add Banking Product GL Account page::

Ð				응 Save and close 🗘 Save and reload 📄 Save and new
dd Banking Produ	ct GL Account			
Main Information				
Product	Accounting System	Accounting Scope	Item	GL Account
Duplicate	<b>↓</b> ✔ 0001	↓ FixDeposit	↓ Loan Admin Fee	↓ 20110 Commercial loans ↓

- **Product:** Select from the list the banking product. Automatically completed with the banking product you are currently editing.
- Accounting System: Select from the list the desired accounting system. The list contains the records created in the Accounting System entity.
- Accounting Scope: Select from the list the corresponding accounting scope. The list contains the records created in the Accounting Scope entity.
- Item: Select from the list the corresponding transaction item. The list contains the records created in the Transaction Item Accounting Config entity.
- **GL Account:** Select from the list the corresponding GL account. The list is filtered based on the previously selected accounting system. It contains the accounts defined in the Accounting Chart entity that were added to the chosen accounting system record.
- 2. Click the Save and Reload button.

## Bank Accounts

The basic product for any bank is an account. Below are the possible configurations for a complete account, functional in any digital journey.

#### **Creating Bank Accounts**

To create a new bank account from scratch, navigate to main menu > **Banking Product Factory** > **Banking Products**, and click the **Insert** button. A new page opens, with a series of tabs that assist you in configuring the banking product.

#### NOTE

Alternatively, you can create a bank account by duplicating an existing one. Click the **Duplicate** button on the **Banking Products List** page. Make sure you change the **Banking Product Code** and **Name** according to your business needs.

#### 1. Enter Basic Information

You can set the basic elements for creating the product, such as name, code, currency, validity, or product classification, in the **Main Info** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	Product Formula Engine		3 Documents	7 Lean Cor	e Setting	s 8 H	istory 9	Originatio	n Elements	10 GL S	ettings
Main Informatio	on													
Banking Product 1	Гуре	Currency		Banking Product Code		External Code			Start Date			End Date		
Bank Account		EUR	+	REGR_BAEUR					19/10/2021			19/10/2030		
Name				Class		SubClass			Category			SubCategory		
Bank Account I	EUR				+			) +			) +			÷
Description						Product Classi	ication							
											( + In:	sert existing	× Remove	existing
						Code		Name		Classification Type	Valic	From	Valid To	
						٩		٩		٩	٩		٩	
						REG1		Classifi	ication	Regulatory	01/0	01/2020	31/12/203	0

#### NOTE

Your product type selection influences the next steps. For bank accounts, select the **Bank Account** option in the **Banking Product Type**.

### Main Information

 In the Main Information section, select the Banking Product Type from the available list.

- 2. Choose the **Currency** for the banking product.
- 3. Enter the product code in the **Banking Product Code** field. It can have 10 characters, and it is used in the contract. It uses a sequencer and the code of the product type.
- 4. Set the product validity by selecting the date when the product becomes available (Start Date) and the last date from when the product is available (End Date).
- 5. Enter the product Name.
- 6. Optionally you can set the following fields:
  - External Code: Select the code of the product imported from an external system, if applicable. It can have 10 characters and it is not used in the contract.
  - Class: Select the class of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Subclass: Select the subclass of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Category: Select the category of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - SubCategory: Select the subcategory of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - **Description:** Enter any description or additional text related to your new product.
- 7. Click the **Save and Reload** button. The product is now saved and you can further edit it for your needs.

#### Product Classification

After saving the product, the **Product Classification** section is populated with more options for your term loan. You can insert or remove existing product classification items.

1. To add a product classification item, click **Insert Existing** and select an already existing item.

			+ Insert existing	× Remove existing
Code	Name	Classification Type	Valid From	Valid To
٩	٩	٩	۹.	۹ ۵
REG1	Classification	Regulatory	01/01/2020	31/12/2030

- 2. You can also create a new product classification item by clicking the **Insert existing** button and then the **Insert** button.
- 3. On the newly displayed **Add Product Classification** page, fill in the fields:

€				Save and close	Save and reload 🛛 🕄 Save and new
Add Product Classifica	ation				
Main Information					
Name	Code	Valid From	Valid To	Classification Type	is Default
Classification Restructur	ring Level RESTRUCTL1	20/04/2022	30/04/2028	Restructuring O	. 🗆
Classified Banking Prod	lucts				

- Name: Enter the name of the classification item.
- Code: Enter the unique code of the classification item.
- Valid From: Select the date from which the product classification item is valid.
- Valid To: Select the date until when the product classification item is valid.
- **Classification Type:** Choose the classification type of the item. Possible values: Regulatory, Restructuring.
- Is Default: Select the checkbox if this classification item is default.

The **Classified Banking Products** section is displayed after you save the classification item record and allows you to insert existing banking products. The following information is displayed here: **Code, Name, Class, SubClass, Category, SubCategory** and **Status.** 

For more information on how to create a new product classification, see Banking Product Classification.

4. Click the Save and Reload button.

### 2. Add Details

You can set elements such as interest, payment type, top-ups and withdrawals in the **Details** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	(10) GL Settings
General Data									
Auto Roll Over		Allow Top Ups		Allow Withdrawals	Allow negotiated IF	Allo	w Overdraft		
Interest Is Capitali:	red	Interest Payment	Туре						
		[none]							

- 1 In the **General Data** section, set the following fields:
  - Auto Roll Over: If you select this checkbox, the contract is automatically prolonged. This is used mostly for deposits or any product that can undergo the extension of contract.
  - Allow Top Ups: Select if the amount can be topped up with a sum of money.
  - Allow Withdrawals: Select the checkbox if the customer can withdraw money for this product.
  - Allow negotiated IR: Select the checkbox if the interest rate is negotiable for this product.

- Allow Overdraft: Only displayed for current account type bank accounts. Select the checkbox if the current account has an overdraft functionality attached to it. Follow the information available on the Current Account with Overdraft page.
- Interest Is Capitalized: Only applicable if there is an interest rate. Select the checkbox if true.
- Interest Payment Type: Select the regularity of interest payments: Monthly, Maturity, Yearly, Daily or Quarterly.
- 2. Click the Save and Reload button.

#### NOTE

If you select the **Allow Top Ups** and **Allow Withdrawals** checkboxes, then the Top Up Account, Transfer between my bank accounts and Withdraw transaction types are automatically attached in the **Associated Transactions** tab.

### 3. Configure Availability

You can determine the monetary range and the time frame when the product is available for customers in the **Availability** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Ele	ments (10) GL Settings
Product Availab	ility								
Minimum Amount	100	Maximum Amount	500,000	Minimum Period	Maximum Period				
Availability Rule									
Product Availabi	liity Item Filters			Export Ø Refresh	Product Covena	nts			Export Ø Refresh
Descrip	ition				Туре	Covenant		Valid From	Valid to Value
٩					٩	٩		٩	۹ 🖬 ۹

#### Product Availability

- 1. Fill in the following fields:
  - **Minimum Period** and the **Maximum Period**: Enter the minimum and the maximum duration of the product mentioned in the contract.
  - Minimum Amount and the Minimum Amount: Enter the minimum and the maximum amount of the product for which the bank opens a contract.
- 2. Click the Save and Reload button.

### Availability Rules

In the **Availability Rules** section you can select the item filters for your banking product.

Availability Rules	
Product Availability Item Filters	
	+ Insert X Delete Export Ø Refresh
Description	
Q	
CA >< 1 - 50000	

- 1. Click the Insert button, the Add Product Availability Item Filter is displayed.
- <sup>2</sup> Select the desired filter from the Filter option.
- Add the attributes of the selected filter.
- 4. Optionally, add a description for the added item filter.
- 5. Click the Save and Reload button.

For more details, see "Product Filter" on page 462.

#### **Product Covenants**

In the **Product Covenants** section you can set certain conventions that applicants must abide by after getting the loan. This is usually applicable for corporate clients that must meet certain requirements in order to continue to receive disbursements.

Product Covenants				
	+ Inse	rt X Delete	Export	Ø Refresh
Туре	Covenant	Valid From	Valid to	Value
٩	٩	۹ 🖬	۹ 🖬	٩
Affirmati	Borrowers should perform tax obligations	19/04/2022	20/04/2030	
Financial	Lender can monitor borrower's current r	19/04/2022	20/04/2030	

- Click the Insert button to add a covenant to the product. Each covenant can be attributed a value, an availability period, and a review frequency in months. Read more about covenants in the "Covenant" on page 477 page.
- 2. Click the Save and Reload button.

### 4. Manage Dimensions

You can insert, delete or export interest, commissions, insurances, discounts or questions valid for your product in the **Manage Dimensions** tab.

Main Info	2 Details	3 Availability	4 Dimensions	§ Product Formula Engine	6 Documen	ts 🧷 Lean Core Settings	8 History 9 Origination Elements (10 GL S
terest & Com	nissions				Insurance	ces	
			+ Insert	C Delete	fresh		+ Insert X Delete Export
Item N	ame					Item Name	
٩						٩	
MCA						House Insurance	
scounts					Questio	ıs	
			+ Insert	C Delete	fresh		+ Insert existing × Remove
Name		Discount	End Date	Start Date Value Discour		Question	Business Status
٩		٩	۹.	۹ 🖬 ۹		٩	٩
						Question1	Active
			No data			Question2	Active

To add a new one, click **Insert** and fill-in the fields detailed in the sections below.

#### NOTE

To configure the interest and commissions separately, navigate to **Main** > **Product Factory** > **Banking Product Dimensions menu** which contains several other embedded menus.

#### Interest & Commissions

- To add an interest or a commission, click Insert in the Interest
   & Commissions section. The Add Interest & Commission Item page is displayed.
- 2. Select the banking product from the Banking Product list.
- 3. Enter the Item Name.
- 4. Enter the **Start Date** when the interest/ commission becomes effective and the **End Date** for the interest/ commission.
- 5. Fill in the following fields:
  - Code: Enter a code for this particular interest/ commission.
  - Interest List: Select from which list the interest is a part of.
  - **Commissions List:** Select from which list the commission is a part of.
  - Minimum Interest Rate (%): Enter the percent applicable as a minimum interest rate at the contract level.
  - Is Negotiable: Select the checkbox to specify that every interest, commission or margin field at the contract level is negotiable and can be edited.
- 6. Click the Save and Reload button.

- 7. In the Interest & Commission Item Filters section, click Insert to insert an item filter.
- 8 Select a filter created earlier in the "Product Filter" on page 462.
- 9. Set the following fields:
  - Value/ Date: Select the beginning value/ date for the filter.
  - Until Value/ Until Date: Select the maximum value/ date for the filter.
  - Description: This field is automatically filled in after clicking the Save and Reload button. The values/ dates inserted above are turned into an expression.

For Lookup attributes, the following fields are available:

- Filter Entity: Entity on which the filter was defined.
- **Description:** It is left blank. Add a description if needed.
- Grid of Options: This field is automatically filled in after clicking the Save and Reload button. The values of the option set are displayed. Select the Boolean for the values you wish to include in the filter.

10. Click the Save and Reload button.  $\langle \boldsymbol{\epsilon} \rangle$ 🖹 Save and close 🔅 Save and reload Edit Interest & Commission Item Filter Main Information Filter AL\_Amount 4 1 Until Value Value 50.000 Description AL\_Amount >< 1 - 50000

#### Insurances

For any banking product, you can select a pre-existing insurance or create a new one.

- 1. To add a new insurance, in the **Insurances** section, Click the **Insert** button and set the following fields:
  - Banking Product: Select the banking product.
  - Code: Insert a code for this particular insurance.
  - Item Name: Insert a name.
  - **Start Date:** Enter the start date when the insurance becomes effective.
  - End Date: Enter the end date for the insurance.
  - **Details:** It is left blank. Add a description if needed.
  - Insurance List: Select from which list the insurance is a part of.
- 2. Click the Save and Reload button.
- 3. In the **Insurance Item Filters** section, click **Insert** and fill in the following fields:
  - Filter: The name inserted earlier.
  - Value: The starting value for the attribute.
  - Until Value: The ending value of the interval.
  - **Description**: Insert the proper description for the availability filter.

#### 4. Click the Save and Reload button.

* /	Code	H Insurance	Insurance List		Start Date		End Date	
÷ /	INS							
		H Insurance	InsuranceListRON	÷ /	19/04/2022		20/04/2030	
liters								
					( + In	sert X Di	elete	8 Refr
	Filtors	Filters	Tilters	Tilters	Tilters			

#### Discounts

For any banking product, you can add discounts of any nature. You can select a pre-existing discount or create a new one.

- To add a new discount, Click the Insert button in the Discounts section.
- 2. In the **Details Page**, insert the appropriate **Name** for the discount.
- 3. Choose one of the pre-configured types of discounts available in the **Discount** field, or create a new one. According to the selected type, new fields appear on the page requiring to be filled in.
- 4. Insert the value of the discount to be applied, e.g. 15.
- 5. Set the start date when the discount becomes effective (Start date), and the end date for the discount (End date).
- 6. Optionally, you can fill in the following fields:
  - Applied to dimension: Specifies for which product dimension this discount is applicable (interest, commission or insurance). This is autocompleted by the selected discount's dimension.

- Commission type: This field appears if the selected Discount = Commission discount or Management Fee Discount. Specifies for which commission type this discount is applicable. This is autocompleted by the selected discount's default commission type.
- Insurance class: This field appears if the selected discount = Discount Life Insurance or Interest Discount. Specifies for which insurance class this discount is applicable (credit, home, life or other insurance class). This is autocompleted by the selected discount's insurance class.
- Insurance: This field appears if the selected discount = Discount Life Insurance. Specifies for which insurance this discount is applicable. This is autocompleted by the selected discount's insurance.
- Interest type: This field appears if the selected discount
   Interest discount. Specifies for which interest type this discount is applicable.
- Use Banking Formula: If you select this checkbox, the discount is calculated using the Banking Formula engine.
- Is optional discount? : Selecting this checkbox results in the discount being applied only if the customer agrees to the discount.
- Is percentage: If you select this checkbox, the discount is calculated as a percentage from the contract's amount.

- Destination entity: Select the entity where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- Destination entity attribute: Select the attribute where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- 7. Click the Save and Close button.
- 8. In the **Product Discount Item Filter** section, click **Insert** and fill in the fields as specified in the **Product Filter page**. The fields displayed depend on the selected filter.
- 9. Click the Save and Close button.

#### Questions

You can choose one or more questions to add to the banking product, or insert a new one.

- To insert a new question, in the Questions section, Click the Insert existing button, then click Insert.
- 2. In the **Add Banking Product Question** page, fill in the following fields:
  - **Question:** Enter the appropriate name.
  - Answer Type: Select the type of answer the customer has to give: text, numeric or option set.
  - Answer Entity: Select the entity where the answer is stored.
  - **Answer Field**: Select the attribute where the answer is stored.
- 3. Click the Save and Reload button.

The Banking Products List shows where the question is used.

#### **IMPORTANT!**

The question has to be activated in order for it to be added to the banking product.

4. Click the Save and Close button.

For example, this is how a question is displayed in a digital journey in the FintechOS Portal:

	We ask for this information	Eligibility Questions	ier you for a mortgage	-/
DEPOSIT SOURCE		Select		•
RETIREMENT DATE				
RETIRED		Yes  No		

#### 5. Configure Product Formula Engine

The **Product Formula Engine** tab keeps formulas built with Formula Engine for the banking product. Such formulas can be used to determine the eligibility of a customer.

1 Main Info	2 Details	3 Availability	Dimensions	5 Product Formula Engine	6 Documen	ts (7) Lean Core Setti	ings (8) History	Origination Elements	0 GL Settings
Banking Produ	ict Formulas	(	+ Insert X Dek	ete ) 🕒 Export ) 🖸 Refresh	Test Sc	enarios	(+	Insert	Export G Refresh
Name		Formula Type		Formula		Name		Test Formula Type	
٩		٩		٩		٩		٩	
CA		CommissionF	Formula	commissionByAmount		Duplicate-19:04:2022_11:07:	57	CommissionFormula	

### **Banking Product Formulas**

In the **Banking Product Formulas** section, choose an already defined formula or click **Insert** to configure a new one, for example a formula for eligibility or scoring purposes. For information on how to build a formula, see Define Formula Inputs.

 In the Add Banking Product Formula page, fill in the following fields:

Ð			🛞 Save and close 🛛 🖏 Save and
dit Banking Product Formula			
Main Information			
Name	Banking Product	Formula Type	Formula
CA	Duplicate	V 🖉 CommissionFormula	v 🗸 commissionByAmount
Data Mapping			
BPFormulaType_Test Formula_1647	1267821582_formula	÷ /	
			Мар

- Name: Enter an appropriate name.
- Formula Type: Select the type of formula configured before, e.g. scoring /eligibility.
- Formula: Select the previously configured formula.

**IMPORTANT!** The formula must be activated before attaching it to a product.

• Data Mapping: Select the previously configured data mapping.

The name of the banking product is inserted automatically in **Banking Product**.

- 2. After selecting the desired formula, click **Save and reload**, then click **Map Data**.
- 3. In the **Formula Mapping** page, click **Input** and configure the input data for the formula.
- 4. Click **Output** and configure the output for the formula.



#### 5. Click the Save and Close button.

Such formulas can be used in digital journey steps, for example when the customer inserts their financial data.

EDIT RETAIL APPLICANT DATA			
	Income & Outgoing	s	
We	use your expected income and outgoings to work out he lend and to ensure that any mortgage we may offer		
	Noted and to ansure that any morigage we may one :		
WHAT IS YOUR ANNUAL SALARY BEFORE TAX?	ARE YOU MARRIED?	EDUCATION LEVEL:	
€	[none]	[none]	
PAYING MONTHLY FOR OTHER LOANS.	NUMBER OF CHILDREN	EMPLOYMENT STATUS:	
€	<b>o o</b>	[none]	
TOTAL CREDIT CARDS LIMITS	CHILDCARE AND EDUCATION COSTS	EMPLOYMENT MONTHS:	
€	€		
	HOW MANY FINANCIAL DEPENDANTS:	YOUR RESIDENCE IS	
OTHER SPENDINGS:			

### Test Scenarios

)		Save and close
t Test Scenario		
Main Information		
Fest Formula Type	CommissionFormula	Ψ.
Key	Valce	
Q	٩.	
Amount		23.45
		Save Output Data Celout
est Scenario Outputs		
		+ Insert X Delete Export Ø Refresh
Name		

A good practice is to test the formula before displaying it in a digital journey. You can do that in the **Test Scenarios** section:

- 1. Click the Insert button to open the Add Test Scenario page.
- 2. Insert a **Test Scenario Type** from the option set. The keys and the values are shown.
- 3. Click the Save and Reload button.
- 4. Click the **Calculate** button. The outputs are displayed in the **Test Scenario Outputs** section.
- 5. You can save these outputs by selecting the **Save Output Data** checkbox next to **Calculate**.

#### 6. Add Documents

You can manage all the attached documents available for a product and all the agreements that a customer needs to go through in the **Documents** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	B Product Formula Engl	ine 🤇	Documents	7 Lean Core Settings	8 History	9 Origination Elements	(10) GL Settings
Banking Proc	luct Documents					Banking Produ	ict Agreements			
			+ Insert × De	iete Export C	3 Refresh			+	Insert X Delete Ex	port Ø Refresh
C Report	rt.	Banking Copi	es No	Operation Code		Code				
٩		٩		٩		٩				
State	is overview of the queu	es	2	TC						
								No data		

### **Banking Product Documents**

Any previously associated documents are displayed in the **Banking Product Documents** section.

 To attach a new document to the banking product, in the Banking Product Documents section, click Insert. The Add Banking Product Document page is displayed.

I Banking Product Document				
Banking Product Document				
Operation Code	Banking Copies No	Report	Document Type	
PASS		2	↓ ✓ Passport	•
is Mandatory	Includes Debtor	Includes Coborrower	Requires Signature	
Yes No	🔿 Yes 💿 No	Ves 💿 No	🗌 Yes 💿 No	

- 2. Set the following fields:
  - **Operation Code:** Enter a code for the document.
  - Banking Copies: Insert the number of copies made.
  - **Report:** Select a document from the list.
  - **Document Type:** Select a document type from the list.
  - Is Mandatory: Select if the document is mandatory.
  - Includes Debtor: Select if the document includes the debtor.
  - Includes Coborrower: Select if the document includes the co-borrower.
  - **Requires Signature:** Select if the document requires to be signed.
  - Is accord: Select if the document represents the accord.
- 3. Click the Save and Reload button.

#### Banking Products Agreements

The agreements that a customer needs to go through are displayed in the **Banking Products Agreements** section.

 To attach a new agreement to the banking product, in the Banking Products Agreements section, click Insert. The Add Banking Products Agreements page is displayed.

Edit Banking Product Agreement					Save and close
Main Information					
Agreement	Code		Banking Product		Is Mandatory
Popescu Broker	AGR	1	SLICE Loan	41	

- 2. Fill in the following fields:
  - Agreements: Select an agreement from the list.
  - Banking Product: It is automatically filled in.
  - **Code:** Insert the corresponding code.
  - Is Mandatory: Select if the agreement is mandatory for the product.
- 3. Click the Save and Reload button.

For more information on how to configure a contract or an agreement, see the Digital Document Processor.

### 7. Configure Lean Core Settings

#### NOTE

The Lean Core Settings tab is available only when Banking Product Factory is implemented along with Core Banking.

Transactions types that are performed to and from a banking product are displayed in the **Lean Core Settings** tab. The tab also holds information about the reconciliation account associated with the products, mandatory roles for contract approval, payment allocation settings, the treatment of returned goods for contracts based on this banking product (only for Term Loans and Mortgage banking products), and closing contract settings.

#### **BANKING PRODUCT FACTORY USER GUIDE**

1 Main Info 2 Details	3 Availability 4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean C	Core Settings	8 History	9 Origination Elements	10 GL Settings
Self Bank Account Associated With	h The Product		Payment A	llocation Setting	js			
Reconciliation Account Reconciliation EUR	Negative balance treatment NoMessage		Repayment CostOrde	Illocation Method	Gra	ce Days for Repaymen	t Penalty for gra	ce period
Mandatory Roles for Contract Appr	roval		Allowed T	ansactions				
	+ Insert	elete					+ Insert existing	× Remove existing
Role	Search Limit			lame				
٩	(All)	•		۹				
Beneficiary				op Up Account				
				fransfer between n	ny bank account	s		
				Vithdraw				
Closing Contract Settings								
Buffer Close Days	Close Real Time	Closing Is Flexible						
Contract Is Closed Automatically								

# Reconciliation Account Associated With The Product

 In the Self Bank Account Associated with the Product, for each banking product, you must select a reconciliation account, which is the bank account to be used for transactions, for money movements.

econciliation Account		Negative balance treatment
Reconciliation EUR	4	NoMessage -
NOTE		
	ount m	nust have the same currency as the
This acco		nust have the same currency as the use the conversions are performed from

2. Select a value for the **Negative Value Treatment** drop-down to specify how Core Banking treats situations when the funds of the reconciliation account associated with the banking product used in the contract would go below zero if a

disbursement event would be approved. The possible values are:

- Error there is an error message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can't be approved and the balance can't go below zero. Select this value if you want to block any transactions that would result in a negative balance of the reconciliation account associated to the banking product.
- Warning there is a warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.
- NoMessage there is no error or warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.

#### NOTE

Core Banking also has a system parameter, ReconciliationAccountTreatment. That is a system-wide setting, applicable to events for contracts based on all banking products without a specified Negative balance treatment value. Core Banking takes into consideration the settings used at the banking product level (the Negative balance treatment field's value). Thus, if the value is specified at the banking product level, then that value takes precedence over the system parameter's setting.

If you associate the same reconciliation account to more than one banking product, then the setting selected in banking product A is applied for contract events based on banking product A, while for the banking product B, Core Banking would apply the setting selected at the level of banking product B.

#### Payment Allocation Settings

In the **Payment Allocation Settings** section you can decide which allocation method should be used to determine the order in which credit items are prioritized when repaying loans, credit accounts, and so on. You can also define the grace period settings.

Payment Allocation Setting	S			
Repayment Allocation Method	↓ /	Grace Days for Repayment	5	Penalty for grace period
Direct Debit Settlement Accoun	t			

- 1. Fill in the following fields:
  - Payment Allocation Method: The payment allocation method represents the recovery order of amounts from payment notifications. Select a payment allocation method from the list.
  - Grace Days for Repayment: Insert the number of days for which the bank expects a payment without calculating penalty.

- Penalty for grace period: If you select the checkbox, the penalty interest is applied on the loan contract without taking into consideration the grace period defined at contract level, being calculated for the difference between system date due date, if the grace period passed and the customer didn't pay the due amounts. If you leave this checkbox unselected, the penalty interest is applied on the loan contract taking into consideration the grace period defined at contract level, being calculated for system date due date + grace days for repayment.
- Direct Debit Settlement Account: If you select the checkbox, the banking product has the automated settlement of repayment notification functionality (the payment allocation) turned on by default at the contract level. You can turn the automated settlement off either at the banking product level or at the contract level in Core Banking. Default value: true.

**NOTE** The automated settlement of repayment notification, or direct debit settlement account, is the functionality whereby, if funds are available on the settlement account and the contract has repayment notifications pending for recovery, Core Banking automatically uses the available balance up to full settlement of repayment notifications. In Core Banking, the automated settlement of Installment type repayment notification functionality (the payment allocation) can be turned on or off, thus allowing the financial institution to manage the contracts in case of blocked accounts and control the allocation of funds to outstanding notifications in case of need to impose a block on the settlement account, or manage the settlement of multiple loans from the same settlement account when short on funds and exceptional rules might apply.

If the functionality is turned off, the contract is pending for manual allocation. You can turn it back on and leave Core Banking to allocate the funds according to its automated processes, using any funds that become available in the settlement account in order to cover pending notifications.

2. Click the Save and Reload button.

#### Mandatory Roles for Contract Approval

In the **Mandatory Roles** section you can add the roles of the participants that are mandatory to exist at the contract level for contracts based on this banking product. In other words, when creating contracts based on banking products with Merchant role in this section, you must add a customer with the same Merchant role as contract participant, otherwise, the contract cannot be approved. When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role, in this case Merchant Exposure.

Mandatory Roles for Contract Approval

	+ Insert X Delete Export Ø Refresh
Role	Search Limit
٩	(All)
Beneficiary	

1. In the **Mandatory Roles** section, click **Insert** and fill in the following fields:

e			Save and close	G Save and reload	B Save and new
Add Mandatory Role					
Main Information					
Banking Product	Role		Search Limit		
Duplicate	4 Merchant	• •			

- **Banking Product:** The banking product for which you define mandatory roles. This is automatically completed with the current banking product.
- **Role:** Select the role of the participants that are mandatory to exist at the contract level for contracts based on this banking product.
- Search Limit: When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role. If you select a role not associated with a customer limit type in Core Banking, the Search Limit field becomes read-only and unselected.
- 2. Click the Save and Reload button.



In the **Return Of Goods,** you can define whether a contract based on the banking product can have Returned Amount or Goods transactions or not, and the specific conditions for these transactions. The Returned Amount or Goods transaction type can be used when a customer returns all or part of a loan or mortgage in a short while after contract creation, if the banking product was defined to allow such transactions. You can set up Return Fee type commissions, to return all or some of the claimed commission to the borrower.

Return Of Goods					
Allow Return Of Goods	Accepted Days For Return	Return Message			
	15	Warning	•		

- 1. Fill in the following fields:
  - Allow Return Of Goods: Select this checkbox if the contracts based on this banking product accept Return of Goods transactions. Default value: False. If selected, the Accepted Days For Return and Return Message fields are displayed, otherwise, these fields are not visible.
  - Accepted Days For Return: Specify the number of days after contract creation during which the return of goods transaction can be created and approved.
  - Return Message: Select the behavior of messages generated by Core Banking for situations when the Returned Amount or Goods transaction's approval date + the number of accepted days for return >= the current date. Possible values are taken from the Warning Error Treatment option set. According to the desired behavior, choose:

- Error, if the transaction should not be approved and an error message should be displayed;
- Warning, if the transaction can be approved, but a warning message should be displayed;
- NoMessage, if the transaction can be approved without any messages.
- 2. Click the Save and Reload button.

**NOTE** If Allow Return Of Goods = True, then the Returned Amount of Goods transaction is automatically added to the **Transaction Types** section.

#### **Closing Contract Settings**

In the **Closing Contract Settings** section, you can configure the default closure settings for contracts based on this banking product.

Closing Contract Settings		
Buffer Close Days	Close Real Time	Closing Is Flexible
Contract Is Closed Automatically		

- 1. Fill in the following fields:
  - Buffer Close Days: Enter the number of days used as buffer before automatically closing the contract when the contract reaches maturity and its balance reaches zero. If Buffer Close Days > 0, then Contract Is Closed Automatically = False.

- Close Real Time: If you select this checkbox, the contract based on this banking product is closed in real-time, when the contract reaches maturity and its balance reaches zero, without waiting for the end of day processes. If Close Real Time = True, then Buffer Close Days = 0 and Contract Is Closed Automatically = True.
- **Closing Is Flexible:** If you select this checkbox, the closure details of the contract based on this banking product can be modified at the contract creation.
- Contract Is Closed Automatically: If you select this checkbox, the contract based on this banking product is closed automatically at maturity, if the balance reaches zero. If Contract Is Closed Automatically = False, then Close Real Time = False.
- 2. Click the Save and Close button.

#### Allowed Transactions

In the **Allowed Transactions** section, you can associate possible transaction types with the selected banking product:

- Click Insert existing and select the desired transaction types to be associated.
- 2. Double-click a selected transaction type to edit it.

Settings											
Name	Transaction C	ode	Process Type		Edit Form		Transaction Operat	tion Type	ls Syster	m Transaction	
Disbursement	DSB		Disbursement	÷	FTOS_C8_EventDisbur	vernent 4	Disbursement		•		
is Automatic Transaction	Real Time Process	Only One Draft		ate New Contract	Commission Type			Return Comm	nission Type		
			Versio	n			4				
Accounting Configuration	IS OL Master En	πy			Purge Configurations	Purge Nu	mber of Days	Master Purge	Entity		
enerates Accounting Entry	OL Master En					Purge Nu		•			
Accounting Configuration	OL Master En	ity iontractEvent		0 -	To Be Purged	•	30	•	Entity ContractEvent		
Accounting Configuration	OL Master En			• •	To Be Purged	•	30	•			•
Accounting Configuration	OL Master En		X Delete		To Be Purged	•	30	•	ContractEvent	) Licport	G G Re
Accounting Configuration	OL Master En	: contractEvent	X Defete		To Be Purged	•	30 ations	FTOS_CB_	ContractEvent rt X Delete	Operational	_
enerates Accounting Entry	GL Master En	iontractEvent + Insert		oport Ø Refresh	To Be Purged	•	30 ations	FTOS_CB_	ContractEvent rt X Delete		Ø Re
Accounting Configuration	OL Master En	Value Type Name	In Header	oport Ø Refresh Value Type Attribute	To Be Purged	Accounting.	30 ations	FTOS_CB.	ContractEvent rt Currency	Operational	D Re Take Fro

- 3. In the Edit Transaction Type > Settings section, fill in the following fields:
  - Name: Enter the name of the transaction type.
  - **Transaction Code:** Enter the code of the transaction type.
  - **Process Type:** This field associates the process type with the transaction operation type, which makes the connection with the transaction motor of bank accounts. Select one of the processes defined within the system.

**NOTE** There is no integration at this point with a payment gateway.

- Edit Form: Select the form used to edit this transaction type. You can choose only from the forms defined on the Contract Event entity.
- **Transaction Operation Type:** The transaction operation type makes the connection with the transaction motor of bank accounts. Select one of the transaction operation types defined within the system.

- Is System Transactions: If you select this checkbox the transaction is marked as being neither a credit of the account, nor an allocation of funds, but a transaction that does not influence other transactions within the account. System transactions are meant to be used only for accounting.
- Is Automatic Transaction: If you select this checkbox here, then you cannot select it within the contract operations. The Is Automatic Transaction checkbox marks the transaction as automatic.
- Real Time Process: This checkbox marks the transaction as to be processed in real-time. If selected, then the transaction is processed right away. If not selected, then the transaction is inserted as a bank account transaction queue record.
- Only One Draft: If you select this checkbox, there can be only one record of this transaction type in Draft status created at the contract level.
- Generate New Contract Version: This checkbox allows you to specify if a new contract version should be generated by this transaction type.
- **Commission Type:** Select the commission type applicable for this transaction type. Return fee commissions are filtered out and can't be selected.
- Return Commission Type: Select the return fee commission type applicable for this transaction type.
   Only return fee commissions can be selected.
- Is Clawback Transaction: If selected, this checkbox marks the transaction as generating a clawback commission. The transaction type is to be used in thirdparty management invoicing activities. Default value: False.

- 4. In the Edit Transaction Type > Accounting Configurations section, fill in the following fields:
  - Generates Accounting Entry: Select this checkbox to create an entry in the Operational Ledger. It generates records in the Accounting Entry entity.
  - **OL Master Entity:** Select the entity referenced by the accounting systems.
- 5. In the Edit Transaction Type > Purge Configurations section, fill in the following fields:
  - **To Be Purged:** This checkbox marks the transaction as purgeable. If you select it, you can purge or archive records in Draft status.
  - Purge Number of Days: Enter the default number of calendar days that a record can be kept in Draft status before it is purged. For additional information, see the Core Banking System Parameters page. This field is displayed only when To Be Purged = True.
  - Master Purge Entity: Select the master purge entity under which the draft records are. This field is displayed only when To Be Purged = True.
- 6. You can also edit the information in the Transaction Value Types, Transaction Item Accounting Configurations and Transaction Accounting Models sections. Read more details about Transaction Types in the Operational Ledger User Guide.
- 7. Click the Save and Close button.

# Transaction types typically used for bank accounts

 Top Up Account - If added at banking product level, the customer is allowed to make top ups at the contract level. When a top up transaction is recorded in a contract, at the next maturity date the customer receives the interest for the initial amount up until the top up date, plus the interest for the full amount (initial amount + top up amount) proportional from top up to payment date.

This transaction type is automatically added in the **Associated Transactions** tab if Allow Top Ups was selected in the Details tab.

 Withdraw - If added at banking product level, the customer is allowed to make withdrawals at the contract level.

This transaction type is automatically added in the **Associated Transactions** tab if Allow Withdrawals was selected in the Details tab.

 Transfer between my bank accounts - If added at banking product level, the customer is allowed to move funds between their accounts at the contract level.

This transaction type is automatically added in the **Associated Transactions** tab if Allow Withdrawals was selected in the Details tab.

 Accruals and Provisions - System transaction. If added at banking product level, the accruals and provisions for contracts can be calculated on a daily basis.

This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.  Revert Transfer between my bank accounts

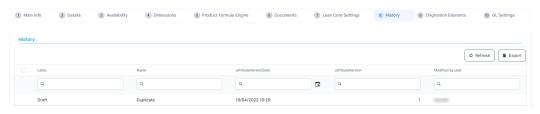
 System transaction. If added at banking product level, transfers between the same customer's bank account can be reverted after being performed. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.

#### NOTE

If you selected the **Allow Top Ups** and **Allow Withdrawals** checkboxes within the **Details** tab, then the Top Up Account, Transfer between my bank accounts and Withdraw transaction types are automatically attached in the **Associated Transactions** tab.

### 8. View History

You can find the versions of the banking product, their workflow status and the user who modified the product in the **History** tab.



Here you can track the product's life cycle and review older versions that are no longer active (for details, see Banking Products' Life Cycle).

# 9. Manage Origination Elements

You can set the elements required in the origination journey, such as product benefits, display conditions, features, destination types, or associated products in the **Origination Elements** tab.

1 Main Info 2 Details 3	Availability 4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	10 GL Settings
Product Image ProductPC_JPO X Add file or Drop file here	Document ProductPresentation Add file or Dro	Doc.pdf x					
Benefits			Display Condition	ons			
File - Edit - Insert - View - Format -	Table - Tools -		File - Edit - In	isert - View - Format - Tabl	e - Tools -		
↔  → Formats  → B I A  →  ≡		8 🖬 🖶 👁 🖻	In the Format	s <sup>∞</sup> B <i>I</i> <u>A</u> <sup>∞</sup> E Ξ	∃ ≣ ⊟ * 18	· 3 3 8 8 8 8	•
Low Interest Rates							
Product Features		Product Destination Types		Asso	ciated Products		
+ Insert × Dele	te Export Ø Refresh	(	+ Insert existing	K Remove existing		+ Insert existing	× Remove existing
Feature DisplayN	lame Show Order (i)	Display Name			Name		
٩	٩	٩			٩		
NMNGTFEES No Man	agement 1	Personal			Current Account	t USD	

- 1. Fill in the following fields:
  - Product Image: Insert an image representative for the product.
  - Document: Insert the document representative for the product.
  - **Benefits:** Insert the advantages of owning the banking product. You can format the text in the text editor window.
  - **Display Conditions:** Insert the conditions for the applicant, e.g. age limit, annual turnover, education level, income, registration documents.
- 2. Click the Save and Reload button.

### **Product Features**

In the **Product Features** section, you can insert, delete or export features.

 To add a feature, Click the Insert button and fill in the following fields:

- Feature: Enter the name of the product feature.
- Is Main Feature: Select the checkbox if it is the major feature.
- Display Name: Enter the display name of the feature.
- 2. Click the Save and Reload button.

# Product Destination Types

In the **Product Destination Types** section , you can insert or remove the existing product destination types:

- 1. Click **Insert existing** and select one of the existing destination types, or insert a new one.
- To create a new destination type, insert a name and specify if it is default. For this case, the following have been configured: Loan Collateral, Loan disbursements, Personal, Repayments.

### Associated Products

In the **Associated Products** section you can insert or remove an existing products. It is especially useful when you wish to create a link between two products.

Associa	ted Products		
		+ Insert existing	X Remove existing
	Name		
	٩		
	Current Account USD	)	

To insert or remove a product from the list or create a new one:

- 1. Click **Insert existing** and select one of the existing destination types, or insert a new one.
- 2. Click the Save and Reload button.

# 10. Configure Operational Ledger Settings

### NOTE

The **OL Settings** tab is available only when Banking Product Factory is implemented along with **Operational Ledger Add-On**.

In the **Banking Product GL Accounts** section, you can set specific accounts to be used by the Operational Ledger system for transactions performed on contracts based on this banking product. Thus, you can overwrite the generic settings of the Operational Ledger, instructing it to use the accounts specified at banking product level.

1 Main Info	2 Details	3 Availability	(4) Dimensions	5 Product Formula	a Engine 6 D	ocuments 7 L	ean Core Settings	8 History	9 Origination Elements	0 GL Settings
Banking Prod	uct GL Accounts									
								+ In:	iert X Delete Exp	ort Ø Refresh
Produ	zt		Accounting System		Accounting Scope		Item		GL Account	
٩			٩		٩		٩		٩	
Dupli	cate		0001		FixDeposit		Loan Admin Fee		20110 Commercial loans	

 To add specific accounts to be used by Operational Ledger, click Insert and fill in the following fields in the displayed Add Banking Product GL Account page::

)								Save and close	Save and reload	Save and new
d Banking Product GL A	Account									
Main Information										
Product		Accounting System		Accounting Scope		Item		GL Account		
Duplicate	÷ /	0001	•	FixDeposit	¥	Loan Admin Fee	۰	20110 Commercial loans	Ŷ	

• **Product:** Select from the list the banking product. Automatically completed with the banking product you are currently editing.

- Accounting System: Select from the list the desired accounting system. The list contains the records created in the Accounting System entity.
- Accounting Scope: Select from the list the corresponding accounting scope. The list contains the records created in the Accounting Scope entity.
- Item: Select from the list the corresponding transaction item. The list contains the records created in the Transaction Item Accounting Config entity.
- **GL Account:** Select from the list the corresponding GL account. The list is filtered based on the previously selected accounting system. It contains the accounts defined in the Accounting Chart entity that were added to the chosen accounting system record.
- 2. Click the Save and Reload button.

### Current Accounts with Overdraft

A current account with an attached overdraft functionality allows customers to withdraw funds from the account even if the available balance goes below zero. If there is a prior agreement with the account provider for an overdraft, and the amount overdrawn is within the authorized overdraft limit, then interest is normally charged at the agreed rate. If the negative balance exceeds the agreed terms, then additional fees may be charged and higher interest rates may apply. The customer may use the account beyond their available balance (credit balance) and may have a debit balance as low as the approved overdraft/ limit. The overdraft can be added on top of existing current accounts.

### Creating Current Accounts with Overdraft

To create a new current accounts with overdraft from scratch, navigate to main menu > **Banking Product Factory** > **Banking Products**, and click the **Insert** button. A new page opens, with a series of tabs that assist you in configuring the banking product.

### NOTE

Alternatively, you can create a current account with overdraft by duplicating an existing one. Click the **Duplicate** button on the **Banking Products List** page. Make sure you change the **Banking Product Code** and **Name** according to your business needs.

### 1. Enter Basic Information

You can set the basic elements for creating the product, such as name, code, currency, validity, or product classification, in the **Main Info** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine		Documents	7 Lean Core	Setting	s 8 History 9	Originat	ion Elements	10 GL Sett	ings
Main Information	n												
Banking Product Ty	ype	Currency	¥	Banking Product Code		External Code			Start Date 01/07/2021		End Date		
Name				Class		SubClass			Category		SubCategory		
Current Acc w C	Overdraft				¥			۰		¥			¥
Description						Product Classi	fication						
										+ 1	nsert existing	× Remove ex	isting
						Code		Name	Classification Type		id From	Valid To	-
						٩		۹	٩		2	٩	

#### NOTE

Your product type selection influences the next steps. For current accounts with overdraft functionality, select the **Bank Account** option in **Banking Product Type**.

# Main Information

- In the Main Information section, select the Banking Product Type from the available list.
- 2. Choose the **Currency** for the banking product.
- 3. Enter the product code in the **Banking Product Code** field. It can have 10 characters, and it is used in the contract. It uses a sequencer and the code of the product type.

- 4. Set the product validity by selecting the date when the product becomes available (Start Date) and the last date from when the product is available (End Date).
- 5. Enter the product Name.
- 6. Optionally you can set the following fields:
  - External Code: Select the code of the product imported from an external system, if applicable. It can have 10 characters and it is not used in the contract.
  - Class: Select the class of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Subclass: Select the subclass of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Category: Select the category of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - SubCategory: Select the subcategory of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - **Description:** Enter any description or additional text related to your new product.
- 7. Click the **Save and Reload** button. The product is now saved and you can further edit it for your needs.

### Product Classification

After saving the product, the **Product Classification** section is populated with more options for your term loan. You can insert or remove existing product classification items. 1. To add a product classification item, click **Insert Existing** and select an already existing item.

oduct	Classification				
				+ Insert existing	× Remove existing
	Code	Name	Classification Type	Valid From	Valid To
	٩	٩	٩	۹ 🖬	٩
	REG1	Classification	Regulatory	01/01/2020	31/12/2030

- 2. You can also create a new product classification item by clicking the **Insert existing** button and then the **Insert** button.
- 3. On the newly displayed **Add Product Classification** page, fill in the fields:

(C Ad	) HProduct Classification					🕲 Save ar	id close	C Save and reload	Save and new
	Main Information	Code	Valid From	Valid To	Classification Ty	pe		is Default	
•	Classification Restructuring Level	RESTRUCTLI	• 20/04/2022	30/04/2028	Restructuring	1	⊙ •		

- Name: Enter the name of the classification item.
- Code: Enter the unique code of the classification item.
- Valid From: Select the date from which the product classification item is valid.
- Valid To: Select the date until when the product classification item is valid.
- **Classification Type:** Choose the classification type of the item. Possible values: Regulatory, Restructuring.
- Is Default: Select the checkbox if this classification item is default.

The **Classified Banking Products** section is displayed after you save the classification item record and allows you to insert

existing banking products. The following information is displayed here: Code, Name, Class, SubClass, Category, SubCategory and Status.

For more information on how to create a new product classification, see Banking Product Classification.

4. Click the Save and Reload button.

### 2. Add Details

You can set elements such as interest, payment type or product destination types in the **Details** tab.

1 Main Info	2 Details	3 Availability	(4) Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	y (9) Origination Elem	ents 10 GL Settings
General Data									
Auto Roll Over		Allow Top Ups		Allow Withdrawais	Allow negotiated IF		Allow Overdraft		
Interest Is Capitaliz		Interest Payment Typ	•						
Period Type Months Schedule Templa	ates	-	Periodicity Type Monthly		Ŷ				
			+	Insert existing X Remove existing		payment Installments		Defer Due Date	Holiday Shift Method
Name					Country Calenda	irs		+ Insert e	xisting X Remove existing
Overdra	aftCurrentAccount				Name Q Boman	a		T insert e	Answing A Remove existing

### **Product Behavior**

- 1 In the **General Data** section, set the following fields:
  - Auto Rollover: If the checkbox is selected here at banking product level, the contract is renewed at maturity date in exactly the same conditions.

If the checkbox remains unchecked, the contract is automatically closed at maturity date.

• Allow Top Ups: Select if the amount can be topped up with a sum of money.

#### NOTE

If you select the **Allow Top Ups** checkbox, the Top Up Account transaction is automatically loaded in the **Allowed Transactions section**, which means that the customer is allowed to make top ups at the contract level. When a top up transaction is recorded in a contract, at the next maturity date the interest is calculated for the initial amount up until the top up date, plus the interest for the full amount (initial amount + top up amount) proportional from top up to payment date.

If you do not select the **Allow Top Ups** checkbox, the top up transaction is not allowed at the contract level.

• Allow Withdrawals: Select if the customer can take out money for this product.

### NOTE

If you select the Allow Withdrawals checkbox, the Withdraw and Transfer between my bank accounts transactions are automatically loaded in the Allowed Transactions section, which means that the customer is allowed to make withdrawals at the contract level.

If you do not select the Allow Withdrawals checkbox, the Withdraw and Transfer between my bank accounts transactions are not loaded, thus these transaction types are not allowed at the contract level.

• Allow negotiated IR: Select if the interest rate is negotiable for this product at the contract level.

### NOTE

If you select the **Allow negotiated IR** checkbox, the Total Interest Rate field from the banking contract is automatically completed with the value configured on the banking product, but it is editable, so that the bank can change this value and insert the negotiated one.

If you do not select the **Allow negotiated IR** checkbox, the Total Interest Rate field from the banking contract is automatically completed with the value configured on the banking product, but the value is read-only and cannot be changed.

 Allow Overdraft: Only displayed for current account type bank accounts. This is where you specify that the account has an overdraft functionality attached to it, so select the checkbox. The Payment Schedule Types section is displayed after selecting this checkbox. • Interest is capitalized: Only applicable if there is an interest rate.

### NOTE

If you do not select the **Interest is capitalized** checkbox, the interest is paid in the account specified on the contract.

If you select the **Interest is capitalized** checkbox, then the interest is added over the product amount, so that on the next payment date the customer receives the interest applied on both interest and product amount.

• Interest Payment Type: Select the regularity of interest payments: Monthly, Maturity, Yearly, Daily or Quarterly.

### NOTE

If you select the Allow Top Ups and Allow Withdrawals checkboxes, then the Top Up Account, Transfer between my bank accounts and Withdraw transaction types are automatically attached in the Lean Core Settings tab.

2. Click the Save and Reload button.

# Payment Schedule Types

 Select the regularity of payments in the Periodicity Type. You can choose: Once (the whole amount is paid at maturity), Weekly, Monthly, Bimonthly, Trimestrial, 4 Weeks, Semestrial, Annual or 30Days.

### NOTE

If the measurement unit of the selected
Periodicity Type = Days, then Holiday Shift
For Repayment Installments = False and it
cannot be changed.

 Optionally, in the Period Type, you can select the period of availability for the product: Days, Weeks, Months, Years or Once.

### NOTE

The period type must be the same as the measurement unit of the Periodicity Type.

3. Click the Save and Reload button.

# Schedule Templates

In the **Schedule Templates** section, you can associate/ delete payment schedule types to/ from the banking product.

Schedule	e Templates	
		+ Insert existing × Remove existing
	Name	
	٩	
	Credit Card Installments	
	One principal installment	

 To associate a payment schedule type to the banking product, click Insert Existing and select one of the already defined types. Go to "Payment Schedule Types" on page 405 to read more about this.

### **IMPORTANT!**

When creating a new Term Loan, Mortgage, or Overdraft banking product, you must select at least one payment schedule type, otherwise you can't approve the product. If the **Schedule Templates** section has no records, an error message is displayed upon transitioning the product into the **Approved** status.

2. Click the Save and Reload button.

# Holiday Settings

In the Holiday Settings section, the following fields are available:

Holiday Settings		
Holiday Shift For Repayment Installments	Defer Due Date	Holiday Shift Method
Country Calendars		
	+ Insert	existing X Remove existing
Name		
٩		
Romania		

1. Select the **Holiday Shift For Repayment Installments** checkbox for holidays to be taken into consideration when calculating the maturity program.

NOTE
The Country Calendars section and the Defer Due Date
and Holiday Shift Method fields appear if you select
the Holiday Shift For Repayment Installments
checkbox.

The **Defer Due Date** option is select by default. If selected, the payment schedule calculates the next payment amount as if the due date has not changed even when the due date falls on a holiday.

2. From the **Holiday Shift Method**, you can select the method to be used when calculating the due date if that date falls on a holiday. The due date can be shifted before or after the holiday. The possible values you can choose are:

- None the due date is not shifted.
- Forward the due date is shifted to the next working day after the initially calculated due date.
- **Backward** the due date is shifted to the last working day before the initially calculated due date.

Default value: Forward.

### **Country Calendars**

In the **Country calendars** section, you can insert or delete calendars. You can work with multiple calendars as well. To insert a calendar:

- Click the Insert Existing button and add the country's name. If the maturity date coincides with a holiday, it is allocated automatically on the next business day.
- 2. Click the Save and Reload button.

# 3. Configure Availability

You can determine the monetary range and the time frame when the product is available for customers in the **Availability** tab.

1 Main Info	2 Details	3 Availability	Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	Ø Origination Elements	10 GL Settings
Product Availal	bility								
Minimum Amount		Maximum Amount		Minimum Period	Maximum Peric	d			
	1,000		100,000						
Start Period For U Activation(Month					Expire period fo	r Overdraft (Months) 5			
Availability Rul	es								
Product Availab	ility Item Filters				Product Cove	nants			
			+ Insert	Delete Export Ø Refre	sh		+	Insert X Delete	xport Ø Refres
Descri	ption				Тур	e Covenant		Valid From Valid to	Value
٩						٩		a 🖬 a	٩

Product Availability

- 1. Fill in the following fields:
  - **Minimum Period** and **Maximum Period**: Enter the minimum and maximum duration of the product mentioned in the contract.
  - Minimum Amount and Maximum Amount: Enter the minimum and the maximum amount of the product for which the bank opens a contract.
  - Start Period For Unusage After Activation (Months): Enter the number of months after contract activation when the amount unused from the contract starts to be charged with unusage fees.
  - Expire period for Overdraft (Months): Enter the number of months after which the overdraft feature of the current account expires and the banking product starts behaving like a simple current account.
- 2. Click the Save and Reload button.

# Availability Rules

In the **Availability Rules** section you can select the item filters for your banking product.

Availabi	lity Rules	
Product	Availability Item Filters	
		+ Insert X Delete Export C Refresh
	Description	
	٩	
	CA >< 1 - 50000	

- Click the Insert button, the Add Product Availability Item Filter is displayed.
- 2. Select the desired filter from the Filter option.

- 3. Add the attributes of the selected filter.
- <sup>4</sup> Optionally, add a description for the added item filter.
- 5. Click the Save and Reload button.

For more details, see "Product Filter" on page 462.

### **Product Covenants**

In the **Product Covenants** section you can set certain conventions that applicants must abide by after getting the loan. This is usually applicable for corporate clients that must meet certain requirements in order to continue to receive disbursements.

roduct Cove	enants		+ Insert		Delete	Exp	port	Ø Refr	esh
Туре	C	Covenant		Valid Fre	om	Valid to		Value	
٩		۹		٩			1	٩	
Affir	mati B	orrowers should perform tax oblig	ations	19/04/	2022	20/04/20	)30		
Fina	ncial L	ender can monitor borrower's curr	ent r	19/04/	2022	20/04/20	030		

- Click the **Insert** button to add a covenant to the product. Each covenant can be attributed a value, an availability period, and a review frequency in months. Read more about covenants in the "Covenant" on page 477 page.
- 2. Click the Save and Reload button.

# 4. Manage Dimensions

You can insert, delete or export interest, commissions, insurances, discounts or questions valid for your product in the **Manage Dimensions** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	(10) GL Settings
Interest & Com	nissions				Insurances				
			+ Insert × De	lete			(+ Ir	nsert X Delete Exp	ort Ø Refresh
Item N	ame				Item	Name			
٩					٩				
MCA					Hou	se Insurance			
Discounts					Questions				
			+ Insert × De	lete				+ Insert existing	× Remove existing
Name	Dis	count E	End Date Start	Date Value Discount	Ques	tion		Business Status	
٩	C	. (	۹ 🖬 ۹	<b>Q</b>	٩			٩	
					Que	stion1		Active	
		N	lo data		Que	stion2		Active	

To add a new one, click **Insert** and fill-in the fields detailed in the sections below.

#### NOTE

To configure the interest and commissions separately, navigate to **Main** > **Product Factory** > **Banking Product Dimensions menu** which contains several other embedded menus.

### Interest & Commissions

- To add an interest or a commission, click Insert in the Interest & Commissions section. The Add Interest & Commission Item page is displayed.
- 2. Select the banking product from the **Banking Product** list.
- 3. Enter the Item Name.
- 4. Enter the **Start Date** when the interest/ commission becomes effective and the **End Date** for the interest/ commission.
- 5. Fill in the following fields:
  - **Code:** Enter a code for this particular interest/ commission.
  - Interest List: Select from which list the interest is a part of.

- **Commissions List:** Select from which list the commission is a part of.
- Minimum Interest Rate (%): Enter the percent applicable as a minimum interest rate at the contract level.
- Is Negotiable: Select the checkbox to specify that every interest, commission or margin field at the contract level is negotiable and can be edited.
- 6. Click the Save and Reload button.
- 7. In the **Interest & Commission Item Filters** section, click **Insert** to insert an item filter.
- 8. Select a filter created earlier in the "Product Filter" on page 462.
- 9. Set the following fields:
  - Value/ Date: Select the beginning value/ date for the filter.
  - Until Value/ Until Date: Select the maximum value/ date for the filter.
  - **Description:** This field is automatically filled in after clicking the **Save and Reload** button. The values/ dates inserted above are turned into an expression.

For Lookup attributes, the following fields are available:

- Filter Entity: Entity on which the filter was defined.
- **Description:** It is left blank. Add a description if needed.
- Grid of Options: This field is automatically filled in after clicking the Save and Reload button. The values of the option set are displayed. Select the Boolean for the values you wish to include in the filter.
- 10. Click the Save and Reload button.

)			Save and close	arciot
t Interest & (	Commission Item Filter			
Main Informatio	on			
Filter	AL_Amount	↓ <i>₽</i>		
/alue	•	1 Until Value	• 50	,000
Description				
	: 1 - 50000			

### Insurances

For any banking product, you can select a pre-existing insurance or create a new one.

- To add a new insurance, in the Insurances section, Click the Insert button and set the following fields:
  - Banking Product: Select the banking product.
  - **Code:** Insert a code for this particular insurance.
  - Item Name: Insert a name.
  - **Start Date:** Enter the start date when the insurance becomes effective.
  - End Date: Enter the end date for the insurance.
  - **Details:** It is left blank. Add a description if needed.
  - Insurance List: Select from which list the insurance is a part of.
- 2. Click the Save and Reload button.
- 3. In the **Insurance Item Filters** section, click **Insert** and fill in the following fields:

- Filter: The name inserted earlier.
- Value: The starting value for the attribute.
- Until Value: The ending value of the interval.
- Description: Insert the proper description for the availability filter.
- 4. Click the Save and Reload button.

)					😰 Save and close 👘 Save and reloa
t Insurance Item					
Main Information					
Banking Product	Code	Item Name	Insurance List	Start Date	End Date
Duplicate	V 🖉 INS	H Insurance	InsuranceListRON	↓ ✓ 19/04/2022	20/04/2030
Details					
insurance Item Filte	rs			+ 11	ssert) X Delete Export Ø Refresh
Description					
٩					
Amount Insura	ance >< 1000 - 30000				

### **Discounts**

For any banking product, you can add discounts of any nature. You can select a pre-existing discount or create a new one.

- To add a new discount, Click the Insert button in the Discounts section.
- 2. In the **Details Page**, insert the appropriate **Name** for the discount.
- 3. Choose one of the pre-configured types of discounts available in the **Discount** field, or create a new one. According to the selected type, new fields appear on the page requiring to be filled in.
- 4. Insert the value of the discount to be applied, e.g. 15.
- 5. Set the start date when the discount becomes effective (Start date), and the end date for the discount (End date).

- 6. Optionally, you can fill in the following fields:
  - Applied to dimension: Specifies for which product dimension this discount is applicable (interest, commission or insurance). This is autocompleted by the selected discount's dimension.
  - Commission type: This field appears if the selected Discount = Commission discount or Management Fee Discount. Specifies for which commission type this discount is applicable. This is autocompleted by the selected discount's default commission type.

  - Insurance class: This field appears if the selected discount = Discount Life Insurance or Interest Discount. Specifies for which insurance class this discount is applicable (credit, home, life or other insurance class). This is autocompleted by the selected discount's insurance class.
  - Insurance: This field appears if the selected discount = Discount Life Insurance. Specifies for which insurance this discount is applicable. This is autocompleted by the selected discount's insurance.
  - Interest type: This field appears if the selected discount
     Interest discount. Specifies for which interest type this discount is applicable.
  - Use Banking Formula: If you select this checkbox, the discount is calculated using the Banking Formula engine.

- Is optional discount? : Selecting this checkbox results in the discount being applied only if the customer agrees to the discount.
- Is percentage: If you select this checkbox, the discount is calculated as a percentage from the contract's amount.
- Destination entity: Select the entity where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- Destination entity attribute: Select the attribute where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- 7. Click the Save and Close button.
- 8. In the **Product Discount Item Filter** section, click **Insert** and fill in the fields as specified in the **Product Filter page**. The fields displayed depend on the selected filter.
- 9. Click the Save and Close button.

### Questions

You can choose one or more questions to add to the banking product, or insert a new one.

- To insert a new question, in the Questions section, Click the Insert existing button, then click Insert.
- 2. In the **Add Banking Product Question** page, fill in the following fields:
  - Question: Enter the appropriate name.
  - Answer Type: Select the type of answer the customer has to give: text, numeric or option set.

- Answer Entity: Select the entity where the answer is stored.
- Answer Field: Select the attribute where the answer is stored.
- 3. Click the Save and Reload button.

The **Banking Products List** shows where the question is used.



4. Click the Save and Close button.

For example, this is how a question is displayed in a digital journey in the FintechOS Portal:

EDIT LOAN APPL				
		Eligibility Questions		
	We ask for this information	n so that we can carry out the checks needed to consider y	ou for a mortgage	
DEPOSIT SOU	RCE	Select	٥	
RETIREMENT	DATE		٥	
RETIRED		Yes  No	l≽.	
			Finish	

# 5. Configure Product Formula Engine

The **Product Formula Engine** tab keeps formulas built with Formula Engine for the banking product. Such formulas can be used to determine the eligibility of a customer.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	Origination Elements	10 GL Settings
Banking Prod	uct Formulas		+ Insert X Dele	te Export Ø Refresh	Test Scena	rios	+	insert X Delete Ex	port Ø Refresh
Name		Formula Type		Formula	Na	me		Test Formula Type	
Q.		Commission	Formula	Q.	D	plicate-19:04:2022 11:07:57		Q	

### **Banking Product Formulas**

In the **Banking Product Formulas** section, choose an already defined formula or click **Insert** to configure a new one, for example a formula for eligibility or scoring purposes. For information on how to build a formula, see Define Formula Inputs.

 In the Add Banking Product Formula page, fill in the following fields:

Ð			Save and close
dit Banking Product Formul	a		
Main Information			
Name	Banking Product	Formula Type	Formula
CA	Duplicate	V 🖌 CommissionFormula	V CommissionByAmount
Data Mapping			
BPFormulaType_Test Formula_164	7267821582_formula	÷ #	
			Map Data

- Name: Enter an appropriate name.
- Formula Type: Select the type of formula configured before, e.g. scoring /eligibility.
- Formula: Select the previously configured formula.

**IMPORTANT!** The formula must be activated before attaching it to a product.

• Data Mapping: Select the previously configured data mapping.

The name of the banking product is inserted automatically in **Banking Product**.

- 2. After selecting the desired formula, click **Save and reload**, then click **Map Data**.
- 3. In the **Formula Mapping** page, click **Input** and configure the input data for the formula.
- 4. Click **Output** and configure the output for the formula.

Definition     Definition     Definition     Output	e and reload
FTOS_CB_Contract - Output	

5. Click the Save and Close button.

Such formulas can be used in digital journey steps, for example when the customer inserts their financial data.

	Income & Outgoings		
We	use your expected income and outgoings to work out how lend and to ensure that any mortgage we may offer yo		
WHAT IS YOUR ANNUAL SALARY BEFORE TAX?	ARE YOU MARRIED?	EDUCATION LEVEL:	
€	[none]	[none]	
PAYING MONTHLY FOR OTHER LOANS:	NUMBER OF CHILDREN	EMPLOYMENT STATUS	
e	0 0	[none]	
TOTAL CREDIT CARDS LIMITS:	CHILDCARE AND EDUCATION COSTS:	EMPLOYMENT MONTHS:	
TOTAL CREDIT CARDS LIMITS: €	CHILDCARE AND EDUCATION COSTS: €	EMPLOYMENT MONTHS:	
		YOUR RESIDENCE IS:	

# Test Scenarios

ain Information		
st Formula Type	CommissionFormula	4
Key	Value	
٩	٩	
Amount		23.45
		Save Output Data Concor
st Scenario Outputs		

A good practice is to test the formula before displaying it in a digital journey. You can do that in the **Test Scenarios** section:

- 1. Click the **Insert** button to open the **Add Test Scenario** page.
- 2. Insert a **Test Scenario Type** from the option set. The keys and the values are shown.
- 3. Click the Save and Reload button.
- 4. Click the **Calculate** button. The outputs are displayed in the **Test Scenario Outputs** section.
- 5. You can save these outputs by selecting the **Save Output Data** checkbox next to **Calculate**.

### 6. Add Documents

You can manage all the attached documents available for a product and all the agreements that a customer needs to go through in the **Documents** tab.

1 Main In	fo (2) Details	3 Availability	4 Dimensions	8 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	10 GL Settings
Banking	Product Documents				Banking Proc	luct Agreements			
			+ Insert × De	elete	)		+ 1	nsert X Delete Exp	port Ø Refresh
	Report	Banking Copi	ies No	Operation Code	Code				
	٩	٩		٩	٩				
	Status overview of the que	zues	2	TC					
							No data		

### **Banking Product Documents**

Any previously associated documents are displayed in the **Banking Product Documents** section.

 To attach a new document to the banking product, in the Banking Product Documents section, click Insert. The Add Banking Product Document page is displayed.

Banking Product Document				
Banking Product Document				
Operation Code	Banking Copies No	Report	Document Type	
PASS		2	↓ ✓ Passport	•
s Mandatory	Includes Debtor	Includes Coborrower	Requires Signature	
Yes No	🔵 Yes 💿 No	Ves 💿 No	🗌 Yes 💿 No	

- 2. Set the following fields:
  - **Operation Code:** Enter a code for the document.
  - Banking Copies: Insert the number of copies made.
  - **Report:** Select a document from the list.
  - **Document Type:** Select a document type from the list.
  - Is Mandatory: Select if the document is mandatory.
  - Includes Debtor: Select if the document includes the debtor.
  - Includes Coborrower: Select if the document includes the co-borrower.
  - **Requires Signature:** Select if the document requires to be signed.
  - Is accord: Select if the document represents the accord.
- 3. Click the Save and Reload button.

### Banking Products Agreements

The agreements that a customer needs to go through are displayed in the **Banking Products Agreements** section.

 To attach a new agreement to the banking product, in the Banking Products Agreements section, click Insert. The Add Banking Products Agreements page is displayed.

Edit Banking Product Agreement					Save and close 🗘 Save and reload
Main Information					
Agreement	Code		Banking Product		is Mandatory
Popescu Broker	AGR	1	SLICE Loan	41	

- 2. Fill in the following fields:
  - Agreements: Select an agreement from the list.
  - Banking Product: It is automatically filled in.
  - **Code:** Insert the corresponding code.
  - Is Mandatory: Select if the agreement is mandatory for the product.
- 3. Click the Save and Reload button.

For more information on how to configure a contract or an agreement, see the Digital Document Processor.

# 7. Configure Lean Core Settings

### NOTE

The Lean Core Settings tab is available only when Banking Product Factory is implemented along with Core Banking.

Transactions types that are performed to and from a banking product are displayed in the **Lean Core Settings** tab. The tab also holds information about the reconciliation account associated with the products, mandatory roles for contract approval, payment allocation settings, the treatment of returned goods for contracts based on this banking product (only for Term Loans and Mortgage banking products), and closing contract settings.

#### **BANKING PRODUCT FACTORY USER GUIDE**

1 Main Info 2 Details 3 Availability	Dimensions     S Product Formula Engine	Cocuments     Core Settings     B History     Dirigination Elements     B CL Settings
Self Bank Account Associated With The Product		Payment Allocation Settings
Reconciliation Account Negative bala Reconciliation EUR V NoMessag		Repayment Allocation Method     Grace Days for Repayment     Penalty for grace period       CostOrder          ✓ ✓
Mandatory Roles for Contract Approval	+ Insert X Delete Export G Refres	Allowed Transactions  h
Role     Q	Search Limit (All)	Name           Q
Beneficiary		Top Up Account Transfer between my bank accounts
Closing Contract Settings		Withdraw
Buffer Close Days Close Real Tir	ne Closing Is Flexible	
Contract Is Closed Automatically		

# Reconciliation Account Associated With The Product

 In the Self Bank Account Associated with the Product, for each banking product, you must select a reconciliation account, which is the bank account to be used for transactions, for money movements.

Reconciliation Account	Negative balance treatment
Reconciliation EUR	↓ NoMessage •
NOTE	
-	unt must have the same currency as the
This acco	unt must have the same currency as the because the conversions are performed from

2. Select a value for the **Negative Value Treatment** drop-down to specify how Core Banking treats situations when the funds of the reconciliation account associated with the banking product used in the contract would go below zero if a

disbursement event would be approved. The possible values are:

- Error there is an error message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can't be approved and the balance can't go below zero. Select this value if you want to block any transactions that would result in a negative balance of the reconciliation account associated to the banking product.
- Warning there is a warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.
- NoMessage there is no error or warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.

### NOTE

Core Banking also has a system parameter, ReconciliationAccountTreatment. That is a system-wide setting, applicable to events for contracts based on all banking products without a specified Negative balance treatment value. Core Banking takes into consideration the settings used at the banking product level (the Negative balance treatment field's value). Thus, if the value is specified at the banking product level, then that value takes precedence over the system parameter's setting.

If you associate the same reconciliation account to more than one banking product, then the setting selected in banking product A is applied for contract events based on banking product A, while for the banking product B, Core Banking would apply the setting selected at the level of banking product B.

### Payment Allocation Settings

In the **Payment Allocation Settings** section you can decide which allocation method should be used to determine the order in which credit items are prioritized when repaying loans, credit accounts, and so on. You can also define the grace period settings.

Payment Allocation Settings						
Repayment Allocation Method	¥ 🖉	Grace Days for Repayment	5	Penalty for grace period		
Direct Debit Settlement Accoun	t					

- 1. Fill in the following fields:
  - Payment Allocation Method: The payment allocation method represents the recovery order of amounts from payment notifications. Select a payment allocation method from the list.
  - Grace Days for Repayment: Insert the number of days for which the bank expects a payment without calculating penalty.

- Penalty for grace period: If you select the checkbox, the penalty interest is applied on the loan contract without taking into consideration the grace period defined at contract level, being calculated for the difference between system date due date, if the grace period passed and the customer didn't pay the due amounts. If you leave this checkbox unselected, the penalty interest is applied on the loan contract taking into consideration the grace period defined at contract level, being calculated for system date due date + grace days for repayment.
- Direct Debit Settlement Account: If you select the checkbox, the banking product has the automated settlement of repayment notification functionality (the payment allocation) turned on by default at the contract level. You can turn the automated settlement off either at the banking product level or at the contract level in Core Banking. Default value: true.

**NOTE** The automated settlement of repayment notification, or direct debit settlement account, is the functionality whereby, if funds are available on the settlement account and the contract has repayment notifications pending for recovery, Core Banking automatically uses the available balance up to full settlement of repayment notifications. In Core Banking, the automated settlement of Installment type repayment notification functionality (the payment allocation) can be turned on or off, thus allowing the financial institution to manage the contracts in case of blocked accounts and control the allocation of funds to outstanding notifications in case of need to impose a block on the settlement account, or manage the settlement of multiple loans from the same settlement account when short on funds and exceptional rules might apply.

If the functionality is turned off, the contract is pending for manual allocation. You can turn it back on and leave Core Banking to allocate the funds according to its automated processes, using any funds that become available in the settlement account in order to cover pending notifications.

2. Click the Save and Reload button.

### Mandatory Roles for Contract Approval

In the **Mandatory Roles** section you can add the roles of the participants that are mandatory to exist at the contract level for contracts based on this banking product. In other words, when creating contracts based on banking products with Merchant role in this section, you must add a customer with the same Merchant role as contract participant, otherwise, the contract cannot be approved. When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role, in this case Merchant Exposure.

Mandatory Roles for Contract Approval

	+ Insert X Delete Export Ø Refresh
Role	Search Limit
٩	(All)
Beneficiary	

1. In the **Mandatory Roles** section, click **Insert** and fill in the following fields:

${igodot}$		원 Save and close
Add Mandatory Role		
Main Information		
Banking Product	Role	Search Limit
Duplicate	4 Merchant	- / 🗹

- **Banking Product:** The banking product for which you define mandatory roles. This is automatically completed with the current banking product.
- **Role:** Select the role of the participants that are mandatory to exist at the contract level for contracts based on this banking product.
- Search Limit: When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role. If you select a role not associated with a customer limit type in Core Banking, the Search Limit field becomes read-only and unselected.
- 2. Click the Save and Reload button.



In the **Return Of Goods,** you can define whether a contract based on the banking product can have Returned Amount or Goods transactions or not, and the specific conditions for these transactions. The Returned Amount or Goods transaction type can be used when a customer returns all or part of a loan or mortgage in a short while after contract creation, if the banking product was defined to allow such transactions. You can set up Return Fee type commissions, to return all or some of the claimed commission to the borrower.

Return Of Goods				
Allow Return Of Goods	Accepted Days For Return		Return Message	
	15	)	Warning	-

- 1. Fill in the following fields:
  - Allow Return Of Goods: Select this checkbox if the contracts based on this banking product accept Return of Goods transactions. Default value: False. If selected, the Accepted Days For Return and Return Message fields are displayed, otherwise, these fields are not visible.
  - Accepted Days For Return: Specify the number of days after contract creation during which the return of goods transaction can be created and approved.
  - Return Message: Select the behavior of messages generated by Core Banking for situations when the Returned Amount or Goods transaction's approval date + the number of accepted days for return >= the current date. Possible values are taken from the Warning Error Treatment option set. According to the desired behavior, choose:

- Error, if the transaction should not be approved and an error message should be displayed;
- Warning, if the transaction can be approved, but a warning message should be displayed;
- NoMessage, if the transaction can be approved without any messages.
- 2. Click the Save and Reload button.

**NOTE** If Allow Return Of Goods = True, then the Returned Amount of Goods transaction is automatically added to the **Transaction Types** section.

# **Closing Contract Settings**

In the **Closing Contract Settings** section, you can configure the default closure settings for contracts based on this banking product.

Closing Contract Settings								
Buffer Close Days	Close Real Time	Closing Is Flexible						
Contract Is Closed Automatically								

- 1. Fill in the following fields:
  - Buffer Close Days: Enter the number of days used as buffer before automatically closing the contract when the contract reaches maturity and its balance reaches zero. If Buffer Close Days > 0, then Contract Is Closed Automatically = False.

- Close Real Time: If you select this checkbox, the contract based on this banking product is closed in real-time, when the contract reaches maturity and its balance reaches zero, without waiting for the end of day processes. If Close Real Time = True, then Buffer Close Days = 0 and Contract Is Closed Automatically = True.
- **Closing Is Flexible:** If you select this checkbox, the closure details of the contract based on this banking product can be modified at the contract creation.
- Contract Is Closed Automatically: If you select this checkbox, the contract based on this banking product is closed automatically at maturity, if the balance reaches zero. If Contract Is Closed Automatically = False, then Close Real Time = False.
- 2. Click the Save and Close button.

### Allowed Transactions

In the **Allowed Transactions** section, you can associate possible transaction types with the selected banking product:

- Click Insert existing and select the desired transaction types to be associated.
- 2. Double-click a selected transaction type to edit it.

Settings											
Name	Transaction C	ode	Process Type		Edit Form		Transaction Operat	tion Type	ls Syster	m Transaction	
Disbursement	DSB		Disbursement	÷	FTOS_C8_EventDisbur	vernent 4	Disbursement		•		
is Automatic Transaction	Real Time Process	Only One Draft		ate New Contract	Commission Type			Return Comm	nission Type		
			Versio	n			4				
Accounting Configuration	IS OL Master En	πy			Purge Configurations	Purge Nu	mber of Days	Master Purge	Entity		
enerates Accounting Entry	OL Master En					Purge Nu		•			
Accounting Configuration	OL Master En	ity iontractEvent		0 -	To Be Purged	•	30	•	Entity ContractEvent		
Accounting Configuration	OL Master En			• •	To Be Purged	•	30	•			•
Accounting Configuration	OL Master En		X Delete		To Be Purged	•	30	•	ContractEvent	) Licport	G G Re
Accounting Configuration	OL Master En	: contractEvent	X Defete		To Be Purged	•	30 ations	FTOS_CB_	ContractEvent rt X Delete	Operational	_
enerates Accounting Entry	GL Master En	iontractEvent + Insert		oport Ø Refresh	To Be Purged	•	30 ations	FTOS_CB_	ContractEvent rt X Delete		Ø Re
Accounting Configuration	OL Master En	Value Type Name	In Header	oport Ø Refresh Value Type Attribute	To Be Purged	Accounting.	30 ations	FTOS_CB.	ContractEvent rt X Delete Currency	Operational	D Re Take Fro

- 3. In the Edit Transaction Type > Settings section, fill in the following fields:
  - Name: Enter the name of the transaction type.
  - **Transaction Code:** Enter the code of the transaction type.
  - **Process Type:** This field associates the process type with the transaction operation type, which makes the connection with the transaction motor of bank accounts. Select one of the processes defined within the system.

**NOTE** There is no integration at this point with a payment gateway.

- Edit Form: Select the form used to edit this transaction type. You can choose only from the forms defined on the Contract Event entity.
- Transaction Operation Type: The transaction operation type makes the connection with the transaction motor of bank accounts. Select one of the transaction operation types defined within the system.

- Is System Transactions: If you select this checkbox the transaction is marked as being neither a credit of the account, nor an allocation of funds, but a transaction that does not influence other transactions within the account. System transactions are meant to be used only for accounting.
- Is Automatic Transaction: If you select this checkbox here, then you cannot select it within the contract operations. The Is Automatic Transaction checkbox marks the transaction as automatic.
- Real Time Process: This checkbox marks the transaction as to be processed in real-time. If selected, then the transaction is processed right away. If not selected, then the transaction is inserted as a bank account transaction queue record.
- Only One Draft: If you select this checkbox, there can be only one record of this transaction type in Draft status created at the contract level.
- Generate New Contract Version: This checkbox allows you to specify if a new contract version should be generated by this transaction type.
- **Commission Type:** Select the commission type applicable for this transaction type. Return fee commissions are filtered out and can't be selected.
- Return Commission Type: Select the return fee commission type applicable for this transaction type.
   Only return fee commissions can be selected.
- Is Clawback Transaction: If selected, this checkbox marks the transaction as generating a clawback commission. The transaction type is to be used in thirdparty management invoicing activities. Default value: False.

- 4. In the Edit Transaction Type > Accounting Configurations section, fill in the following fields:
  - Generates Accounting Entry: Select this checkbox to create an entry in the Operational Ledger. It generates records in the Accounting Entry entity.
  - **OL Master Entity:** Select the entity referenced by the accounting systems.
- 5. In the Edit Transaction Type > Purge Configurations section, fill in the following fields:
  - **To Be Purged:** This checkbox marks the transaction as purgeable. If you select it, you can purge or archive records in Draft status.
  - Purge Number of Days: Enter the default number of calendar days that a record can be kept in Draft status before it is purged. For additional information, see the Core Banking System Parameters page. This field is displayed only when To Be Purged = True.
  - Master Purge Entity: Select the master purge entity under which the draft records are. This field is displayed only when To Be Purged = True.
- 6. You can also edit the information in the Transaction Value Types, Transaction Item Accounting Configurations and Transaction Accounting Models sections. Read more details about Transaction Types in the Operational Ledger User Guide.
- 7. Click the Save and Close button.

# Transaction types typically used for current accounts with overdraft functionality

- Top Up Account If added at banking product level, the customer is allowed to make top ups at the contract level. When a top up transaction is recorded in a contract, at the next maturity date the customer receives the interest for the initial amount up until the top up date, plus the interest for the full amount (initial amount + top up amount) proportional from top up to payment date. This transaction type is automatically added in the Associated Transactions tab if Allow Top Ups was selected in the Details tab.
- Withdraw If added at banking product level, the customer is allowed to make withdrawals at the contract level.

This transaction type is automatically added in the Associated Transactions tab if Allow Withdrawals was selected in the Details tab.

If this transaction type is not inserted for deposits, in order to have access to the funds before maturity date, the customer has to liquidate the deposit. In this case the interest is not paid.

 Transfer between my bank accounts - If added at banking product level, the customer is allowed to move funds between their accounts at the contract level. This transaction type is automatically added in the **Associated Transactions** tab if Allow Withdrawals was selected in the Details tab.

- Accruals and Provisions System transaction. If added at banking product level, the accruals and provisions for contracts can be calculated on a daily basis. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- Overdraft Payment If added at banking product level, the customer can perform payments from the current account using the overdraft functionality, practically using an amount larger than the positive balance of the account, up to the overdraft limit defined at the contract level.

This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.

- Revert Transfer between my bank accounts -System transaction. If added at banking product level, transfers between the same customer's bank account can be reverted after being performed. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- Interest capitalization System transaction. If added at banking product level, the interest for contracts can be capitalized.

This transaction type is not added automatically. Make

sure you insert it in the Associated Transactions tab.

#### NOTE

If you selected the **Allow Top Ups** and **Allow Withdrawals** checkboxes within the **Details** tab, then the Top Up Account, Transfer between my bank accounts and Withdraw transaction types are automatically attached in the **Associated Transactions** tab.

# 8. View History

You can find the versions of the banking product, their workflow status and the user who modified the product in the **History** tab.

1 Main I	nfo (	2 Details	3 Availability	4 Dimensions	5 Product Formul	a Engine	6 Documents	7 Lean	Core Settings	8 History	9 Ori	igination Elements	(10) GL Settings
History													
												ØR	efresh
	Label			Name		attributeVersion	nDate		attributeVersion			Modified by user	
	٩			٩		٩			٩			٩	
	Draft			Duplicate		19/04/2022 1	0:29				1		

Here you can track the product's life cycle and review older versions that are no longer active (for details, see Banking Products' Life Cycle).

# 9. Manage Origination Elements

You can set the elements required in the origination journey, such as product benefits, display conditions, features, destination types, or associated products in the **Origination Elements** tab.

Main Info 2 Details	3 Availability	Dimensions	8 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origi	nation Elements	(10) GL Setting
Product Image ProductPIC.JPG X		Document ProductPresentation	Doc.pdf X						
Add file or Drop file here		Add file or Dro	pp file here						
enefits				Display Cond	tions				
File - Edit - Insert - View -	Format - Table - Tools -			File - Edit -	Insert - View - Format -	Table - Tools -			
uick Approval	* 5 3 3 8		ℰ ⊑ ♥ ♥ ₪	S & Form	ats - B I A - E			8 🖬 🖶	
Quick Approval	- E 8 3 8							d <sup>9</sup> 🖬 🖶	*
Quick Approval	- E 8 3 8					Sociated Produc		8 🖬 🖶	® E
	× Delete						ts	- Insert existing	
Duck Approval Cow Interest Rates Product Features					A: X Remove existing		ts		
Duck Approval Cov Interest Rates Product Features + Insert	X Delete	ort Ø Refresh	Product Destination Types		A: X Remove existing	ssociated Produc	ts		

- 1. Fill in the following fields:
  - **Product Image:** Insert an image representative for the product.
  - Document: Insert the document representative for the product.
  - **Benefits:** Insert the advantages of owning the banking product. You can format the text in the text editor window.
  - **Display Conditions:** Insert the conditions for the applicant, e.g. age limit, annual turnover, education level, income, registration documents.
- 2. Click the Save and Reload button.

### **Product Features**

In the **Product Features** section, you can insert, delete or export features.

- 1. To add a feature, Click the **Insert** button and fill in the following fields:
  - Feature: Enter the name of the product feature.
  - Is Main Feature: Select the checkbox if it is the major feature.

- Display Name: Enter the display name of the feature.
- 2. Click the Save and Reload button.

# Product Destination Types

In the **Product Destination Types** section , you can insert or remove the existing product destination types:

- 1. Click **Insert existing** and select one of the existing destination types, or insert a new one.
- To create a new destination type, insert a name and specify if it is default. For this case, the following have been configured: Loan Collateral, Loan disbursements, Personal, Repayments.

### Associated Products

In the **Associated Products** section you can insert or remove an existing products. It is especially useful when you wish to create a link between two products.

Associa	ted Products		
		+ Insert existing	X Remove existing
	Name		
	٩		
	Current Account US	D	

To insert or remove a product from the list or create a new one:

- 1. Click **Insert existing** and select one of the existing destination types, or insert a new one.
- 2. Click the Save and Reload button.

# 10. Configure Operational Ledger Settings

#### NOTE

The **OL Settings** tab is available only when Banking Product Factory is implemented along with **Operational Ledger Add-On**.

In the **Banking Product GL Accounts** section, you can set specific accounts to be used by the Operational Ledger system for transactions performed on contracts based on this banking product. Thus, you can overwrite the generic settings of the Operational Ledger, instructing it to use the accounts specified at banking product level.

1 Main Info	2 Details	3 Availability	(4) Dimensions	5 Product Formul	la Engine	6 Documents	7 Lean C	ore Settings	History	9 Origination Ele	ments	0 GL Settings
Banking Prod	uct GL Accounts											
									+ Ins	ert X Delete	Export	Ø Refresh
Produ	:t		Accounting System		Accounting Scope		B	em		GL Account		
٩			٩		٩			۹		٩		
Dupli	ate		0001		FixDeposit		L	oan Admin Fee		20110 Com	mercial loans	

 To add specific accounts to be used by Operational Ledger, click Insert and fill in the following fields in the displayed Add Banking Product GL Account page::

Ð				Save and close     Save and reload     Save and reload
dd Banking Product GL Ac	ccount			
Main Information				
Product	Accounting System	Accounting Scope	Item	GL Account
Duplicate	0001	↓ FixDeposit	↓ Loan Admin Fee	↓ 20110 Commercial Ioans ↓

- **Product:** Select from the list the banking product. Automatically completed with the banking product you are currently editing.
- Accounting System: Select from the list the desired accounting system. The list contains the records created in the Accounting System entity.
- Accounting Scope: Select from the list the corresponding accounting scope. The list contains the records created in the Accounting Scope entity.

- Item: Select from the list the corresponding transaction item. The list contains the records created in the Transaction Item Accounting Config entity.
- GL Account: Select from the list the corresponding GL account. The list is filtered based on the previously selected accounting system. It contains the accounts defined in the Accounting Chart entity that were added to the chosen accounting system record.
- 2. Click the Save and Reload button.

# **Deposits**

A deposit account is a bank account maintained by a financial institution in which a customer can deposit and withdraw money. Deposit accounts can be current accounts/ transactional accounts, savings accounts, deposit collateral accounts or term deposits accounts.

# **Creating Deposits**

To create a new deposit from scratch, navigate to main menu > **Banking Product Factory** > **Banking Products**, and click the **Insert** button. A new page opens, with a series of tabs that assist you in configuring the banking product.

#### NOTE

Alternatively, you can create a deposit by duplicating an existing one. Click the **Duplicate** button on the **Banking Products List** page. Make sure you change the **Banking Product Code** and **Name** according to your business needs.

# 1. Enter Basic Information

You can set the basic elements for creating the product, such as name, code, currency, validity, or product classification, in the **Main Info** tab.

1 Main Info	2 Details	3 Availability	(4) Dimensions	5 Product Formula Engine		Documents	7 Lean Core	e Setting	s 8 History	9 Originati	on Elements	10 GL Settir	ngs
Main Informatio	n												
Banking Product T Deposit	ype ·	EUR	¥	Banking Product Code DepositTst		External Code			Start Date 18/01/2022		End Date 18/01/2023		
Name • Deposit				Class	¥	SubClass		¥	Category	¥	SubCategory		¥
Description						Product Classi	fication			+ In	sert existing	× Remove exis	sting
						Code		Name	Classification Typ		d From	Valid To	Ō

#### NOTE

Your product type selection influences the next steps. For deposits, select the **Deposit** option in **Banking Product Type**.

# Main Information

- In the Main Information section, select the Banking Product Type from the available list.
- 2. Choose the **Currency** for the banking product.
- 3. Enter the product code in the **Banking Product Code** field. It can have 10 characters, and it is used in the contract. It uses a sequencer and the code of the product type.
- 4. Set the product validity by selecting the date when the product becomes available (Start Date) and the last date from when the product is available (End Date).
- 5. Enter the product Name.
- 6. Optionally you can set the following fields:
  - External Code: Select the code of the product imported from an external system, if applicable. It can have 10 characters and it is not used in the contract.

- Class: Select the class of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
- Subclass: Select the subclass of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
- Category: Select the category of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
- SubCategory: Select the subcategory of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
- **Description:** Enter any description or additional text related to your new product.
- 7. Click the **Save and Reload** button. The product is now saved and you can further edit it for your needs.

### Product Classification

After saving the product, the **Product Classification** section is populated with more options for your term loan. You can insert or remove existing product classification items.

 To add a product classification item, click Insert Existing and select an already existing item.

			+ Insert existing	X Remove existing
Code	Name	Classification Type	Valid From	Valid To
٩	٩	٩	۹ 🖬	۹ 🖬
REG1	Classification	Regulatory	01/01/2020	31/12/2030

- You can also create a new product classification item by clicking the Insert existing button and then the Insert button.
- 3. On the newly displayed **Add Product Classification** page, fill in the fields:

Ð				🕞 🗸	and close	😳 Save and reload 🛛 🗟 Save and new
dd Product Classification						
Main Information						
Name	Code	Valid From	Valid To	Classification Type		is Default
Classification Restructuring Level	RESTRUCTLI	20/04/2022	30/04/2028	Restructuring	0 -	
Classified Banking Products						

- Name: Enter the name of the classification item.
- Code: Enter the unique code of the classification item.
- Valid From: Select the date from which the product classification item is valid.
- Valid To: Select the date until when the product classification item is valid.
- **Classification Type:** Choose the classification type of the item. Possible values: Regulatory, Restructuring.
- Is Default: Select the checkbox if this classification item is default.

The **Classified Banking Products** section is displayed after you save the classification item record and allows you to insert existing banking products. The following information is displayed here: **Code, Name, Class, SubClass, Category, SubCategory** and **Status.** 

For more information on how to create a new product classification, see Banking Product Classification.

4. Click the Save and Reload button.

# 2. Add Details

You can set elements such as interest, payment type or product destination types in the **Details** tab.

1 Main Info	2 Details	3 Availability	(4) Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	10 GL Settings
General Data									
Auto Roll Over		Allow Top Ups		Allow Withdrawals	Allow negotiated I	R			
Interest Is Capitaliz	ed	Interest Payment 1  Monthly	Type •						

# **Product Behavior**

- 1. In the **General Data** section, set the following fields:
  - Auto Roll Over: If you select this checkbox, the contract is renewed at maturity date in exactly the same conditions. If it remains unchecked, the contract is automatically closed at maturity date. The field is used mostly for deposits or any product that can undergo the extension of contract.
  - Allow Top Ups: Select if the amount can be topped up with a sum of money.

#### NOTE

If you select the **Allow Top Ups** checkbox, the Top Up Account transaction is automatically loaded in the Associated **Transactions section**, which means that the customer is allowed to make top ups at the contract level. When a top up transaction is recorded in a contract, at the next maturity date the customer receives the interest for the initial amount up until the top up date, plus the interest for the full amount (initial amount + top up amount) proportional from top up to payment date. If you do not select the **Allow Top Ups** checkbox, the top up transaction is not allowed at the contract level.

• Allow Withdrawals: Select if the customer can take out money for this product.

#### NOTE

If you select the **Allow Withdrawals** checkbox, the Withdraw and Transfer between my bank accounts transactions are automatically loaded in the Associated Transactions section, which means that the customer is allowed to make withdrawals at the contract level.

If you do not select the **Allow Withdrawals** checkbox, the Withdraw and Transfer between my bank accounts transactions are not loaded, thus these transaction types are not allowed at the contract level. In order to have access to the funds before maturity date, the customer has to liquidate the deposit. In this case the interest is not paid.

• Allow Negotiated IR: Select if the interest rate is negotiable for this product at the contract level.

#### NOTE

If you select the **Allow negotiated IR** checkbox, the Total Interest Rate field from the banking contract is automatically completed with the value configured on the banking product, but it is editable, so that the bank can change this value and insert the negotiated one.

If you do not select the **Allow negotiated IR** checkbox, the Total Interest Rate field from the banking contract is automatically completed with the value configured on the banking product, but the value is read-only and cannot be changed.

• Interest Is Capitalized: Only applicable if there is an interest rate.

#### NOTE

If you do not select the **Interest is capitalized** checkbox, the interest is paid in the account specified on the contract.

If you select the **Interest is capitalized** checkbox, then the interest is added over the product amount, so that on the next payment date the customer receives the interest applied on both interest and product amount.

- Interest Payment Type: Select the regularity of interest payments: Once (the whole interest amount is paid at maturity), Monthly, Trimester, Semestrial or Annual.
- 2. Click the Save and Reload button.

# 3. Configure Availability

You can determine the monetary range and the time frame when the product is available for customers in the **Availability** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	s 10 GL Setting
Product Availa	bility								
Minimum Amoun	1,000	Maximum Amount	50,000	Minimum Period	Maximum Period	36			
Product Availat	ility Item Filters		+ Insert	Delete	Product Covena	nts	(+)	nsert X Delete	Export

# Product Availability

- 1. Fill in the following fields:
  - Minimum Period and Maximum Period: Enter the minimum and maximum duration of the product mentioned in the contract.
  - Minimum Amount and Maximum Amount: Enter the minimum and maximum amount of the product for which the bank opens a contract.
- 2. Click the Save and Reload button.

# Availability Rules

In the **Availability Rules** section you can select the item filters for your banking product.

Availabi	ility Rules	
Product	Availability Item Filters	
		+ Insert X Delete Export G Refresh
	Description	
	٩	
	CA >< 1 - 50000	

- 1. Click the Insert button, the Add Product Availability Item Filter is displayed.
- 2. Select the desired filter from the Filter option.
- 3 Add the attributes of the selected filter.
- 4. Optionally, add a description for the added item filter.
- 5. Click the Save and Reload button.

For more details, see "Product Filter" on page 462.

# **Product Covenants**

In the **Product Covenants** section you can set certain conventions that applicants must abide by after getting the loan. This is usually applicable for corporate clients that must meet certain requirements in order to continue to receive disbursements.

Product Covenants				
	+ Inse	rt X Delete	Export	Ø Refresh
Туре	Covenant	Valid From	Valid to	Value
٩	٩	۹ 🖬	۹ 🖬	٩
Affirmati	Borrowers should perform tax obligations	19/04/2022	20/04/2030	
Financial	Lender can monitor borrower's current r	19/04/2022	20/04/2030	

- Click the Insert button to add a covenant to the product. Each covenant can be attributed a value, an availability period, and a review frequency in months. Read more about covenants in the "Covenant" on page 477 page.
- 2. Click the Save and Reload button.

# 4. Manage Dimensions

You can insert, delete or export interest, commissions, insurances, discounts or questions valid for your product in the **Manage Dimensions** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	2 Lean Core Settings	8 History	9 Origination Elements	(10) GL Settings
Interest & Com	missions				Insurances				
			+ Insert × De	lete Export S Refres			+ In:	sert X Delete Exp	port Ø Refresh
Item N	ame				lter	n Name			
٩					٩				
MCA					Hou	use Insurance			
Discounts					Questions				
			+ Insert X De	lete Export Ø Refres	h			+ Insert existing	× Remove existing
Name		Discount	End Date Start	Date Value Discount	Que	estion	6	Business Status	
٩		٩	Q 🗖 🗖	۵ (۵	٩			۹	
					Que	estion1		Active	
			No data		Qui	estion2	,	Active	

To add a new one, click **Insert** and fill-in the fields detailed in the sections below.

#### NOTE

To configure the interest and commissions separately, navigate to **Main** > **Product Factory** > **Banking Product Dimensions menu** which contains several other embedded menus.

# Interest & Commissions

- To add an interest or a commission, click Insert in the Interest & Commissions section. The Add Interest & Commission Item page is displayed.
- 2. Select the banking product from the **Banking Product** list.
- 3. Enter the Item Name.
- 4. Enter the **Start Date** when the interest/ commission becomes effective and the **End Date** for the interest/ commission.
- 5. Fill in the following fields:
  - **Code:** Enter a code for this particular interest/ commission.
  - Interest List: Select from which list the interest is a part of.
  - **Commissions List:** Select from which list the commission is a part of.
  - Minimum Interest Rate (%): Enter the percent applicable as a minimum interest rate at the contract level.
  - Is Negotiable: Select the checkbox to specify that every interest, commission or margin field at the contract level is negotiable and can be edited.
- 6. Click the Save and Reload button.
- 7. In the **Interest & Commission Item Filters** section, click **Insert** to insert an item filter.
- 8. Select a filter created earlier in the "Product Filter" on page 462.
- 9. Set the following fields:

- Value/ Date: Select the beginning value/ date for the filter.
- Until Value/ Until Date: Select the maximum value/ date for the filter.
- **Description:** This field is automatically filled in after clicking the **Save and Reload** button. The values/ dates inserted above are turned into an expression.

For Lookup attributes, the following fields are available:

- Filter Entity: Entity on which the filter was defined.
- **Description:** It is left blank. Add a description if needed.
- Grid of Options: This field is automatically filled in after clicking the Save and Reload button. The values of the option set are displayed. Select the Boolean for the values you wish to include in the filter.

10. Click the Save and Reload button.

Ð			🛱 Save and clos	se 🛛 😚 Save and reload
dit Interest & (	Commission Item Filter			
Main Informatio	on			
Filter	• AL_Amount	<b>↓</b> Ø		
Value	•	1 Until Value	•	50,000
Description				
AL_Amount ><	: 1 - 50000			

### Insurances

For any banking product, you can select a pre-existing insurance or create a new one.

- 1. To add a new insurance, in the **Insurances** section, Click the **Insert** button and set the following fields:
  - Banking Product: Select the banking product.
  - **Code:** Insert a code for this particular insurance.
  - Item Name: Insert a name.
  - **Start Date:** Enter the start date when the insurance becomes effective.
  - End Date: Enter the end date for the insurance.
  - **Details:** It is left blank. Add a description if needed.
  - Insurance List: Select from which list the insurance is a part of.
- 2. Click the Save and Reload button.
- 3. In the **Insurance Item Filters** section, click **Insert** and fill in the following fields:
  - Filter: The name inserted earlier.
  - Value: The starting value for the attribute.
  - Until Value: The ending value of the interval.
  - **Description**: Insert the proper description for the availability filter.
- 4. Click the Save and Reload button.

Main Information									
Banking Product		Code	Item Name	Insurance List		Start Date		End Date	
Duplicate	÷ /	INS	H Insurance	InsuranceListRON	**	19/04/2022	•	20/04/2030	C
insurance Item Filters									

### Discounts

For any banking product, you can add discounts of any nature. You can select a pre-existing discount or create a new one.

- To add a new discount, Click the Insert button in the Discounts section.
- 2. In the **Details Page**, insert the appropriate **Name** for the discount.
- 3. Choose one of the pre-configured types of discounts available in the **Discount** field, or create a new one. According to the selected type, new fields appear on the page requiring to be filled in.
- 4. Insert the value of the discount to be applied, e.g. 15.
- 5. Set the start date when the discount becomes effective (Start date), and the end date for the discount (End date).
- 6. Optionally, you can fill in the following fields:
  - Applied to dimension: Specifies for which product dimension this discount is applicable (interest, commission or insurance). This is autocompleted by the selected discount's dimension.
  - Commission type: This field appears if the selected
     Discount = Commission discount or Management Fee
     Discount. Specifies for which commission type this

discount is applicable. This is autocompleted by the selected discount's default commission type.

- Insurance class: This field appears if the selected discount = Discount Life Insurance or Interest Discount. Specifies for which insurance class this discount is applicable (credit, home, life or other insurance class). This is autocompleted by the selected discount's insurance class.
- Insurance: This field appears if the selected discount = Discount Life Insurance. Specifies for which insurance this discount is applicable. This is autocompleted by the selected discount's insurance.
- Interest type: This field appears if the selected discount
   = Interest discount. Specifies for which interest type this discount is applicable.
- Use Banking Formula: If you select this checkbox, the discount is calculated using the Banking Formula engine.
- Is optional discount? : Selecting this checkbox results in the discount being applied only if the customer agrees to the discount.
- Is percentage: If you select this checkbox, the discount is calculated as a percentage from the contract's amount.
- Destination entity: Select the entity where to register the discount. This field opens when the Is optional discount? checkbox is selected.

- Destination entity attribute: Select the attribute where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- 7. Click the Save and Close button.
- 8. In the **Product Discount Item Filter** section, click **Insert** and fill in the fields as specified in the **Product Filter page**. The fields displayed depend on the selected filter.
- 9. Click the Save and Close button.

### Questions

You can choose one or more questions to add to the banking product, or insert a new one.

- To insert a new question, in the Questions section, Click the Insert existing button, then click Insert.
- In the Add Banking Product Question page, fill in the following fields:
  - Question: Enter the appropriate name.
  - Answer Type: Select the type of answer the customer has to give: text, numeric or option set.
  - Answer Entity: Select the entity where the answer is stored.
  - Answer Field: Select the attribute where the answer is stored.
- 3. Click the Save and Reload button.

The Banking Products List shows where the question is used.

#### **IMPORTANT!**

The question has to be activated in order for it to be added to the banking product.

4. Click the Save and Close button.

For example, this is how a question is displayed in a digital journey in the FintechOS Portal:

	Eligibility Questions we can carry out the checks needed to consider yo	u for a mortgage	-
DEPOSIT SOURCE	Select		
RETIREMENT DATE			
RETIRED	Yes 💿 No	6	1 Carlos

# 5. Configure Product Formula Engine

The **Product Formula Engine** tab keeps formulas built with Formula Engine for the banking product. Such formulas can be used to determine the eligibility of a customer.

1 Main Info	2 Details	3 Availability 4 Dime	nsions 5 Product Formula Engine	Documents	7 Lean Core Settings	8 History	9 Origination Elements	(10) GL Settings
Banking F	Product Formulas	+ Inse	t) X Delete Export Ø Refres	Test Scenarios		( + In	isert X Delete Exp	ort
	Name	Formula Type	Formula	Name			Test Formula Type	
	CA	CommissionFormula	commissionByAmount	Duplicat	te-19:04:2022_11:07:57		CommissionFormula	

# **Banking Product Formulas**

In the **Banking Product Formulas** section, choose an already defined formula or click **Insert** to configure a new one, for example a formula for eligibility or scoring purposes. For information on how to build a formula, see Define Formula Inputs.

 In the Add Banking Product Formula page, fill in the following fields:

Ð			Save and close
dit Banking Product Formula			
Main Information			
Name	Banking Product	Formula Type	Formula
CA	Duplicate	🗸 🖌 CommissionFormula	↓ ✓ commissionByAmount
Data Mapping			
BPFormulaType_Test Formula_16473	267821582_formula	÷ /	
			Map D

- Name: Enter an appropriate name.
- Formula Type: Select the type of formula configured before, e.g. scoring /eligibility.
- Formula: Select the previously configured formula.

**IMPORTANT!** The formula must be activated before attaching it to a product.

• Data Mapping: Select the previously configured data mapping.

The name of the banking product is inserted automatically in **Banking Product**.

- 2. After selecting the desired formula, click **Save and reload**, then click **Map Data**.
- 3. In the **Formula Mapping** page, click **Input** and configure the input data for the formula.
- 4. Click **Output** and configure the output for the formula.



#### 5. Click the Save and Close button.

Such formulas can be used in digital journey steps, for example when the customer inserts their financial data.

EDIT RETAIL APPLICANT DATA			
	Income & Outgoing	s	
We	use your expected income and outgoings to work out he lend and to ensure that any mortgage we may offer		
	Noted and to ansure that any morigage we may one :		
WHAT IS YOUR ANNUAL SALARY BEFORE TAX?	ARE YOU MARRIED?	EDUCATION LEVEL:	
€	[none]	[none]	
PAYING MONTHLY FOR OTHER LOANS.	NUMBER OF CHILDREN	EMPLOYMENT STATUS:	
€	<b>o o</b>	[none]	
TOTAL CREDIT CARDS LIMITS	CHILDCARE AND EDUCATION COSTS	EMPLOYMENT MONTHS:	
€	€		
	HOW MANY FINANCIAL DEPENDANTS:	YOUR RESIDENCE IS	
OTHER SPENDINGS:			

# Test Scenarios

			Save and close Save and r
Test Scenario			
ain Information			
st Formula Type	CommissionForm	Ja	¥
Key		Value	
٩		٩	
Amount			23.45
			Save Output Data
st Scenario Outputs			
			+ Insert X Delete Export Ø Refre
Name			

A good practice is to test the formula before displaying it in a digital journey. You can do that in the **Test Scenarios** section:

- 1. Click the Insert button to open the Add Test Scenario page.
- 2. Insert a **Test Scenario Type** from the option set. The keys and the values are shown.
- 3. Click the Save and Reload button.
- 4. Click the **Calculate** button. The outputs are displayed in the **Test Scenario Outputs** section.
- 5. You can save these outputs by selecting the **Save Output Data** checkbox next to **Calculate**.

### 6. Add Documents

You can manage all the attached documents available for a product and all the agreements that a customer needs to go through in the **Documents** tab.

) Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula En	gine	Documents	7 Lean Core Settings	8 History	9 Origination Elements	(10) GL Settings
anking Proc	luct Documents					Banking Prod	ict Agreements			
			+ Insert X D	elete	Ø Refresh			+	Insert X Delete	port Ø Refresh
Repo	rt.	Banking Copie	es No	Operation Code		Code				
٩		٩		٩		٩				
Stat	is overview of the queu	es	2	тс						
								No data		

# **Banking Product Documents**

Any previously associated documents are displayed in the **Banking Product Documents** section.

 To attach a new document to the banking product, in the Banking Product Documents section, click Insert. The Add Banking Product Document page is displayed.

Banking Product Document				
Banking Product Document				
Operation Code	Banking Copies No	Report	Document Type	
PASS		2	↓ ✓ Passport	•
s Mandatory	Includes Debtor	Includes Coborrower	Requires Signature	
Yes No	🔵 Yes 💿 No	Ves 💿 No	🗌 Yes 💿 No	

- 2. Set the following fields:
  - **Operation Code:** Enter a code for the document.
  - Banking Copies: Insert the number of copies made.
  - **Report:** Select a document from the list.
  - **Document Type:** Select a document type from the list.
  - Is Mandatory: Select if the document is mandatory.
  - Includes Debtor: Select if the document includes the debtor.
  - Includes Coborrower: Select if the document includes the co-borrower.
  - **Requires Signature:** Select if the document requires to be signed.
  - Is accord: Select if the document represents the accord.
- 3. Click the Save and Reload button.

# **Banking Products Agreements**

The agreements that a customer needs to go through are displayed in the **Banking Products Agreements** section.

 To attach a new agreement to the banking product, in the Banking Products Agreements section, click Insert. The Add Banking Products Agreements page is displayed.

Edit Banking Product Agreement					Save and close
Main Information					
Agreement	Code		Banking Product		Is Mandatory
Popescu Broker	AGR	1	SLICE Loan	41	

- 2. Fill in the following fields:
  - Agreements: Select an agreement from the list.
  - Banking Product: It is automatically filled in.
  - **Code:** Insert the corresponding code.
  - Is Mandatory: Select if the agreement is mandatory for the product.
- 3. Click the Save and Reload button.

For more information on how to configure a contract or an agreement, see the Digital Document Processor.

# 7. Configure Lean Core Settings

#### NOTE

The Lean Core Settings tab is available only when Banking Product Factory is implemented along with Core Banking.

Transactions types that are performed to and from a banking product are displayed in the **Lean Core Settings** tab. The tab also holds information about the reconciliation account associated with the products, mandatory roles for contract approval, payment allocation settings, the treatment of returned goods for contracts based on this banking product (only for Term Loans and Mortgage banking products), and closing contract settings.

#### **BANKING PRODUCT FACTORY USER GUIDE**

1 Main Info 2 Details	3 Availability 4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Co	re Settings	8 History	9 Origination Elements	0 GL Settings
Self Bank Account Associated V	Vith The Product		Payment All	ocation Settings				
Reconciliation Account Reconciliation EUR	Negative balance treatment ↓ NoMessage		Repayment Al	ocation Method	Gra	ce Days for Repaymen	nt Penalty for gra	ce period
Mandatory Roles for Contract A	pproval		Allowed Tra	sactions				
	+ Insert × I	Delete Export Ø Refres	h				+ Insert existing	X Remove existing
Role	Search Limit			ne				
٩	(All)	•		L.				
Beneficiary			To	p Up Account				
				insfer between my	r bank account	s		
			W	thdraw				
Closing Contract Settings								
Buffer Close Days	Close Real Time	Closing Is Flexible						
Contract Is Closed Automatically								

# Reconciliation Account Associated With The Product

 In the Self Bank Account Associated with the Product, for each banking product, you must select a reconciliation account, which is the bank account to be used for transactions, for money movements.

econciliation Account	Neg	gative balance treatment	
Reconciliation EUR	<b>↓</b>	▼ VoMessage	
NOTE			
-	unt mus	t have the same currency as the	е
This acco		t have the same currency as the the conversions are performed	

2. Select a value for the **Negative Value Treatment** drop-down to specify how Core Banking treats situations when the funds of the reconciliation account associated with the banking product used in the contract would go below zero if a

disbursement event would be approved. The possible values are:

- Error there is an error message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can't be approved and the balance can't go below zero. Select this value if you want to block any transactions that would result in a negative balance of the reconciliation account associated to the banking product.
- Warning there is a warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.
- NoMessage there is no error or warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.

#### NOTE

Core Banking also has a system parameter, ReconciliationAccountTreatment. That is a system-wide setting, applicable to events for contracts based on all banking products without a specified Negative balance treatment value. Core Banking takes into consideration the settings used at the banking product level (the Negative balance treatment field's value). Thus, if the value is specified at the banking product level, then that value takes precedence over the system parameter's setting.

If you associate the same reconciliation account to more than one banking product, then the setting selected in banking product A is applied for contract events based on banking product A, while for the banking product B, Core Banking would apply the setting selected at the level of banking product B.

### Payment Allocation Settings

In the **Payment Allocation Settings** section you can decide which allocation method should be used to determine the order in which credit items are prioritized when repaying loans, credit accounts, and so on. You can also define the grace period settings.

S				
	Grace Days for Repayment		Penalty for grace period	
↓ /		5		
t				
	<b>↓</b>	Grace Days for Repayment	Grace Days for Repayment	Grace Days for Repayment Penalty for grace period □

- 1. Fill in the following fields:
  - Payment Allocation Method: The payment allocation method represents the recovery order of amounts from payment notifications. Select a payment allocation method from the list.
  - Grace Days for Repayment: Insert the number of days for which the bank expects a payment without calculating penalty.

- Penalty for grace period: If you select the checkbox, the penalty interest is applied on the loan contract without taking into consideration the grace period defined at contract level, being calculated for the difference between system date due date, if the grace period passed and the customer didn't pay the due amounts. If you leave this checkbox unselected, the penalty interest is applied on the loan contract taking into consideration the grace period defined at contract level, being calculated for system date due date + grace days for repayment.
- Direct Debit Settlement Account: If you select the checkbox, the banking product has the automated settlement of repayment notification functionality (the payment allocation) turned on by default at the contract level. You can turn the automated settlement off either at the banking product level or at the contract level in Core Banking. Default value: true.

**NOTE** The automated settlement of repayment notification, or direct debit settlement account, is the functionality whereby, if funds are available on the settlement account and the contract has repayment notifications pending for recovery, Core Banking automatically uses the available balance up to full settlement of repayment notifications. In Core Banking, the automated settlement of Installment type repayment notification functionality (the payment allocation) can be turned on or off, thus allowing the financial institution to manage the contracts in case of blocked accounts and control the allocation of funds to outstanding notifications in case of need to impose a block on the settlement account, or manage the settlement of multiple loans from the same settlement account when short on funds and exceptional rules might apply.

If the functionality is turned off, the contract is pending for manual allocation. You can turn it back on and leave Core Banking to allocate the funds according to its automated processes, using any funds that become available in the settlement account in order to cover pending notifications.

2. Click the Save and Reload button.

### Mandatory Roles for Contract Approval

In the **Mandatory Roles** section you can add the roles of the participants that are mandatory to exist at the contract level for contracts based on this banking product. In other words, when creating contracts based on banking products with Merchant role in this section, you must add a customer with the same Merchant role as contract participant, otherwise, the contract cannot be approved. When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role, in this case Merchant Exposure.

Mandatory Roles for Contract Approval

	+ Insert X Delete Export Ø Refresh
Role	Search Limit
٩	(All)
Beneficiary	

1. In the **Mandatory Roles** section, click **Insert** and fill in the following fields:

${igodot}$		원 Save and close
Add Mandatory Role		
Main Information		
Banking Product	Role	Search Limit
Duplicate	4 Merchant	- / 🗹

- **Banking Product:** The banking product for which you define mandatory roles. This is automatically completed with the current banking product.
- **Role:** Select the role of the participants that are mandatory to exist at the contract level for contracts based on this banking product.
- Search Limit: When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role. If you select a role not associated with a customer limit type in Core Banking, the Search Limit field becomes read-only and unselected.
- 2. Click the Save and Reload button.



In the **Return Of Goods,** you can define whether a contract based on the banking product can have Returned Amount or Goods transactions or not, and the specific conditions for these transactions. The Returned Amount or Goods transaction type can be used when a customer returns all or part of a loan or mortgage in a short while after contract creation, if the banking product was defined to allow such transactions. You can set up Return Fee type commissions, to return all or some of the claimed commission to the borrower.

Return Of Goods				
Allow Return Of Goods	Accepted Days For Return		Return Message	
	15	)	Warning	-

- 1. Fill in the following fields:
  - Allow Return Of Goods: Select this checkbox if the contracts based on this banking product accept Return of Goods transactions. Default value: False. If selected, the Accepted Days For Return and Return Message fields are displayed, otherwise, these fields are not visible.
  - Accepted Days For Return: Specify the number of days after contract creation during which the return of goods transaction can be created and approved.
  - Return Message: Select the behavior of messages generated by Core Banking for situations when the Returned Amount or Goods transaction's approval date + the number of accepted days for return >= the current date. Possible values are taken from the Warning Error Treatment option set. According to the desired behavior, choose:

- Error, if the transaction should not be approved and an error message should be displayed;
- Warning, if the transaction can be approved, but a warning message should be displayed;
- NoMessage, if the transaction can be approved without any messages.
- 2. Click the Save and Reload button.

**NOTE** If Allow Return Of Goods = True, then the Returned Amount of Goods transaction is automatically added to the **Transaction Types** section.

## **Closing Contract Settings**

In the **Closing Contract Settings** section, you can configure the default closure settings for contracts based on this banking product.

Closing Contract Settings		
Buffer Close Days	Close Real Time	Closing Is Flexible
Contract Is Closed Automatically		

- 1. Fill in the following fields:
  - Buffer Close Days: Enter the number of days used as buffer before automatically closing the contract when the contract reaches maturity and its balance reaches zero. If Buffer Close Days > 0, then Contract Is Closed Automatically = False.

- Close Real Time: If you select this checkbox, the contract based on this banking product is closed in real-time, when the contract reaches maturity and its balance reaches zero, without waiting for the end of day processes. If Close Real Time = True, then Buffer Close Days = 0 and Contract Is Closed Automatically = True.
- **Closing Is Flexible:** If you select this checkbox, the closure details of the contract based on this banking product can be modified at the contract creation.
- Contract Is Closed Automatically: If you select this checkbox, the contract based on this banking product is closed automatically at maturity, if the balance reaches zero. If Contract Is Closed Automatically = False, then Close Real Time = False.
- 2. Click the Save and Close button.

### Allowed Transactions

In the **Allowed Transactions** section, you can associate possible transaction types with the selected banking product:

- Click Insert existing and select the desired transaction types to be associated.
- 2. Double-click a selected transaction type to edit it.

Settings										
Name	Transaction	Code	Process Type		Edit Form		Transaction Operat	ion Type	Is System Transactio	n
Disbursement	DSB		Disbursement	÷	FTOS_C8_EventDisburser	nent 4	Disbursement		÷ 🗆	
is Automatic Transaction	Real Time Process	Only One Draft	Generate New Com Version	tract	Commission Type		÷	Return Commiss	sion Type	
Accounting Configurations	OL Master Er	tity			Purge Configurations	Purge Nut	mber of Days	Master Purge Er	nity	
Accounting Configurations	OL Master E	tiky ContractEvent		0.		Purge Nur	nber of Days	Master Purge Er		
Accounting Configurations	OL Master E			0.	To Be Purged	•	30	•		
Accounting Configurations	OL Master E		X Delete (B Export) C	S Refresh	To Be Purged	•	30	•		ort) Ø Re
Accounting Configurations	OL Master E	ContractEvent + Insert	X Delete) ( B Export) ( C It House Value Type A	3 Refresh	To Be Purged	•	30 ations	FTOS_CB_Co	ntractEvent	
Accounting Configurations	GL Master E	ContractEvent + Insert		3 Refresh	To Be Purged	•	30 ations	FTOS_CB_Co	x Delete	ort) Ø Re
	OL Master E FTOS_OB	ContractEvent + Insert Value Type Name	In Header Value Type /	3 Refresh Attribute	To Be Purged  Transaction Item Account Transaction.	Accounting.	30 ations	FTOS_CB_Co	mtractEvent	ort Ø Re Take Feo

- 3. In the Edit Transaction Type > Settings section, fill in the following fields:
  - Name: Enter the name of the transaction type.
  - **Transaction Code:** Enter the code of the transaction type.
  - **Process Type:** This field associates the process type with the transaction operation type, which makes the connection with the transaction motor of bank accounts. Select one of the processes defined within the system.

**NOTE** There is no integration at this point with a payment gateway.

- Edit Form: Select the form used to edit this transaction type. You can choose only from the forms defined on the Contract Event entity.
- **Transaction Operation Type:** The transaction operation type makes the connection with the transaction motor of bank accounts. Select one of the transaction operation types defined within the system.

- Is System Transactions: If you select this checkbox the transaction is marked as being neither a credit of the account, nor an allocation of funds, but a transaction that does not influence other transactions within the account. System transactions are meant to be used only for accounting.
- Is Automatic Transaction: If you select this checkbox here, then you cannot select it within the contract operations. The Is Automatic Transaction checkbox marks the transaction as automatic.
- Real Time Process: This checkbox marks the transaction as to be processed in real-time. If selected, then the transaction is processed right away. If not selected, then the transaction is inserted as a bank account transaction queue record.
- Only One Draft: If you select this checkbox, there can be only one record of this transaction type in Draft status created at the contract level.
- Generate New Contract Version: This checkbox allows you to specify if a new contract version should be generated by this transaction type.
- **Commission Type:** Select the commission type applicable for this transaction type. Return fee commissions are filtered out and can't be selected.
- Return Commission Type: Select the return fee commission type applicable for this transaction type.
   Only return fee commissions can be selected.
- Is Clawback Transaction: If selected, this checkbox marks the transaction as generating a clawback commission. The transaction type is to be used in thirdparty management invoicing activities. Default value: False.

- 4. In the Edit Transaction Type > Accounting Configurations section, fill in the following fields:
  - Generates Accounting Entry: Select this checkbox to create an entry in the Operational Ledger. It generates records in the Accounting Entry entity.
  - **OL Master Entity:** Select the entity referenced by the accounting systems.
- 5. In the Edit Transaction Type > Purge Configurations section, fill in the following fields:
  - **To Be Purged:** This checkbox marks the transaction as purgeable. If you select it, you can purge or archive records in Draft status.
  - Purge Number of Days: Enter the default number of calendar days that a record can be kept in Draft status before it is purged. For additional information, see the Core Banking System Parameters page. This field is displayed only when To Be Purged = True.
  - Master Purge Entity: Select the master purge entity under which the draft records are. This field is displayed only when To Be Purged = True.
- 6. You can also edit the information in the Transaction Value Types, Transaction Item Accounting Configurations and Transaction Accounting Models sections. Read more details about Transaction Types in the Operational Ledger User Guide.
- 7. Click the Save and Close button.

# Transaction types typically used for deposits

- Top Up Account If added at banking product level, the customer is allowed to make top ups at the contract level. When a top up transaction is recorded in a contract, at the next maturity date the customer receives the interest for the initial amount up until the top up date, plus the interest for the full amount (initial amount + top up amount) proportional from top up to payment date.
  - This transaction type is automatically added in the **Associated Transactions** tab if Allow Top Ups was selected in the Details tab.
- Withdraw If added at banking product level, the customer is allowed to make withdrawals at the contract level.
  - This transaction type is automatically added in the **Associated Transactions** tab if Allow Withdrawals was selected in the Details tab.
  - If this transaction type is not inserted for deposits, in order to have access to the funds before maturity date, the customer has to liquidate the deposit. In this case the interest is not paid.
- Transfer between my bank accounts If added at banking product level, the customer is allowed to move funds between their accounts at the contract level.

This transaction type is automatically added in the **Associated Transactions** tab if Allow Withdrawals was selected in the Details tab.

 Deposit Liquidation - If added at banking product level, the deposit account can be closed and the entire amount is transferred in the current account. If the liquidation occurs at the maturity date, the interest is also paid. If the liquidation occurs in any other day before the maturity date, the customer receives the sight interest (if applicable). This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.

- Early Termination Deposit If added at banking product level, the deposit can be terminated before its maturity date. This transaction type is not added automatically. Although not mandatory to be inserted in the Associated Transactions tab, please do so in order to have a better traceability of the events that can occur.
- Payment Deposit- These represent automatic transactions that are generated by the system. If added at banking product level, the system can perform transfers to and from the deposit within a contract.

This transaction type is not added automatically. Although not mandatory to be inserted in the **Associated Transactions** tab, please do so in order to have a better traceability of the events that can occur.

### 8. View History

You can find the versions of the banking product, their workflow status and the user who modified the product in the **History** tab.

1 Main Info	2 Details	3 Availability	(4) Dimensions	5 Product Formul	la Engine	6 Documents	7 Lean	Core Settings	8 History	9 Or	igination Elements	(10) GL Settings
History												
											Ø	Refresh Export
Label			Name		attributeVersion	Date		attributeVersion			Modified by user	
٩			٩		٩			٩			٩	
Draft			Duplicate		19/04/2022 10	0:29				1		

Here you can track the product's life cycle and review older versions that are no longer active (for details, see Banking Products' Life Cycle).

# 9. Manage Origination Elements

You can set the elements required in the origination journey, such as product benefits, display conditions, features, destination types, or associated products in the **Origination Elements** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Setting	s 8 History	9 Origination Elements	10 GL Settings
Product Imag	-		Document ProductPresentation Add file or Dro	Doc.pdf X					
Benefits					<b>Display Conditi</b>	ons			
File - Edit	t - Insert - View -	Format - Table - Tools -			File - Edit - I	nsert - View - Format -	Table - Tools -		
S C F		<u>a - E E E E E E</u>		8 E 🕈 👁 E	th 👌 Forma	ts × B I A ×		· I I & I + • •	•
Low Interest									
Product Fe	atures			Product Destination Types			Associated Products		
	+ Insert	X Delete	t Ø Refresh		+ Insert existing	X Remove existing		+ Insert existing	× Remove existing
	Feature	DisplayName	Show Order	Display Name			Name		
	٩	٩	٩	٩			٩		
	NMNGTFEES	No Management	1	Personal			Current Accou	nt USD	

- 1. Fill in the following fields:
  - Product Image: Insert an image representative for the product.
  - Document: Insert the document representative for the product.
  - **Benefits:** Insert the advantages of owning the banking product. You can format the text in the text editor window.

- **Display Conditions:** Insert the conditions for the applicant, e.g. age limit, annual turnover, education level, income, registration documents.
- 2. Click the Save and Reload button.

### **Product Features**

In the **Product Features** section, you can insert, delete or export features.

- To add a feature, Click the Insert button and fill in the following fields:
  - Feature: Enter the name of the product feature.
  - Is Main Feature: Select the checkbox if it is the major feature.
  - **Display Name:** Enter the display name of the feature.
- 2. Click the Save and Reload button.

# Product Destination Types

In the **Product Destination Types** section , you can insert or remove the existing product destination types:

- Click Insert existing and select one of the existing destination types, or insert a new one.
- To create a new destination type, insert a name and specify if it is default. For this case, the following have been configured: Loan Collateral, Loan disbursements, Personal, Repayments.

### Associated Products

In the **Associated Products** section you can insert or remove an existing products. It is especially useful when you wish to create a link between two products.

Associa	ted Products	
		+ Insert existing × Remove existing
	Name	
	٩	
	Current Account USD	

To insert or remove a product from the list or create a new one:

- Click Insert existing and select one of the existing destination types, or insert a new one.
- 2. Click the Save and Reload button.

# 10. Configure Operational Ledger Settings

#### NOTE

The **OL Settings** tab is available only when Banking Product Factory is implemented along with **Operational Ledger Add-On**.

In the **Banking Product GL Accounts** section, you can set specific accounts to be used by the Operational Ledger system for transactions performed on contracts based on this banking product. Thus, you can overwrite the generic settings of the Operational Ledger, instructing it to use the accounts specified at banking product level.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula	a Engine 6 Do	cuments 7 Lear	n Core Settings	8 History	9 Origination Elements	10 GL Settings
Banking Produ	ict GL Accounts									
								+ Ins	ert X Delete Exp	ort Ø Refresh
Produc			Accounting System		Accounting Scope		Item		GL Account	
٩			٩		٩		٩		٩	
Duplic	ate		0001		FixDeposit		Loan Admin Fee		20110 Commercial loans	

 To add specific accounts to be used by Operational Ledger, click Insert and fill in the following fields in the displayed Add Banking Product GL Account page::

Ð				응 Save and close 🗘 Save and reload 📄 Save and new
dd Banking Produ	ct GL Account			
Main Information				
Product	Accounting System	Accounting Scope	Item	GL Account
Duplicate	<b>↓</b> ✔ 0001	↓ FixDeposit	↓ Loan Admin Fee	↓ 20110 Commercial loans ↓

- **Product:** Select from the list the banking product. Automatically completed with the banking product you are currently editing.
- Accounting System: Select from the list the desired accounting system. The list contains the records created in the Accounting System entity.
- Accounting Scope: Select from the list the corresponding accounting scope. The list contains the records created in the Accounting Scope entity.
- Item: Select from the list the corresponding transaction item. The list contains the records created in the Transaction Item Accounting Config entity.
- **GL Account:** Select from the list the corresponding GL account. The list is filtered based on the previously selected accounting system. It contains the accounts defined in the Accounting Chart entity that were added to the chosen accounting system record.
- 2. Click the Save and Reload button.

# Cards

A card is a payment card issued by a bank. Cards let customers access funds in checking or savings accounts or make purchases.

#### **Creating Cards**

To create a new card from scratch, navigate to main menu > **Banking Product Factory** > **Banking Products**, and click the **Insert** button. A new page opens, with a series of tabs that assist you in configuring the banking product.

#### NOTE

Alternatively, you can create a card by duplicating an existing one. Click the **Duplicate** button on the **Banking Products List** page. Make sure you change the **Banking Product Code** and **Name** according to your business needs.

### 1. Enter Basic Information

You can set the basic elements for creating the product, such as name, code, currency, validity, or product classification, in the **Main Info** tab.

#### NOTE

Your product type selection influences the next steps. For cards, select the **Card** option in **Banking Product Type** 

# Main Information

- In the Main Information section, select the Banking Product Type from the available list.
- 2. Choose the **Currency** for the banking product.
- 3. Enter the product code in the **Banking Product Code** field. It can have 10 characters, and it is used in the contract. It uses a sequencer and the code of the product type.
- 4. Set the product validity by selecting the date when the product becomes available (Start Date) and the last date from when the product is available (End Date).
- 5. Enter the product **Name**.

- 6. Optionally you can set the following fields:
  - External Code: Select the code of the product imported from an external system, if applicable. It can have 10 characters and it is not used in the contract.
  - Class: Select the class of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Subclass: Select the subclass of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Category: Select the category of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - SubCategory: Select the subcategory of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - **Description:** Enter any description or additional text related to your new product.
- 7. Click the **Save and Reload** button. The product is now saved and you can further edit it for your needs.

### **Product Classification**

After saving the product, the **Product Classification** section is populated with more options for your term loan. You can insert or remove existing product classification items.

1. To add a product classification item, click **Insert Existing** and select an already existing item.

			+ Insert existing	× Remove existing
Code	Name	Classification Type	Valid From	Valid To
٩	٩	٩	٩	٩
REG1	Classification	Regulatory	01/01/2020	31/12/2030

- You can also create a new product classification item by clicking the Insert existing button and then the Insert button.
- 3. On the newly displayed Add Product Classification page, fill in the fields:

$\odot$				Save a	nd close	😳 Save and reload 🛛 🗟 Save and new
Add Product Classification						
Main Information						
Name	Code	Valid From	Valid To	Classification Type		Is Default
Classification Restructuring Level	RESTRUCTLI	20/04/2022	30/04/2028	Restructuring	• •	
<b>Classified Banking Products</b>						

- Name: Enter the name of the classification item.
- Code: Enter the unique code of the classification item.
- Valid From: Select the date from which the product classification item is valid.
- Valid To: Select the date until when the product classification item is valid.
- **Classification Type:** Choose the classification type of the item. Possible values: Regulatory, Restructuring.
- Is Default: Select the checkbox if this classification item is default.

The **Classified Banking Products** section is displayed after you save the classification item record and allows you to insert existing banking products. The following information is displayed here: **Code, Name, Class, SubClass, Category, SubCategory** and **Status.** 

For more information on how to create a new product classification, see Banking Product Classification.

4. Click the Save and Reload button.

# 2. Add Details

You can set elements such as interest, payment type, top-ups and withdrawals in the **Details** tab.

1 Main Info 2 Details	3 Availability 4 Dimensions	Product Formula Engine	6 Documents (7) Lean Core Settin	ngs (8) History (9) Origination Elements (10) GL Settings
General Data				
Auto Roll Over	-	Allow Restructuring	Allow CoDebtor	Max No. Of CoDebtors
Auto Roll Over		=		
	Allow Top Ups	Allow Withdrawals	Allow negotiated IR	
				Allow Overdraft
Interest Is Capitalized	Interest Payment Type			
	[none]			
Disburse Settings			Product Guarantees	
Autodisbursement	Max No Disbursements		Is Guaranteed	Collateral Cover Percent Allow Collateral Partial Release
				100
			Allowed Guarantee Types	
				+ Insert X Delete Export Ø Refresh
			Guarantee Type	Max Accepted Covering Percent
			٩	٩
				No data
Payment Schedule Types				
Period Type	Periodicity Type			
Months	• Monthly	¥		
Months	Monthiy	•		
Schedule Templates			Holiday Settings	
			Holiday Shift For Repayment Installments	Defer Due Date Holiday Shift Method
	+ 1	nsert existing X Remove existing		Forward •
Name				Polwalu
٩			Country Calendars	
	No data			+ Insert existing X Remove existing
			Name	
			Q.	
			Romania	

# **Product Behavior**

- In the General Data section, you can optionally set the following fields:
  - Auto Rollover: If you select this checkbox, the contract is renewed at maturity date in exactly the same conditions. If it remains unchecked, the contract is automatically closed at maturity date. The field is used mostly for deposits or any product that can undergo the extension of contract.
  - Allow Refinancing: Select if the account can be refinanced for this product.
  - Allow Restructuring: Select if the contract can be restructured.
  - Allow CoDebtor: Select if another debtor exists for this product.
  - Max No. of CoDebtors: Set the maximum number of debtors possible for this product.
  - Allow Top Ups: Select if the amount can be topped up with a sum of money.
  - Allow Withdrawals: Select if the customer can take out money for this product.
  - Allow Negotiated IR: Select if for this product the interest rate is negotiable.
  - Allow Overdraft: Select if for this product allows overdrafts.
  - Interest Is Capitalized: Only applicable if there is an interest rate. Select if true.
  - Interest Payment Type: Select the regularity of interest payments: Once (the whole interest amount is paid at maturity), Monthly, Trimester, Semestrial or Annual.
- 2. Click the Save and Reload button.

#### **Disbursement**

- In the Disburse Settings section, check the Auto Disbursement box, and the disbursement is automatically performed when the contract is approved.
- 2. You can optionally set the following fields:
  - Max No Disbursements: Enter the maximum number of disbursements that can be configured for this product.
  - Active Tranche On Doc: If you select this checkbox, then the tranches are activated (disbursements are created and approved) after certain documents are submitted. It is the Financial Institution's responsibility to verify the content of the submitted documents.
- 3. Click the Save and Reload button.

# Product Guarantees and Allowed Guarantee Types

s Guaranteed	Collateral Cover Percent	Allow Collateral Partial Release
	1	00
llowed Guarantee Types		
	+ Insert	X Delete Export Ø Refre
Guarantee Type		Cepted Covering Percent
Guarantee Type		

- 1. In the **Product Guarantees** section, set the following fields:
  - Is Guaranteed: If selected marks the product as secured.



Partial Release fields, and the Allowed Guarantee Types section appear when you select the Is Guaranteed checkbox.

- Collateral Cover Percent: Enter the percent that the collateral person on the contract pays. It usually is over 100%.
- Allow Collateral Partial Release: A partial release is a mortgage provision that allows some of the collateral to be released from a mortgage after the borrower pays a certain amount of the loan.

The **Allowed Guarantee Types** section is displayed after you check the **Is Guaranteed** option. You can insert or delete allowed guarantee types:

 To insert a guarantee type, click the **Insert** button and fill in the name, maximum accepted covering percent, and select the guarantee type.

Add Product Guarantee Structure					
Product Guarantee Structure					
Banking Product	Card		Guarantee Type	FixDeposit	••
<ul> <li>Max Accepted Covering Percent</li> </ul>		85	Name	Deposit	

3. Click the Save and Reload button.

### Payment Schedule Types

Add Broduct Guarantee Structure

 Select the regularity of payments in the Periodicity Type. You can choose: Once (the whole amount is paid at maturity), Weekly, Monthly, Bimonthly, Trimestrial, 4 Weeks, Semestrial, Annual or 30Days.

#### NOTE

If the measurement unit of the selected Periodicity Type = Days, then Holiday Shift For Repayment Installments = False and it cannot be changed.

 Optionally, in the Period Type, you can select the period of availability for the product: Days, Weeks, Months, Years or Once.

#### NOTE

The period type must be the same as the measurement unit of the Periodicity Type.

3. Click the Save and Reload button.

# Schedule Templates

Colordula Tamplatas

In the **Schedule Templates** section, you can associate/ delete payment schedule types to/ from the banking product.

Schedulo	e Templates	
		+ Insert existing X Remove existing
	Name	
	٩	
	Credit Card Installments	
	One principal installment	

 To associate a payment schedule type to the banking product, click Insert Existing and select one of the already defined types. Go to "Payment Schedule Types" on page 405 to read more about this.

#### **IMPORTANT!**

When creating a new Term Loan, Mortgage, or Overdraft banking product, you must select at least one payment schedule type, otherwise you can't approve the product. If the **Schedule Templates** section has no records, an error message is displayed upon transitioning the product into the **Approved** status.

2. Click the Save and Reload button.

# Holiday Settings

Holiday Settings

In the Holiday Settings section, the following fields are available:

Holiday Shif	t For Repayment Installments	Defer Due Date	Holiday Shift Method
Country C	alendars		
		+ Insert	existing X Remove existing
	Name		
	٩		
	Romania		

 Select the Holiday Shift For Repayment Installments checkbox for holidays to be taken into consideration when calculating the maturity program.

#### NOTE

The **Country Calendars** section and the **Defer Due Date** and **Holiday Shift Method** fields appear if you select the **Holiday Shift For Repayment Installments** checkbox.

The **Defer Due Date** option is select by default. If selected, the payment schedule calculates the next payment amount as if the due date has not changed even when the due date falls on a holiday.

- 2. From the Holiday Shift Method, you can select the method to be used when calculating the due date if that date falls on a holiday. The due date can be shifted before or after the holiday. The possible values you can choose are:
  - None the due date is not shifted.
  - Forward the due date is shifted to the next working day after the initially calculated due date.
  - **Backward** the due date is shifted to the last working day before the initially calculated due date.

Default value: Forward.

### **Country Calendars**

In the **Country calendars** section, you can insert or delete calendars. You can work with multiple calendars as well. To insert a calendar:

- Click the Insert Existing button and add the country's name. If the maturity date coincides with a holiday, it is allocated automatically on the next business day.
- 2. Click the Save and Reload button.

# 3. Configure Availability

You can determine the monetary range and the time frame when the product is available for customers in the **Availability** tab.

1 Main Info	2 Details 3	Availability	4 Dimensions	S Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	Origination Elements	10 GL Settings
Product Availab	ility								
Minimum Amount	1	Maximum Amount	121,321	Minimum Period	Maximum Period	361			
Availability Rule	IS								
Availability Rule					Product Covena	nts			
			+ Insert X I	Delete Delete Ø Refres		nts	(+	Insert X Delete	xport Ø Refresh
	ility Item Filters		+ Insert X I	Delete		nts Covenant	+	Insert X Delete E Valid From Valid to	

- 1. Fill in the following fields:
  - **Minimum Period** and **Maximum Period**: Enter the minimum and maximum duration of the product mentioned in the contract.
  - Minimum Amount and Maximum Amount: Enter the minimum and maximum amount of the product for which the bank opens a contract.
- 2. Click the Save and Reload button.

# Availability Rules

In the **Availability Rules** section you can select the item filters for your banking product.

Availabi	ility Rules	
Product	Availability Item Filters	
		+ Insert X Delete Export G Refresh
	Description	
	٩	
	CA >< 1 - 50000	

- 1. Click the Insert button, the Add Product Availability Item Filter is displayed.
- <sup>2</sup> Select the desired filter from the Filter option.
- 3 Add the attributes of the selected filter.
- 4. Optionally, add a description for the added item filter.
- 5. Click the Save and Reload button.

For more details, see "Product Filter" on page 462.

# **Product Covenants**

In the **Product Covenants** section you can set certain conventions that applicants must abide by after getting the loan. This is usually applicable for corporate clients that must meet certain requirements in order to continue to receive disbursements.

Product Covenants				
	+ Inse	rt X Delete	Export	Ø Refresh
Туре	Covenant	Valid From	Valid to	Value
٩	٩	۹ 🖬	۹ 🖬	٩
Affirmati	Borrowers should perform tax obligations	19/04/2022	20/04/2030	
Financial	Lender can monitor borrower's current r	19/04/2022	20/04/2030	

- Click the Insert button to add a covenant to the product. Each covenant can be attributed a value, an availability period, and a review frequency in months. Read more about covenants in the "Covenant" on page 477 page.
- 2. Click the Save and Reload button.

# 4. Manage Dimensions

You can insert, delete or export interest, commissions, insurances, discounts or questions valid for your product in the **Manage Dimensions** tab.

1 Main Info	1 Main Info 2 Details 3 Availa		lability 4 Dimensions 6 Product Formula Engine		6 Documents	6 Documents (7) Lean Core Settings		8 History 9 Origination Elements 10		
Interest & Com	missions				Insurance	8				
			+ Insert X De	elete			+ 1	nsert X Delete Exp	oort Ø Refresh	
Item N	4ame					Item Name				
٩						٩				
MCA						House Insurance				
Discounts					Questions					
			+ Insert × De	elete	sh			+ Insert existing	× Remove existing	
Name	D	liscount	End Date Start	Date Value Discount		Question		Business Status		
٩		۹	۹ ۵ ۹	۹ ۹		٩		٩		
						Question1		Active		
			No data			Question2		Active		

To add a new one, click **Insert** and fill-in the fields detailed in the sections below.

#### NOTE

To configure the interest and commissions separately, navigate to **Main** > **Product Factory** > **Banking Product Dimensions menu** which contains several other embedded menus.

### Interest & Commissions

- To add an interest or a commission, click Insert in the Interest & Commissions section. The Add Interest & Commission Item page is displayed.
- 2. Select the banking product from the **Banking Product** list.
- 3. Enter the Item Name.
- 4. Enter the **Start Date** when the interest/ commission becomes effective and the **End Date** for the interest/ commission.
- 5. Fill in the following fields:
  - **Code:** Enter a code for this particular interest/ commission.
  - Interest List: Select from which list the interest is a part of.
  - **Commissions List:** Select from which list the commission is a part of.
  - Minimum Interest Rate (%): Enter the percent applicable as a minimum interest rate at the contract level.
  - Is Negotiable: Select the checkbox to specify that every interest, commission or margin field at the contract level is negotiable and can be edited.
- 6. Click the Save and Reload button.
- 7. In the **Interest & Commission Item Filters** section, click **Insert** to insert an item filter.
- 8. Select a filter created earlier in the "Product Filter" on page 462.
- 9. Set the following fields:

- Value/ Date: Select the beginning value/ date for the filter.
- Until Value/ Until Date: Select the maximum value/ date for the filter.
- **Description:** This field is automatically filled in after clicking the **Save and Reload** button. The values/ dates inserted above are turned into an expression.

For Lookup attributes, the following fields are available:

- Filter Entity: Entity on which the filter was defined.
- **Description:** It is left blank. Add a description if needed.
- Grid of Options: This field is automatically filled in after clicking the Save and Reload button. The values of the option set are displayed. Select the Boolean for the values you wish to include in the filter.

10. Click the Save and Reload button.

• AL_Amount	↓ <i>₽</i>		
•	1 Until Value	•	50,000
	AL_Amount		

#### Insurances

For any banking product, you can select a pre-existing insurance or create a new one.

- 1. To add a new insurance, in the **Insurances** section, Click the **Insert** button and set the following fields:
  - Banking Product: Select the banking product.
  - **Code:** Insert a code for this particular insurance.
  - Item Name: Insert a name.
  - **Start Date:** Enter the start date when the insurance becomes effective.
  - End Date: Enter the end date for the insurance.
  - **Details:** It is left blank. Add a description if needed.
  - Insurance List: Select from which list the insurance is a part of.
- 2. Click the Save and Reload button.
- 3. In the **Insurance Item Filters** section, click **Insert** and fill in the following fields:
  - Filter: The name inserted earlier.
  - Value: The starting value for the attribute.
  - Until Value: The ending value of the interval.
  - **Description**: Insert the proper description for the availability filter.
- 4. Click the Save and Reload button.

Main Information									
Banking Product		Code	Item Name	Insurance List		Start Date		End Date	
Duplicate	÷ /	INS	H Insurance	InsuranceListRON	**	19/04/2022	<b></b>	20/04/2030	C
insurance Item Filters									

### Discounts

For any banking product, you can add discounts of any nature. You can select a pre-existing discount or create a new one.

- To add a new discount, Click the Insert button in the Discounts section.
- 2. In the **Details Page**, insert the appropriate **Name** for the discount.
- 3. Choose one of the pre-configured types of discounts available in the **Discount** field, or create a new one. According to the selected type, new fields appear on the page requiring to be filled in.
- 4. Insert the value of the discount to be applied, e.g. 15.
- 5. Set the start date when the discount becomes effective (Start date), and the end date for the discount (End date).
- 6. Optionally, you can fill in the following fields:
  - Applied to dimension: Specifies for which product dimension this discount is applicable (interest, commission or insurance). This is autocompleted by the selected discount's dimension.
  - Commission type: This field appears if the selected
     Discount = Commission discount or Management Fee
     Discount. Specifies for which commission type this

discount is applicable. This is autocompleted by the selected discount's default commission type.

- Insurance class: This field appears if the selected discount = Discount Life Insurance or Interest Discount. Specifies for which insurance class this discount is applicable (credit, home, life or other insurance class). This is autocompleted by the selected discount's insurance class.
- Insurance: This field appears if the selected discount = Discount Life Insurance. Specifies for which insurance this discount is applicable. This is autocompleted by the selected discount's insurance.
- Interest type: This field appears if the selected discount
   = Interest discount. Specifies for which interest type this discount is applicable.
- Use Banking Formula: If you select this checkbox, the discount is calculated using the Banking Formula engine.
- Is optional discount? : Selecting this checkbox results in the discount being applied only if the customer agrees to the discount.
- Is percentage: If you select this checkbox, the discount is calculated as a percentage from the contract's amount.
- Destination entity: Select the entity where to register the discount. This field opens when the Is optional discount? checkbox is selected.

- Destination entity attribute: Select the attribute where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- 7. Click the Save and Close button.
- 8. In the **Product Discount Item Filter** section, click **Insert** and fill in the fields as specified in the **Product Filter page**. The fields displayed depend on the selected filter.
- 9. Click the Save and Close button.

### Questions

You can choose one or more questions to add to the banking product, or insert a new one.

- To insert a new question, in the Questions section, Click the Insert existing button, then click Insert.
- In the Add Banking Product Question page, fill in the following fields:
  - Question: Enter the appropriate name.
  - Answer Type: Select the type of answer the customer has to give: text, numeric or option set.
  - Answer Entity: Select the entity where the answer is stored.
  - **Answer Field**: Select the attribute where the answer is stored.
- 3. Click the Save and Reload button.

The Banking Products List shows where the question is used.

#### **IMPORTANT!**

The question has to be activated in order for it to be added to the banking product.

4. Click the Save and Close button.

For example, this is how a question is displayed in a digital journey in the FintechOS Portal:

	We ask for this information	Eligibility Questions	ier you for a mortgage	-/
DEPOSIT SOURCE		Select		•
RETIREMENT DATE				
RETIRED		Yes  No		

### 5. Configure Product Formula Engine

The **Product Formula Engine** tab keeps formulas built with Formula Engine for the banking product. Such formulas can be used to determine the eligibility of a customer.

1 Main Info	2 Details	3 Availability	(4) Dimensions	5 Product Formula Engine	6 Document	The an Core Settings	8 History	Origination Elements	10 GL Settings
Banking Produc	ct Formulas		+ Insert X Del	ete	Test Sc	enarios	+	Insert X Delete	(port Ø Refresh
Name		Formula Type		Formula		Name		Test Formula Type	
CA		Commission	Formula	Q commissionByAmount		Q Duplicate-19:04:2022_11:07:57		Q. CommissionFormula	

# **Banking Product Formulas**

In the **Banking Product Formulas** section, choose an already defined formula or click **Insert** to configure a new one, for example a formula for eligibility or scoring purposes. For information on how to build a formula, see Define Formula Inputs.

 In the Add Banking Product Formula page, fill in the following fields:

Ð			Save and close
dit Banking Product Formula			
Main Information			
Name	Banking Product	Formula Type	Formula
CA	Duplicate	🗸 🖌 CommissionFormula	↓ ✓ commissionByAmount
Data Mapping			
BPFormulaType_Test Formula_16473	267821582_formula	÷ /	
			Map D

- Name: Enter an appropriate name.
- Formula Type: Select the type of formula configured before, e.g. scoring /eligibility.
- Formula: Select the previously configured formula.

**IMPORTANT!** The formula must be activated before attaching it to a product.

• Data Mapping: Select the previously configured data mapping.

The name of the banking product is inserted automatically in **Banking Product**.

- 2. After selecting the desired formula, click **Save and reload**, then click **Map Data**.
- 3. In the **Formula Mapping** page, click **Input** and configure the input data for the formula.
- 4. Click **Output** and configure the output for the formula.



#### 5. Click the Save and Close button.

Such formulas can be used in digital journey steps, for example when the customer inserts their financial data.

DIT RETAIL APPLICANT DATA			
	Income & Outgoings	3	
We	use your expected income and outgoings to work out hor lend and to ensure that any mortgage we may offer vi-		
	into and to ensure that any mongage we may oner you		
WHAT IS YOUR ANNUAL SALARY BEFORE TAX?	ARE YOU MARRIED?	EDUCATION LEVEL:	
e	[none]	[none]	
PAYING MONTHLY FOR OTHER LOANS:	NUMBER OF CHILDREN:	EMPLOYMENT STATUS	
€	0 0	[none]	
TOTAL CREDIT CARDS LIMITS:	CHILDCARE AND EDUCATION COSTS:	EMPLOYMENT MONTHS:	
€	€		
OTHER SPENDINGS:	HOW MANY FINANCIAL DEPENDANTS:	YOUR RESIDENCE IS	

# Test Scenarios

)		Save and close
t Test Scenario		
Main Information		
Fest Formula Type	CommissionFormula	Ψ.
Key	Valce	
Q	٩.	
Amount		23.45
		Save Output Data Celout
est Scenario Outputs		
		+ Insert X Delete Export Ø Refresh
Name		

A good practice is to test the formula before displaying it in a digital journey. You can do that in the **Test Scenarios** section:

- 1. Click the Insert button to open the Add Test Scenario page.
- 2. Insert a **Test Scenario Type** from the option set. The keys and the values are shown.
- 3. Click the Save and Reload button.
- 4. Click the **Calculate** button. The outputs are displayed in the **Test Scenario Outputs** section.
- 5. You can save these outputs by selecting the **Save Output Data** checkbox next to **Calculate**.

# 6. Add Documents

You can manage all the attached documents available for a product and all the agreements that a customer needs to go through in the **Documents** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	B Product Formula Engl	ine 🤇	Documents	7 Lean Core Settings	8 History	9 Origination Elements	(10) GL Settings
Banking Proc	luct Documents					Banking Produ	ict Agreements			
			+ Insert × De	iete Export C	3 Refresh			+	Insert X Delete Ex	port Ø Refresh
C Report	rt.	Banking Copi	es No	Operation Code		Code				
٩		٩		٩		٩				
State	is overview of the queu	es	2	TC						
								No data		

# **Banking Product Documents**

Any previously associated documents are displayed in the **Banking Product Documents** section.

 To attach a new document to the banking product, in the Banking Product Documents section, click Insert. The Add Banking Product Document page is displayed.

Banking Product Document				
Banking Product Document				
Operation Code	Banking Copies No	Report	Document Type	
PASS		2	↓ ✓ Passport	•
s Mandatory	Includes Debtor	Includes Coborrower	Requires Signature	
Yes No	🔵 Yes 💿 No	Ves 💿 No	🗌 Yes 💿 No	

- 2. Set the following fields:
  - **Operation Code:** Enter a code for the document.
  - Banking Copies: Insert the number of copies made.
  - **Report:** Select a document from the list.
  - **Document Type:** Select a document type from the list.
  - Is Mandatory: Select if the document is mandatory.
  - Includes Debtor: Select if the document includes the debtor.
  - Includes Coborrower: Select if the document includes the co-borrower.
  - **Requires Signature:** Select if the document requires to be signed.
  - Is accord: Select if the document represents the accord.
- 3. Click the Save and Reload button.

### **Banking Products Agreements**

The agreements that a customer needs to go through are displayed in the **Banking Products Agreements** section.

 To attach a new agreement to the banking product, in the Banking Products Agreements section, click Insert. The Add Banking Products Agreements page is displayed.

Edit Banking Product Agreement					Save and close
Main Information					
Agreement	Code		Banking Product		Is Mandatory
Popescu Broker	AGR	1	SLICE Loan	41	

- 2. Fill in the following fields:
  - Agreements: Select an agreement from the list.
  - Banking Product: It is automatically filled in.
  - **Code:** Insert the corresponding code.
  - Is Mandatory: Select if the agreement is mandatory for the product.
- 3. Click the Save and Reload button.

For more information on how to configure a contract or an agreement, see the Digital Document Processor.

# 7. Configure Lean Core Settings

#### NOTE

The Lean Core Settings tab is available only when Banking Product Factory is implemented along with Core Banking.

Transactions types that are performed to and from a banking product are displayed in the **Lean Core Settings** tab. The tab also holds information about the reconciliation account associated with the products, mandatory roles for contract approval, payment allocation settings, the treatment of returned goods for contracts based on this banking product (only for Term Loans and Mortgage banking products), and closing contract settings.

#### **BANKING PRODUCT FACTORY USER GUIDE**

1 Main Info 2 Details 3 Availability	Dimensions     S Product Formula Engine	Cocuments     Core Settings     B History     Dirigination Elements     B CL Settings
Self Bank Account Associated With The Product		Payment Allocation Settings
Reconciliation Account Negative bala Reconciliation EUR V NoMessag		Repayment Allocation Method     Grace Days for Repayment     Penalty for grace period       CostOrder          ✓ ✓
Mandatory Roles for Contract Approval	+ Insert X Delete Export Ø Refres	Allowed Transactions  h
Role     Q	Search Limit (All)	Name           Q
Beneficiary		Top Up Account Transfer between my bank accounts
Closing Contract Settings		Withdraw
Buffer Close Days Close Real Tir	ne Closing Is Flexible	
Contract Is Closed Automatically		

# Reconciliation Account Associated With The Product

 In the Self Bank Account Associated with the Product, for each banking product, you must select a reconciliation account, which is the bank account to be used for transactions, for money movements.

Reconciliation Account		Negative balance treatment
Reconciliation EUR	4	NoMessage •
NOTE		
-	ount m	nust have the same currency as the
This acco		nust have the same currency as the use the conversions are performed from

2. Select a value for the **Negative Value Treatment** drop-down to specify how Core Banking treats situations when the funds of the reconciliation account associated with the banking product used in the contract would go below zero if a

disbursement event would be approved. The possible values are:

- Error there is an error message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can't be approved and the balance can't go below zero. Select this value if you want to block any transactions that would result in a negative balance of the reconciliation account associated to the banking product.
- Warning there is a warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.
- NoMessage there is no error or warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.

#### NOTE

Core Banking also has a system parameter, ReconciliationAccountTreatment. That is a system-wide setting, applicable to events for contracts based on all banking products without a specified Negative balance treatment value. Core Banking takes into consideration the settings used at the banking product level (the Negative balance treatment field's value). Thus, if the value is specified at the banking product level, then that value takes precedence over the system parameter's setting.

If you associate the same reconciliation account to more than one banking product, then the setting selected in banking product A is applied for contract events based on banking product A, while for the banking product B, Core Banking would apply the setting selected at the level of banking product B.

### Payment Allocation Settings

In the **Payment Allocation Settings** section you can decide which allocation method should be used to determine the order in which credit items are prioritized when repaying loans, credit accounts, and so on. You can also define the grace period settings.

Payment Allocation Setting	Payment Allocation Settings							
Repayment Allocation Method	¥ 🖉	Grace Days for Repayment	5	Penalty for grace period				
Direct Debit Settlement Accoun	t							

- 1. Fill in the following fields:
  - Payment Allocation Method: The payment allocation method represents the recovery order of amounts from payment notifications. Select a payment allocation method from the list.
  - Grace Days for Repayment: Insert the number of days for which the bank expects a payment without calculating penalty.

- Penalty for grace period: If you select the checkbox, the penalty interest is applied on the loan contract without taking into consideration the grace period defined at contract level, being calculated for the difference between system date due date, if the grace period passed and the customer didn't pay the due amounts. If you leave this checkbox unselected, the penalty interest is applied on the loan contract taking into consideration the grace period defined at contract level, being calculated for system date due date + grace days for repayment.
- Direct Debit Settlement Account: If you select the checkbox, the banking product has the automated settlement of repayment notification functionality (the payment allocation) turned on by default at the contract level. You can turn the automated settlement off either at the banking product level or at the contract level in Core Banking. Default value: true.

**NOTE** The automated settlement of repayment notification, or direct debit settlement account, is the functionality whereby, if funds are available on the settlement account and the contract has repayment notifications pending for recovery, Core Banking automatically uses the available balance up to full settlement of repayment notifications. In Core Banking, the automated settlement of Installment type repayment notification functionality (the payment allocation) can be turned on or off, thus allowing the financial institution to manage the contracts in case of blocked accounts and control the allocation of funds to outstanding notifications in case of need to impose a block on the settlement account, or manage the settlement of multiple loans from the same settlement account when short on funds and exceptional rules might apply.

If the functionality is turned off, the contract is pending for manual allocation. You can turn it back on and leave Core Banking to allocate the funds according to its automated processes, using any funds that become available in the settlement account in order to cover pending notifications.

2. Click the Save and Reload button.

### Mandatory Roles for Contract Approval

In the **Mandatory Roles** section you can add the roles of the participants that are mandatory to exist at the contract level for contracts based on this banking product. In other words, when creating contracts based on banking products with Merchant role in this section, you must add a customer with the same Merchant role as contract participant, otherwise, the contract cannot be approved. When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role, in this case Merchant Exposure.

Mandatory Roles for Contract Approval

	+ Insert X Delete Export Ø Refresh
Role	Search Limit
٩	(All)
Beneficiary	

 In the Mandatory Roles section, click Insert and fill in the following fields:

€			E Save and close	G Save and reload	Save and ne
Add Mandatory Role					
Main Information					
Banking Product	Role		Search Limit		
Duplicate	↓ Merchant	••			

- **Banking Product:** The banking product for which you define mandatory roles. This is automatically completed with the current banking product.
- **Role:** Select the role of the participants that are mandatory to exist at the contract level for contracts based on this banking product.
- Search Limit: When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role. If you select a role not associated with a customer limit type in Core Banking, the Search Limit field becomes read-only and unselected.
- 2. Click the Save and Reload button.



In the **Return Of Goods,** you can define whether a contract based on the banking product can have Returned Amount or Goods transactions or not, and the specific conditions for these transactions. The Returned Amount or Goods transaction type can be used when a customer returns all or part of a loan or mortgage in a short while after contract creation, if the banking product was defined to allow such transactions. You can set up Return Fee type commissions, to return all or some of the claimed commission to the borrower.

Return Of Goods			
Allow Return Of Goods	Accepted Days For Return	Return Message	
	15	Warning	•

- 1. Fill in the following fields:
  - Allow Return Of Goods: Select this checkbox if the contracts based on this banking product accept Return of Goods transactions. Default value: False. If selected, the Accepted Days For Return and Return Message fields are displayed, otherwise, these fields are not visible.
  - Accepted Days For Return: Specify the number of days after contract creation during which the return of goods transaction can be created and approved.
  - Return Message: Select the behavior of messages generated by Core Banking for situations when the Returned Amount or Goods transaction's approval date + the number of accepted days for return >= the current date. Possible values are taken from the Warning Error Treatment option set. According to the desired behavior, choose:

- Error, if the transaction should not be approved and an error message should be displayed;
- Warning, if the transaction can be approved, but a warning message should be displayed;
- NoMessage, if the transaction can be approved without any messages.
- 2. Click the Save and Reload button.

**NOTE** If Allow Return Of Goods = True, then the Returned Amount of Goods transaction is automatically added to the **Transaction Types** section.

# **Closing Contract Settings**

In the **Closing Contract Settings** section, you can configure the default closure settings for contracts based on this banking product.

Closing Contract Settings	Closing Contract Settings										
Buffer Close Days	Close Real Time	Closing Is Flexible									
Contract Is Closed Automatically											

- 1. Fill in the following fields:
  - Buffer Close Days: Enter the number of days used as buffer before automatically closing the contract when the contract reaches maturity and its balance reaches zero. If Buffer Close Days > 0, then Contract Is Closed Automatically = False.

- Close Real Time: If you select this checkbox, the contract based on this banking product is closed in real-time, when the contract reaches maturity and its balance reaches zero, without waiting for the end of day processes. If Close Real Time = True, then Buffer Close Days = 0 and Contract Is Closed Automatically = True.
- **Closing Is Flexible:** If you select this checkbox, the closure details of the contract based on this banking product can be modified at the contract creation.
- Contract Is Closed Automatically: If you select this checkbox, the contract based on this banking product is closed automatically at maturity, if the balance reaches zero. If Contract Is Closed Automatically = False, then Close Real Time = False.
- 2. Click the Save and Close button.

### Allowed Transactions

In the **Allowed Transactions** section, you can associate possible transaction types with the selected banking product:

- Click Insert existing and select the desired transaction types to be associated.
- 2. Double-click a selected transaction type to edit it.

Settings											
Name	Transaction C	ode	Process Type		Edit Form		Transaction Operat	tion Type	ls Syster	m Transaction	
Disbursement	DSB		Disbursement	÷	FTOS_C8_EventDisbur	vernent 4	Disbursement		•		
is Automatic Transaction	Real Time Process	Only One Draft		ate New Contract	Commission Type			Return Comm	nission Type		
			Versio	n			4				
Accounting Configuration	IS OL Master En	πy			Purge Configurations	Purge Nu	mber of Days	Master Purge	Entity		
enerates Accounting Entry	OL Master En					Purge Nu		•			
Accounting Configuration	OL Master En	ity iontractEvent		0 -	To Be Purged	•	30	•	Entity ContractEvent		
Accounting Configuration	OL Master En			• •	To Be Purged	•	30	•			•
Accounting Configuration	OL Master En		X Delete		To Be Purged	•	30	•	ContractEvent	) Licport	G G Re
Accounting Configuration	OL Master En	ContractEvent	X Defete		To Be Purged	•	30 ations	FTOS_CB_	ContractEvent rt X Delete	Operational	_
enerates Accounting Entry	GL Master En	iontractEvent + Insert		oport Ø Refresh	To Be Purged	•	30 ations	FTOS_CB_	ContractEvent rt X Delete		Ø Re
Accounting Configuration	OL Master En	Value Type Name	In Header	oport Ø Refresh Value Type Attribute	To Be Purged	Accounting.	30 ations	FTOS_CB.	ContractEvent rt X Delete Currency	Operational	D Re Take Fro

- 3. In the Edit Transaction Type > Settings section, fill in the following fields:
  - Name: Enter the name of the transaction type.
  - **Transaction Code:** Enter the code of the transaction type.
  - **Process Type:** This field associates the process type with the transaction operation type, which makes the connection with the transaction motor of bank accounts. Select one of the processes defined within the system.

**NOTE** There is no integration at this point with a payment gateway.

- Edit Form: Select the form used to edit this transaction type. You can choose only from the forms defined on the Contract Event entity.
- **Transaction Operation Type:** The transaction operation type makes the connection with the transaction motor of bank accounts. Select one of the transaction operation types defined within the system.

- Is System Transactions: If you select this checkbox the transaction is marked as being neither a credit of the account, nor an allocation of funds, but a transaction that does not influence other transactions within the account. System transactions are meant to be used only for accounting.
- Is Automatic Transaction: If you select this checkbox here, then you cannot select it within the contract operations. The Is Automatic Transaction checkbox marks the transaction as automatic.
- Real Time Process: This checkbox marks the transaction as to be processed in real-time. If selected, then the transaction is processed right away. If not selected, then the transaction is inserted as a bank account transaction queue record.
- Only One Draft: If you select this checkbox, there can be only one record of this transaction type in Draft status created at the contract level.
- Generate New Contract Version: This checkbox allows you to specify if a new contract version should be generated by this transaction type.
- **Commission Type:** Select the commission type applicable for this transaction type. Return fee commissions are filtered out and can't be selected.
- Return Commission Type: Select the return fee commission type applicable for this transaction type.
   Only return fee commissions can be selected.
- Is Clawback Transaction: If selected, this checkbox marks the transaction as generating a clawback commission. The transaction type is to be used in thirdparty management invoicing activities. Default value: False.

- 4. In the Edit Transaction Type > Accounting Configurations section, fill in the following fields:
  - Generates Accounting Entry: Select this checkbox to create an entry in the Operational Ledger. It generates records in the Accounting Entry entity.
  - **OL Master Entity:** Select the entity referenced by the accounting systems.
- 5. In the Edit Transaction Type > Purge Configurations section, fill in the following fields:
  - **To Be Purged:** This checkbox marks the transaction as purgeable. If you select it, you can purge or archive records in Draft status.
  - Purge Number of Days: Enter the default number of calendar days that a record can be kept in Draft status before it is purged. For additional information, see the Core Banking System Parameters page. This field is displayed only when To Be Purged = True.
  - Master Purge Entity: Select the master purge entity under which the draft records are. This field is displayed only when To Be Purged = True.
- 6. You can also edit the information in the Transaction Value Types, Transaction Item Accounting Configurations and Transaction Accounting Models sections. Read more details about Transaction Types in the Operational Ledger User Guide.
- 7. Click the Save and Close button.

### 8. View History

You can find the versions of the banking product, their workflow status and the user who modified the product in the **History** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula	a Engine	6 Documents	7 Lean	Core Settings	8 History	9 Ori	gination Elements	0 GL Settings
History												
											0	Refresh Export
Label			Name		attributeVersion	Date		attributeVersion			Modified by user	
٩			٩		٩			٩			٩	
Draft			Duplicate		19/04/2022 10	0:29				1		

Here you can track the product's life cycle and review older versions that are no longer active (for details, see Banking Products' Life Cycle).

# 9. Manage Origination Elements

You can set the elements required in the origination journey, such as product benefits, display conditions, features, destination types, or associated products in the **Origination Elements** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Setting	s 8 History	9 Origination Elements	10 GL Settings
Product Imag	-		Document ProductPresentation Add file or Dro	Doc.pdf X					
Benefits					<b>Display Conditi</b>	ons			
File - Edit	t - Insert - View -	Format - Table - Tools -			File - Edit - I	nsert - View - Format -	Table - Tools -		
S C F		<u>a - E E E E E E</u>		8 E 🕈 👁 E	th 👌 Forma	ts × B I A ×		· I I & I + • •	•
Low Interest									
Product Fe	atures			Product Destination Types			Associated Products		
	+ Insert	X Delete	t Ø Refresh		+ Insert existing	X Remove existing		+ Insert existing	× Remove existing
	Feature	DisplayName	Show Order	Display Name			Name		
	٩	٩	٩	٩			٩		
	NMNGTFEES	No Management	1	Personal			Current Accou	nt USD	

- 1. Fill in the following fields:
  - Product Image: Insert an image representative for the product.
  - Document: Insert the document representative for the product.
  - **Benefits:** Insert the advantages of owning the banking product. You can format the text in the text editor window.

- **Display Conditions:** Insert the conditions for the applicant, e.g. age limit, annual turnover, education level, income, registration documents.
- 2. Click the Save and Reload button.

### **Product Features**

In the **Product Features** section, you can insert, delete or export features.

- To add a feature, Click the Insert button and fill in the following fields:
  - Feature: Enter the name of the product feature.
  - Is Main Feature: Select the checkbox if it is the major feature.
  - **Display Name:** Enter the display name of the feature.
- 2. Click the **Save and Reload** button.

# Product Destination Types

In the **Product Destination Types** section , you can insert or remove the existing product destination types:

- Click Insert existing and select one of the existing destination types, or insert a new one.
- To create a new destination type, insert a name and specify if it is default. For this case, the following have been configured: Loan Collateral, Loan disbursements, Personal, Repayments.

### Associated Products

In the **Associated Products** section you can insert or remove an existing products. It is especially useful when you wish to create a link between two products.

Associa	ted Products	
		+ Insert existing × Remove existing
	Name	
	٩	
	Current Account USE	)

To insert or remove a product from the list or create a new one:

- Click Insert existing and select one of the existing destination types, or insert a new one.
- 2. Click the Save and Reload button.

# 10. Configure Operational Ledger Settings

#### NOTE

The **OL Settings** tab is available only when Banking Product Factory is implemented along with **Operational Ledger Add-On**.

In the **Banking Product GL Accounts** section, you can set specific accounts to be used by the Operational Ledger system for transactions performed on contracts based on this banking product. Thus, you can overwrite the generic settings of the Operational Ledger, instructing it to use the accounts specified at banking product level.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula	a Engine 6 Do	cuments 7 Lear	n Core Settings	8 History	9 Origination Elements	10 GL Settings
Banking Produ	ict GL Accounts									
								+ Ins	ert X Delete Exp	ort Ø Refresh
Produc			Accounting System		Accounting Scope		Item		GL Account	
٩			٩		٩		٩		٩	
Duplic	ate		0001		FixDeposit		Loan Admin Fee		20110 Commercial loans	

 To add specific accounts to be used by Operational Ledger, click Insert and fill in the following fields in the displayed Add Banking Product GL Account page::

Ð								B Save and ck	ise 🔽 Save and reload 🗿 Save and no
dd Banking Produ	uct GL Account								
Main Information									
Product	A	ccounting System		Accounting Scope	ł	tem		GL Account	
Duplicate	• * ·	0001	4	FixDeposit	r	Loan Admin Fee	÷,	20110 Commercial Ioans	4

- **Product:** Select from the list the banking product. Automatically completed with the banking product you are currently editing.
- Accounting System: Select from the list the desired accounting system. The list contains the records created in the Accounting System entity.
- Accounting Scope: Select from the list the corresponding accounting scope. The list contains the records created in the Accounting Scope entity.
- Item: Select from the list the corresponding transaction item. The list contains the records created in the Transaction Item Accounting Config entity.
- **GL Account:** Select from the list the corresponding GL account. The list is filtered based on the previously selected accounting system. It contains the accounts defined in the Accounting Chart entity that were added to the chosen accounting system record.
- 2. Click the Save and Reload button.

# **Credit Cards**

A credit card allows the customer to make purchases without bringing out any amount of cash. Instead, the customer borrows funds from the issuing bank, to make purchases.

To create a new credit card from scratch, navigate to main menu > **Banking Product Factory** > **Banking Products**, and click the **Insert** button. A new page opens, with a series of tabs that assist you in configuring the banking product.

#### NOTE

Alternatively, you can create a credit card by duplicating an existing one. Click the **Duplicate** button on the **Banking Products List** page. Make sure you change the **Banking Product Code** and **Name** according to your business needs.

### 1. Enter Basic Information

You can set the basic elements for creating the product, such as name, code, currency, validity, or product classification, in the **Main Info** tab

1 Main Info	2 Details	3 Availability	Dimensions	5 Product Formula Engine		6 Documents	7 Lean Core	Setting	8 History 9	Originatio	n Elements	10 GL S	ettings
Main Informatio	in												
Banking Product T	ype	Currency		Banking Product Code		External Code			Start Date		End Date		
Credit Card	⊘ -	EUR	$\mathbf{v}$	CRCard					19/01/2021		26/01/203	4	
Name				Class		SubClass			Category		SubCategory		
CreditCard				Corporate	۰	Loan Term		•	Loan Term Unsecured	÷			4
Description						Product Classifi	cation						
										+ In:	ert existing	× Remove	existing
						Code		Name	Classification Type	Valic	From	Valid To	
						٩		٩	٩	٩		٩	

#### NOTE

Your product type selection influences the next steps. For credit cards, select the **Credit Card** option in **Banking Product Type**.

### Main Information

- In the Main Information section, select the Banking Product Type from the available list.
- 2. Choose the **Currency** for the banking product.
- 3. Enter the product code in the **Banking Product Code** field. It can have 10 characters, and it is used in the contract. It uses a sequencer and the code of the product type.
- 4. Set the product validity by selecting the date when the product becomes available (Start Date) and the last date from when the product is available (End Date).
- 5. Enter the product Name.
- 6. Optionally you can set the following fields:
  - External Code: Select the code of the product imported from an external system, if applicable. It can have 10 characters and it is not used in the contract.
  - Class: Select the class of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Subclass: Select the subclass of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Category: Select the category of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - SubCategory: Select the subcategory of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - **Description:** Enter any description or additional text related to your new product.
- 7. Click the **Save and Reload** button. The product is now saved and you can further edit it for your needs.

# **Product Classification**

After saving the product, the **Product Classification** section is populated with more options for your term loan. You can insert or remove existing product classification items.

1. To add a product classification item, click **Insert Existing** and select an already existing item.

oduct	Classification				
				+ Insert existing	× Remove existing
	Code	Name	Classification Type	Valid From	Valid To
	٩	٩	٩	۹ 🖬	٩
	REG1	Classification	Regulatory	01/01/2020	31/12/2030

- You can also create a new product classification item by clicking the Insert existing button and then the Insert button.
- 3. On the newly displayed **Add Product Classification** page, fill in the fields:

(C) Add Product Classification				Save and close	C Save and reload Save and new
Main Information					
Name	Code	Valid From	Valid To	Classification Type	is Default
Classification Restructuring Leve	RESTRUCTL1	20/04/2022	30/04/2028	Restructuring S	. 🗆
Classified Banking Products					

- Name: Enter the name of the classification item.
- Code: Enter the unique code of the classification item.
- Valid From: Select the date from which the product classification item is valid.
- Valid To: Select the date until when the product classification item is valid.
- **Classification Type:** Choose the classification type of the item. Possible values: Regulatory, Restructuring.
- Is Default: Select the checkbox if this classification item is default.

The **Classified Banking Products** section is displayed after you save the classification item record and allows you to insert existing banking products. The following information is displayed here: **Code, Name, Class, SubClass, Category, SubCategory** and **Status.** 

For more information on how to create a new product classification, see Banking Product Classification.

4. Click the Save and Reload button.

### 2. Add Details

You can set elements such as interest, payment type, top-ups and withdrawals in the **Details** tab.

### **Product Behavior**

- 1. In the **General Data** section, you can optionally set the following fields:
  - Is Revolving: If selected, allows a business to borrow money as needed for funding working capital needs and continuing operations such as meeting payroll and playable.
  - Capital Percent (%): Enter the percent of capital that must be paid back on the selected periodicity type basis.
- 2. Click the Save and Reload button.

# Payment Schedule Types

Period Type		Periodicity Type		Grace Type		Product Grace	
Months	· · ·	Monthly	4 P	Both	-1	GracePeriod	41

 Select the regularity of payments in the Periodicity Type. You can choose: Once (the whole amount is paid at maturity), Weekly, Monthly, Bimonthly, Trimestrial, 4 Weeks, Semestrial, Annual or 30Days.

#### NOTE

If the measurement unit of the selected
Periodicity Type = Days, then Holiday Shift
For Repayment Installments = False and it
cannot be changed.

- 2. Optionally you can set the following fields:
  - **Period Type:** Select the period of availability for the product: **Days, Weeks, Months, Years** or **Once**.

#### NOTE

The period type must be the same as the

measurement unit of the Periodicity Type.

- Grace Type: Select whether the product grace should apply to the principal, the interest, or both. Select an option from the list: Both, Principal or Interest.
- Product Grace: Select an option from the list. This is the amount of time that the bank can offer to a customer at the beginning of the contract without repayments of principal or principal + interest (however, most probably the bank capitalizes the interest for that period).
- 3. Click the Save and Reload button.

# 3. Configure Availability

You can determine the monetary range and the time frame when the product is available for customers in the **Availability** tab.

# Product Availability

- 1. Fill in the following fields:
  - Minimum Amount and Maximum Amount: Enter the minimum and maximum amount of the product for which the bank opens a contract.
  - Minimum Period and Maximum Period: Enter the minimum and maximum duration of the product mentioned in the contract.
- 2. Click the Save and Reload button.

# Availability Rules

In the **Availability Rules** section you can select the item filters for your banking product.

Availabi	Availability Rules						
Product	Availability Item Filters						
		+ Insert X Delete Export Ø Refresh					
	Description						
	Q						
	CA >< 1 - 50000						

- 1. Click the Insert button, the Add Product Availability Item Filter is displayed.
- 2. Select the desired filter from the Filter option.
- Add the attributes of the selected filter.
- 4. Optionally, add a description for the added item filter.
- 5. Click the Save and Reload button.

For more details, see "Product Filter" on page 462.

# **Product Covenants**

In the **Product Covenants** section you can set certain conventions that applicants must abide by after getting the loan. This is usually applicable for corporate clients that must meet certain requirements in order to continue to receive disbursements.

Product Covenants

	+ Inser	t X Delete	Export	Ø Refresh
Туре	Covenant	Valid From	Valid to	Value
٩	٩	۹ ۵	۹ 🖬	٩
Affirmati	Borrowers should perform tax obligations	19/04/2022	20/04/2030	
Financial	Lender can monitor borrower's current r	19/04/2022	20/04/2030	

- Click the **Insert** button to add a covenant to the product. Each covenant can be attributed a value, an availability period, and a review frequency in months. Read more about covenants in the "Covenant" on page 477 page.
- 2. Click the Save and Reload button.

# 4. Manage Dimensions

You can insert, delete or export interest, commissions, insurances, discounts or questions valid for your product in the **Manage Dimensions** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	Origination Elements	0 GL Settings
Interest & Com	nissions				Insurances				
			+ Insert × De	lete	]		+ 1	nsert X Delete	rt Ø Refresh
Item N	ame				Item	Name			
٩					٩				
MCA					Hou	se Insurance			
Discounts					Questions				
			+ Insert × De	lete	)			+ Insert existing	× Remove existing
Name	Dis	count E	End Date Start	Date Value Discount	Ques	tion		Business Status	
٩	C		۹ 🖬 ۹	<b>Q</b>	٩			٩	
					Que	stion1		Active	
	No data				Que	stion2		Active	

To add a new one, click **Insert** and fill-in the fields detailed in the sections below.

#### NOTE

To configure the interest and commissions separately, navigate to **Main** > **Product Factory** > **Banking Product Dimensions menu** which contains several other embedded menus.

### Interest & Commissions

- To add an interest or a commission, click Insert in the Interest & Commissions section. The Add Interest & Commission Item page is displayed.
- 2. Select the banking product from the **Banking Product** list.
- 3. Enter the Item Name.
- 4. Enter the **Start Date** when the interest/ commission becomes effective and the **End Date** for the interest/ commission.
- 5. Fill in the following fields:
  - Code: Enter a code for this particular interest/ commission.
  - Interest List: Select from which list the interest is a part of.

- **Commissions List:** Select from which list the commission is a part of.
- Minimum Interest Rate (%): Enter the percent applicable as a minimum interest rate at the contract level.
- Is Negotiable: Select the checkbox to specify that every interest, commission or margin field at the contract level is negotiable and can be edited.
- 6. Click the Save and Reload button.
- 7. In the **Interest & Commission Item Filters** section, click **Insert** to insert an item filter.
- 8. Select a filter created earlier in the "Product Filter" on page 462.
- 9. Set the following fields:
  - Value/ Date: Select the beginning value/ date for the filter.
  - Until Value/ Until Date: Select the maximum value/ date for the filter.
  - **Description:** This field is automatically filled in after clicking the **Save and Reload** button. The values/ dates inserted above are turned into an expression.

For Lookup attributes, the following fields are available:

- Filter Entity: Entity on which the filter was defined.
- **Description:** It is left blank. Add a description if needed.
- Grid of Options: This field is automatically filled in after clicking the Save and Reload button. The values of the option set are displayed. Select the Boolean for the values you wish to include in the filter.
- 10. Click the Save and Reload button.

			Save and close
Interest & C	Commission Item Filter		
lain Informatio	on		
ilter	• AL_Amount	↓ <i>■</i>	
alue	•	1 Until Value	• 50,000
escription			
AL_Amount ><	1 - 50000		

### Insurances

For any banking product, you can select a pre-existing insurance or create a new one.

- To add a new insurance, in the Insurances section, Click the Insert button and set the following fields:
  - Banking Product: Select the banking product.
  - **Code:** Insert a code for this particular insurance.
  - Item Name: Insert a name.
  - **Start Date:** Enter the start date when the insurance becomes effective.
  - End Date: Enter the end date for the insurance.
  - **Details:** It is left blank. Add a description if needed.
  - Insurance List: Select from which list the insurance is a part of.
- 2. Click the Save and Reload button.
- 3. In the **Insurance Item Filters** section, click **Insert** and fill in the following fields:

- Filter: The name inserted earlier.
- Value: The starting value for the attribute.
- Until Value: The ending value of the interval.
- Description: Insert the proper description for the availability filter.
- 4. Click the Save and Reload button.

								Save and close	G Save and r
t Insurance Item									
Main Information									
Banking Product	Code	Item N	ame	Insurance List		Start Date		End Date	
Duplicate	🔶 🖌 🖉 INS	E HIR	surance	InsuranceListRON	* e -	19/04/2022		20/04/2030	
letails									
nsurance Item Fil	iters					+ Inse	n × D	elete Expor	t Ø Refres
Description									
٩									
Amount Ins	surance >< 1000 - 30000								

### Discounts

For any banking product, you can add discounts of any nature. You can select a pre-existing discount or create a new one.

- To add a new discount, Click the Insert button in the Discounts section.
- 2. In the **Details Page**, insert the appropriate **Name** for the discount.
- 3. Choose one of the pre-configured types of discounts available in the **Discount** field, or create a new one. According to the selected type, new fields appear on the page requiring to be filled in.
- 4. Insert the value of the discount to be applied, e.g. 15.
- 5. Set the start date when the discount becomes effective (Start date), and the end date for the discount (End date).

- 6. Optionally, you can fill in the following fields:
  - Applied to dimension: Specifies for which product dimension this discount is applicable (interest, commission or insurance). This is autocompleted by the selected discount's dimension.
  - Commission type: This field appears if the selected Discount = Commission discount or Management Fee Discount. Specifies for which commission type this discount is applicable. This is autocompleted by the selected discount's default commission type.

  - Insurance class: This field appears if the selected discount = Discount Life Insurance or Interest Discount. Specifies for which insurance class this discount is applicable (credit, home, life or other insurance class). This is autocompleted by the selected discount's insurance class.
  - Insurance: This field appears if the selected discount = Discount Life Insurance. Specifies for which insurance this discount is applicable. This is autocompleted by the selected discount's insurance.
  - Interest type: This field appears if the selected discount
     = Interest discount. Specifies for which interest type this discount is applicable.
  - Use Banking Formula: If you select this checkbox, the discount is calculated using the Banking Formula engine.

- Is optional discount? : Selecting this checkbox results in the discount being applied only if the customer agrees to the discount.
- Is percentage: If you select this checkbox, the discount is calculated as a percentage from the contract's amount.
- Destination entity: Select the entity where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- Destination entity attribute: Select the attribute where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- 7. Click the Save and Close button.
- 8. In the **Product Discount Item Filter** section, click **Insert** and fill in the fields as specified in the **Product Filter page**. The fields displayed depend on the selected filter.
- 9. Click the Save and Close button.

### Questions

You can choose one or more questions to add to the banking product, or insert a new one.

- To insert a new question, in the Questions section, Click the Insert existing button, then click Insert.
- 2. In the **Add Banking Product Question** page, fill in the following fields:
  - Question: Enter the appropriate name.
  - Answer Type: Select the type of answer the customer has to give: text, numeric or option set.

- Answer Entity: Select the entity where the answer is stored.
- Answer Field: Select the attribute where the answer is stored.
- 3. Click the Save and Reload button.

The **Banking Products List** shows where the question is used.



4. Click the Save and Close button.

For example, this is how a question is displayed in a digital journey in the FintechOS Portal:

EDIT LOAN APPLICATION				
		Eligibility Questions		
	We ask for this information	so that we can carry out the checks needed to consider	you for a mortgage	
DEPOSIT SOURCE		Select		•
RETIREMENT DATE				
RETIRED		Ves ( No	₽	
				Finish

# 5. Configure Product Formula Engine

The **Product Formula Engine** tab keeps formulas built with Formula Engine for the banking product. Such formulas can be used to determine the eligibility of a customer.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	10 GL Settings
Banking Pro	luct Formulas		+ Insert X Dele	te Export Ø Refresh	Test Scena	arios	+	insert X Delete Exp	port Ø Refresh
Nam		Formula Type		Formula		ame		Test Formula Type	
CA		Commission	Formula	commissionByAmount	D	uplicate-19:04:2022_11:07:57		CommissionFormula	

# **Banking Product Formulas**

In the **Banking Product Formulas** section, choose an already defined formula or click **Insert** to configure a new one, for example a formula for eligibility or scoring purposes. For information on how to build a formula, see Define Formula Inputs.

 In the Add Banking Product Formula page, fill in the following fields:

Ð			Save and close
dit Banking Product Formul	a		
Main Information			
Name	Banking Product	Formula Type	Formula
CA	Duplicate	V 🖌 CommissionFormula	V CommissionByAmount
Data Mapping			
BPFormulaType_Test Formula_164	7267821582_formula	÷ #	
			Map Data

- Name: Enter an appropriate name.
- Formula Type: Select the type of formula configured before, e.g. scoring /eligibility.
- Formula: Select the previously configured formula.

**IMPORTANT!** The formula must be activated before attaching it to a product.

• Data Mapping: Select the previously configured data mapping.

The name of the banking product is inserted automatically in **Banking Product**.

- 2. After selecting the desired formula, click **Save and reload**, then click **Map Data**.
- 3. In the **Formula Mapping** page, click **Input** and configure the input data for the formula.
- 4. Click **Output** and configure the output for the formula.

Definition     Definition     Definition     Output	e and reload
FTOS_CB_Contract - Output	

5. Click the Save and Close button.

Such formulas can be used in digital journey steps, for example when the customer inserts their financial data.

	Income & Outgoings		
We	use your expected income and outgoings to work out how lend and to ensure that any mortgage we may offer yo		
WHAT IS YOUR ANNUAL SALARY BEFORE TAX?	ARE YOU MARRIED?	EDUCATION LEVEL:	
€	[none]	[none]	
PAYING MONTHLY FOR OTHER LOANS:	NUMBER OF CHILDREN	EMPLOYMENT STATUS	
e	0 0	[none]	
TOTAL CREDIT CARDS LIMITS:	CHILDCARE AND EDUCATION COSTS:	EMPLOYMENT MONTHS:	
TOTAL CREDIT CARDS LIMITS: €	CHILDCARE AND EDUCATION COSTS: €	EMPLOYMENT MONTHS:	
		YOUR RESIDENCE IS:	

# Test Scenarios

ain Information		
st Formula Type	CommissionFormula	4
Key	Value	
٩	٩	
Amount		23.45
		Save Gutput Data Concor
st Scenario Outputs		

A good practice is to test the formula before displaying it in a digital journey. You can do that in the **Test Scenarios** section:

- 1. Click the **Insert** button to open the **Add Test Scenario** page.
- 2. Insert a **Test Scenario Type** from the option set. The keys and the values are shown.
- 3. Click the Save and Reload button.
- 4. Click the **Calculate** button. The outputs are displayed in the **Test Scenario Outputs** section.
- 5. You can save these outputs by selecting the **Save Output Data** checkbox next to **Calculate**.

# 6. Add Documents

You can manage all the attached documents available for a product and all the agreements that a customer needs to go through in the **Documents** tab.

1 Main In	fo (2) Details	3 Availability	4 Dimensions	8 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	10 GL Settings
Banking	Product Documents				Banking Proc	luct Agreements			
			+ Insert × De	elete	)		+ 1	nsert X Delete Exp	port Ø Refresh
	Report	Banking Copi	ies No	Operation Code	Code				
	٩	٩		٩	٩				
	Status overview of the que	zues	2	TC					
							No data		

# **Banking Product Documents**

Any previously associated documents are displayed in the **Banking Product Documents** section.

 To attach a new document to the banking product, in the Banking Product Documents section, click Insert. The Add Banking Product Document page is displayed.

I Banking Product Document				
Banking Product Document				
Operation Code	Banking Copies No	Report	Document Type	
PASS		2	↓ ✓ Passport	•
is Mandatory	Includes Debtor	Includes Coborrower	Requires Signature	
Yes No	🔿 Yes 💿 No	Ves 💿 No	🗌 Yes 💿 No	

- 2. Set the following fields:
  - **Operation Code:** Enter a code for the document.
  - Banking Copies: Insert the number of copies made.
  - **Report:** Select a document from the list.
  - **Document Type:** Select a document type from the list.
  - Is Mandatory: Select if the document is mandatory.
  - Includes Debtor: Select if the document includes the debtor.
  - Includes Coborrower: Select if the document includes the co-borrower.
  - **Requires Signature:** Select if the document requires to be signed.
  - Is accord: Select if the document represents the accord.
- 3. Click the Save and Reload button.

# **Banking Products Agreements**

The agreements that a customer needs to go through are displayed in the **Banking Products Agreements** section.

 To attach a new agreement to the banking product, in the Banking Products Agreements section, click Insert. The Add Banking Products Agreements page is displayed.

Edit Banking Product Agreement					Save and close
Main Information					
Agreement	Code		Banking Product		Is Mandatory
Popescu Broker	AGR	1	SLICE Loan	41	

- 2. Fill in the following fields:
  - Agreements: Select an agreement from the list.
  - Banking Product: It is automatically filled in.
  - **Code:** Insert the corresponding code.
  - Is Mandatory: Select if the agreement is mandatory for the product.
- 3. Click the Save and Reload button.

For more information on how to configure a contract or an agreement, see the Digital Document Processor.

# 7. Configure Lean Core Settings

#### NOTE

The Lean Core Settings tab is available only when Banking Product Factory is implemented along with Core Banking.

Transactions types that are performed to and from a banking product are displayed in the **Lean Core Settings** tab. The tab also holds information about the reconciliation account associated with the products, mandatory roles for contract approval, payment allocation settings, the treatment of returned goods for contracts based on this banking product (only for Term Loans and Mortgage banking products), and closing contract settings.

#### **BANKING PRODUCT FACTORY USER GUIDE**

1 Main Info 2 Details 3 Availability	Dimensions     S Product Formula Engine	Cocuments     Core Settings     B History     Dirigination Elements     B CL Settings
Self Bank Account Associated With The Product		Payment Allocation Settings
Reconciliation Account Negative bala Reconciliation EUR V NoMessag		Repayment Allocation Method     Grace Days for Repayment     Penalty for grace period       CostOrder          ✓ ✓
Mandatory Roles for Contract Approval	+ Insert X Delete Export Ø Refres	Allowed Transactions  h
Role     Q	Search Limit (All)	Name           Q
Beneficiary		Top Up Account Transfer between my bank accounts
Closing Contract Settings		Withdraw
Buffer Close Days Close Real Tir	ne Closing Is Flexible	
Contract Is Closed Automatically		

# Reconciliation Account Associated With The Product

 In the Self Bank Account Associated with the Product, for each banking product, you must select a reconciliation account, which is the bank account to be used for transactions, for money movements.

econciliation Account	Neg	gative balance treatment	
Reconciliation EUR	<b>↓</b>	▼ VoMessage	
NOTE			
-	unt mus	t have the same currency as the	е
This acco		t have the same currency as the the conversions are performed	

2. Select a value for the **Negative Value Treatment** drop-down to specify how Core Banking treats situations when the funds of the reconciliation account associated with the banking product used in the contract would go below zero if a

disbursement event would be approved. The possible values are:

- Error there is an error message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can't be approved and the balance can't go below zero. Select this value if you want to block any transactions that would result in a negative balance of the reconciliation account associated to the banking product.
- Warning there is a warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.
- NoMessage there is no error or warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.

#### NOTE

Core Banking also has a system parameter, ReconciliationAccountTreatment. That is a system-wide setting, applicable to events for contracts based on all banking products without a specified Negative balance treatment value. Core Banking takes into consideration the settings used at the banking product level (the Negative balance treatment field's value). Thus, if the value is specified at the banking product level, then that value takes precedence over the system parameter's setting.

If you associate the same reconciliation account to more than one banking product, then the setting selected in banking product A is applied for contract events based on banking product A, while for the banking product B, Core Banking would apply the setting selected at the level of banking product B.

# Payment Allocation Settings

In the **Payment Allocation Settings** section you can decide which allocation method should be used to determine the order in which credit items are prioritized when repaying loans, credit accounts, and so on. You can also define the grace period settings.

Payment Allocation Settings								
Repayment Allocation Method	↓ /	Grace Days for Repayment	5	Penalty for grace period				
Direct Debit Settlement Accoun	t							

- 1. Fill in the following fields:
  - Payment Allocation Method: The payment allocation method represents the recovery order of amounts from payment notifications. Select a payment allocation method from the list.
  - Grace Days for Repayment: Insert the number of days for which the bank expects a payment without calculating penalty.

- Penalty for grace period: If you select the checkbox, the penalty interest is applied on the loan contract without taking into consideration the grace period defined at contract level, being calculated for the difference between system date due date, if the grace period passed and the customer didn't pay the due amounts. If you leave this checkbox unselected, the penalty interest is applied on the loan contract taking into consideration the grace period defined at contract level, being calculated for system date due date + grace days for repayment.
- Direct Debit Settlement Account: If you select the checkbox, the banking product has the automated settlement of repayment notification functionality (the payment allocation) turned on by default at the contract level. You can turn the automated settlement off either at the banking product level or at the contract level in Core Banking. Default value: true.

**NOTE** The automated settlement of repayment notification, or direct debit settlement account, is the functionality whereby, if funds are available on the settlement account and the contract has repayment notifications pending for recovery, Core Banking automatically uses the available balance up to full settlement of repayment notifications. In Core Banking, the automated settlement of Installment type repayment notification functionality (the payment allocation) can be turned on or off, thus allowing the financial institution to manage the contracts in case of blocked accounts and control the allocation of funds to outstanding notifications in case of need to impose a block on the settlement account, or manage the settlement of multiple loans from the same settlement account when short on funds and exceptional rules might apply.

If the functionality is turned off, the contract is pending for manual allocation. You can turn it back on and leave Core Banking to allocate the funds according to its automated processes, using any funds that become available in the settlement account in order to cover pending notifications.

2. Click the Save and Reload button.

# Mandatory Roles for Contract Approval

In the **Mandatory Roles** section you can add the roles of the participants that are mandatory to exist at the contract level for contracts based on this banking product. In other words, when creating contracts based on banking products with Merchant role in this section, you must add a customer with the same Merchant role as contract participant, otherwise, the contract cannot be approved. When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role, in this case Merchant Exposure.

Mandatory Roles for Contract Approval

	+ Insert X Delete Export Ø Refresh
Role	Search Limit
٩	(All)
Beneficiary	

1. In the **Mandatory Roles** section, click **Insert** and fill in the following fields:

${igodot}$		원 Save and close
Add Mandatory Role		
Main Information		
Banking Product	Role	Search Limit
Duplicate	4 Merchant	- / 🗹

- **Banking Product:** The banking product for which you define mandatory roles. This is automatically completed with the current banking product.
- **Role:** Select the role of the participants that are mandatory to exist at the contract level for contracts based on this banking product.
- Search Limit: When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role. If you select a role not associated with a customer limit type in Core Banking, the Search Limit field becomes read-only and unselected.
- 2. Click the Save and Reload button.



In the **Return Of Goods,** you can define whether a contract based on the banking product can have Returned Amount or Goods transactions or not, and the specific conditions for these transactions. The Returned Amount or Goods transaction type can be used when a customer returns all or part of a loan or mortgage in a short while after contract creation, if the banking product was defined to allow such transactions. You can set up Return Fee type commissions, to return all or some of the claimed commission to the borrower.

Return Of Goods				
Allow Return Of Goods	Accepted Days For Return		Return Message	
	15	)	Warning	-

- 1. Fill in the following fields:
  - Allow Return Of Goods: Select this checkbox if the contracts based on this banking product accept Return of Goods transactions. Default value: False. If selected, the Accepted Days For Return and Return Message fields are displayed, otherwise, these fields are not visible.
  - Accepted Days For Return: Specify the number of days after contract creation during which the return of goods transaction can be created and approved.
  - Return Message: Select the behavior of messages generated by Core Banking for situations when the Returned Amount or Goods transaction's approval date + the number of accepted days for return >= the current date. Possible values are taken from the Warning Error Treatment option set. According to the desired behavior, choose:

- Error, if the transaction should not be approved and an error message should be displayed;
- Warning, if the transaction can be approved, but a warning message should be displayed;
- NoMessage, if the transaction can be approved without any messages.
- 2. Click the Save and Reload button.

**NOTE** If Allow Return Of Goods = True, then the Returned Amount of Goods transaction is automatically added to the **Transaction Types** section.

# **Closing Contract Settings**

In the **Closing Contract Settings** section, you can configure the default closure settings for contracts based on this banking product.

Closing Contract Settings									
Buffer Close Days	Close Real Time	Closing Is Flexible							
Contract Is Closed Automatically									

- 1. Fill in the following fields:
  - Buffer Close Days: Enter the number of days used as buffer before automatically closing the contract when the contract reaches maturity and its balance reaches zero. If Buffer Close Days > 0, then Contract Is Closed Automatically = False.

- Close Real Time: If you select this checkbox, the contract based on this banking product is closed in real-time, when the contract reaches maturity and its balance reaches zero, without waiting for the end of day processes. If Close Real Time = True, then Buffer Close Days = 0 and Contract Is Closed Automatically = True.
- **Closing Is Flexible:** If you select this checkbox, the closure details of the contract based on this banking product can be modified at the contract creation.
- Contract Is Closed Automatically: If you select this checkbox, the contract based on this banking product is closed automatically at maturity, if the balance reaches zero. If Contract Is Closed Automatically = False, then Close Real Time = False.
- 2. Click the Save and Close button.

### Allowed Transactions

In the **Allowed Transactions** section, you can associate possible transaction types with the selected banking product:

- Click Insert existing and select the desired transaction types to be associated.
- 2. Double-click a selected transaction type to edit it.

Settings										
Name	Transaction C	ode	Process Type		Edit Form		Transaction Operat	ion Type	Is System Transaction	
Disbursement	DSB		Disbursement	+	FTOS_C8_EventDisburs	ement 4	Disbursement	+		
s Automatic Transaction	Real Time Process	Only One Draft	Generate Nev	w Contract	Commission Type			Return Commission	n Type	
			Version				4			
Accounting Configurations	OL Master En	itty			Purge Configurations	Purge Nu	mber of Days	Master Purge Entity	у	
Accounting Configurations	OL Master En					Purge Nu		•		
Accounting Configurations	OL Master En	thy ContractEvent		• •	To Be Purged	•	30	Master Purge Entity PTOS_C8_Control		
Accounting Configurations	OL Master En		X Defete	© •	To Be Purged	•	30	•		
Accounting Configurations	OL Master En	ContractEvent			To Be Purged	•	30 ations	FTOS_CB_Contr	x Delete	
Accounting Configurations interates Accounting Entry	GL Master En	ContractEvent + Insert		Ø Refresh	To the Purged	unting Configur	30 ations	FTOS_CB_Contro	x Delete	
Accounting Configurations Generates Accounting Entry Transaction Value Types Transaction Type	GL Master Er	Value Type Name	In Header Value (AB) • Q	Ø Refresh	To the Purged	Accounting	30 ations	FTOS_CB_Contra + Insert	X Delete Export	D Re Take Pro

- 3. In the Edit Transaction Type > Settings section, fill in the following fields:
  - Name: Enter the name of the transaction type.
  - **Transaction Code:** Enter the code of the transaction type.
  - **Process Type:** This field associates the process type with the transaction operation type, which makes the connection with the transaction motor of bank accounts. Select one of the processes defined within the system.

**NOTE** There is no integration at this point with a payment gateway.

- Edit Form: Select the form used to edit this transaction type. You can choose only from the forms defined on the Contract Event entity.
- **Transaction Operation Type:** The transaction operation type makes the connection with the transaction motor of bank accounts. Select one of the transaction operation types defined within the system.

- Is System Transactions: If you select this checkbox the transaction is marked as being neither a credit of the account, nor an allocation of funds, but a transaction that does not influence other transactions within the account. System transactions are meant to be used only for accounting.
- Is Automatic Transaction: If you select this checkbox here, then you cannot select it within the contract operations. The Is Automatic Transaction checkbox marks the transaction as automatic.
- Real Time Process: This checkbox marks the transaction as to be processed in real-time. If selected, then the transaction is processed right away. If not selected, then the transaction is inserted as a bank account transaction queue record.
- Only One Draft: If you select this checkbox, there can be only one record of this transaction type in Draft status created at the contract level.
- Generate New Contract Version: This checkbox allows you to specify if a new contract version should be generated by this transaction type.
- **Commission Type:** Select the commission type applicable for this transaction type. Return fee commissions are filtered out and can't be selected.
- Return Commission Type: Select the return fee commission type applicable for this transaction type.
   Only return fee commissions can be selected.
- Is Clawback Transaction: If selected, this checkbox marks the transaction as generating a clawback commission. The transaction type is to be used in thirdparty management invoicing activities. Default value: False.

- 4. In the Edit Transaction Type > Accounting Configurations section, fill in the following fields:
  - Generates Accounting Entry: Select this checkbox to create an entry in the Operational Ledger. It generates records in the Accounting Entry entity.
  - **OL Master Entity:** Select the entity referenced by the accounting systems.
- 5. In the Edit Transaction Type > Purge Configurations section, fill in the following fields:
  - To Be Purged: This checkbox marks the transaction as purgeable. If you select it, you can purge or archive records in Draft status.
  - Purge Number of Days: Enter the default number of calendar days that a record can be kept in Draft status before it is purged. For additional information, see the Core Banking System Parameters page. This field is displayed only when To Be Purged = True.
  - Master Purge Entity: Select the master purge entity under which the draft records are. This field is displayed only when To Be Purged = True.
- 6. You can also edit the information in the Transaction Value Types, Transaction Item Accounting Configurations and Transaction Accounting Models sections. Read more details about Transaction Types in the Operational Ledger User Guide.
- 7. Click the Save and Close button.

# 8. View History

You can find the versions of the banking product, their workflow status and the user who modified the product in the **History** tab.

1 Main Info	2 Details	3 Availability	(4) Dimensions	5 Product Formul	la Engine	6 Documents	7 Lean	Core Settings	8 History	9 Or	igination Elements	(10) GL Settings
History												
											Ø	Refresh Export
Label			Name		attributeVersion	Date		attributeVersion			Modified by user	
٩			٩		٩			٩			٩	
Draft			Duplicate		19/04/2022 10	0:29				1		

Here you can track the product's life cycle and review older versions that are no longer active (for details, see Banking Products' Life Cycle).

# 9. Manage Origination Elements

You can set the elements required in the origination journey, such as product benefits, display conditions, features, destination types, or associated products in the **Origination Elements** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Setting	s 8 History	9 Origination Elements	10 GL Settings
Product Imag	-		Document ProductPresentation Add file or Dro	Doc.pdf X					
Benefits					<b>Display Conditi</b>	ons			
File - Edit	t - Insert - View -	Format - Table - Tools -			File - Edit - I	nsert - View - Format -	Table - Tools -		
S C F		<u>a - E E E E E E</u>		8 E 🕈 👁 E	th 👌 Forma	ts × B I A ×		· I I & I + • •	•
Low Interest									
Product Fe	atures			Product Destination Types			Associated Products		
	+ Insert	X Delete	t Ø Refresh		+ Insert existing	X Remove existing		+ Insert existing	× Remove existing
	Feature	DisplayName	Show Order	Display Name			Name		
	٩	٩	٩	٩			٩		
	NMNGTFEES	No Management	1	Personal			Current Accou	nt USD	

- 1. Fill in the following fields:
  - Product Image: Insert an image representative for the product.
  - Document: Insert the document representative for the product.
  - **Benefits:** Insert the advantages of owning the banking product. You can format the text in the text editor window.

- **Display Conditions:** Insert the conditions for the applicant, e.g. age limit, annual turnover, education level, income, registration documents.
- 2. Click the Save and Reload button.

# **Product Features**

In the **Product Features** section, you can insert, delete or export features.

- To add a feature, Click the Insert button and fill in the following fields:
  - Feature: Enter the name of the product feature.
  - Is Main Feature: Select the checkbox if it is the major feature.
  - **Display Name:** Enter the display name of the feature.
- 2. Click the Save and Reload button.

# Product Destination Types

In the **Product Destination Types** section , you can insert or remove the existing product destination types:

- Click Insert existing and select one of the existing destination types, or insert a new one.
- To create a new destination type, insert a name and specify if it is default. For this case, the following have been configured: Loan Collateral, Loan disbursements, Personal, Repayments.

### Associated Products

In the **Associated Products** section you can insert or remove an existing products. It is especially useful when you wish to create a link between two products.

Associa	Associated Products										
		+ Insert existing × Remove existing									
	Name										
	٩										
	Current Account USE	)									

To insert or remove a product from the list or create a new one:

- Click Insert existing and select one of the existing destination types, or insert a new one.
- 2. Click the Save and Reload button.

# 10. Configure Operational Ledger Settings

#### NOTE

The **OL Settings** tab is available only when Banking Product Factory is implemented along with **Operational Ledger Add-On**.

In the **Banking Product GL Accounts** section, you can set specific accounts to be used by the Operational Ledger system for transactions performed on contracts based on this banking product. Thus, you can overwrite the generic settings of the Operational Ledger, instructing it to use the accounts specified at banking product level.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula	a Engine 6	Documents	Lean Core Se	ettings 8 History	9 Origination	Elements	10 GL Settings
Banking Produ	act GL Accounts										
								4	- Insert X De	iete Exp	ort Ø Refresh
Produc	t		Accounting System		Accounting Scope		Item		GL Acco	unt	
٩			٩		٩		٩		٩		
Duplic	ate		0001		FixDeposit		Loan A	dmin Fee	20110 0	Commercial loans	

 To add specific accounts to be used by Operational Ledger, click Insert and fill in the following fields in the displayed Add Banking Product GL Account page::

Ð				응 Save and close 🗘 Save and reload 📄 Save and new
dd Banking Produ	ct GL Account			
Main Information				
Product	Accounting System	Accounting Scope	Item	GL Account
Duplicate	<b>↓</b> ✔ 0001	↓ FixDeposit	↓ Loan Admin Fee	↓ 20110 Commercial loans ↓

- **Product:** Select from the list the banking product. Automatically completed with the banking product you are currently editing.
- Accounting System: Select from the list the desired accounting system. The list contains the records created in the Accounting System entity.
- Accounting Scope: Select from the list the corresponding accounting scope. The list contains the records created in the Accounting Scope entity.
- Item: Select from the list the corresponding transaction item. The list contains the records created in the Transaction Item Accounting Config entity.
- **GL Account:** Select from the list the corresponding GL account. The list is filtered based on the previously selected accounting system. It contains the accounts defined in the Accounting Chart entity that were added to the chosen accounting system record.
- 2. Click the Save and Reload button.

# Overdrafts

An overdraft is an extension of credit from a lending institution that is granted when an account reaches zero. The overdraft allows the account holder to continue withdrawing money even when the account has no funds in it or has insufficient funds to cover the amount of the withdrawal.

### **Creating Overdrafts**

To create a new overdraft from scratch, navigate to main menu > **Banking Product Factory** > **Banking Products**, and click the **Insert** button. A new page opens, with a series of tabs that assist you in configuring the banking product.

#### NOTE

Alternatively, you can create an overdraft by duplicating an existing one. Click the **Duplicate** button on the **Banking Products List** page. Make sure you change the **Banking Product Code** and **Name** according to your business needs.

# 1. Enter Basic Information

You can set the basic elements for creating the product, such as name, code, currency, validity, or product classification, in the **Main Info** tab.

1 Main Info	Details	3 Availability	4 Dimensions	5 Product Formula Engine		Documents	7 Lean Cor	e Setting	s 8 History 9	Originatio	on Elements	10 GL Se	ttings
Main Information													
Banking Product Type		Currency		Banking Product Code		External Code			Start Date		End Date		
Overdraft	⊘ -	EUR	¥	odv					18/03/2022		15/03/2023	l .	
Name				Class		SubClass			Category		SubCategory		
odv					¥			¥		÷			4
Description						Product Classif	ication						
										+ In	sert existing	× Remove	existing
						Code		Name	Classification Type	Valio	f From	Valid To	
						٩		٩	Q	٩		٩	

#### NOTE

Your product type selection influences the next steps. For overdrafts, select the **Overdraft** option in **Banking Product Type**.

# Main Information

- In the Main Information section, select the Banking Product Type from the available list.
- 2. Choose the **Currency** for the banking product.
- 3. Enter the product code in the Banking Product Code field. It can have 10 characters, and it is used in the contract. It uses a sequencer and the code of the product type.
- 4. Set the product validity by selecting the date when the product becomes available (Start Date) and the last date from when the product is available (End Date).
- 5. Enter the product Name.
- 6. Optionally you can set the following fields:
  - External Code: Select the code of the product imported from an external system, if applicable. It can have 10 characters and it is not used in the contract.
  - Class: Select the class of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Subclass: Select the subclass of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Category: Select the category of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400

- SubCategory: Select the subcategory of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
- **Description:** Enter any description or additional text related to your new product.
- 7. Click the **Save and Reload** button. The product is now saved and you can further edit it for your needs.

# Product Classification

After saving the product, the **Product Classification** section is populated with more options for your term loan. You can insert or remove existing product classification items.

1. To add a product classification item, click **Insert Existing** and select an already existing item.

oduct	Classification					
				+ Insert existing	× Remove existin	
	Code	Name	Classification Type	Valid From	Valid To	
	٩	٩	٩	۹ 🖬	۹ 🖬	
	REG1	Classification	Regulatory	01/01/2020	31/12/2030	

- You can also create a new product classification item by clicking the Insert existing button and then the Insert button.
- 3. On the newly displayed Add Product Classification page, fill in the fields:

${}^{}$				B Save	and close	Save and new
Add Product Classification						
Main Information						
Name	Code	Valid From	Valid To	Classification Type	Is Default	
Classification Restructuring Le	vel RESTRUCTL1	20/04/2022	30/04/2028	Restructuring	⊙• □	
<b>Classified Banking Products</b>						

- Name: Enter the name of the classification item.
- Code: Enter the unique code of the classification item.

- Valid From: Select the date from which the product classification item is valid.
- Valid To: Select the date until when the product classification item is valid.
- **Classification Type:** Choose the classification type of the item. Possible values: Regulatory, Restructuring.
- Is Default: Select the checkbox if this classification item is default.

The **Classified Banking Products** section is displayed after you save the classification item record and allows you to insert existing banking products. The following information is displayed here: **Code, Name, Class, SubClass, Category, SubCategory** and **Status.** 

For more information on how to create a new product classification, see Banking Product Classification.

4. Click the Save and Reload button.

# 2. Add Details

You can set elements such payment type, top-ups and withdrawals in the **Details** tab.

1 Main Info	2 Details	3 Availability	(4) Dimensions	S Product Formula Engine	Documents	7 Lean Core Settings	B History	(9) Origina	tion Elements	(10) GL Settings
General Data										
Is Revolving		Allow Refinancing		Allow Restructuring	Allow CoDebtor		Max No. Of CoDebtors			
Disburse Settings					Product Guarante	es				
Autodisbursement		Max No Disbursemen	ts		Is Guaranteed					
Payment Schedule	Types									
Period Type			Periodicity Type		Grace Type			Product Grace		¥ #
Months Schedule Template:			Monthly	÷	Principal Holiday Settings			GracePeriod		¢,
Name				+ Insert existing X Remove existing	Holiday Shift For Rep	ayment Installments		Defer Due Date	Holiday	Shift Method
Q					Country Calendar	rs				
Overdraft									+ Insert existing	X Remove existing
					Name					
					٩					
					United K	indom				

# **Product Behavior**

- In the General Data section, you can optionally set the following fields:
  - Is Revolving: If selected, allows a business to borrow money as needed for funding working capital needs and continuing operations such as meeting payroll and playable.
  - Allow Refinancing: Select if the account can be refinanced for this product.
  - Allow Restructuring: Select if the loan can be restructured.
  - Allow CoDebtor: Select if another debtor exists for this product.
  - Max No. of CoDebtors: Set the maximum number of codebtors possible for this product.
- 2. Click the Save and Reload button.

# Disbursement

- In the Disburse Settings section, check the Auto Disbursement box, and the disbursement is automatically performed when the contract is approved.
- 2. You can optionally set the following fields:
  - Max No Disbursements: Enter the maximum number of disbursements that can be configured for this product.
  - Active Tranche On Doc: If you select this checkbox, then the tranches are activated (disbursements are created and approved) after certain documents are submitted. It is the Financial Institution's responsibility to verify the content of the submitted documents.
- 3. Click the Save and Reload button.

# Product Guarantees and Allowed Guarantee Types

s Guaranteed	Collateral Cover Percent	Allow Collateral Partial Release
	1	00
llowed Guarantee Types		
	+ Insert	X Delete Export Ø Refre
Guarantee Type		Cepted Covering Percent
Guarantee Type		

- 1. In the **Product Guarantees** section, set the following fields:
  - Is Guaranteed: If selected marks the product as secured.



Partial Release fields, and the Allowed Guarantee Types section appear when you select the Is Guaranteed checkbox.

- Collateral Cover Percent: Enter the percent that the collateral person on the contract pays. It usually is over 100%.
- Allow Collateral Partial Release: A partial release is a mortgage provision that allows some of the collateral to be released from a mortgage after the borrower pays a certain amount of the loan.

The **Allowed Guarantee Types** section is displayed after you check the **Is Guaranteed** option. You can insert or delete allowed guarantee types:

 To insert a guarantee type, click the Insert button and fill in the name, maximum accepted covering percent, and select the guarantee type.

Add Product Guarantee Struct	ıre				
Product Guarantee Structure					
Banking Product	Card		Guarantee Type	FixDeposit	*/
Max Accepted Covering Percent	•	85	Name	Deposit	

3. Click the Save and Reload button.

# Payment Schedule Types

Period Type		Periodicity Type		Grace Type		Product Grace	
Months	•	Monthly	÷ /	Both	- 1	GracePeriod	¥ /

 Select the regularity of payments in the Periodicity Type. You can choose: Once (the whole amount is paid at maturity), Weekly, Monthly, Bimonthly, Trimestrial, 4 Weeks, Semestrial, Annual or 30Days.

#### NOTE

If the measurement unit of the selected
Periodicity Type = Days, then Holiday Shift
For Repayment Installments = False and it
cannot be changed.

- 2. Optionally you can set the following fields:
  - **Period Type:** Select the period of availability for the product: **Days, Weeks, Months, Years** or **Once**.

#### NOTE

The period type must be the same as the

measurement unit of the Periodicity Type.

- Grace Type: Select whether the product grace should apply to the principal, the interest, or both. Select an option from the list: Both, Principal or Interest.
- Product Grace: Select an option from the list. This is the amount of time that the bank can offer to a customer at the beginning of the contract without repayments of principal or principal + interest (however, most probably the bank capitalizes the interest for that period).
- 3. Click the Save and Reload button.

# Schedule Templates

# In the **Schedule Templates** section, you can associate/ delete payment schedule types to/ from the banking product.

#### **Schedule Templates**

	+ Insert existing X Remove existing
Name	
٩	
Credit Card Installments	
One principal installment	

 To associate a payment schedule type to the banking product, click Insert Existing and select one of the already defined types. Go to "Payment Schedule Types" on page 405 to read more about this.

#### **IMPORTANT!**

When creating a new Term Loan, Mortgage, or Overdraft banking product, you must select at least one payment schedule type, otherwise you can't approve the product. If the **Schedule Templates** section has no records, an error message is displayed upon transitioning the product into the **Approved** status.

2. Click the Save and Reload button.

# Holiday Settings

In the Holiday Settings section, the following fields are available:

Holiday Set	ttings		
Holiday Shift	For Repayment Installments	Defer Due Date	Holiday Shift Method
Country Ca	alendars		
		+ Insert existi	ng
<u></u> и	lame		
	٩		
R	Romania		

1. Select the **Holiday Shift For Repayment Installments** checkbox for holidays to be taken into consideration when calculating the maturity program.

NOTE
The Country Calendars section and the Defer Due Date
and Holiday Shift Method fields appear if you select
the Holiday Shift For Repayment Installments
checkbox.

The **Defer Due Date** option is select by default. If selected, the payment schedule calculates the next payment amount as if the due date has not changed even when the due date falls on a holiday.

2. From the **Holiday Shift Method**, you can select the method to be used when calculating the due date if that date falls on a holiday. The due date can be shifted before or after the holiday. The possible values you can choose are:

- None the due date is not shifted.
- Forward the due date is shifted to the next working day after the initially calculated due date.
- **Backward** the due date is shifted to the last working day before the initially calculated due date.

Default value: Forward.

# **Country Calendars**

In the **Country calendars** section, you can insert or delete calendars. You can work with multiple calendars as well. To insert a calendar:

- Click the Insert Existing button and add the country's name. If the maturity date coincides with a holiday, it is allocated automatically on the next business day.
- 2. Click the Save and Reload button.

# 3. Configure Availability

You can determine the monetary range and the time frame when the product is available for customers in the **Availability** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Setting	B History	Origination Elements	10 GL Settings
Product Availal	bility								
Minimum Amount		Maximum Amount		Minimum Period	Maximum Period		Minimum Advance	Maximum Adva	nce
	0		50,000			12			
Start Period For L Activation(Month	-								
	3								
Availability Rul	es								
Product Availab	ility Item Filters				Product Coven	ants			
			+ Insert	elete Export Ø Refre	sh		+	Insert X Delete	cport Ø Refres
Descri	ption				Туре	Covenant		Valid From Valid to	Value
٩					٩	٩		<b>a a</b>	۹ ۵

Product Availability

- 1. Fill in the following fields:
  - Minimum Amount and Maximum Amount:Enter the minimum and maximum amount of the product for which the bank opens a contract.
  - Minimum Period and Maximum Period: Enter the minimum and maximum duration of the product mentioned in the contract.
  - Minimum Advance and Maximum Advance: Enter the minimum and maximum advance percentage from the contract's financed value applicable at the contract level.
  - Start Period For Unusage After Activation (Months):Enter the start period for unused amount after the activation, in months.
- 2. Click the Save and Reload button.

# Availability Rules

In the **Availability Rules** section you can select the item filters for your banking product.

Availabi	ility Rules	
Product	Availability Item Filters	
		+ Insert X Delete Export Ø Refresh
	Description	
	٩	
	CA >< 1 - 50000	

- 1. Click the Insert button, the Add Product Availability Item Filter is displayed.
- 2. Select the desired filter from the Filter option.

- 3. Add the attributes of the selected filter.
- <sup>4</sup> Optionally, add a description for the added item filter.
- 5. Click the Save and Reload button.

For more details, see "Product Filter" on page 462.

# **Product Covenants**

In the **Product Covenants** section you can set certain conventions that applicants must abide by after getting the loan. This is usually applicable for corporate clients that must meet certain requirements in order to continue to receive disbursements.

roduct C	ovenants		+ Insert		Delete	Exp	port	🛛 🛱 Refre	≥sh
П	уре	Covenant		Valid Fro	om	Valid to		Value	
	۹	٩		٩			1	٩	
Δ	Affirmati	Borrowers should perform tax obligation	ations	19/04/	2022	20/04/20	)30		
F	inancial	Lender can monitor borrower's curre	ent r	19/04/	2022	20/04/20	030		

- Click the **Insert** button to add a covenant to the product. Each covenant can be attributed a value, an availability period, and a review frequency in months. Read more about covenants in the "Covenant" on page 477 page.
- 2. Click the Save and Reload button.

# 4. Manage Dimensions

You can insert, delete or export interest, commissions, insurances, discounts or questions valid for your product in the **Manage Dimensions** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	(10) GL Settings
Interest & Com	nissions				Insurances				
			+ Insert × De	lete			(+ Ir	nsert X Delete Exp	ort Ø Refresh
Item N	ame				Item	Name			
٩					٩				
MCA					Hou	se Insurance			
Discounts					Questions				
			+ Insert × De	lete				+ Insert existing	× Remove existing
Name	Dis	count E	End Date Start	Date Value Discount	Ques	tion		Business Status	
٩	C	. (	۹ 🖬 ۹	<b>Q</b>	٩			٩	
					Que	stion1		Active	
		N	lo data		Que	stion2		Active	

To add a new one, click **Insert** and fill-in the fields detailed in the sections below.

### NOTE

To configure the interest and commissions separately, navigate to **Main** > **Product Factory** > **Banking Product Dimensions menu** which contains several other embedded menus.

### Interest & Commissions

- To add an interest or a commission, click Insert in the Interest & Commissions section. The Add Interest & Commission Item page is displayed.
- 2. Select the banking product from the Banking Product list.
- 3. Enter the Item Name.
- 4. Enter the **Start Date** when the interest/ commission becomes effective and the **End Date** for the interest/ commission.
- 5. Fill in the following fields:
  - **Code:** Enter a code for this particular interest/ commission.
  - Interest List: Select from which list the interest is a part of.

- **Commissions List:** Select from which list the commission is a part of.
- Minimum Interest Rate (%): Enter the percent applicable as a minimum interest rate at the contract level.
- Is Negotiable: Select the checkbox to specify that every interest, commission or margin field at the contract level is negotiable and can be edited.
- 6. Click the Save and Reload button.
- 7. In the **Interest & Commission Item Filters** section, click **Insert** to insert an item filter.
- 8. Select a filter created earlier in the "Product Filter" on page 462.
- 9. Set the following fields:
  - Value/ Date: Select the beginning value/ date for the filter.
  - Until Value/ Until Date: Select the maximum value/ date for the filter.
  - **Description:** This field is automatically filled in after clicking the **Save and Reload** button. The values/ dates inserted above are turned into an expression.

For Lookup attributes, the following fields are available:

- Filter Entity: Entity on which the filter was defined.
- **Description:** It is left blank. Add a description if needed.
- Grid of Options: This field is automatically filled in after clicking the Save and Reload button. The values of the option set are displayed. Select the Boolean for the values you wish to include in the filter.
- 10. Click the Save and Reload button.

)			Save and close	arciot
t Interest & (	Commission Item Filter			
Main Informatio	on			
Filter	AL_Amount	↓ <i>₽</i>		
/alue	•	1 Until Value	• 50	,000
Description				
	: 1 - 50000			

### Insurances

For any banking product, you can select a pre-existing insurance or create a new one.

- To add a new insurance, in the Insurances section, Click the Insert button and set the following fields:
  - Banking Product: Select the banking product.
  - **Code:** Insert a code for this particular insurance.
  - Item Name: Insert a name.
  - **Start Date:** Enter the start date when the insurance becomes effective.
  - End Date: Enter the end date for the insurance.
  - **Details:** It is left blank. Add a description if needed.
  - Insurance List: Select from which list the insurance is a part of.
- 2. Click the Save and Reload button.
- 3. In the **Insurance Item Filters** section, click **Insert** and fill in the following fields:

- Filter: The name inserted earlier.
- Value: The starting value for the attribute.
- Until Value: The ending value of the interval.
- Description: Insert the proper description for the availability filter.
- 4. Click the Save and Reload button.

						E	Save and close	G Save and r
Insurance Item								
lain Information								
anking Product	Code	item Name	Insurance List	Start	Date		End Date	
Duplicate	↓ ✔ INS	H Insurance	InsuranceListRON	↓ ℓ 19	/04/2022		20/04/2030	
otails								
surance Item Filters					+	Insert X Di	lete Export	Ø Refres
Description								
٩								
Amount Insurant	ce >< 1000 - 30000							

### **Discounts**

For any banking product, you can add discounts of any nature. You can select a pre-existing discount or create a new one.

- To add a new discount, Click the Insert button in the Discounts section.
- 2. In the **Details Page**, insert the appropriate **Name** for the discount.
- 3. Choose one of the pre-configured types of discounts available in the **Discount** field, or create a new one. According to the selected type, new fields appear on the page requiring to be filled in.
- 4. Insert the value of the discount to be applied, e.g. 15.
- 5. Set the start date when the discount becomes effective (Start date), and the end date for the discount (End date).

- 6. Optionally, you can fill in the following fields:
  - Applied to dimension: Specifies for which product dimension this discount is applicable (interest, commission or insurance). This is autocompleted by the selected discount's dimension.
  - Commission type: This field appears if the selected Discount = Commission discount or Management Fee Discount. Specifies for which commission type this discount is applicable. This is autocompleted by the selected discount's default commission type.

  - Insurance class: This field appears if the selected discount = Discount Life Insurance or Interest Discount. Specifies for which insurance class this discount is applicable (credit, home, life or other insurance class). This is autocompleted by the selected discount's insurance class.
  - Insurance: This field appears if the selected discount = Discount Life Insurance. Specifies for which insurance this discount is applicable. This is autocompleted by the selected discount's insurance.
  - Interest type: This field appears if the selected discount
     Interest discount. Specifies for which interest type this discount is applicable.
  - Use Banking Formula: If you select this checkbox, the discount is calculated using the Banking Formula engine.

- Is optional discount? : Selecting this checkbox results in the discount being applied only if the customer agrees to the discount.
- Is percentage: If you select this checkbox, the discount is calculated as a percentage from the contract's amount.
- Destination entity: Select the entity where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- Destination entity attribute: Select the attribute where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- 7. Click the Save and Close button.
- 8. In the **Product Discount Item Filter** section, click **Insert** and fill in the fields as specified in the **Product Filter page**. The fields displayed depend on the selected filter.
- 9. Click the Save and Close button.

### Questions

You can choose one or more questions to add to the banking product, or insert a new one.

- To insert a new question, in the Questions section, Click the Insert existing button, then click Insert.
- 2. In the **Add Banking Product Question** page, fill in the following fields:
  - Question: Enter the appropriate name.
  - Answer Type: Select the type of answer the customer has to give: text, numeric or option set.

- Answer Entity: Select the entity where the answer is stored.
- Answer Field: Select the attribute where the answer is stored.
- 3. Click the Save and Reload button.

The **Banking Products List** shows where the question is used.



4. Click the Save and Close button.

For example, this is how a question is displayed in a digital journey in the FintechOS Portal:

EDIT LOAN APPLICATION				
		Eligibility Questions		
	We ask for this information	so that we can carry out the checks needed to consider	you for a mortgage	
DEPOSIT SOURCE		Select		•
RETIREMENT DATE				
RETIRED		Ves ( No	\$	
				Finish

## 5. Configure Product Formula Engine

The **Product Formula Engine** tab keeps formulas built with Formula Engine for the banking product. Such formulas can be used to determine the eligibility of a customer.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	Documents	7 Lean Core Settings	8 History	Origination Elements	10 GL Settings
Banking Pro	duct Formulas		+ Insert X Dele	ete DExport GRefresh	Test Sce	narios	(+	Insert X Delete E	port Ø Refresh
Nam		Formula Type		Formula		Name		Test Formula Type	
CA		Commission	Formula	commissionByAmount		Duplicate-19:04:2022_11:07:57		CommissionFormula	

### **Banking Product Formulas**

In the **Banking Product Formulas** section, choose an already defined formula or click **Insert** to configure a new one, for example a formula for eligibility or scoring purposes. For information on how to build a formula, see Define Formula Inputs.

 In the Add Banking Product Formula page, fill in the following fields:

Ð			Save and close
dit Banking Product Formul	a		
Main Information			
Name	Banking Product	Formula Type	Formula
CA	Duplicate	V 🖌 CommissionFormula	V CommissionByAmount
Data Mapping			
BPFormulaType_Test Formula_164	7267821582_formula	÷ #	
			Map Data

- Name: Enter an appropriate name.
- Formula Type: Select the type of formula configured before, e.g. scoring /eligibility.
- Formula: Select the previously configured formula.

**IMPORTANT!** The formula must be activated before attaching it to a product.

• Data Mapping: Select the previously configured data mapping.

The name of the banking product is inserted automatically in **Banking Product**.

- 2. After selecting the desired formula, click **Save and reload**, then click **Map Data**.
- 3. In the **Formula Mapping** page, click **Input** and configure the input data for the formula.
- 4. Click **Output** and configure the output for the formula.

Definition     Definition     Definition     Output	e and reload
FTOS_CB_Contract - Output	

5. Click the Save and Close button.

Such formulas can be used in digital journey steps, for example when the customer inserts their financial data.

	Income & Outgoings		
We	use your expected income and outgoings to work out how lend and to ensure that any mortgage we may offer yo		
WHAT IS YOUR ANNUAL SALARY BEFORE TAX?	ARE YOU MARRIED?	EDUCATION LEVEL:	
€	[none]	[none]	
PAYING MONTHLY FOR OTHER LOANS:	NUMBER OF CHILDREN	EMPLOYMENT STATUS	
e	0 0	[none]	
TOTAL CREDIT CARDS LIMITS:	CHILDCARE AND EDUCATION COSTS:	EMPLOYMENT MONTHS:	
TOTAL CREDIT CARDS LIMITS: €	CHILDCARE AND EDUCATION COSTS: €	EMPLOYMENT MONTHS:	
		YOUR RESIDENCE IS:	

## Test Scenarios

ain Information		
st Formula Type	CommissionFormula	4
Key	Value	
٩	٩	
Amount		23.45
		Save Output Data Concor
st Scenario Outputs		

A good practice is to test the formula before displaying it in a digital journey. You can do that in the **Test Scenarios** section:

- 1. Click the **Insert** button to open the **Add Test Scenario** page.
- 2. Insert a **Test Scenario Type** from the option set. The keys and the values are shown.
- 3. Click the Save and Reload button.
- 4. Click the **Calculate** button. The outputs are displayed in the **Test Scenario Outputs** section.
- 5. You can save these outputs by selecting the **Save Output Data** checkbox next to **Calculate**.

### 6. Add Documents

You can manage all the attached documents available for a product and all the agreements that a customer needs to go through in the **Documents** tab.

1 Main In	fo (2) Details	3 Availability	4 Dimensions	8 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	10 GL Settings
Banking	Product Documents				Banking Proc	luct Agreements			
			+ Insert × De	elete	)		+ 1	nsert X Delete Exp	port Ø Refresh
	Report	Banking Copi	ies No	Operation Code	Code				
	٩	٩		٩	٩				
	Status overview of the que	zues	2	TC					
							No data		

### **Banking Product Documents**

Any previously associated documents are displayed in the **Banking Product Documents** section.

 To attach a new document to the banking product, in the Banking Product Documents section, click Insert. The Add Banking Product Document page is displayed.

I Banking Product Document				
Banking Product Document				
Operation Code	Banking Copies No	Report	Document Type	
PASS		2	↓ ✓ Passport	•
is Mandatory	Includes Debtor	Includes Coborrower	Requires Signature	
Yes No	🔿 Yes 💿 No	Ves 💿 No	🔿 Yes 💿 No	

- 2. Set the following fields:
  - **Operation Code:** Enter a code for the document.
  - Banking Copies: Insert the number of copies made.
  - **Report:** Select a document from the list.
  - **Document Type:** Select a document type from the list.
  - Is Mandatory: Select if the document is mandatory.
  - Includes Debtor: Select if the document includes the debtor.
  - Includes Coborrower: Select if the document includes the co-borrower.
  - **Requires Signature:** Select if the document requires to be signed.
  - Is accord: Select if the document represents the accord.
- 3. Click the Save and Reload button.

### **Banking Products Agreements**

The agreements that a customer needs to go through are displayed in the **Banking Products Agreements** section.

 To attach a new agreement to the banking product, in the Banking Products Agreements section, click Insert. The Add Banking Products Agreements page is displayed.

Edit Banking Product Agreement					Save and close 🗘 Save and reload
Main Information					
Agreement	Code		Banking Product		is Mandatory
Popescu Broker	AGR	1	SLICE Loan	41	

- 2. Fill in the following fields:
  - Agreements: Select an agreement from the list.
  - Banking Product: It is automatically filled in.
  - **Code:** Insert the corresponding code.
  - Is Mandatory: Select if the agreement is mandatory for the product.
- 3. Click the Save and Reload button.

For more information on how to configure a contract or an agreement, see the Digital Document Processor.

## 7. Configure Lean Core Settings

### NOTE

The Lean Core Settings tab is available only when Banking Product Factory is implemented along with Core Banking.

Transactions types that are performed to and from a banking product are displayed in the **Lean Core Settings** tab. The tab also holds information about the reconciliation account associated with the products, mandatory roles for contract approval, payment allocation settings, the treatment of returned goods for contracts based on this banking product (only for Term Loans and Mortgage banking products), and closing contract settings.

#### **BANKING PRODUCT FACTORY USER GUIDE**

1 Main Info 2 Details	3 Availability 4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean C	Core Settings	8 History	9 Origination Elements	10 GL Settings
Self Bank Account Associated With	h The Product		Payment A	llocation Setting	js			
Reconciliation Account Reconciliation EUR	Negative balance treatment NoMessage		Repayment CostOrde	Illocation Method	Gra	ce Days for Repaymen	t Penalty for gra	ce period
Mandatory Roles for Contract Appr	roval		Allowed T	ansactions				
	+ Insert	elete					+ Insert existing	× Remove existing
Role	Search Limit			lame				
٩	(All)	•		۹				
Beneficiary				op Up Account				
				fransfer between n	ny bank account	s		
				Vithdraw				
Closing Contract Settings								
Buffer Close Days	Close Real Time	Closing Is Flexible						
Contract Is Closed Automatically								

# Reconciliation Account Associated With The Product

 In the Self Bank Account Associated with the Product, for each banking product, you must select a reconciliation account, which is the bank account to be used for transactions, for money movements.

Reconciliation Account		Negative balance treatment
Reconciliation EUR	4	NoMessage
NOTE		
-	ount m	ust have the same currency as the
This acco		ust have the same currency as the use the conversions are performed from

2. Select a value for the **Negative Value Treatment** drop-down to specify how Core Banking treats situations when the funds of the reconciliation account associated with the banking product used in the contract would go below zero if a

disbursement event would be approved. The possible values are:

- Error there is an error message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can't be approved and the balance can't go below zero. Select this value if you want to block any transactions that would result in a negative balance of the reconciliation account associated to the banking product.
- Warning there is a warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.
- NoMessage there is no error or warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.

### NOTE

Core Banking also has a system parameter, ReconciliationAccountTreatment. That is a system-wide setting, applicable to events for contracts based on all banking products without a specified Negative balance treatment value. Core Banking takes into consideration the settings used at the banking product level (the Negative balance treatment field's value). Thus, if the value is specified at the banking product level, then that value takes precedence over the system parameter's setting.

If you associate the same reconciliation account to more than one banking product, then the setting selected in banking product A is applied for contract events based on banking product A, while for the banking product B, Core Banking would apply the setting selected at the level of banking product B.

### Payment Allocation Settings

In the **Payment Allocation Settings** section you can decide which allocation method should be used to determine the order in which credit items are prioritized when repaying loans, credit accounts, and so on. You can also define the grace period settings.

Payment Allocation Setting	S			
Repayment Allocation Method	<b>+</b> <i>•</i>	Grace Days for Repayment	5	Penalty for grace period
Direct Debit Settlement Accoun	t			

- 1. Fill in the following fields:
  - Payment Allocation Method: The payment allocation method represents the recovery order of amounts from payment notifications. Select a payment allocation method from the list.
  - Grace Days for Repayment: Insert the number of days for which the bank expects a payment without calculating penalty.

- Penalty for grace period: If you select the checkbox, the penalty interest is applied on the loan contract without taking into consideration the grace period defined at contract level, being calculated for the difference between system date due date, if the grace period passed and the customer didn't pay the due amounts. If you leave this checkbox unselected, the penalty interest is applied on the loan contract taking into consideration the grace period defined at contract level, being calculated for system date due date + grace days for repayment.
- Direct Debit Settlement Account: If you select the checkbox, the banking product has the automated settlement of repayment notification functionality (the payment allocation) turned on by default at the contract level. You can turn the automated settlement off either at the banking product level or at the contract level in Core Banking. Default value: true.

**NOTE** The automated settlement of repayment notification, or direct debit settlement account, is the functionality whereby, if funds are available on the settlement account and the contract has repayment notifications pending for recovery, Core Banking automatically uses the available balance up to full settlement of repayment notifications. In Core Banking, the automated settlement of Installment type repayment notification functionality (the payment allocation) can be turned on or off, thus allowing the financial institution to manage the contracts in case of blocked accounts and control the allocation of funds to outstanding notifications in case of need to impose a block on the settlement account, or manage the settlement of multiple loans from the same settlement account when short on funds and exceptional rules might apply.

If the functionality is turned off, the contract is pending for manual allocation. You can turn it back on and leave Core Banking to allocate the funds according to its automated processes, using any funds that become available in the settlement account in order to cover pending notifications.

2. Click the Save and Reload button.

### Mandatory Roles for Contract Approval

In the **Mandatory Roles** section you can add the roles of the participants that are mandatory to exist at the contract level for contracts based on this banking product. In other words, when creating contracts based on banking products with Merchant role in this section, you must add a customer with the same Merchant role as contract participant, otherwise, the contract cannot be approved. When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role, in this case Merchant Exposure.

Mandatory Roles for Contract Approval

	+ Insert X Delete Export Ø Refresh
Role	Search Limit
٩	(All)
Beneficiary	

1. In the **Mandatory Roles** section, click **Insert** and fill in the following fields:

$\odot$		원 Save and close 다 Save and reload 유 Save and re
Add Mandatory Role		
Main Information		
Banking Product	Role	Search Limit
Duplicate	↓ Merchant	· / 🗹

- **Banking Product:** The banking product for which you define mandatory roles. This is automatically completed with the current banking product.
- **Role:** Select the role of the participants that are mandatory to exist at the contract level for contracts based on this banking product.
- Search Limit: When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role. If you select a role not associated with a customer limit type in Core Banking, the Search Limit field becomes read-only and unselected.
- 2. Click the Save and Reload button.



In the **Return Of Goods,** you can define whether a contract based on the banking product can have Returned Amount or Goods transactions or not, and the specific conditions for these transactions. The Returned Amount or Goods transaction type can be used when a customer returns all or part of a loan or mortgage in a short while after contract creation, if the banking product was defined to allow such transactions. You can set up Return Fee type commissions, to return all or some of the claimed commission to the borrower.

Return Of Goods				
Allow Return Of Goods	Accepted Days For Return		Return Message	
	15	)	Warning	-

- 1. Fill in the following fields:
  - Allow Return Of Goods: Select this checkbox if the contracts based on this banking product accept Return of Goods transactions. Default value: False. If selected, the Accepted Days For Return and Return Message fields are displayed, otherwise, these fields are not visible.
  - Accepted Days For Return: Specify the number of days after contract creation during which the return of goods transaction can be created and approved.
  - Return Message: Select the behavior of messages generated by Core Banking for situations when the Returned Amount or Goods transaction's approval date + the number of accepted days for return >= the current date. Possible values are taken from the Warning Error Treatment option set. According to the desired behavior, choose:

- Error, if the transaction should not be approved and an error message should be displayed;
- Warning, if the transaction can be approved, but a warning message should be displayed;
- NoMessage, if the transaction can be approved without any messages.
- 2. Click the Save and Reload button.

**NOTE** If Allow Return Of Goods = True, then the Returned Amount of Goods transaction is automatically added to the **Transaction Types** section.

### **Closing Contract Settings**

In the **Closing Contract Settings** section, you can configure the default closure settings for contracts based on this banking product.

Closing Contract Settings		
Buffer Close Days	Close Real Time	Closing Is Flexible
Contract Is Closed Automatically		

- 1. Fill in the following fields:
  - Buffer Close Days: Enter the number of days used as buffer before automatically closing the contract when the contract reaches maturity and its balance reaches zero. If Buffer Close Days > 0, then Contract Is Closed Automatically = False.

- Close Real Time: If you select this checkbox, the contract based on this banking product is closed in real-time, when the contract reaches maturity and its balance reaches zero, without waiting for the end of day processes. If Close Real Time = True, then Buffer Close Days = 0 and Contract Is Closed Automatically = True.
- **Closing Is Flexible:** If you select this checkbox, the closure details of the contract based on this banking product can be modified at the contract creation.
- Contract Is Closed Automatically: If you select this checkbox, the contract based on this banking product is closed automatically at maturity, if the balance reaches zero. If Contract Is Closed Automatically = False, then Close Real Time = False.
- 2. Click the Save and Close button.

### Allowed Transactions

In the **Allowed Transactions** section, you can associate possible transaction types with the selected banking product:

- Click Insert existing and select the desired transaction types to be associated.
- 2. Double-click a selected transaction type to edit it.

Settings										
Name	Transaction C	ode	Process Type		Edit Form		Transaction Operat	ion Type	Is System Transaction	
Disbursement	DSB		Disbursement	+	FTOS_C8_EventDisburs	ement 4	Disbursement	+		
s Automatic Transaction	Real Time Process	Only One Draft	Generate Nev	w Contract	Commission Type			Return Commission	n Type	
			Version				4			
Accounting Configurations	OL Master En	itty			Purge Configurations	Purge Nu	mber of Days	Master Purge Entity	у	
Accounting Configurations	OL Master En					Purge Nu		•		
Accounting Configurations	OL Master En	thy ContractEvent		• •	To Be Purged	•	30	Master Purge Entity PTOS_C8_Control		
Accounting Configurations	OL Master En		X Defete	© •	To Be Purged	•	30	•		
Accounting Configurations	OL Master En	ContractEvent			To Be Purged	•	30 ations	FTOS_CB_Contr	x Delete	
Accounting Configurations interates Accounting Entry	GL Master En	ContractEvent + Insert		Ø Refresh	To the Purged	unting Configur	30 ations	FTOS_CB_Contro	x Delete	
Accounting Configurations Generates Accounting Entry Transaction Value Types Transaction Type	GL Master Er	Value Type Name	In Header Value (AB) • Q	Ø Refresh	To the Purged	Accounting	30 ations	FTOS_CB_Contra + Insert	X Delete Export	D Re Take Pro

- 3. In the Edit Transaction Type > Settings section, fill in the following fields:
  - Name: Enter the name of the transaction type.
  - **Transaction Code:** Enter the code of the transaction type.
  - **Process Type:** This field associates the process type with the transaction operation type, which makes the connection with the transaction motor of bank accounts. Select one of the processes defined within the system.

**NOTE** There is no integration at this point with a payment gateway.

- Edit Form: Select the form used to edit this transaction type. You can choose only from the forms defined on the Contract Event entity.
- **Transaction Operation Type:** The transaction operation type makes the connection with the transaction motor of bank accounts. Select one of the transaction operation types defined within the system.

- Is System Transactions: If you select this checkbox the transaction is marked as being neither a credit of the account, nor an allocation of funds, but a transaction that does not influence other transactions within the account. System transactions are meant to be used only for accounting.
- Is Automatic Transaction: If you select this checkbox here, then you cannot select it within the contract operations. The Is Automatic Transaction checkbox marks the transaction as automatic.
- Real Time Process: This checkbox marks the transaction as to be processed in real-time. If selected, then the transaction is processed right away. If not selected, then the transaction is inserted as a bank account transaction queue record.
- Only One Draft: If you select this checkbox, there can be only one record of this transaction type in Draft status created at the contract level.
- Generate New Contract Version: This checkbox allows you to specify if a new contract version should be generated by this transaction type.
- **Commission Type:** Select the commission type applicable for this transaction type. Return fee commissions are filtered out and can't be selected.
- Return Commission Type: Select the return fee commission type applicable for this transaction type.
   Only return fee commissions can be selected.
- Is Clawback Transaction: If selected, this checkbox marks the transaction as generating a clawback commission. The transaction type is to be used in thirdparty management invoicing activities. Default value: False.

- 4. In the Edit Transaction Type > Accounting Configurations section, fill in the following fields:
  - Generates Accounting Entry: Select this checkbox to create an entry in the Operational Ledger. It generates records in the Accounting Entry entity.
  - **OL Master Entity:** Select the entity referenced by the accounting systems.
- 5. In the Edit Transaction Type > Purge Configurations section, fill in the following fields:
  - **To Be Purged:** This checkbox marks the transaction as purgeable. If you select it, you can purge or archive records in Draft status.
  - Purge Number of Days: Enter the default number of calendar days that a record can be kept in Draft status before it is purged. For additional information, see the Core Banking System Parameters page. This field is displayed only when To Be Purged = True.
  - Master Purge Entity: Select the master purge entity under which the draft records are. This field is displayed only when To Be Purged = True.
- 6. You can also edit the information in the Transaction Value Types, Transaction Item Accounting Configurations and Transaction Accounting Models sections. Read more details about Transaction Types in the Operational LedgerUser Guide.
- 7. Click the Save and Close button.

# Transaction types typically used for overdrafts

 Accruals and Provisions - System transaction. If added at banking product level, the accruals and provisions for contracts can be calculated on a daily basis. This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.

 Disbursement - If added at banking product level, the requested funds are transferred into the customer's account.

This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.

 Overdraft Payment - If added at banking product level, the customer can perform payments from the current account using the overdraft functionality, practically using an amount larger than the positive balance of the account, up to the overdraft limit defined at the contract level.

This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.

- Early repayment If added at banking product level, the customer can make a payment earlier than the stated maturity date of the contract. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- Payment Holiday If added at banking product level, the official bank holidays are considered when calculating a payment schedule.

This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.

 Repayment - If added at banking product level, the customer can make a payment to cover the scheduled repayment amount.

This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.

- Repayment Notification If added at banking product level, the system generates and displays in the contract a repayment notification after each disbursement, containing the total amount to be paid off. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.
- Reschedule Overdues If added at banking product level, the system extends or adds extra time to an existing contract.

This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.

 Reschedule Debt - If added at banking product level, the system recalculates the entire payment schedule by extending the time period for loan repayment. This transaction type is not added automatically. Make sure you insert it in the Associated Transactions tab.  Revert Disbursement - If added at banking product level, disbursements performed at contract level can be reverted after being performed.

This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.

 Revert Transfer between my bank accounts -System transaction. If added at banking product level, transfers between the same customer's bank account can be reverted after being performed.

This transaction type is not added automatically. Make sure you insert it in the **Associated Transactions** tab.

 Transfer between my bank accounts - If added at banking product level, the customer is allowed to move funds between their accounts at the contract level. This transaction type is automatically added in the Associated Transactions tab if Allow Withdrawals was selected in the Details tab.

### 8. View History

You can find the versions of the banking product, their workflow status and the user who modified the product in the **History** tab.

1 Main Int	o 2 Deta	ils 3 Availability	4 Dimensions	5 Product Formu	ula Engine	6 Documents	7 Lean	Core Settings	8 History	9 Or	igination Elements	0 GL Settings
History												
											Ø	Refresh Export
0	abel		Name		attributeVersionD	late		attributeVersion			Modified by user	
	۹		٩		٩			٩			٩	
	Draft		Duplicate		19/04/2022 10:	:29				1		

Here you can track the product's life cycle and review older versions that are no longer active (for details, see Banking Products' Life Cycle).

## 9. Manage Origination Elements

You can set the elements required in the origination journey, such as product benefits, display conditions, features, destination types, or associated products in the **Origination Elements** tab.

1 Main Info 2 Details 3 Availability 4	Dimensions 5 Product Formula Engine	Documents (7) Lean Core Settings	8 History 9 Origination Elements 10 GL Settings
	roductPresentationDoc.pdf X Add file or Drop File here		
Benefits		Display Conditions	
File - Edit - Insert - View - Format - Table - Tools -		File - Edit - Insert - View - Format -	Table - Tools -
☆  Formats - B I A - E E E E E E E · · · · · · · · · · · ·	E-3200 0 0 0 0	🖘 👌 Formats × B I A × 🗉	프로 프 프 프 프 프 프 프 프 프 프 프 프 프 프 프 프 프 프
Quick Approval Low Interest Rates			
Product Features	Product Destination Types	/	Associated Products
+ Insert X Delete Export	Ø Refresh +	Insert existing X Remove existing	+ Insert existing × Remove existing
Feature DisplayName Sho	w Order ① Display Name		Name
	Q		٩
NMNGTFEES No Management 1	Personal		Current Account USD

- 1. Fill in the following fields:
  - **Product Image:** Insert an image representative for the product.
  - Document: Insert the document representative for the product.
  - **Benefits:** Insert the advantages of owning the banking product. You can format the text in the text editor window.
  - **Display Conditions:** Insert the conditions for the applicant, e.g. age limit, annual turnover, education level, income, registration documents.
- 2. Click the Save and Reload button.

### **Product Features**

In the **Product Features** section, you can insert, delete or export features.

- 1. To add a feature, Click the **Insert** button and fill in the following fields:
  - Feature: Enter the name of the product feature.
  - Is Main Feature: Select the checkbox if it is the major feature.
  - **Display Name:** Enter the display name of the feature.
- 2. Click the Save and Reload button.

### Product Destination Types

In the **Product Destination Types** section , you can insert or remove the existing product destination types:

- Click Insert existing and select one of the existing destination types, or insert a new one.
- To create a new destination type, insert a name and specify if it is default. For this case, the following have been configured: Loan Collateral, Loan disbursements, Personal, Repayments.

### Associated Products

In the **Associated Products** section you can insert or remove an existing products. It is especially useful when you wish to create a link between two products.

Associa	ted Products	
		+ Insert existing × Remove existing
	Name	
	٩	
	Current Account USE	)

To insert or remove a product from the list or create a new one:

- Click Insert existing and select one of the existing destination types, or insert a new one.
- 2. Click the Save and Reload button.

## 10. Configure Operational Ledger Settings

#### NOTE

The **OL Settings** tab is available only when Banking Product Factory is implemented along with **Operational Ledger Add-On**.

In the **Banking Product GL Accounts** section, you can set specific accounts to be used by the Operational Ledger system for transactions performed on contracts based on this banking product. Thus, you can overwrite the generic settings of the Operational Ledger, instructing it to use the accounts specified at banking product level.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula	a Engine 6 Do	cuments 7 Lear	n Core Settings	8 History	9 Origination Elements	10 GL Settings
Banking Produ	ict GL Accounts									
								+ Ins	ert X Delete Exp	ort Ø Refresh
Produc			Accounting System		Accounting Scope		Item		GL Account	
٩			٩		٩		٩		٩	
Duplic	ate		0001		FixDeposit		Loan Admin Fee		20110 Commercial loans	

 To add specific accounts to be used by Operational Ledger, click Insert and fill in the following fields in the displayed Add Banking Product GL Account page::

Ð								Save and cl	ose 🛛 🌣 Save and reload 🛛 🛱 Save and new
dd Banking Produ	uct GL Account								
Main Information									
Product		Accounting System		Accounting Scope	Item			GL Account	
Duplicate	÷ /	0001	4	FixDeposit	↓ Loan	Admin Fee	Ψ	20110 Commercial loans	÷

- **Product:** Select from the list the banking product. Automatically completed with the banking product you are currently editing.
- Accounting System: Select from the list the desired accounting system. The list contains the records created in the Accounting System entity.
- Accounting Scope: Select from the list the corresponding accounting scope. The list contains the records created in the Accounting Scope entity.
- Item: Select from the list the corresponding transaction item. The list contains the records created in the Transaction Item Accounting Config entity.
- **GL Account:** Select from the list the corresponding GL account. The list is filtered based on the previously selected accounting system. It contains the accounts defined in the Accounting Chart entity that were added to the chosen accounting system record.
- 2. Click the Save and Reload button.

# Leasings

A lease is a written agreement specifying the conditions under which a lessor accepts to let out a property to be used by a lessee. The agreement promises the lessee use of the property for an agreed length of time while the owner is assured consistent payment over the agreed period.

### **Creating Leasings**

To create a new leasing from scratch, navigate to main menu > **Banking Product Factory** > **Banking Products**, and click the **Insert** button. A new page opens, with a series of tabs that assist you in configuring the banking product.

### NOTE

Alternatively, you can create a leasing by duplicating an existing one. Click the **Duplicate** button on the **Banking Products List** page. Make sure you change the **Banking Product Code** and **Name** according to your business needs.

## 1. Enter Basic Information

You can set the basic elements for creating the product, such as name, code, currency, validity, or product classification, in the **Main Info** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	B Product Formula Engine		Documents	7 Lean Core	Settings	8 History	9 Originatio	on Elements	10 GL Se	attings
Main Informatio	n												
Banking Product T	ype	Currency		Banking Product Code		External Code			Start Date		End Date		
Leasing	۰ ا	EUR	4	Leasing		lease			04/07/2021		29/07/2022		
Name				Class		SubClass			Category		SubCategory		
LeasingM				Corporate	¥			•		¥			
Description						Product Classifi	cation						
										( + In	sert existing	× Remove	existin
						Code		Name	Classification Ty	/pe Vali	i From	Valid To	
						Q		٩	٩	Q		٩	

### NOTE

Your product type selection influences the next steps. For leasings, select the **Leasing** option in **Banking Product Type** 

### Main Information

- In the Main Information section, select the Banking Product Type from the available list.
- 2. Choose the **Currency** for the banking product.
- 3. Enter the product code in the Banking Product Code field. It can have 10 characters, and it is used in the contract. It uses a sequencer and the code of the product type.
- 4. Set the product validity by selecting the date when the product becomes available (Start Date) and the last date from when the product is available (End Date).
- 5. Enter the product Name.
- 6. Optionally you can set the following fields:
  - External Code: Select the code of the product imported from an external system, if applicable. It can have 10 characters and it is not used in the contract.
  - Class: Select the class of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Subclass: Select the subclass of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
  - Category: Select the category of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400

- SubCategory: Select the subcategory of the product. This field is used to place the product in a hierarchy. For more information, see "Product Hierarchy" on page 400
- **Description:** Enter any description or additional text related to your new product.
- 7. Click the **Save and Reload** button. The product is now saved and you can further edit it for your needs.

## Product Classification

After saving the product, the **Product Classification** section is populated with more options for your term loan. You can insert or remove existing product classification items.

1. To add a product classification item, click **Insert Existing** and select an already existing item.

oduct	Classification				
				+ Insert existing	× Remove existing
	Code	Name	Classification Type	Valid From	Valid To
	٩	٩	٩	۹ ۵	۹ 🖬
	REG1	Classification	Regulatory	01/01/2020	31/12/2030

- You can also create a new product classification item by clicking the Insert existing button and then the Insert button.
- 3. On the newly displayed Add Product Classification page, fill in the fields:

•				····· / [	Save and close	G Save and reload	Save and new
Add Product Classification							
Main Information							
Name	Code	Valid From	Valid To	Classification Type		is Default	
Classification Restructuring Level	RESTRUCTLI	20/04/2022	30/04/2028	Restructuring	۰ ا		
Classified Banking Products							

- Name: Enter the name of the classification item.
- Code: Enter the unique code of the classification item.

- Valid From: Select the date from which the product classification item is valid.
- Valid To: Select the date until when the product classification item is valid.
- **Classification Type:** Choose the classification type of the item. Possible values: Regulatory, Restructuring.
- Is Default: Select the checkbox if this classification item is default.

The **Classified Banking Products** section is displayed after you save the classification item record and allows you to insert existing banking products. The following information is displayed here: **Code, Name, Class, SubClass, Category, SubCategory** and **Status.** 

For more information on how to create a new product classification, see Banking Product Classification.

4. Click the Save and Reload button.

## 2. Add Details

You can set elements such as interest, payment type, top-ups and withdrawals in the **Details** tab.

	2 Details	<ol> <li>Availability</li> </ol>	Dimensions	8 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	(9) Originatio	n Elements	10 GL Settings
General Data										
Is Revolving		Allow Refinancing		Allow Restructuring	Allow CoDebtor	M	ax No. Of CoDebtors			
Disburse Setting	S				Product Guarante	es				
Autodisbursement		Max No Disbursement	2	Activ Tranche On Doc Submission	Is Guaranteed	Co	ilateral Cover Percer		Allow Collateral F	Partial Release
Product Tranche	S				Allowed Guarante	e Types				
Name			ne Percent St	X Delete Export S Refresh	Guarantee	е Туре		Max Accepted Cove		Export Ø Refre
٩		٩		م م	٩			٩		
					Cash					20.0
		No d	lata		Cash					20.0
Payment Schedu	de Types	No d	lata		Cash					20.0
Period Type	lle Types	No d	Periodicity Type		Grace Type			Product Grace		
		No d					•	Product Grace		20.0
Period Type Months Schedule Templa		No d	Periodicity Type Monthly	+ Insert existing ) X Remove existing	Grace Type (none) Holiday Settings	ayment installments	•	Product Grace		
Months		No d	Periodicity Type Monthly	+ Insert existing X Remove existing	Grace Type (none) Holiday Settings Holiday Shift For Rep		•	Defer Due Date		lay Shift Method
Veriod Type Months Schedule Templa		No d	Periodicity Type	+ Insert existing ) ( X Remove existing	Orace Type (none) Holiday Stift For Rep *		•	Defer Due Date		lay Shift Method
Period Type Months Schedule Templa		· ·	Periodicity Type	+ Insert existing ) ( X. Remove existing	Crace Type (none) Holiday Settings Holiday Shift For Rep * Country Calendar Country Calendar		•	Defer Due Date	Fo	ay Shift Method
Period Type Months Schedule Templa		· ·	Periodicity Type	+ Insert existing X Remove existing	Crace Type (none) Holiday Settings Holday Shift For Rep * Country Calendar	5	•	Defer Due Date	Fo	ay Shift Method

## **Product Behavior**

- 1. In the **General Data** section, you can optionally set the following fields:
  - Is Revolving: If selected, allows a business to borrow money as needed for funding working capital needs and continuing operations such as meeting payroll and playable.
  - Allow Refinancing: Select if the account can be refinanced for this product.
  - Allow Restructuring: Select if the loan can be restructured.
  - Allow CoDebtor: Select if another debtor exists for this product.

- Max No. of CoDebtors: Set the maximum number of codebtors possible for this product.
- 2. Click the Save and Reload button.

### Disbursement

- In the Disburse Settings section, check the Auto Disbursement box, and the disbursement is automatically performed when the contract is approved.
- <sup>2</sup> You can optionally set the following fields:
  - Max No Disbursements: Enter the maximum number of disbursements that can be configured for this product.
  - Active Tranche On Doc: If you select this checkbox, then the tranches are activated (disbursements are created and approved) after certain documents are submitted. It is the Financial Institution's responsibility to verify the content of the submitted documents.
- 3. Click the Save and Reload button.

### Product Guarantees and Allowed Guarantee Types

Product Gu	arantees			
Is Guaranteed		Collateral Cover Percent	Allow Collateral Partial Release	
Allowed Gu	arantee Types	+ Insert	X Delete	
G	Guarantee Type	Max Acc	cepted Covering Percent	
	Q	٩		
F	ixDeposit		85.00	

- 1. In the **Product Guarantees** section, set the following fields:
  - Is Guaranteed: If selected marks the product as secured.

#### NOTE

The Collateral Cover Percent, Allow Collateral Partial Release fields, and the Allowed Guarantee Types section appear when you select the Is Guaranteed checkbox.

- **Collateral Cover Percent:** Enter the percent that the collateral person on the contract pays. It usually is over 100%.
- Allow Collateral Partial Release: A partial release is a mortgage provision that allows some of the collateral to be released from a mortgage after the borrower pays a certain amount of the loan.

The **Allowed Guarantee Types** section is displayed after you check the **Is Guaranteed** option. You can insert or delete allowed guarantee types:

 To insert a guarantee type, click the Insert button and fill in the name, maximum accepted covering percent, and select the guarantee type.

Add Product Guarantee Structure					
Product Guarantee Structure					
Banking Product	Card		Guarantee Type	FixDeposit	**
Max Accepted Covering Percent		85	• Name	Deposit	

3. Click the Save and Reload button.

### **Product Tranches**

The **Product Tranches** section is displayed if you selected the **Active Tranche On Doc** checkbox. You can insert existing disbursement tranches or create new ones, configured to fit the product. Usually used for corporate loans, such dividend payments or cash outflows are not done in equal amounts and usually trigger a recalculation in terms of interest.

Product Tranches

+	+ Insert X Delete Export Ø Refresh						
		Name	Tranche Pe	rcent	Start Month From Acti	Interest Percent	
		Q	Q		Q	Q	
		Tranche 1	50.	0000		2.0000	
		Tranche 2	50.	0000		2.0000	

- To add multiple such disbursements, click the Insert button. The Add Product Disbursement section is displayed and you can set the following fields:
  - Name: Enter the name of the new disbursement.
  - Tranche Percent (%): Enter the percentage of the final amount that goes towards the disbursement.
  - Start Month From Activation: Enter the start month for the disbursement. It can be any month in the loan availability period.
  - Interest Percent (%): Enter the interest percent for that particular disbursement.
  - Unusage Commission Percent (%): Enter a commission paid for the loan amount unused.
- 2. Click the Save and Reload button.

#### Payment Schedule Types

Payment Schedule Types							
Period Type		Periodicity Type		Grace Type		Product Grace	
Months	•	Monthly	÷ /	Both	- 1	GracePeriod	* 1

 Select the regularity of payments in the Periodicity Type. You can choose: Once (the whole amount is paid at maturity), Weekly, Monthly, Bimonthly, Trimestrial, 4 Weeks, Semestrial, Annual or 30Days.

#### NOTE

If the measurement unit of the selected
Periodicity Type = Days, then Holiday Shift
For Repayment Installments = False and it
cannot be changed.

- 2. Optionally you can set the following fields:
  - **Period Type:** Select the period of availability for the product: **Days, Weeks, Months, Years** or **Once**.

#### NOTE

The period type must be the same as the

measurement unit of the Periodicity Type.

- Grace Type: Select whether the product grace should apply to the principal, the interest, or both. Select an option from the list: Both, Principal or Interest.
- Product Grace: Select an option from the list. This is the amount of time that the bank can offer to a customer at the beginning of the contract without repayments of principal or principal + interest (however, most probably the bank capitalizes the interest for that period).
- 3. Click the Save and Reload button.

#### Schedule Templates

## In the **Schedule Templates** section, you can associate/ delete payment schedule types to/ from the banking product.

#### **Schedule Templates**

	+ Insert existing X Remove existing
Name	
٩	
Credit Card Installments	
One principal installment	

 To associate a payment schedule type to the banking product, click Insert Existing and select one of the already defined types. Go to "Payment Schedule Types" on page 405 to read more about this.

#### **IMPORTANT!**

When creating a new Term Loan, Mortgage, or Overdraft banking product, you must select at least one payment schedule type, otherwise you can't approve the product. If the **Schedule Templates** section has no records, an error message is displayed upon transitioning the product into the **Approved** status.

2. Click the Save and Reload button.

#### Holiday Settings

In the Holiday Settings section, the following fields are available:

Holiday Settings		
Holiday Shift For Repayment Installments	Defer Due Date	Holiday Shift Method
Country Calendars		
	+ Insert	existing X Remove existing
Name		
٩		
Romania		

1. Select the **Holiday Shift For Repayment Installments** checkbox for holidays to be taken into consideration when calculating the maturity program.

NOTE
The Country Calendars section and the Defer Due Date
and Holiday Shift Method fields appear if you select
the Holiday Shift For Repayment Installments
checkbox.

The **Defer Due Date** option is select by default. If selected, the payment schedule calculates the next payment amount as if the due date has not changed even when the due date falls on a holiday.

2. From the **Holiday Shift Method**, you can select the method to be used when calculating the due date if that date falls on a holiday. The due date can be shifted before or after the holiday. The possible values you can choose are:

- None the due date is not shifted.
- Forward the due date is shifted to the next working day after the initially calculated due date.
- **Backward** the due date is shifted to the last working day before the initially calculated due date.

Default value: Forward.

#### **Country Calendars**

In the **Country calendars** section, you can insert or delete calendars. You can work with multiple calendars as well. To insert a calendar:

- Click the Insert Existing button and add the country's name. If the maturity date coincides with a holiday, it is allocated automatically on the next business day.
- 2. Click the Save and Reload button.

### 3. Configure Availability

You can determine the monetary range and the time frame when the product is available for customers in the **Availability** tab.

Main Info 2 Details	3 Availability 4 Dimensions	8 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	10 GL Settings
Product Availability							
Minimum Amount	Maximum Amount	Minimum Period	Maximum Period	м	nimum Advance	Maximum Adva	nce
5,000	200,000	12		120			
Start Period For Unusage After Activation(Months)	Maximum Period Disburse After Activation (Months)	Minimum Principal For Early Repayme	int				
3	3						
Availability Rules							
Product Availability Item Filters			Product Covenant	s			
	+ Insert	X Delete			+	Insert X Delete E	(port Ø Refre
Description			Туре	Covenant		Valid From Valid to	Value
٩			٩	٩		Q 🖬 🔍 I	٩

Product Availability

- 1. Fill in the following fields:
  - Minimum Amount and Maximum Amount: Enter the minimum and maximum amount of the product for which the bank opens a contract.
  - Minimum Period and Maximum Period: Enter the minimum and maximum duration of the product mentioned in the contract.
  - Minimum Advance and Maximum Advance: Enter the minimum down payment that must be paid for the leasing contract to be signed and the maximum advance that can be paid for the leasing contract to be signed.
  - Start Period For Unusage After Activation (Months): Enter the start period for unused amount after the activation.
  - Maximum Period Disburse After Activation (Months): Enter the maximum period, in months, to perform a disbursement after the contract is activated.
  - **Minimum Principal For Early Repayment:** Enter the minimum amount of the principal for which a customer can perform an early repayment.
- 2. Click the Save and Reload button.

### Availability Rules

In the **Availability Rules** section you can select the item filters for your banking product.

Availabi	ility Rules	
Product	Availability Item Filters	
		+ Insert X Delete Export G Refresh
	Description	
	٩	
	CA >< 1 - 50000	

- 1. Click the Insert button, the Add Product Availability Item Filter is displayed.
- 2. Select the desired filter from the Filter option.
- 3 Add the attributes of the selected filter.
- 4. Optionally, add a description for the added item filter.
- 5. Click the Save and Reload button.

For more details, see "Product Filter" on page 462.

#### **Product Covenants**

In the **Product Covenants** section you can set certain conventions that applicants must abide by after getting the loan. This is usually applicable for corporate clients that must meet certain requirements in order to continue to receive disbursements.

Product Covenants				
	+ Inse	rt X Delete	Export	Ø Refresh
Туре	Covenant	Valid From	Valid to	Value
٩	٩	۹ 🖬	۹ 🖬	٩
Affirmati	Borrowers should perform tax obligations	19/04/2022	20/04/2030	
Financial	Lender can monitor borrower's current r	19/04/2022	20/04/2030	

- Click the Insert button to add a covenant to the product. Each covenant can be attributed a value, an availability period, and a review frequency in months. Read more about covenants in the "Covenant" on page 477 page.
- 2. Click the Save and Reload button.

### 4. Manage Dimensions

You can insert, delete or export interest, commissions, insurances, discounts or questions valid for your product in the **Manage Dimensions** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	2 Lean Core Settings	8 History	9 Origination Elements	(10) GL Settings
Interest & Com	missions				Insurances				
			+ Insert × De	lete Export S Refres			+ In:	sert X Delete Exp	port Ø Refresh
Item N	ame				lter	n Name			
٩					٩				
MCA					Hou	use Insurance			
Discounts					Questions				
			+ Insert X De	lete Export Ø Refres	h			+ Insert existing	× Remove existing
Name		Discount	End Date Start	Date Value Discount	Que	estion	6	Business Status	
٩		٩	Q 🗖 🗖	۵ (۵	٩			٩	
					Que	estion1		Active	
			No data		Qui	estion2	,	Active	

To add a new one, click **Insert** and fill-in the fields detailed in the sections below.

#### NOTE

To configure the interest and commissions separately, navigate to **Main** > **Product Factory** > **Banking Product Dimensions menu** which contains several other embedded menus.

#### Interest & Commissions

- To add an interest or a commission, click Insert in the Interest & Commissions section. The Add Interest & Commission Item page is displayed.
- 2. Select the banking product from the **Banking Product** list.
- 3. Enter the Item Name.
- 4. Enter the **Start Date** when the interest/ commission becomes effective and the **End Date** for the interest/ commission.
- 5. Fill in the following fields:
  - **Code:** Enter a code for this particular interest/ commission.
  - Interest List: Select from which list the interest is a part of.
  - **Commissions List:** Select from which list the commission is a part of.
  - Minimum Interest Rate (%): Enter the percent applicable as a minimum interest rate at the contract level.
  - Is Negotiable: Select the checkbox to specify that every interest, commission or margin field at the contract level is negotiable and can be edited.
- 6. Click the Save and Reload button.
- 7. In the **Interest & Commission Item Filters** section, click **Insert** to insert an item filter.
- 8. Select a filter created earlier in the "Product Filter" on page 462.
- 9. Set the following fields:

- Value/ Date: Select the beginning value/ date for the filter.
- Until Value/ Until Date: Select the maximum value/ date for the filter.
- **Description:** This field is automatically filled in after clicking the **Save and Reload** button. The values/ dates inserted above are turned into an expression.

For Lookup attributes, the following fields are available:

- Filter Entity: Entity on which the filter was defined.
- **Description:** It is left blank. Add a description if needed.
- Grid of Options: This field is automatically filled in after clicking the Save and Reload button. The values of the option set are displayed. Select the Boolean for the values you wish to include in the filter.

10. Click the Save and Reload button.

lain Information				
ilter	• AL_Amount	4 #		
alue	•	1 Until Value	•	50,000
escription				

#### Insurances

For any banking product, you can select a pre-existing insurance or create a new one.

- 1. To add a new insurance, in the **Insurances** section, Click the **Insert** button and set the following fields:
  - Banking Product: Select the banking product.
  - **Code:** Insert a code for this particular insurance.
  - Item Name: Insert a name.
  - **Start Date:** Enter the start date when the insurance becomes effective.
  - End Date: Enter the end date for the insurance.
  - **Details:** It is left blank. Add a description if needed.
  - Insurance List: Select from which list the insurance is a part of.
- 2. Click the Save and Reload button.
- 3. In the **Insurance Item Filters** section, click **Insert** and fill in the following fields:
  - Filter: The name inserted earlier.
  - Value: The starting value for the attribute.
  - Until Value: The ending value of the interval.
  - **Description**: Insert the proper description for the availability filter.
- 4. Click the Save and Reload button.

Main Information								
Banking Product		Code	Item Name	Insurance List		Start Date	End Date	
Duplicate	÷ /	INS	H Insurance	InsuranceListRON	**	19/04/2022	20/04/2030	C
insurance Item Filters								

#### Discounts

For any banking product, you can add discounts of any nature. You can select a pre-existing discount or create a new one.

- To add a new discount, Click the Insert button in the Discounts section.
- 2. In the **Details Page**, insert the appropriate **Name** for the discount.
- 3. Choose one of the pre-configured types of discounts available in the **Discount** field, or create a new one. According to the selected type, new fields appear on the page requiring to be filled in.
- 4. Insert the value of the discount to be applied, e.g. 15.
- 5. Set the start date when the discount becomes effective (Start date), and the end date for the discount (End date).
- 6. Optionally, you can fill in the following fields:
  - Applied to dimension: Specifies for which product dimension this discount is applicable (interest, commission or insurance). This is autocompleted by the selected discount's dimension.
  - Commission type: This field appears if the selected
     Discount = Commission discount or Management Fee
     Discount. Specifies for which commission type this

discount is applicable. This is autocompleted by the selected discount's default commission type.

- Insurance class: This field appears if the selected discount = Discount Life Insurance or Interest Discount. Specifies for which insurance class this discount is applicable (credit, home, life or other insurance class). This is autocompleted by the selected discount's insurance class.
- Insurance: This field appears if the selected discount = Discount Life Insurance. Specifies for which insurance this discount is applicable. This is autocompleted by the selected discount's insurance.
- Interest type: This field appears if the selected discount
   = Interest discount. Specifies for which interest type this discount is applicable.
- Use Banking Formula: If you select this checkbox, the discount is calculated using the Banking Formula engine.
- Is optional discount? : Selecting this checkbox results in the discount being applied only if the customer agrees to the discount.
- Is percentage: If you select this checkbox, the discount is calculated as a percentage from the contract's amount.
- Destination entity: Select the entity where to register the discount. This field opens when the Is optional discount? checkbox is selected.

- Destination entity attribute: Select the attribute where to register the discount. This field opens when the Is optional discount? checkbox is selected.
- 7. Click the Save and Close button.
- 8. In the **Product Discount Item Filter** section, click **Insert** and fill in the fields as specified in the **Product Filter page**. The fields displayed depend on the selected filter.
- 9. Click the Save and Close button.

#### Questions

You can choose one or more questions to add to the banking product, or insert a new one.

- To insert a new question, in the Questions section, Click the Insert existing button, then click Insert.
- In the Add Banking Product Question page, fill in the following fields:
  - Question: Enter the appropriate name.
  - Answer Type: Select the type of answer the customer has to give: text, numeric or option set.
  - Answer Entity: Select the entity where the answer is stored.
  - Answer Field: Select the attribute where the answer is stored.
- 3. Click the Save and Reload button.

The Banking Products List shows where the question is used.

#### **IMPORTANT!**

The question has to be activated in order for it to be added to the banking product.

4. Click the Save and Close button.

For example, this is how a question is displayed in a digital journey in the FintechOS Portal:

	We ask for this information	Eligibility Questions	ier you for a mortgage	-/
DEPOSIT SOURCE		Select		•
RETIREMENT DATE				
RETIRED		Yes  No		

#### 5. Configure Product Formula Engine

The **Product Formula Engine** tab keeps formulas built with Formula Engine for the banking product. Such formulas can be used to determine the eligibility of a customer.

1 Main Info	2 Details	3 Availability	(4) Dimensions	5 Product Formula Engine	6 Document	The an Core Settings	8 History	Origination Elements	10 GL Settings
Banking Produc	ct Formulas		+ Insert X Del	ete	Test Sc	enarios	+	Insert X Delete	(port Ø Refresh
Name		Formula Type		Formula		Name		Test Formula Type	
CA		Commission	Formula	Q commissionByAmount		Q Duplicate-19:04:2022_11:07:57		Q. CommissionFormula	

### **Banking Product Formulas**

In the **Banking Product Formulas** section, choose an already defined formula or click **Insert** to configure a new one, for example a formula for eligibility or scoring purposes. For information on how to build a formula, see Define Formula Inputs.

 In the Add Banking Product Formula page, fill in the following fields:

Edit Banking Product Formula			Save and close ♥ Save and close	and reload
Main Information				
Name	Banking Product	Formula Type	Formula	
CA	Duplicate	V 🖉 CommissionFormula	↓ ✓ commissionByAmount	+ /
Data Mapping BPFormulaType_Test Formula_16472	57821582_formula	* *		
				Map Data

- Name: Enter an appropriate name.
- Formula Type: Select the type of formula configured before, e.g. scoring /eligibility.
- Formula: Select the previously configured formula.

**IMPORTANT!** The formula must be activated before attaching it to a product.

• Data Mapping: Select the previously configured data mapping.

The name of the banking product is inserted automatically in **Banking Product**.

- 2. After selecting the desired formula, click **Save and reload**, then click **Map Data**.
- 3. In the **Formula Mapping** page, click **Input** and configure the input data for the formula.
- 4. Click **Output** and configure the output for the formula.



#### 5. Click the Save and Close button.

Such formulas can be used in digital journey steps, for example when the customer inserts their financial data.

EDIT RETAIL APPLICANT DATA			
	Income & Outgoing	s	
We	use your expected income and outgoings to work out he lend and to ensure that any mortgage we may offer		
	Noted and to ansure that any morigage we may one :		
WHAT IS YOUR ANNUAL SALARY BEFORE TAX?	ARE YOU MARRIED?	EDUCATION LEVEL:	
€	[none]	[none]	
PAYING MONTHLY FOR OTHER LOANS.	NUMBER OF CHILDREN	EMPLOYMENT STATUS:	
€	<b>o o</b>	[none]	
TOTAL CREDIT CARDS LIMITS	CHILDCARE AND EDUCATION COSTS	EMPLOYMENT MONTHS:	
€	€		
	HOW MANY FINANCIAL DEPENDANTS:	YOUR RESIDENCE IS	
OTHER SPENDINGS:			

### Test Scenarios

)		Save and close
t Test Scenario		
Main Information		
Fest Formula Type	CommissionFormula	Ψ.
Key	Valce	
Q	٩.	
Amount		23.45
		Save Output Data Celout
est Scenario Outputs		
		+ Insert X Delete Export Ø Refresh
Name		

A good practice is to test the formula before displaying it in a digital journey. You can do that in the **Test Scenarios** section:

- 1. Click the Insert button to open the Add Test Scenario page.
- 2. Insert a **Test Scenario Type** from the option set. The keys and the values are shown.
- 3. Click the Save and Reload button.
- 4. Click the **Calculate** button. The outputs are displayed in the **Test Scenario Outputs** section.
- 5. You can save these outputs by selecting the **Save Output Data** checkbox next to **Calculate**.

### 6. Add Documents

You can manage all the attached documents available for a product and all the agreements that a customer needs to go through in the **Documents** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	8 Product Formula Engine	e (6	Documents	7 Lean Core Settings	8 History	9 Origination Elements	10 GL Settings
Banking Prod	uct Documents					Banking Produ	ict Agreements			
		-	+ Insert X Dele	te Export Ø	Refresh			+ 1	nsert 🗙 Delete 🗎 Ex	port Ø Refresh
C Report		Banking Copies No	0	Operation Code		Code				
٩		٩		٩		٩				
Statu	s overview of the queue	15	2	TC						
								No data		

### **Banking Product Documents**

Any previously associated documents are displayed in the **Banking Product Documents** section.

 To attach a new document to the banking product, in the Banking Product Documents section, click Insert. The Add Banking Product Document page is displayed.

I Banking Product Document				
Banking Product Document				
Operation Code	Banking Copies No	Report	Document Type	
PASS		2	↓ ✓ Passport	•
is Mandatory	Includes Debtor	Includes Coborrower	Requires Signature	
Yes No	🔿 Yes 💿 No	Ves 💿 No	🗌 Yes 💿 No	

- 2. Set the following fields:
  - **Operation Code:** Enter a code for the document.
  - Banking Copies: Insert the number of copies made.
  - **Report:** Select a document from the list.
  - **Document Type:** Select a document type from the list.
  - Is Mandatory: Select if the document is mandatory.
  - Includes Debtor: Select if the document includes the debtor.
  - Includes Coborrower: Select if the document includes the co-borrower.
  - **Requires Signature:** Select if the document requires to be signed.
  - Is accord: Select if the document represents the accord.
- 3. Click the Save and Reload button.

#### Banking Products Agreements

The agreements that a customer needs to go through are displayed in the **Banking Products Agreements** section.

 To attach a new agreement to the banking product, in the Banking Products Agreements section, click Insert. The Add Banking Products Agreements page is displayed.

Edit Banking Product Agreement					Save and close
Main Information					
Agreement	Code		Banking Product		Is Mandatory
Popescu Broker	AGR	1	SLICE Loan	41	

- 2. Fill in the following fields:
  - Agreements: Select an agreement from the list.
  - Banking Product: It is automatically filled in.
  - **Code:** Insert the corresponding code.
  - Is Mandatory: Select if the agreement is mandatory for the product.
- 3. Click the Save and Reload button.

For more information on how to configure a contract or an agreement, see the Digital Document Processor.

### 7. Configure Lean Core Settings

#### NOTE

The Lean Core Settings tab is available only when Banking Product Factory is implemented along with Core Banking.

Transactions types that are performed to and from a banking product are displayed in the **Lean Core Settings** tab. The tab also holds information about the reconciliation account associated with the products, mandatory roles for contract approval, payment allocation settings, the treatment of returned goods for contracts based on this banking product (only for Term Loans and Mortgage banking products), and closing contract settings.

#### **BANKING PRODUCT FACTORY USER GUIDE**

1 Main Info 2 Details 3 Availability	Dimensions     S Product Formula Engine	Cocuments     Core Settings     B History     Dirigination Elements     B CL Settings
Self Bank Account Associated With The Product		Payment Allocation Settings
Reconciliation Account Negative bala Reconciliation EUR V NoMessag		Repayment Allocation Method     Grace Days for Repayment     Penalty for grace period       CostOrder          ✓ ✓
Mandatory Roles for Contract Approval	+ Insert X Delete Export Ø Refres	Allowed Transactions  h
Role     Q	Search Limit (All)	Name           Q
Beneficiary		Top Up Account Transfer between my bank accounts
Closing Contract Settings		Withdraw
Buffer Close Days Close Real Tir	ne Closing Is Flexible	
Contract Is Closed Automatically		

# Reconciliation Account Associated With The Product

 In the Self Bank Account Associated with the Product, for each banking product, you must select a reconciliation account, which is the bank account to be used for transactions, for money movements.

Reconciliation Account		Negative balance treatment
Reconciliation EUR	¥	NoMessage •
NOTE		
-	ount m	nust have the same currency as the
This acco		nust have the same currency as the use the conversions are performed from

2. Select a value for the **Negative Value Treatment** drop-down to specify how Core Banking treats situations when the funds of the reconciliation account associated with the banking product used in the contract would go below zero if a

disbursement event would be approved. The possible values are:

- Error there is an error message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can't be approved and the balance can't go below zero. Select this value if you want to block any transactions that would result in a negative balance of the reconciliation account associated to the banking product.
- Warning there is a warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.
- NoMessage there is no error or warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.

#### NOTE

Core Banking also has a system parameter, ReconciliationAccountTreatment. That is a system-wide setting, applicable to events for contracts based on all banking products without a specified Negative balance treatment value. Core Banking takes into consideration the settings used at the banking product level (the Negative balance treatment field's value). Thus, if the value is specified at the banking product level, then that value takes precedence over the system parameter's setting.

If you associate the same reconciliation account to more than one banking product, then the setting selected in banking product A is applied for contract events based on banking product A, while for the banking product B, Core Banking would apply the setting selected at the level of banking product B.

#### Payment Allocation Settings

In the **Payment Allocation Settings** section you can decide which allocation method should be used to determine the order in which credit items are prioritized when repaying loans, credit accounts, and so on. You can also define the grace period settings.

Payment Allocation Settings										
Repayment Allocation Method	↓ /	Grace Days for Repayment	5	Penalty for grace period						
Direct Debit Settlement Accoun	t									

- 1. Fill in the following fields:
  - Payment Allocation Method: The payment allocation method represents the recovery order of amounts from payment notifications. Select a payment allocation method from the list.
  - Grace Days for Repayment: Insert the number of days for which the bank expects a payment without calculating penalty.

- Penalty for grace period: If you select the checkbox, the penalty interest is applied on the loan contract without taking into consideration the grace period defined at contract level, being calculated for the difference between system date due date, if the grace period passed and the customer didn't pay the due amounts. If you leave this checkbox unselected, the penalty interest is applied on the loan contract taking into consideration the grace period defined at contract level, being calculated for system date due date + grace days for repayment.
- Direct Debit Settlement Account: If you select the checkbox, the banking product has the automated settlement of repayment notification functionality (the payment allocation) turned on by default at the contract level. You can turn the automated settlement off either at the banking product level or at the contract level in Core Banking. Default value: true.

**NOTE** The automated settlement of repayment notification, or direct debit settlement account, is the functionality whereby, if funds are available on the settlement account and the contract has repayment notifications pending for recovery, Core Banking automatically uses the available balance up to full settlement of repayment notifications. In Core Banking, the automated settlement of Installment type repayment notification functionality (the payment allocation) can be turned on or off, thus allowing the financial institution to manage the contracts in case of blocked accounts and control the allocation of funds to outstanding notifications in case of need to impose a block on the settlement account, or manage the settlement of multiple loans from the same settlement account when short on funds and exceptional rules might apply.

If the functionality is turned off, the contract is pending for manual allocation. You can turn it back on and leave Core Banking to allocate the funds according to its automated processes, using any funds that become available in the settlement account in order to cover pending notifications.

2. Click the Save and Reload button.

#### Mandatory Roles for Contract Approval

In the **Mandatory Roles** section you can add the roles of the participants that are mandatory to exist at the contract level for contracts based on this banking product. In other words, when creating contracts based on banking products with Merchant role in this section, you must add a customer with the same Merchant role as contract participant, otherwise, the contract cannot be approved. When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role, in this case Merchant Exposure.

Mandatory Roles for Contract Approval

	+ Insert X Delete Export Ø Refresh
Role	Search Limit
٩	(All)
Beneficiary	

1. In the **Mandatory Roles** section, click **Insert** and fill in the following fields:

e			Save and close	G Save and reload	B Save and new
Add Mandatory Role					
Main Information					
Banking Product	Role		Search Limit		
Duplicate	4 Merchant	• •			

- **Banking Product:** The banking product for which you define mandatory roles. This is automatically completed with the current banking product.
- **Role:** Select the role of the participants that are mandatory to exist at the contract level for contracts based on this banking product.
- Search Limit: When Search Limit is selected for a role on a banking product, Core Banking checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role. If you select a role not associated with a customer limit type in Core Banking, the Search Limit field becomes read-only and unselected.
- 2. Click the Save and Reload button.



In the **Return Of Goods,** you can define whether a contract based on the banking product can have Returned Amount or Goods transactions or not, and the specific conditions for these transactions. The Returned Amount or Goods transaction type can be used when a customer returns all or part of a loan or mortgage in a short while after contract creation, if the banking product was defined to allow such transactions. You can set up Return Fee type commissions, to return all or some of the claimed commission to the borrower.

Return Of Goods								
Allow Return Of Goods	Accepted Days For Return	Return Message						
	15		Warning	•				

- 1. Fill in the following fields:
  - Allow Return Of Goods: Select this checkbox if the contracts based on this banking product accept Return of Goods transactions. Default value: False. If selected, the Accepted Days For Return and Return Message fields are displayed, otherwise, these fields are not visible.
  - Accepted Days For Return: Specify the number of days after contract creation during which the return of goods transaction can be created and approved.
  - Return Message: Select the behavior of messages generated by Core Banking for situations when the Returned Amount or Goods transaction's approval date + the number of accepted days for return >= the current date. Possible values are taken from the Warning Error Treatment option set. According to the desired behavior, choose:

- Error, if the transaction should not be approved and an error message should be displayed;
- Warning, if the transaction can be approved, but a warning message should be displayed;
- NoMessage, if the transaction can be approved without any messages.
- 2. Click the Save and Reload button.

**NOTE** If Allow Return Of Goods = True, then the Returned Amount of Goods transaction is automatically added to the **Transaction Types** section.

#### **Closing Contract Settings**

In the **Closing Contract Settings** section, you can configure the default closure settings for contracts based on this banking product.

Closing Contract Settings							
Buffer Close Days	Close Real Time	Closing Is Flexible					
Contract Is Closed Automatically							

- 1. Fill in the following fields:
  - Buffer Close Days: Enter the number of days used as buffer before automatically closing the contract when the contract reaches maturity and its balance reaches zero. If Buffer Close Days > 0, then Contract Is Closed Automatically = False.

- Close Real Time: If you select this checkbox, the contract based on this banking product is closed in real-time, when the contract reaches maturity and its balance reaches zero, without waiting for the end of day processes. If Close Real Time = True, then Buffer Close Days = 0 and Contract Is Closed Automatically = True.
- **Closing Is Flexible:** If you select this checkbox, the closure details of the contract based on this banking product can be modified at the contract creation.
- Contract Is Closed Automatically: If you select this checkbox, the contract based on this banking product is closed automatically at maturity, if the balance reaches zero. If Contract Is Closed Automatically = False, then Close Real Time = False.
- 2. Click the Save and Close button.

#### Allowed Transactions

In the **Allowed Transactions** section, you can associate possible transaction types with the selected banking product:

- 1. Click **Insert existing** and select the desired transaction types to be associated.
- 2. Double-click a selected transaction type to edit it.

Settings											
Name	Transacti	in Code	Process Type		Edit Form		Transaction Oper	ation Type		m Transaction	
Disbursement	DSB		Disbursement	+	FTOS_CB_EventDisbu	rsement 4	Disbursement		•		
s Automatic Transaction	Real Time Process	Only One Draft	Gene Versi	rrate New Contract Ion	Commission Type			Return Commi	ission Type		
coounting Configuratio		Entity			Purge Configurations		umber of Days	Master Purge	Entity		
enerates Accounting Entry	OL Maste	Entity 28_ContractEvent		۰ .			umber of Days 30	•	Entity ContractEvent		٥
enerates Accounting Entry	OL Maste			© •	To Be Purged	Purge N	30	•			٥
enerates Accounting Entry	OL Maste		× Delete	Export Ø Refresh	To Be Purged	Purge N	30	•	ContractEvent	Export	© Ref
nerates Accounting Entry	OL Maste	B_ContractEvent + Insert	X Delete		To Be Purged	Purge N	30	FTOS_CB_C	t X Delete	Derstionst	Ø Ref
ccounting Configuratic	OL Maste	B_ContractEvent + Insert		Export Ø Refresh	To Be Purged	Purge N	30 rations	FTOS_CB_C	t X Delete	ت ا	Ø Refe
	OL Maste	Value Type Name	Is Header	Export Ø Refresh Value Type Attribute	To Be Purged	Purge N	30 rations Accounting	FTOS_C6_C	t Delete Currency	Operational	Ø Refe

- 3. In the Edit Transaction Type > Settings section, fill in the following fields:
  - Name: Enter the name of the transaction type.
  - Transaction Code: Enter the code of the transaction type.
  - **Process Type:** This field associates the process type with the transaction operation type, which makes the connection with the transaction motor of bank accounts. Select one of the processes defined within the system.

**NOTE** There is no integration at this point with a payment gateway.

- Edit Form: Select the form used to edit this transaction type. You can choose only from the forms defined on the Contract Event entity.
- Transaction Operation Type: The transaction operation type makes the connection with the transaction motor of bank accounts. Select one of the transaction operation types defined within the system.

- Is System Transactions: If you select this checkbox the transaction is marked as being neither a credit of the account, nor an allocation of funds, but a transaction that does not influence other transactions within the account. System transactions are meant to be used only for accounting.
- Is Automatic Transaction: If you select this checkbox here, then you cannot select it within the contract operations. The Is Automatic Transaction checkbox marks the transaction as automatic.
- Real Time Process: This checkbox marks the transaction as to be processed in real-time. If selected, then the transaction is processed right away. If not selected, then the transaction is inserted as a bank account transaction queue record.
- Only One Draft: If you select this checkbox, there can be only one record of this transaction type in Draft status created at the contract level.
- Generate New Contract Version: This checkbox allows you to specify if a new contract version should be generated by this transaction type.
- **Commission Type:** Select the commission type applicable for this transaction type. Return fee commissions are filtered out and can't be selected.
- **Return Commission Type:** Select the return fee commission type applicable for this transaction type. Only return fee commissions can be selected.
- Is Clawback Transaction: If selected, this checkbox marks the transaction as generating a clawback commission. The transaction type is to be used in third-party management invoicing activities. Default value: False.
- 4. In the Edit Transaction Type > Accounting Configurations section, fill in the following fields:

- Generates Accounting Entry: Select this checkbox to create an entry in the Operational Ledger. It generates records in the Accounting Entry entity.
- **OL Master Entity:** Select the entity referenced by the accounting systems.
- 5. In the Edit Transaction Type > Purge Configurations section, fill in the following fields:
  - **To Be Purged:** This checkbox marks the transaction as purgeable. If you select it, you can purge or archive records in Draft status.
  - Purge Number of Days: Enter the default number of calendar days that a record can be kept in Draft status before it is purged. For additional information, see the Core Banking System Parameters page. This field is displayed only when To Be Purged = True.
  - Master Purge Entity: Select the master purge entity under which the draft records are. This field is displayed only when To Be Purged = True.
- 6. You can also edit the information in the Transaction Value Types, Transaction Item Accounting Configurations and Transaction Accounting Models sections. Read more details about Transaction Types in the Operational Ledger User Guide.
- 7. Click the Save and Close button.

#### 8. View History

You can find the versions of the banking product, their workflow status and the user who modified the product in the **History** tab.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula	a Engine 6	Documents	7 Lean 0	Core Settings	8 History	9 Ori	gination Elements	10 GL Settings
History												
											Ø	Refresh Export
Label		,	Name		attributeVersionDate			attributeVersion			Modified by user	
٩			٩		٩			٩			٩	
Draft		c	Duplicate		19/04/2022 10:29					1		

Here you can track the product's life cycle and review older versions that are no longer active (for details, see Banking Products' Life Cycle).

### 9. Manage Origination Elements

You can set the elements required in the origination journey, such as product benefits, display conditions, features, destination types, or associated products in the **Origination Elements** tab.

1 Main Info 2 Details 3 Availability 4	Dimensions 5 Product Formula Engine	6 Documents 7 Lean Core Settings	B History     B Origination Elements     10 GL Settings
ProductPIC.JPG X	cument roductPresentationDoc.pdf X Add flie or Drop file here		
Benefits		Display Conditions	
File - Edit - Insert - View - Format - Table - Tools -		File - Edit - Insert - View - Format -	Table - Tools -
☆  Formats - B I A - E E E E E E E · · · · · · · · · · · ·	E · E E & E & E	☆ Formats × B I A × E	프릴 플 프 · 프 · 프 프 · · 프 큰 · · 프
Quick Approval Low Interest Rates			
Product Features	Product Destination Types		Associated Products
+ Insert X Delete Export	Ø Refresh +	Insert existing X Remove existing	+ Insert existing × Remove existing
Feature DisplayName Sho	w Order () Display Name		Name
Q Q	٩		٩
NMNGTFEES No Management 1	Personal		Current Account USD

- 1. Fill in the following fields:
  - **Product Image:** Insert an image representative for the product.
  - Document: Insert the document representative for the product.
  - **Benefits:** Insert the advantages of owning the banking product. You can format the text in the text editor window.
  - **Display Conditions:** Insert the conditions for the applicant, e.g. age limit, annual turnover, education level, income, registration documents.
- 2. Click the Save and Reload button.

#### **Product Features**

In the **Product Features** section, you can insert, delete or export features.

- 1. To add a feature, Click the **Insert** button and fill in the following fields:
  - Feature: Enter the name of the product feature.
  - Is Main Feature: Select the checkbox if it is the major feature.
  - **Display Name:** Enter the display name of the feature.
- 2. Click the Save and Reload button.

#### Product Destination Types

In the **Product Destination Types** section , you can insert or remove the existing product destination types:

- Click Insert existing and select one of the existing destination types, or insert a new one.
- To create a new destination type, insert a name and specify if it is default. For this case, the following have been configured: Loan Collateral, Loan disbursements, Personal, Repayments.

#### Associated Products

In the **Associated Products** section you can insert or remove an existing products. It is especially useful when you wish to create a link between two products.

Associa	ted Products	
		+ Insert existing × Remove existing
	Name	
	٩	
	Current Account USE	)

To insert or remove a product from the list or create a new one:

- Click Insert existing and select one of the existing destination types, or insert a new one.
- 2. Click the Save and Reload button.

### 10. Configure Operational Ledger Settings

#### NOTE

The **OL Settings** tab is available only when Banking Product Factory is implemented along with **Operational Ledger Add-On**.

In the **Banking Product GL Accounts** section, you can set specific accounts to be used by the Operational Ledger system for transactions performed on contracts based on this banking product. Thus, you can overwrite the generic settings of the Operational Ledger, instructing it to use the accounts specified at banking product level.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula	a Engine 6	Documents 7	Lean Core Settings	8 History	9 Origination Elements	10 GL Settings
Banking Proc	luct GL Accounts									
								+ 1	nsert X Delete Exp	ort Ø Refresh
Produ	ict		Accounting System		Accounting Scope		Item		GL Account	
٩			٩		٩		٩		٩	
Dupl	icate		0001		FixDeposit		Loan Admin Fe	e	20110 Commercial loans	

 To add specific accounts to be used by Operational Ledger, click Insert and fill in the following fields in the displayed Add Banking Product GL Account page::

Ð								B Save and ck	ise 🔽 Save and reload 🗿 Save and no
dd Banking Produ	uct GL Account								
Main Information									
Product	A	ccounting System		Accounting Scope	ł	tem		GL Account	
Duplicate	• * ·	0001	4	FixDeposit	r	Loan Admin Fee	÷,	20110 Commercial Ioans	4

- **Product:** Select from the list the banking product. Automatically completed with the banking product you are currently editing.
- Accounting System: Select from the list the desired accounting system. The list contains the records created in the Accounting System entity.
- Accounting Scope: Select from the list the corresponding accounting scope. The list contains the records created in the Accounting Scope entity.
- Item: Select from the list the corresponding transaction item. The list contains the records created in the Transaction Item Accounting Config entity.
- **GL Account:** Select from the list the corresponding GL account. The list is filtered based on the previously selected accounting system. It contains the accounts defined in the Accounting Chart entity that were added to the chosen accounting system record.
- 2. Click the Save and Reload button.

# Configurations for Banking Product Factory

Before creating the banking products, you should define your bank agreements, product classifications, and the hierarchy of your banking products. You also need to define and manage schedule types, commissions, interest rates, insurances, questions, and your banking product filter.

The Banking Product Factory includes all the components you need for configuring these elements. The recommended order in which you should perform each configuration is shown in the diagram below:



See the following pages to find out more about the configurations available in **Banking Product Factory**.

Product Hierarchy	.400
Payment Schedule Types	405
Product Dimensions	
Managing Interests	
Interest Definition Best Practices	
Managing Commissions	
Commission Definition Best Practices	
Manage Insurances	
Discounts	
Questions	
Product Filter	
Adding Product Filters	
Agreements	

Adding Agreements	
Product Classification	
Adding Product Classifications	
Product Dictionaries	
Allocation Method	
Banking Product Type	
Collateral Type	
Commission Schema	
Commission Type	
Covenant	
Loan Periodicity	
Operation Item	
Product Destination Type	
Reconciliation Accounts	
Transaction Type	

# **Product Hierarchy**

If your financial institution wants to classify its banking products in a hierarchy, you can build the hierarchy using the **Banking Product Hierarchy** menu.

You can use the **Product Class** and **Product Subclass** to categorize your major banking products. Also, you may use the **Product Categories** and **Product Subcategories** to refine your classification.

Follow the steps below to add a new product **class** (for example, Retail, Corporate, etc), **subclass** (for example, authenticated, unauthenticated, teenagers/ students, etc), **category** (for example, saving, investing, etc) or **subcategory** (for example, savings account, term deposit, direct equity, etc).

There are two possible options for building the product hierarchy:

- expand the **Banking Product Hierarchy** menu and configure each of the elements enumerated above with its respective menu or
- start building the banking product and configure the hierarchy in the banking product's page > Main Info tab.

### Adding Product Classes

 In the main menu, click Product Factory > Banking Product Hierarchy > Product Class, and the Banking Product Classes list page opens.

¢		+ Insert	🕞 Delete	🗄 Export	Q Advanced find
Banking Pro	duct Classes list				
Class	Name				
٩					
Pers	nal				
Reta					

- 2. The **Banking Product Classes list** page shows all the existing classes configured so far. Click the **Insert** button to add a new class.
- 3. In the newly displayed **Add Class** page, enter a **Class Name:** choose an appropriate name for your banking hierarchy.

${igodot}$		Save and close	C. Save and reload	Save and new
	Class			
Add Class				
Main Information				
Class Name				
Corporate				

- 4. Click the Save and Reload button.
- 5. The following sections are displayed: Banking Product Subclasses, Banking Product Categories, Banking Product SubCategories, and Banking Products. Add the associated subclasses, categories, subcategories and products in each respective section.

#### **BANKING PRODUCT FACTORY USER GUIDE**

Banking Product SubClasses		Banking Product Categorie	•		
	+ Insert X Delete Export O Refresh			+ Insert	X Delete
Class	SubClass Name	Class	SubClass	Code	Category Name Banking Product
٩	Q	٩	٩	٩	Q. Q.
Corporate	Bank Account	Corporate	Bank Account	CoCCA	Current Account
Corporate	Loan Term	Corporate	Bank Account	CoD	Deposit
Corporate	Overdraft	Corporate	Loan Term	CoLTS	Loan Term Sec
		Corporate	Loan Term	CoLTU	Loan Term Un
		Corporate	Overdraft	CoODNR	Overdraft Non
		Corporate	Overdraft	CoODR	Overdraft Rev
Banking Product SubCategories	+ Insert X Delete Export C Refresh	Banking Products		+ Insert	X Delete
Category SubClass	Class SubCategory	Name	Ba	anking Product Code	Status
٩	Q Q	٩		۹	٩
Deposit Bank Account	Corporate Fix Deposit Collateral	Corporate Loan for I	IT compani 12	23456	Approved

6. Click the Save and Close button.

# Adding Product Subclasses

1. In the main menu, click Product Factory > Banking Product Hierarchy >

Product Subclass, and the Banking Product Subclasses list page opens.

€		+ Insert	🖨 Delete	& Export	Q. Advanced find
Banking Product SubClasses list					
Class	SubClass Name				
٩	<b>Q</b>				
Corporate	Bank Account				
Retail	Bank Account RON				
Personal	Cards				

- 2. The **Banking Product Subclasses List** page shows all the existing subclasses configured so far. Click the **Insert** button to add a new subclass.
- On the Add SubClass page, choose from the option set one of the subclasses pre-existing, or insert a new subclass.
- 4. Enter a Subclass Name.

igodot			Save and close	Save and reload	Save and new
Add SubClass					
Main Information					
Class		SubClass Name			
Business	÷	Current Accounts			

5. Click the Save and Reload button.

Two new sections are displayed: Banking Product Categories and Banking
 Product Subcategories. Add the associated category and subcategory in each

respective section.

Main Infe	ormation								
Class				SubClass Name					
Busine	55			Current Accou	nts				
Banking	Product Categories					Banking Product SubCategories			
			+ Insert	X Delete	ort Ø Refresh			+ Insert	Delete
	Class	SubClass	Code	Category Name	Banking Product	Category	SubClass	Class	SubCategory
	٩	٩	٩	٩	٩	٩	٩	٩	٩
	Business	Current Accou	CA	Current Account	Current Account				
	Business	Current Accou	CAO	Overdraft	Current Accou			No data	

7. Click the Save and Close button.

## Adding Product Categories

1. In the main menu, click Product Factory > Banking Product Hierarchy >

Product Category, and the Banking Product Categories list page opens.

€			+ In	Sert O Delete & Export O Advanced find
Banking Product Categories li	ist			
Class	SubClass	Code	Category Name	Banking Product Type
٩	٩	٩	٩	٩
Personal	Embedded Finance	BNPL	BNPL	BNPL
Business	Embedded Finance	BNPL	BNPL	BNPL
Personal	Cards	cc	Credit Card	Credit Card
Business	Current Accounts	CA	Current Account	Current Account

- 2. The **Banking Product Categories list** page shows all the existing categories configured so far. Click the **Insert** button to add a new category.
- 3. On the **Add Banking Product Category** page, choose from the option set one of the pre-existing classes and subclasses or insert a new class and subclass.
- 4. Enter a **Code** for the category.
- 5. Add the Category Name.
- 6. Click the Save and Reload button.

7. The **Banking Product Subcategories** section is displayed. Insert an associated

subcategory in this section.

Banking Product SubCategories			
			+ Insert X Delete Export Ø Refresh
Category	SubClass	Class	SubCategory
٩	٩	٩	٩
Deposit	Bank Account	Corporate	Fix Deposit Collateral
Deposit	Bank Account	Corporate	Term Deposit

8. Click the Save and Close button.

### Adding Product Subcategories

1. In the main menu, click Product Factory > Banking Product Hierarchy >

Product Subcategory, and the Banking Product SubCategories list page opens.

€ Bankin	g Product SubCategories list		+ test	ert 😌 Delete 🔮 Export 🔍 Q. Advanced find
	Category	SubClass	Class	SubCategory
	٩	٩	٩	٩
	Current Account RON	Bank Account RON	Retail	Current Account RON
	Deposit	Bank Account	Corporate	Fix Deposit Collateral
	Loan Term Secured	Loan Term	Corporate	Ioan for IT companies

- The Banking Product Subcategories List page shows all the existing subcategories configured so far. Click the Insert button to add a new subcategory.
- On the Add Banking Product Subcategory page, choose from the option set one for the classes, subclasses and category pre-existing or insert a new class, subclass and category.
- 4. Enter a SubCategory name.

¢	1					🔁 Save	and close	13 Save and reload	Save and new
Ado	Banking Product Subcategory								
	Main Information								
	Class SubClass		SubClass	Category		SubCategory			
	Corporate	+	Bank Account	• ·	Deposit	÷	Fix Deposit	Collateral	

5. Click the Save and Close button.

# Payment Schedule Types

A payment schedule represents the complete table of periodic loan payments, showing the amount of principal and interest that comprise each level payment until the loan is paid off at the end of its term.

The payment schedules are a quintessential part of a loan. You can create them using the **Banking Schedule Types.** Below you can see how to configure the installments, dates and calculations.

### Payment Schedule Statuses

In Banking Product Factory, payment schedules come with a business workflow attached in order to block changes to schedule types that are actively used on banking products. Read more about Business Workflows. The following statuses are available:

- Draft first, default, every field is editable;
- Active manually selected, fields are no longer editable. The Duplicate button is visible. By pressing this button the current schedule type gets duplicated in a draft new schedule type that can be further edited. Only active schedule types can be added to a banking product;
- Draft not manually selected. It is available when a New Version button is visible;
- Closed manually selected.

When transitioning a schedule type from Draft to Active, the following server-side validations are being performed:

- The Interest column needs to be calculated after the calculation of the RemainingValue column. Please change the order in the grid.
- The column {0-ex.TotalInstallment} with formula {1ex.Principal+Interest} has column {2-ex.Principal} calculated after formula. Change the order in the grid.

A set of out-of-the-box schedule type templates are available with the Active status in Innovation Studio. The templates contain only the mandatory fields, no commissions or interests are defined.

### Adding Schedule Element Class

1. In the main menu, click Product Factory > Schedule Element Class, and the

Schedule Element Classes list page opens.

¢		+ Insert	Delete	盘 Export	Q Advanced find
Schedu	le Element Classes list				
	name				
	٩				
	Credit Insurance				
	Home Insurance				
	Life insurance				
	Other Insurance				

- 2. Click the **Insert** button to add a new class.
- In the newly opened Add Scheduled Element Class, select an Element Type: Insurance or Commission.
- 4. Add a name for the element class.
- 5. Select an Operation Item.

Aain Information										
Element Type	name	Operation Item	Mandatory for Applicant							
Insurance	- Life Insurance	Life Insurance	↓ 🗹							
Martine for Balance										
Mandatory for Debtor										

6. Click the Save and close button. Repeat as many times as needed.

### Adding Payment Schedule Types

In Innovation Studio, payment schedule types come with a business workflow attached in order to block changes to schedule types that are actively used on banking products. Read more about Business Workflows.

Follow the steps below to create a new payment schedule type:

- In the main menu, click Product Factory > Payment Schedule Types, and the Payment Schedule Types List page opens, showing all the already created schedule types.
- <sup>2</sup> Click the **Insert** button to add a new type.
- 3. In the newly opened **Add Payment Schedule Type** page, fill in the following fields:

ain Information									
ryment schedule code	Name	Banking Product Type		Interest Calculation	n Type	Measuremen	t Unit		
EPW	Equal principal Weekly	Term Loan	÷	52 weeks		Weeks			
With Equal Installments	Installment Value Custom	Use Fix Maturity Date							
ayment Schedule Type Details									Ø Refr
Column Repayment Schedule	Title	Calculation Method	Fee		Insurance class		Source	Display	Ø Refr
	Title Q.	Calculation Method	Fee Q		Insurance class		Source		Ø Refr
Column Repayment Schedule								Display	
Column Repayment Schedule	٩	٩						Display (All)	
Column Repayment Schedule	Q. RemainingValue	Q. RemainingFormula						(All)	Ø Ref

- Name: Insert a suggestive name for the type.
- **Payment schedule code:** Insert a code for the type to keep track of them.
- Banking Product Type: Select a product type to associate with the payment schedule type. Depending on the Product Type, different calculation rules are triggered. For example, the product type Overdraft has only the payment at maturity.
- Interest Calculation Type: Select from the list a type of calculation for the interest.

When an annual interest rate is specified, in order to calculate the Installment for an interval of days, first the annual interest rate should be transformed into a daily base. To make this transformation, there are some accepted conventions. Innovation Studio implemented the following conventions: 30/360, 30/365, Actual/ Actual, where Actual for years can be either 365 or 366. Other schedule interest calculation types can also be defined, as needed. In practice may be also encountered the Actual/ 360 or Actual/ 365. Here are some of the implemented schedule interest calculation types:

- Equal Installment Monthly 30/360 this generates a payment schedule of equal installments where every period is a month of 30 days, and every year has 360 days;
- Equal Installment Monthly 30/365 this generates a payment schedule of equal installments where every period is a month of 30 days, and every year has 365 days;
- Equal Installment Monthly 30/366 (30/Actual) this generates a payment schedule of equal installments where every period is a month of 30 days, and every year has 366 days;
- Equal Installment Monthly Actual/365 this generates a payment schedule of equal installments where every period is a month with actual days (28,29, 30, or 31 days), and every year has 365 days;
- Equal Installment Monthly Actual/366 (Actual/Actual) this generates a payment schedule of equal installments where every period is a month with actual days (28,29, 30, or 31 days), and every year has 366 days;
- Equal Principal Monthly 30/360 this generates a payment schedule of equal principal where every period is a month of 30 days, and every year has 360 days;
- Equal Principal Monthly 30/365 this generates a payment schedule of equal principal where every period is a month of 30 days, and every year has 365 days;

- Equal Principal Monthly 30/366 (30/Actual) this generates a payment schedule of equal principal where every period is a month of 30 days, and every year has 366 days;
- Equal Principal Monthly Actual/365 this generates a payment schedule of equal principal where every period is a month with actual days (28,29, 30, or 31 days), and every year has 365 days;
- Equal Principal Monthly Actual/366 (Actual/Actual) this generates a payment schedule of equal principal where every period is a month with actual days (28,29, 30, or 31 days), and every year has 366 days.

The payment schedule projection takes into consideration both the payment schedule type defined at the banking product level, and whether to collect the interest accrued on the contract until the date of an early repayment event, thus repaying the accrued interest, or not, thus adding the accrued interest to the repayment amount. Set the Collect accrued interest field in the **Event** page at the contract level to False to add the accrued interest to the repayment amount.

- **Measurement Unit:** Select from the list the type of measurement unit applicable for the payment schedule type: Days, Weeks, Months, Years, Once. The default value: Months.
- Is With Equal Installments: Select the checkbox if the installments are equal, so the annuity (also known as PMT) value calculation is needed, and the Principal is calculated with formula Annuity minus Interest. If there are Commissions that

appear on the Payment Schedule, these Commissions are not included in annuity calculation.

Installment Value Custom: If you select the checkbox, with multiple disbursements, the Principal component of the installments is the one calculated for the entire Financed Amount, even if it was not entirely disbursed.
 For example, if Financed Amount is 10.000 EURO and the value calculated for Principal component of the Installments is 800 EURO, and the customer disburses only 5.000 EURO, the Principal component remains 800, but the Interest is calculated for 5.000 EURO that were disbursed.
 If Installment Value Custom = False, then the Is

Manual Value and Royalty/ Initial Principal Value fields at the contract level are read only. If Installment Value Custom = True, then the Is Manual Value field at the contract level is editable, with False default value.

• Use Fix Maturity Date (from Activation Date): If you select the checkbox, then the Maturity Date equals to Activation Date plus the Contractual Period in Months, i.e. the number of installments depends on the Activation Date.

If the checkbox remains unselected, the number of installments are fixed, the Maturity Date is equal to the First Installment plus the Contractual Period in Months, e.g. Installment date is on the first day of the month, this results in the Maturity day to be the first day of the month.

#### NOTE

This is only valid for Period Type = Months.

- 4. Click the **Save and reload** button.
- 5. In the newly displayed **Payment Schedule Type Details** section, fill in the fields below. Note that the fields change according to the selection of **Column Type** and **Calculation Method**.

le	Column Type			Column Repayment Schedule		Calculation Method	
Principal	Payment Schedule Dimen	sion	1	Principal	-	Liniar	

- Title: Insert a suitable title for the detail.
- Column type: Select one of the following types: Payment
   Schedule Dimension, Fee Dimension or Insurance Dimension.
   Note that the selected type triggers changes in the displayed fields.
- **Column Repayment Schedule:** Select one of the columns that is assigned in the Payment Schedule.
- **Calculation Method:** Select a method. It triggers changes in the fields. There are the predefined values that are taken into consideration when calculating the Interest:
  - Linear: calculated as Amount / Number of Installments.
  - Effective Rate: percent applied to the Source field (see below), usually to the Remaining Value.
  - Fixed Value: a constant value that is completed in the Payment Schedule.
  - Column Formula: formulas having other columns as parameters. Formula used is specified in the field Formula that is displayed when this option is set.
  - Remaining Formula: specific to a column of Remaining.
  - Once: the value is paid once.
  - Once: the value is paid once.

- LinearOnYear: a value calculated based on the Remaining Value at the beginning of the credit year and a given percentage, divided in installments with the specified periodicity.
- FeeOnce: takes into account a fee that is paid once.
- ProductLevelFixedValue: method that calculates the capital percent defined for cards and credit cards type of products.
- **Operation Item:** It is the item allocated to a column in the Payment Schedule on which the amount calculated at this step is allocated. Select an item from the list.
- Fee: Select a fee configured in the Product Dimensions.
- Fee Type: Select a fee type configured in the Product Dimensions. This is helpful when, for different banking products, there are different values applicable for the same type of fee.
- **Source:** It is the source element from the JSON file returned by the Payment Schedule calculation from where to take the value.
- Insurance type: Select an insurance type.
- Is Calculated In Advance?: Select the checkbox if the calculation is done in advance.
- Is calculated Upfront: Option available for Insurance Dimension and Fee Dimension. Select the checkbox for insurance or commissions that need to be paid at the activation of the lending contract.

This is only valid for products with Period Type = Months.

• Totalization For Grace Period: This checkbox is available when the Calculation method is set to Effective Rate or Fixed Value. If you select it, then the values that are not applied during Grace period are added to the first non-grace installment.

- Adjust Last Installment: This checkbox should be checked most of the time, as rounding loses of precision can exist, and the sum of Principal paid monthly should be the same as the Financed Amount.
- **Operation Item:** Select the operation item from the list for which this schedule type details should apply.
- Formula: This checkbox is available when the Calculation method is set to Column Formula or Remaining Formula or Once or LiniarOnYear. The formula can use other Schedule Details Names. For example, for a total installment calculated as Principal+Interest+ManagementFee that were added to Payment Schedule Type Details earlier.
- 6. If you selected **Fee Dimension**, then fill in the following fields: **Fee**, **Fee Type** or **Source**.
- 7. If you selected **Insurance Dimension**, then fill in the following fields: **Insurance class** or **Source**.
- 8 Click the **Save and close** button. Repeat to add more details.

#### NOTE

The first installment can be adjusted in situations when the algorithm forces an equal installment, by adjusting the Principal paid in the first interval.

For a Payment Schedule with equal installments, the first installment interest is calculated for the number of days between Activation Date and First Installment Date.

Normally, for this first installment, the number of days can be lower or higher than the normal interval, so the Interest calculated makes the first installment to be different than the others.

The following picture illustrates the payment schedule type and the details defined for Credit Card Installments calculation:

#### **BANKING PRODUCT FACTORY USER GUIDE**

ent schedule code	Name	Banking Product Type		Interest Calculat	ion Type	Measurer	ment Unit							
	Credit Card Installments			30/360		Month	\$							
n Equal Installments	Installment Value Custom	Use Fix Maturity Date												
ent Schedule Type D	etails							ſ	Export Ø Refresh					
Column Repayment St		Calculation Method	Fee		Insurance class		Source	<u> </u>	Display					
٩	٩	٩	٩		٩		٩		(All) *					
Capita/Percent	CapitalPercent	ProductLevelFixed												
ManagementFee	MgtFee	FixedValue	Manage	ment Fee Fi			SourceValue		Ø					
RemainingValue	RemainingValue	RemainingFormula							۷					
Interest	Dobanda	Effective Rate							8					
Principal	Principal	ColumnFormula							2					
Totalinstaliment	Totalinstaliment	ColumnFormula												
Schedule Ter	nplate Detail													
Main Info	rmation													
Title			Colur	nn Type					Column Repayment S	chedule			Calculation Method	
Principal			Pa	yment Schedu	ule Dimension			1	Principal				ColumnFormula	
			Adjus	it Last Installin	ient				Operation Item		F	ormula		

### Adding Payment Schedule Type Column

To configure the calculation steps, use the **Payment Schedule Type Column** menu. The order of the steps is determined by the **Calculation column**.

- In the main menu, click Product Factory > Payment Schedule Type Columns, and the Schedule Type Column List page opens, showing all the already created schedule type columns.
- 2. Click the **Insert** button to add a new column type.
- In the newly opened Add Schedule Type Column page, select a Column Type from the list: Payment Schedule Dimension, Fee Dimension or Insurance Dimension.

Edit Schedule Type Column									
Main Information									
Column Type	Name								
Payment Schedule Dimension	<ul> <li>InterestCapitalized</li> </ul>								
Payment Schedule Types	Payment Schedule Types								
			+ Insert X Delete Export Ø Refresh						
Name	Payment schedule code	Calculation Method	Column Type						
٩	٩	٩	(q						
deposit	deposit	Effective Rate	Payment Schedule Dimension						
Deposit Actual	DA	Effective Rate	Payment Schedule Dimension						

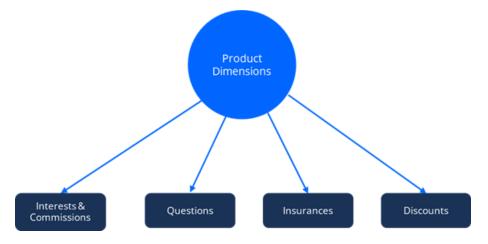
- 4. Enter a **Name** for the column.
- 5. Click the Save and reload button.
- 6. The Payment Schedule Types section is displayed after saving, showing all the payment schedule types using this column, with the following information:
  - Name: The name of the Payment Schedule element.
  - **Column Type:** The column type: Payment Schedule Dimension, Fee Dimension or Insurance Dimension.
  - Payment Schedule Code: The code of the payment schedule.
  - Calculation: The calculation method.
  - **Operation Item:** Select an operation item for this schedule type.

## **Product Dimensions**

Since inflation affects the interest, it is mandatory to keep track of the changes, to register any new values for the rates and apply them to customers. Commissions are equally important, they represent the fees the bank has for offering a product or service. Fees keep the business going, being a steady flow of money to the bank's revenue. To stay competitive, financial institutions apply discounts to the two mentioned above. For contracting a loan, for example, a customer takes on an

insurance. This insurance is part of the product dimensions. Lastly, to determine important details about a customer when they are applying for a product, it is important to have questions for the "Know Your Customer" process to determine their eligibility.

The **Product Dimensions** group together the notions of interest and commissions and helps you manage the variety of interest rates and the multitude of commissions used for your banking products: commissions and commissions list, interest and interest list, insurance and insurance list, discounts and questions.



#### NOTE

There are two possible options for building the product dimensions:

- Expand the Banking Product Dimensions menu and configure each of the items enumerated above with its respective menu in the Innovation Studio.
- Another option is to start building the banking product and configure the dimensions in the banking product's page > Dimensions tab.

### Managing Interests

Interests are set up independently from the banking products. They are available in banking products in the form of interest lists, after they have been grouped together based on their use.

#### Interests

You can create and update interests and apply them to a product in the **Interests** menu available through the **Product Factory.** There are three main types of interests: fixed, base and variable. Banks can set up variable interests for loans and also calculate the amount each customer has to pay.

The following picture illustrates how the interests can be shown in a loan origination digital journey:

	KEXT STATUS:     CHOOSE STATUS Parlod		240		240	
			Total borrowed	amount € 190400		
	OPTIONAL DISCOUNTS			Interest Percent	8.00%	
Real Providence	Insurance	1%	No	DAE	8.8%	
	Income Receiving	1%	No	First Installment	1670.61	/
	INTEREST TYPE			First Insurance	0	
	Fixed		ā	Total Insurance	0	
	PAYMENTS			First Fee Total Fee	78.03	
	Loan Equal Installments			Total	384663	
		(r		Schedule	Start application	
		10				

To manage interests, follow the steps below:

 In the main menu, click Product Factory > Banking Product Dimensions > Interests, and the Interest list page opens.

${igodot}$			+ Insert 🕲 Delete 🖄 Export Q Advanced find
Interest list			
Code	Name	Interest Type	Base Interest
٩	٩	Q	(a
BandedEUR_C2	BandedEUR_C2	Variable	IRCC 3M
BandedEUR_C3	BandedEUR_C3	Fixed	
BIB1M	BIBOR 1 Month	Base Type	
BIB12	BIBOR 1 YEAR	Base Type	
BIB2M	BIBOR 2 Month	Base Type	
5 10 20			1 2 3 4 5

2. On the **Interest List** page, you can add new interests or search, edit, and delete existing ones.

 • Edit Interest **Main Information** Code Name BIB1M BIBOR 1 Month **Interest Type Settings** Interest Type Reference Interest Period Base Type 1M ↓ / **Interest Value** X Delete Export C Refresh + Insert Value Status Valid From Valid To Q Q Q Ē Q 1.30 Active 02/01/2020 05/02/2020 1.06 Active 07/02/2020 31/03/2020

01/04/2020

06/02/2020

31/05/2020

06/02/2020

The Edit Interest page allows you to configure interest settings.

1.26

1.08

Active

Active

Read about how and when to use each interest type on the dedicated Interest Definition Best Practices page.

### **Creating Interests**

- To create new interest, click the Insert button, and the Add Interest page opens.
- 2. In the newly opened Add Interest page, fill in the following fields:
  - Code: Insert a code for this particular interest.
  - Name: Insert a name for the interest.
  - Is Default: Select this checkbox if the interest is a default one.
  - Use Banking Formula: Select the checkbox if the interest is Banking Formula type.
  - Interest Type : Select the interest type :
    - Fixed the interest has one value during the validity period.
    - **Base Type** used for calculating the variable type, i.e. ROBOR.
    - Variable an interest rate formed from a Base Type interest plus a variable percent, e.g. EURIBOR + 4%.
    - Collection a combination of previously defined fixed and/or variable interest rates.
    - Banking Formula an interest rate that can be defined as a banking formula from the Formula Engine.
      - If you choose Variable, a new field Base Interest is displayed.
  - **Description:** Insert a description for the interest.

- **Base Interest:** Only displayed for variable interest types. Select (or insert) the base type interest used for calculating the variable interest.
- Reference Interest Period: Only displayed for base type interest. Choose the interest reference period (where M = months, Y = years): 1M, 1Y, 2M, 3M or 6M.
- For Sight Deposit: Used only for deposits when the interest is at sight. It is used when a customer wishes to end a deposit before the maturity date (end date). The customer does not receive the full interest, but a sight interest because the deposit has not reached its maturity.
- Is For Overdraft: If this interest is an interest applicable to the overdraft amount of a contract based on a banking product that allows overdraft operations, select this checkbox. If the Interest Type = Collection, then the Banded Interests section is displayed for you to enter the banded interests.
- Is Penalty: If this interest is a penalty interest, select this checkbox. Penalty interests are only possible for loans.
   If you select this checkbox, two new fields, Is General and Apply to

Loan Item (If Overdue) are displayed.

 Is General: Only displayed for interests applicable as penalties. If selected, this penalty interest is applied to all the loan contract's operation items that are overdue for payment, instead of having to define different penalty interests for each operation item that is subject to penalty interest calculation on a contract. This can be useful when you need to define one mass penalty interest to be applied to all the overdue amounts subject to penalty interest calculation resulting from repayment schedule processing.

If a banking product has in its attached interests list an interest with **Is General = True**, then at the contract level the penalty percent is applied to all operation items that are overdue and are marked with **Include In Penalty Calculation = True**.

You can specify which operation items should be used by Core Banking for penalty interest calculation within the Add/ Edit Operation Item pages, selecting the Include In Penalty Calculation checkbox and then selecting an item from the Penalty Item (for Repayment Notification) list. Read more about operation items in the Core Banking user guide.

An interest list cannot contain a penalty interest with Is General = True and another penalty interest with Is General = False.

- Applied To Loan Item (If Overdue): Only displayed for interests applicable as penalties that have Is General = False. Select the operation item of the loan contract for which the penalty interest is applied.
- Is Credit Line Interest: Interest that is applicable to the credit line.
- Is Debit Order Interest: Interest that is applicable at each debit order.
- Description: Insert a description for the interest.
- 3. Click the Save and Reload button.
- 4. The Interest Value section is available only for Fixed, Base Type, and Variable interest rates . Insert the values (usually the interest rate index to your margin) by filling in the following fields:

Edit Interest Value			
Value	Valid From	Valid To	
0.3	01/04/2021	31/12/2021	

- Value: Enter the interest rate percentage.
- Valid From: Select the day when the interest rate becomes applicable.
- Valid To: Select the last day when the interest rate is applicable.
- 5. Click the Save and Reload button.
- 6. The Interest Rates Collections section is available only for Collection type interests. Such collections can hold more than one interest types, each with its own start period and installment. This is useful for example, when applying a fixed interest rate for the first 7 years of a mortgage loan, and applying a variable interest rate for the remaining period.

Interest Rate:	s Collections			+	- Insert	X Delete	Refresh
Inter	erest	Collection Item Start Date	Collection Item End Date	Start Period (Installment No)		End Period (Installment No)	
٩	ì	٩	٩	٩		٩	
Fixe	redinterestBPA	01/01/2020	01/01/2024		1		12
Fixe	redinterestBPA	02/01/2024	01/01/2027		1		12

#### Insert the values in the section fields:

Interest Rates Collection						
Master Interest			Collection Item Start Date		Collection Item End Date	
APITestCollectionInterest		\$ <b>\$</b>	02/05/1902		12/12/2030	
Interest			Start Period (Installment No)		End Period (Installment No)	
FixedInterestBPA	0	• /		4		4

- Master Interest: Enter the interest name.
- Interest: Select a previously defined interest (fixed, variable or formula type).

- **Collection Item Start Date:** Select the day when the interest rate becomes applicable. This date must be greater then current system date.
- **Collection Item End Date:** Select the last day when the interest rate is applicable.
- **Start Period (Installment No):** Select the first installment when the interest rate becomes applicable.
- End Period (Installment No): Select the last installment when the interest rate is applicable.
- 7. Click the Save and Reload button. The system performs validations to ensure that the time intervals and the installment intervals do not overlap and no time or installment interval is left undefined. For more detail see the Validations Performed at Banking Product Approval section.
- 8. The Banded Interests section is available only for Collection type interests with Is For Overdraft = True. Banded interests are interest rates that can be defined as collections of values that applied depending on the amount. For example, the bank wants to apply an interest rate of 5% for used amount between 1 and 10,000, an interest rate of 4.5 % for the used amounts between 10,001 and 20,000, and an interest rate of 4% for used amounts surpassing 20,001. Insert the values in the section fields:



- Interest: Select a previously defined interest. Only Fixed and Variable type interests are displayed for selection.
- **Min Utilized Amount:** Enter the minimum used amount to apply this interest.
- Max Utilized Amount: Enter the maximum used amount to apply this interest.

- **Collection Valid From:** Select the date when the interest rate becomes applicable.
- Collection Valid To Yes Date: Select the last day when the interest rate is applicable.
- 9. Click the Save and Reload button.
- 10. When creating an interest rate based on a banking formula, the Use Banking Formula checkbox is selected. In addition, the Banking Formula Type field allows you to pick from already defined banking formulas. Click the arrow next to the field and a list of available banking formulas opens.

	( Cancel ) X Remove ) ( + Ins	ert 🗸 Ok
Name		
٩		
Eligibility		
BPFormulaType		
com&ins ByAmount		
CommissionFormula		

- 11. Click the **Insert** button to create a new banking formula.
- 12. Add a name for the banking formula. Insert or create an interest, banking product formulas, and test scenarios.
- 13. Click the Save and Reload button.

# Automatic Validation at Product Approval for Collection Type Interests

A series of additional validations are performed by the system when a banking product with a **Collection** type interest attached within its selected **Interests List** field goes through a status change from **Draft** or **Version Draft** to **Approved**:

 The Start Period (Installment No) and End Period (Installment No) are validated to accommodate the maximum availability period of the banking product. ×

- The period for interest is validated that there are no uncovered periods, the interests don't overlap over the same period, and there are no overlapping periods.
- The **Collection Item Start Date** and **Collection Item End Date** dates don't overlap and there is no missing interval.

The interest rate collection can't be updated if an interest is attached to an approved banking product. As an exception, the **Collection Item End Date** can be updated if **Collection Item End Date**>= the current system date.

### Interest Lists

An interest list allows you to group multiple interests into a collection of interests that you can use in a banking product. You can group under the same umbrella the following types of interests created individually in the Interests: variable interest, base type and fixed interest.

To manage interest lists:

1. In the main menu, click Product Factory > Banking Product Dimensions > Interest List,

and the Interest List list page opens.

€		+ Insert 🗊 Delete	L Export Q Advanced find
Interes	t List list		
	Name		
	٩		
	Corporate Fix Deposit Interest USD		
	Corporate Fix Deposit Interest VND		
	Corporate Interest 10		
	Corporate Interest VND		
	Corporate Overdraft Line		
5	10 20	1 2	3 4 5 6 7 8 9

2. On the Interest List list page, you can add new interest lists or search, edit, and delete existing ones.

### **Creating Interest Lists**

- To create a new interest list, click the Insert button. The Add Interest List page is displayed.
- 2. Enter a Name for the interest list.

( Ad	) d Interest List	I	Save and close	Save and reload	Save and new
	Main Information				
	Name				
	CollectionList				

- 3. Click the Save and Reload button.
- 4. Click the **Insert existing** button to add the applicable interests in the **Interest** section.
- 5. Click the Save and Close button.

### Filter Interest

You can define filtering criteria for your interests and commissions which you can later on call in your banking products.

To manage filtering criteria, follow the steps below:

- In the main menu, click Product Factory > Banking Product, and the Product List page opens.
- <sup>2</sup> Select the product where you want to add the filter.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product Formula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	0 GL Settings
Interest & Co	nmissions				Insurances				
			+ Insert X D	elete	fresh		+ In	isert X Delete Ex	port Ø Refresh
Iten	Name					tem Name			
٩						۹			
MC	A				ŀ	louse Insurance			
Discounts					Questions				
			+ Insert × D	elete	rfresh			+ Insert existing	× Remove existing
Nar	ie D	Hiscount E	ind Date Star	t Date Value Discourr		Question		Business Status	
٩		۹	۹ ۵ ۹	۵		Q		٩	
					0	Question1		Active	
		N	lo data		c	Question2		Active	

3. In the **Dimensions** tab, insert or edit an interest or a commission.

4. In the Interest & Commission Item Filters section, click Insert, and fill in the following fields:

E			🛱 Save and close
Edit Interest &	Commission Item Filter		
Main Informatio	on		
Filter	AL_Amount	↓ <i>∎</i>	
Value	•	1 Until Value	• 50,000
Description			
AL_Amount ><	< 1 - 50000		

- Filter: Select a filter created in the "Product Filter" on page 462.
- Value/ Date: Select the beginning value/ date for the filter.
- Until Value/ Until Date: Select the maximum value/ date for the filter.
- Description: This field is automatically filled in after the Save and Reload button is clicked. The values/ dates inserted above are turned into an expression.

For Lookup attributes, the following fields are available:

- Filter: Select a filter created in the "Product Filter" on page 462.
- **Option set:** Automatically filled in with the option set name created for the attribute.
- **Description:** Add a description if needed.
- grid of options: This field is automatically filled in after the Save and Reload button is clicked. The values of the option set are displayed. Select the checkbox for the values you wish to include in the filter.
- 5. Click the Save and Close button.

### Interest Definition Best Practices

This page presents a series of recommendations about defining interests to be used in conjunction with banking products and contracts based on these banking products. For step by step instructions on how to add interests and how to fill in each field on the page, please read the dedicated Interests section.

### General Notes

- The validity period of an interest (the period between the values entered in the Valid from and Valid to fields) is the taken into consideration when searching for the values of each interest.
- The system performs validations to ensure that the time intervals for interest validity do not overlap. It also ensures that the interest has a valid value at any given time of a contract's life cycle.
- Penalty calculations are applied to overdue payment amounts in contracts, while interests are applied to remaining payment amounts.
   You can specify that an interest is penalty if you select the Is Penalty

dit Interest				e and close
Main Information	Interest Special Sett	ings		
Code Name EU 6M Euribor 6M	Is For Overdraft	Is Credit Line Interest	Is Debit Order Interest	For Sight Deposit
Interest Type Settings	Penalty Type Interes	at Settings		
Interest Type Base Interest Variable • Euribor 6M Reference •	Is Penalty			

#### **IMPORTANT!**

We advise against defining collection interests for penalties. Instead, create interests for penalties using Business Formulas.

The following sections display examples of each interest type's typical definition:

### **Fixed Interest**

The fixed interest has one value during the validity period.

Define fixed interests by selecting Interest Type = Fixed and entering values for determined intervals of time. The following picture shows how the value of a fixed interest differs depending on its validity period:

€							🔁 Sav	re and close Save and reload
Edit Interest								
Main Information					Interest Special Set	ttings		
Code		Name			Is For Overdraft	Is Credit Line Interest	Is Debit Order Interest	For Sight Deposit
FIG		Corporate	Fix Interest 6%					
Interest Type Sett	ings				Penalty Type Intere	est Settings		
Interest Type					Is Penalty			
Fixed	•							
Interest Value								
			+ Insert X Delete	Export Ø R	fresh			
Value		Status	Valid From	Valid To				
٩		٩	۹ ۵	٩				
	6.00	Active	01/01/2019	31/10/2019				
	6.00	Active	01/01/2020	31/12/2021				
	2.25	Active	01/11/2019	31/12/2019				

### Base Type Interest

The base type interest is used for calculating the variable type, i.e. EURIBOR or IRCC. The EURIBOR base type interest is updated on a daily bases by the European Central Bank.

Define base type interests by selecting Interest Type = Base Type and entering values for determined intervals of time. The following picture shows how the value of a base type interest differs depending on its validity period:

Main Information				
Code		Name		
BIB1M		BIBOR 1 Mor	nth	
nterest Type Setting	gs			
nterest Type				rence Interest Period
Base Type	•		•	A A
and a second Markets				
nterest Value			+ Insert X Delete	Export Ø Refres
nterest Value		Status	+ Insert X Delete	Valid To
		Status Q		Valid To
Value	1.30		Valid From	Valid To
Value	1.30	Q	Valid From	Valid To
		Q	Valid From Q 02/01/2020	Valid To Q 05/02/2020

### Variable Interest

The variable interest is an interest rate formed from a Base Type interest + a variable percent, e.g. EURIBOR + 4%.

Define variable interests by selecting Interest Type = Variable, selecting a predefined base interest from the list, then entering values for the variable percents for determined intervals of time. The following picture shows how the value of a variable interest differs depending on its validity period:

Edit Interest									
Main Information						Interest Special Sett	ings		
Code		Name				Is For Overdraft	Is Credit Line Interest	Is Debit Order Interest	For Sight Deposit
FB1M		Corporate Floa	ting BIBOR 1M						
Interest Type Settings						Penalty Type Interes	t Settings		
Interest Type		Base Interest				Is Penalty			
Variable	•	BIBOR 1 Month	• •						
Interest Value									
			+ Insert × Delete	e Export	Refresh				
Value		Status	Valid From	Valid To					
٩		٩	٩	۹.					
	1.80	Active	01/01/2019	30/06/2019					
	2.00	Active	01/01/2020	01/01/2022					
	1.90	Active	01/07/2019	31/12/2019					

### **Collection Interest**

The collection interest is a combination of previously defined fixed and/ or variable interest rates. It can be used for fixed to float interest contracts. The validation of each composing interest is performed on intervals. For example, for a term loan contract, the bank may apply a fixed interest for the first 12 months of the contract, then for the second and third year another fixed interest, and then for the remaining period a variable interest rate.

Define collection interests by selecting Interest Type = Collection, then selecting predefined interests as elements of the collection that are applicable on specific time intervals and depending on the contract's number of installment. The system performs validations to ensure that the time intervals and the installment intervals do not overlap and no time or installment interval is left undefined.

The following picture shows how the value of a collection interest differs depending on the contract's number of the installments:

Aain Information		Interest Special Sett	ings		
FixFloat	ne FixToFloat	Is For Overdraft	Is Credit Line Interest	Is Debit Order Interest	For Sight Deposit
terest Type Settings erest Type Collection					
				+ Insert X Delete	
Interest Rates Collections	Collection Item Start Date	Collection Item End Date	Start Period (Installment No)	+ Insert X Delete End Period (In:	

### Banded Interest for Current Accounts with Overdraft

The banded interest, applicable for contracts based on current account with overdraft banking products, can be defined as a collection of values that is applied depending on the amount. For example, the bank wants to apply an interest rate of 5% for borrowed amount between 1 and 999.99, an interest rate of 3 % for the amounts between 1000 and 3999.99, and an interest rate of 4.9% for amounts surpassing 4000.

InterestRate	ToValue	FromValue
5	999.99	0
3	3999.99	1000
4.9	1000000	4000

Example of a banded interest:

Define several banded interests by selecting Interest Type = Fixed or Interest Type = Variable and entering values for determined intervals of time. Later, create a Collection interest type, select the **Is For Overdraft** checkbox, and use the previously defined banded interests to define the values applicable for overdraft amount intervals.

The following picture shows how three banded interests are used within a collection type interest to define bands of different value to be applied for different amounts of overdraft contracts:

#### **BANKING PRODUCT FACTORY USER GUIDE**

Information				Interest Special Settin	gs			
	Name			Is For Overdraft	Is Credit Line Interest	Is Debit Order Intere		
andedEUR	BandedEUR							
rest Type Settings								
est Type								
allection								
ded Interests								
						+ Insert	Nelete	
Interest	M	n Utilized Amount	Max Utilized An	nount	Collection Valid From	Collec	tion Valid To	
٩		2	٩		٩			
BandedEUR_C1 BandedEUR_C2			0.00	999.99 3,999.99	30/01/2024 01/01/2021	31/12		
BandedEUR_C3			00.00	10,000,000.00	01/01/2021	31/12		
Edit Interest				Edit Intere				
				E dit filtere				
Main Information				Main Infe	ormation			
Code	Name			Code		Name		
BandedEUR_C1	Band	ledEUR_C1		Bandeo	IEUR_C2	BandedEUR_C2		
Interest Type Settings								
Interest Type					Type Settings			
				Interest T		Base Interest		
Fixed				Variabl	•	IRCC 3M	↓ <i>#</i>	
Interest Value				Interest	Value			
		+ Insert × D	elete	Ø Refresh		+ 1	nsert X Delete E	(port
Value	Status	+ Insert X D	elete Export Valid To	Ø Refresh	Value	(+ ) Status		(port
Value	Status				Value Q.		Valid From Va	
	٩	Valid From	Valid To		٩	Status Q	Valid From Va	ана то Q
		Valid From Q 01/01/2021	Valid To		٩	Status Q	Valid From Va	ilid To
	٩	Valid From	Valid To		٩	Status Q	Valid From Va	ана то Q
	٩	Valid From Q 01/01/2021	Valid To		٩	Status Q	Valid From Va	ана то Q
	٩	Valid From Q 01/01/2021 Edit Interest Main Information	Valid To Q 31/12/2021		٩	Status Q	Valid From Va	ана то Q
	٩	Vaild From Q O1/01/2021 Edit Interest Main Information Code	Valia To Q 31/12/2021	ne	٩	Status Q	Valid From Va	ана то Q
	٩	Vala Fram Q OV01/2021 Edit Interest Main Information Code BandedEUR.C3	Vaid To Vaid To 31/12/2021		٩	Status Q	Valid From Va	ана то Q
	٩	Vaild From Q O1/01/2021 Edit Interest Main Information Code	Vaid To Vaid To 31/12/2021	ne	٩	Status Q	Valid From Va	ана то Q
	٩	Vala Fram Q OV01/2021 Edit Interest Main Information Code BandedEUR.C3	Vaid To Vaid To 31/12/2021	ne	٩	Status Q	Valid From Va	ана то Q
	٩	Vaid From Q 01/01/2021 Edit Interest Main Information Code BandodEUR.C3 Interest Type Sett	Vaid To Vaid To 31/12/2021	ne	٩	Status Q	Valid From Va	ана то Q
	٩	Vaid From Q O1/01/2021 Edit Interest Main Information Code BandedEUR_C3 Interest Type Sett Interest Type	Vaid To Vaid To 31/12/2021	ne	٩	Status Q	Valid From Va	ана то Q
	٩	Vala From Q OV01/2021 Edit Interest Main Information Code BandodEUR.C3 Interest Type Sett Interest Type	Vaid To Vaid To 31/12/2021	ne	٩	Status Q	Valid From Va	ана то Q
	٩	Vala Fram Q OV01/2021 Edit Interest Main Information Code BandodEUR.C3 Interest Type Sett Interest Type Fixed Interest Value	Vald To Q 31/12/2021 Na ings	me BandedEUR.C3	Q. 100 100 X Delete B Sepert	Status Q Active	Valid From Va	ана то Q
	٩	Vala From Q OV01/2021 Edit Interest Main Information Code BandedEUR_C3 Interest Type Sett Interest Type Fixed Interest Value	Vuid To Ca a1/12/2021	ne BandedEUR_C3	Q. 100 X. Delete D. Expert	Status Q Active	Valid From Va	ана то Q
	٩	Vala Fram Q OV01/2021 Edit Interest Main Information Code BandodEUR.C3 Interest Type Sett Interest Type Fixed Interest Value	Vald To Q 31/12/2021 Na ings	me BandedEUR.C3	Q 100	Suite Q Active	Valid From Va	ана то Q

### **IMPORTANT!**

Banded interest can be used only for **Current Account with Overdraft** banking products.

### Managing Commissions

Commissions are set up independently from the banking products. They are available in banking products in the form of commission lists, after they have been grouped together based on their use.

### Commissions

Commissions are the fees taken by the bank for offering a product or service such as opening an account, for cash withdrawals, for transfers, for making payments in certain countries, for exchanging currencies, for emitting debit cards, for handling documents etc. These commissions vary from bank to bank, based on their policy.

You can manage commissions using **Banking Product Dimensions.** They are grouped into lists and attached to banking products, so they reach the contracts.

To manage commissions, follow the steps below:

1. In the main menu, click Product Factory > Banking Product Dimensions >

€					+ Insert 🕒 Delete	L Export Q Advanced find
Commi	ssion list					
	Name	Commission Type	Currency	Commission Percent Applied To	Periodicity Type	Commission Value Is Percentage
	٩	٩	٩	٩	٩	(All) •
	30days	Front-end Fee	EUR		Once	
	Admin Fee	Administration Fee	EUR	Financed Value	Monthly	Ø
	Administration Fee ODV	Administration Fee	EUR	Overdraft Limit Amount	Monthly	Ø
	Administration OV	Administration Fee	EUR		Monthly	
	Analysys Fee 50.	Front-end Fee	EUR		Once	
5	10 20					1 2 3 4 5

Commissions, and the Commission List page opens.

2. On the **Commission List** page, you can add new interests or search, edit, and delete existing ones.

### **IMPORTANT!**

The value of a commission used in active contracts cannot be edited. Instead, you can modify the value's validity and add a new value with a future validity period. For details, see the Editing The Value Of A Commission Already In Use section.

### NOTE

Read about how and when to use commissions based on their periodicity type on the dedicated Commission Definition Best Practices page.

## Adding Commissions

- 1. To create a new commission, click the **Insert** button.
- 2. In the newly opened Add Commission page, fill in the following fields:

Commission				
Main Information				
Name		Commission Type	Currency Periodicity Type	Is For Unusage
30days		Front-end Fee	EUR 🛛 🖉 👻 Once	⊘ - ■
Mandatory For Applicant	Automatic Load On Contract	Is For Contract Version	Commission Value Is Percentage	Is Returnable
		-		
Is Included Into Repayment Schedul	ie Installment	Is Return	Use Banking Formula	

- Name: Enter the name of the commission.
- Commission type: Choose one from the following: Administration Fee, Commission Undrawn Amount (overdraft) Monthly, Commission Undrawn Amount (overdraft) Once, Commission Unusage Monthly, Commission Unusage Once, Commission Usage Monthly, Commission Usage Once, Front-end Fee, Management Fee, Payment Holiday Fee, Repayment Fee or Return Fee.

**NOTE** The types have a periodicity already set: once/ monthly/ trimester etc.

- **Periodicity type:** Automatically filled-in when you choose the commission type.
- Status: Select either Active or Draft to enable or disable the commission.
- **Currency:** Select the currency of the commission from the dropdown.

- Is For Unusage: Select this checkbox if the commission is applied for amount unused from the contract's amount. Usually this commission is applied for unused overdraft amounts.
- **Commission value is percentage:** Select this checkbox if the commission is measured by percentage, not as a fixed value.
- Commission percent applied to: Only displayed if you select the checkbox next to the Commission value is percentage field. Choose one of the following:
  - **Remaining value** the percentage applies to the contract's remaining to be repaid value .
  - Financed value the percentage applies to the contract's financed value.
  - **Paid value** the percentage applies to the anticipated payment performed on the contract.
  - Unused amount the percentage applies to the contract's unused amount from the granted value.
  - Used amount the percentage applies to the contract's used amount from the granted value.
  - **Overdraft limit amount** the percentage applies to the contract's overdraft limit amount.
  - **Amount** the percentage applies to the contract's amount.

For Term Loan, Mortgage or Overdraft banking products the calculation method is as follows: If percentAppliedTo = financedAmount, then financedAmount = amountDue - advanceAmount; If percentAppliedTo = amount, then financedAmount = amountDue; If percentAppliedTo = remainingValue, then, if Contract Status = ContractVersionDraft, then

```
financedAmount = (-1) * mainBankAccountBalance. No
negative values are allowed, so if the result is negative, then
financedAmount = null.
Default value financedAmount = null.
```

For **Current Account with Overdraft** banking products the calculation method is as follows: If percentAppliedTo = overdraftLimitAmount, then financedAmount = overdraftLimitAmount; If percentAppliedTo = usedAmount, then if (periodType == Once), financedAmount = overdraftLimitAmount - availableAmountForOverdraft, else financedAmount = null.

Default value financedAmount = null.

- Is included in repayment schedule installment: If this checkbox is selected and the **Periodicity Type** is not Once, then the commission is included in the Repayment Schedule (should be provided with a column where to put this Commission).
- Automatically load on contract: Select this checkbox if the commission should be automatically loaded on the contracts based on banking products using this commission.
- Mandatory for applicant: If you select this checkbox, then the commission is mandatory to be paid by the customer. If the bank has negotiated with the customer not to pay this commission, then do not select this checkbox.
- Use Banking Formula: Select the checkbox if the commission is to be defined with an attached business formula for value.
- Is For Contract Version: Select the checkbox if the commission is applied when a new version of the contract is created.

### NOTE

If a version for a contract is created In Core Banking more than once on the same day, then all commissions with Is For Contract Version = True that were not notified yet for each previous version are deleted. At the end of the day, there is only one commission for the latest version.

- Is Return: This field is only visible and true if Commission Type
   Return Fee. Automatically filled-in when you choose
   Commission Type = Return Fee, read-only. The selected
   checkbox means that the commission is a return fee, a
   commission to be paid back to the borrower following a
   Returned Amount or Goods event on a loan or mortgage
   contract. Read more information about return fees.
- Is Returnable: This field is only visible if Commission Type = Front-End Fee. Select this checkbox if the commission can be paid back to the borrower following a Returned Amount or Goods event on a loan or mortgage contract.
- Banking Formula Type: Select the banking formula type to be used for commission calculation. This field is visible and mandatory to be filled in when Use Banking Formula = True.

### **IMPORTANT!**

Select CommissionFormula banking formula type for the Return Fee commission type. Thus, at banking product definition level, you can select ReturnCommissionFormula in the **Banking Product Formulas** section of the **Risk Formulas** tab.

Used in Returned Amount or Goods events on a loan or mortgage contract, this dedicated formula's result = (SUM of all Front-End Fee type commissions with Is
Returnable = True)\*[(Returned amount)/(Loan
amount)].

- 3. Click the Save and Reload button.
- 4. In the **Commission value** section, insert or delete the values of the commission.
- 5. To add a new commission value, click **Insert** and fill in the following fields in the newly opened **Commission** page:

ંહ					Save and close	Save and reload	Save and new
Add	Commission Value						
c	ommission Percent	Commission Value	Valid From	Valid To			
		15	20/04/2022	31/07/2022			

- Commission percent: The percent representing the commission. If the commission percentage > 100, Banking Product Factory displays a warning message: "Make sure percent value is accurate."
- Commission value: The value of the commission.
- Valid from: Select the day when the commission value becomes applicable.
- Valid to: Select the last day when the commission value is applicable.
- 6. Click the Save and Close button.

### **Commission Lists**

A commission list allows you to group multiple commissions into a collection of commissions that you can use in a banking product. It is possible to group under the same umbrella the following types of commissions created individually in the Commissions menu: Front-end fee& Management fee & Repayment fee.

To manage commission lists:

 In the main menu, click Product Factory > Banking Product Dimensions > Commissions List, and the Commission List list page opens.

€			+ Insert	🛓 Export	Q Advanced find
Commi	ission List list				
	Name				
	٩				
	CommList				
	Corporate Current Account				
	Corporate Loan Term Commissions USD				
	Corporate Loan Term Commissions VND				
	Credit Card Commission List USD				
5	10 20			1 3 4	5 6

2. On the **Commission List list** page, you can add new interests or search, edit, and delete existing ones.

## Adding Commission Lists

- To create a new commission list, click the Insert button. The Add Commission List page is displayed.
- 2 Enter a Name for the commission list.

Main information Name	©	Save and close	🗘 Save and reload 🚯 Save and new
	Add Commission List Main Information		
	Name Analysis & Monthly Fees		

- 3. Click the Save and Reload button.
- 4. Click the **Insert existing** button to add the applicable commission in the **Commission** section.

Commissions in List	List is Attached to Products			
	+ Insert existing X Remove existing			Export Ø Refresh
Name		Name	Status	Banking Product Type
٩		٩	٩	۹
Analysys Fee 50.		Globetrotter Personal Loan	Version Closed	Unsecured Loan
Monthly Fee		Globetrotter Personal Loan	Version Closed	Unsecured Loan
		BP21	Approved	Unsecured Loan

5. Click the Save and Close button.

### **Filter Interest**

You can define filtering criteria for your interests and commissions which you can later on call in your banking products.

#### To manage filtering criteria, follow the steps below:

- In the main menu, click Product Factory > Banking Product, and the Product List page opens.
- 2. Select the product where you want to add the filter.
- 3. In the **Dimensions** tab, insert or edit an interest or a commission.

1 Main Info	2 Details	3 Availability	4 Dimensions	5 Product F	ormula Engine	6 Documents	7 Lean Core Settings	8 History	9 Origination Elements	(10) GL Settings
Interest & Com	missions					Insurances	3			
			+ Insert X Del	ete 🔳 Exp	ort Ø Refresh	)		+	Insert X Delete Exp	ort Ø Refresh
Item N	ame						Item Name			
٩							٩			
MCA							House Insurance			
Discounts						Questions				
			+ Insert X Del	ete 🔳 Exp	ort Ø Refresh	)			+ Insert existing	× Remove existing
Name	Dis	count Ei	nd Date Start I	Date	Value Discount		Question		Business Status	
٩	C		۹ 🖬 ۹		٩		٩		٩	
							Question1		Active	
		N	o data				Question2		Active	

4. In the Interest & Commission Item Filters section, click Insert, and fill in the following fields:

	Commission Item Filter		
lain Informatio	on		
ilter	AL_Amount	↓ <i>∅</i>	
alue	•	1 Until Value	• 50,0
escription			

- Filter: Select a filter created in the "Product Filter" on page 462.
- Value/ Date: Select the beginning value/ date for the filter.

- Until Value/ Until Date: Select the maximum value/ date for the filter.
- **Description:** This field is automatically filled in after the **Save and Reload** button is clicked. The values/ dates inserted above are turned into an expression.

For Lookup attributes, the following fields are available:

- Filter: Select a filter created in the "Product Filter" on page 462.
- **Option set:** Automatically filled in with the option set name created for the attribute.
- **Description:** Add a description if needed.
- grid of options: This field is automatically filled in after the Save and Reload button is clicked. The values of the option set are displayed. Select the checkbox for the values you wish to include in the filter.
- 5. Click the Save and Close button.

### **Commission Definition Best Practices**

This page presents a series of recommendations about defining commissions to be used in conjunction with banking products and contracts based on these banking products. For step by step instructions on how to add commissions and how to fill in each field on the page, please read the dedicated Commissions page.

### **General Notes**

- Each commission type has a specific periodicity. Some commissions are taken once within a contract, others can occur monthly, and others when a specific contract event occurs. When you select the Commission Type, the Periodicity Type is automatically filled in by the system.
- If you select the Is Included Into Repayment Schedule Installment checkbox for a commission and the Periodicity Type is different than Once, then the commission is included into the repayment schedule. Note that the repayment schedule should be provided with a column to place the commission.

Let's say you define an Administration Fee or a Management Fee with the Is Included Into Repayment Schedule Installment checkbox selected:

Commission					
Main Information					
Name		Commission Type	Currency	Periodicity Type	Is For Unusage
DFUNITS		Administration Fee	EUR	Monthly S •	
Mandatory For Applicant	Automatic Load On Contract	Is For Contract Version	Commission Value Is Percentage	Commission Percent Applied To	
				Financed Value	
Is included into Repayment Schedule	Installment		Use Banking Formula		

When defining the payment schedule type detail, you only need to select the fee type and not the actual fee:

Main Information	Main Information								
Title		Column Type		Column Repayment Schedule		Calculation Method			
dfunit		Fee Dimension	- /	AdministrationFee	0 - 1	Effective Rate	- /		
Is Calculated In Advance?	Is calculated Upfront	Totaliz Period	ation For Grace						
Fee		Source							
		SourcePercent	↓ <i>▶</i>						
Fee Type Administration Fee		· · /							

- Please only define maximum one commission of each type with the Is Included Into Repayment Schedule Installment checkbox selected for every banking product.
- If you select the Mandatory for Applicant checkbox for a commission, then, at contract level, the commission cannot be deleted, but its value can be edited.
- If you select the Is For Unusage checkbox for a commission, then you are defining a commission for the unused amount of a contract and the Commission Percent Applied To field is automatically completed with the Unused Amount value.
- If you select the Commission Value Is Percentage checkbox for a commission, then the values of the commission can only be percentages. In this case, you must select the contract's operation item to which the commission's percent must be applied. The operation item must be selected from the Commission Percent Applied To drop-down.

If you deselect the Commission Value Is Percentage checkbox, then the

values of the commission can only be numeric values.

- The validity period of a commission (the period between the values entered in the Valid from and Valid to fields) is taken into consideration when searching for the values of each commission type.
- The system performs validations to ensure that the time intervals for the same commission's validity do not overlap. It also ensures that the commission has a valid value at any given time of a contract's life cycle.

## Editing The Value Of A Commission Already In Use

The system does not allow you to modify the value of a commission already in use in active contracts. However, the bank may decide to alter its commission values starting next month, so the new values must be entered into the system.

The following instructions show how to edit the value of a commission attached to a banking product with **Approved** status and having contracts based on that banking product.

- 1. On the **Commission List** page, double-click the commission whose value has to be changed. The **Edit Commission** page is displayed.
- 2. In the **Commission Value** section, select the value that is in its validity period and double-click it.

Commission					
Main Information					
Name		Commission Type	Currency	Periodicity Type	Is For Unusage
DFADVANCE		Front-end Fee	EUR	• Once	
Mandatory For Applicant	Automatic Load On Contract	Is For Contract Version	Commission Value Is Percentage	Commission Percent Applied To Financed Value	) -
Is Included Into Repayment Schedule	Installment		Use Banking Formula		
Commission Value				+ Insert	X Delete
Commission Percent	Commission Value	Valid From	Valid To	•	Status
٩	٩	٩	۵ ۹	ä	٩
	10.00	14/06/2021	31/07/	2021	Active
	12.50	01/08/2021	31/12/	2021	Active

3. On the newly displayed Edit Commission Value page, change the date from the Valid To field into the last day when this commission value should be used in contracts.

Edi	t Commission Value				
	Commission Percent	Commission Value	Valid From	Valid To	
	12.5		01/08/2021	30/04/2022	

- 4. Click the Save and Close button.
- 5. Back in the **Commission List** page, in the **Commission Value** section, click the **Insert** button. The **Add Commission Value** page is displayed.
- 6. Complete the fields for the new commission value record, filling in the new Commission Percent or Value. Make sure the date entered in the Valid From field is the next day after the previous commission value is not active anymore. Enter a date further in the future for the Valid To field. Select the Active status for the new commission value record.

¢	)				Save and close	Save and reload	Save and new
Ad	d Commission Value						
	Commission Percent	Commission Value	Valid From	Valid To			
	13.5		01/05/2022	31/07/2022			

- 7. Click the Save and Close button.
- 8. Back in the **Commission List** page, in the **Commission Value** section, observe the newly added commission value, valid starting the next day after the previously existent commission value ends its validity.

Co	mmiss	ion Value			4	⊢ Insert	X Delete Export Ø Refresh
		Commission Percent	Commission Value	Valid From	Valid To		Status
		٩	٩	٩	٩		٩
		10.00		14/06/2021	31/07/2021		Active
		12.50		01/08/2021	30/04/2022		Active
- 0		13.50		01/05/2022	31/07/2022		Active

Contracts created after the new commission value's Valid From date automatically use the new commission value.

The following sections display examples of the typical definition commissions grouped on their periodicity:

## One-Time Fee (Once) Commissions

One-time fees are commissions that the bank requires to be paid once and not on a regular basis during the contract's life cycle.

#### NOTE

For Once periodicity type commissions applied to loan contracts, the Percentage commission values should not be applied to Used or Unused Amount.

For Front-End Fee commission types with default Once periodicity type, the Percentage commission values should not be applied to Remaining Value.

For Once periodicity type commissions with the Is For Contract Version checkbox selected, the commission is posted on new contract versions if the Automatic Load On Contract checkbox is also selected. For commissions thus defined, the Percentage commission values can be applied to Remaining Value, but not to Used Amount or Unused Amount.

Other than the previously described situation, we advise against defining Once periodicity type commissions with the Is For Contract Version checkbox selected.

The following example illustrates a one-time fee of 0.02% applied to the paid value of early repayment on contracts. The commission is not included into the repayment schedule of installments, it is not automatically loaded on the contract or mandatory for the applicant:

Commission					
Main Information					
Name		Commission Type	Currency		Is For Unusage
RepaymentFee EUR %		Repayment Fee 🗸 🗸	EUR 🕲 🔹	Once 🛛 🐨	
Mandatory For Applicant	Automatic Load On Contract	Is For Contract Version	Commission Value Is Percentage	Commission Percent Applied To Payed Value	
Is Included Into Repayment Schedule	e Installment		Use Banking Formula		
Commission Value				+ Insert	elete
Commission Percent	Commission Value	Valid From	Valid To	Status	
٩	٩	٩	٩	٩	
	0.02	01/01/2021	31/12/203	31 Active	

### **IMPORTANT!**

All the Front-End Fee commission types with Once periodicity type applied to a contract are notified and must be paid when the contract is approved. The Core Banking system parameter FrontEndFee defines the type of commission that is automatically notified at the contract approval.

	STATUS: DSED		CONTRACT NUMBER 3569	ACTIVATION DATE 20/08/2021	CREATED BY Vladb	VERSION 2 No da	VERSION DATE 20/08/2021 03:00	CONTRACT CATEGORY Normal		Tooltips	on 🖌 🕲	
_	COMMISIONS											
	Fee			Currency	Fee	Date		Percent Fee	Value	Fee Periodicity Type		
	Commissio	n Applied To Amount		EUR	20/0	38/2021		10.0000	12	.50 Monthly		
	Corporate I	.oan Term Front-End Fee E	UR	EUR	20/0	38/2021		4.0000	51	.00 Once		
	Repayment	Fee EUR		EUR	20/0	38/2021			18	.50 Once		
	CURRENT STAT				aler i se			/				
	PROCESSE	D										
		EDIT REPAYMEN	TNOTIFICATION						/		1	
		REPAYMENT NOTIFI	CATION									
		No.				Contract			c	currency		
		199204				3569			)≁	EUR		÷
		Notification Date				Maturity Date				otal Amount		
	1	20/08/2021				20/08/2021						276
		REPAYMENT NOTIFI	CATION DETAILS									
		Export	3 Refresh									
	1	Operation	Item				Va	lue		RemainingValue	Is Paid	
		۹			۹			Q			(All)	
	贫	Front-end	Fee				51.	.00		0.00	V	
		Advance					225.	.00		0.00	V	
		PAYMENT ALLOCAT										
		Payment	No.	Payment Da	ite		Operation Item		Allocated A	mount DueDate		Delay (d
		9828		20/08/2021			Front-end Fee			51.00 20/08/2021		
		9828		20/08/2021			Advance		2	25.00 20/08/2021		

## Periodical Commissions

Periodical commissions are required to be paid on a regular basis during the contract's life cycle, monthly or every 3 months depending on the commission type's defined periodicity. For such commissions, the Is Included Into Repayment Schedule Installment checkbox is automatically selected and the commission is included into the repayment schedule. The repayment schedule template should be provided with a column to place this commission type.

For periodical type commissions, such as commissions with Periodicity Type = Monthly, if you leave the Commission Value Is Percentage checkbox unselected, then the commission values are defined as straight forward values. Make sure that the formula in the repayment schedule template has the following types defined: fixed value, linear, linear on year.

If you select the Commission Value Is Percentage checkbox, then you can select the contract's operation item to which the percentage must be applied. The possible options are those listed in the drop-box next to Commission Percent Applied To field:

- Remaining value the percentage applies to the contract's remaining to be repaid value .
- Financed value the percentage applies to the contract's financed value.
- Paid value the percentage applies to the anticipated payment performed on the contract.
- Unused amount the percentage applies to the contract's unused amount from the granted value.
- Used amount the percentage applies to the contract's used amount from the granted value.
- Overdraft limit amount the percentage applies to the contract's overdraft limit amount.
- Amount the percentage applies to the contract's amount.

#### NOTE

For term loan, mortgage, current account and deposit contracts, do not define commissions with Commission Percent Applied To = Overdraft limit amount.

Define and use commissions with Commission Percent Applied To = Overdraft limit amount for contracts based on current account with overdraft banking products.

The following example illustrates a monthly 0.15% commission applied to the unused amount of contracts. The commission is included into the repayment schedule of the monthly installments and it is automatically loaded on the contract:

Commission	n										
Main Info	ormation										
Name • Commi	ission Undrawn Amount (overdra	aft) EUR Monthly		Commission Type	wn Amoi 🗸 🖌	Currency		⊙ •	Periodicity Type Monthly	0	Is For Unusage
Mandator	y For Applicant	Automatic Load On	Contract	Is For Contract Version	n	Commission Value	Is Percenta	age	Commission Percent Applie	td To	-
Is Included	d Into Repayment Schedule Inst.	allment				Use Banking Form	ula				
Commiss	sion Value								( + Ir	nsert	X Delete
	Commission Percent	с	ommission Value		Valid From			Valid To			Status
	٩		۹		٩			٩		3	٩
		0.15			01/01/2021			31/12/9999			Active

## Commissions Attached to Contract Transactions

The banks can define commissions for performing certain transactions (events) on contracts.

These commissions can also be defined with straight forward values or as percentages.

#### NOTE

For commissions attached to contract transactions, do not select the Automatically load on contract checkbox.

For such commissions, the Percentage commission values should not be applied to Used Amount or Unused Amount.

If the Is Negotiable checkbox is selected at product level when adding an interest & commission item, then at transaction level the value or percentage of the commission brought from the banking product level can be edited, otherwise the commission cannot be changed.

The following example illustrates a commission applied to an early repayment contract event. You can see the same commission mentioned as a repayment notification detail after approving the event:

Edit Interest & Commission Item

rus: D		NON NUMBER 3 2112							
rect									
Contract		Customer							
3065		Helene		*					
Transaction Type		Carrency							
Early Repayment		EUR		÷ 1					
Event Date		Event Value							
27/07/2021				1,019.54					
Charge Fee RepaymentFee EUR									
Repayment Fee Percent									
Hepayment ree Percent		Pee For Repayment		18.5 DRA					
				_					
REPAYMENT VALUES				1	EDIT REPAYMENT NOTIFICAT	on			
		Keep Contract Period			REPAYMENT NOTIFICATION				
					No.	Contract		Currency	
Repayment Principal Amount	1,000	Interest Value		1.04	automat	2005		4 EUR	
	1,000			1.04	Notification Date	Manurity Date		Total Amount	
Other Fees Total Value		Putare Installments No			27/07/2021	27/07/2021			1,019.54
	٥			12					
UNPAID INFO					REPAYMENT NOTIFICATION DETAIL	9			
No. Due Date	RemainingValue	interest	Principal	Totalinataliment	Export Ø Refresh				
1 2747-3321	7,500.00	1.04	1,000.00	1,001.04	Operation Item		Value	RemainingValue	IsPayed
1 05-08-0021	6.503.00		546.64	553.86	٩	٩	٩		(AI)
2 05-09-2021	5353.36		\$29.96	\$54.76	Repayment Fee		18.50	18.50	
			832.16	554.75	Loan Interest		1.04	1.04	
2 0635-001									
3 06-10-2021 4 06-11-0021	5,423,41 4,891,25		534.38	554.76	Loon Principal		1,000.00	1,000.00	

As you see below, when performing an early repayment contract event and on the banking product's commissions list there is a commission with the same type as the commission placed in the event, then the event automatically retrieves the commission from the list defined at the banking product level:

Banking Product	Item Name		Start Date		End Date				
	Onboarding Lo	an I&C	27/01/2020		04/04/2050				
Settings									
interest List	Minimum Interest	Rate	Commission L	ist	Is Negotiable				
TermLoan Eur		4	Term Loan	Eur 🗸 🗸					
		Edit Commissi	on List						
		Commissions	in List	+ Insert existing	× Remove existing	List Is	Attached to Product		Export Ø R
					× Remove existing				
		Nam	e	<u> </u>	X Remove existing		Name	Status	Banking Produc
		Nam Q	e		X Remove existing		Name Q	Status	
		٩	e Administration Fe		X Remove existing				Banking Produc
		Q CA Con	Administration Fea	fo Amount	X kemove existing		Q TL Commission Term Loan Euro	٩	Banking Produc
		CA A Con Con	Administration Fea mission Applied <sup>*</sup> mission to Remai	fo Amount ning Value	× remove existing		Q TL Commission Term Loan Euro Term Loan Euro	Q Version Closed Version Unappro Version Closed	Banking Product Q Term Loan Term Loan Term Loan
		CA Con Con Con	Administration Fer Imission Applied 1 Imission to Remai Docrate Loan Term	o Amount ning Value Front-End Fee EUR	× remove existing		Q TL Commission Term Loan Euro Term Loan Euro Term Loan Euro	Q Version Closed Version Unappro Version Unappro	Banking Product Q Term Loan Term Loan Term Loan Term Loan
		CA . Con Con Con Mar	Administration Fer Imission Applied 1 Imission to Remai Doorate Loan Term agement Fee EUF	fo Amount ning Value Front-End Fee EUR Monthly	× remove existing		Q. TL Commission Term Loan Euro Term Loan Euro Term Loan Euro Term Loan Euro	Q Version Closed Version Unappro Version Closed Version Unappro Version Closed	Banking Product Q Term Loan Term Loan Term Loan Term Loan Term Loan
		CA Con Con Con Mar New	Administration Fer Imission Applied 1 Imission to Remai Docrate Loan Term	fo Amount ning Value Front-End Fee EUR Monthly			Q TL Commission Term Loan Euro Term Loan Euro Term Loan Euro	Q Version Closed Version Unappro Version Unappro	Banking Product Q Term Loan Term Loan Term Loan Term Loan

RepaymentFee EUR		Commission Type	Currency	Periodicity Type Is For Unusage Once
landatory For Applicant	Automatic Load On Contract	Is For Contract Version	Commission Value Is Percentage	
Included Into Repayment Schedule In	stallment		Use Banking Formula	
ommission Value				+ Insert X Delete Export O R
	Commission Value	Valid From	Valid To	Status

The commission used within the example presented above is defined as follows:

## **Return Fee Commissions**

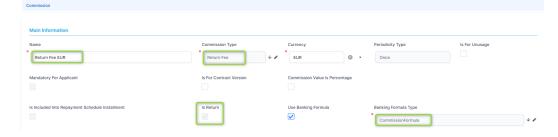
The banks can define commissions to be paid back to the customer when performing Returned Amount or Goods transactions (events) on contracts. A part or the entire amount of Front-End Fees paid by a customer at the contract creation can be paid back to the customer if they choose to return the amount of the loan or the goods in the time frame defined at the banking product level. For term loan or mortgage products, you can specify during banking product definition whether the product accepts Return Amounts or Goods transaction types or not, along with specific conditions, such as the number of days during which this transaction type can be created at the contract level.

The Return Fee type commissions, calculated using the ReturnCommissionFormula banking product formula as sum of all Front-End Fee type commissions with Is Returnable = True)\* [(Returned amount)/(Loan amount)], are paid back to the borrower if a Return of Goods transaction is performed.

To set up contracts that allow Return Amounts or Goods transaction, apart from configuring the **Return Of Goods** section within the banking product's **Associated Transactions** tab, make sure to define front-end fees with Is Returnable = True and return fees with Is Return = True. Attach the returnable front-end fees and the return fees to the commission

list used within the product's Interests&Commissions tab, and select the ReturnCommissionFormula banking product formula within the product's **Risk Formulas** tab.

Return Fee commission definition example:



Returnable Front-End Fee commission definition example:

Commission					
Main Information					
Name Front-End Fee Returnable EUR		Commission Type	Currency EUR 🛞 👻	Periodicity Type Once	Is For Unusage
Mandatory For Applicant	Automatic Load On Contract	Is For Contract Version	Commission Value Is Percentage	Commission Percent Applied To Financed Value	-
Is Included Into Repayment Schedule Inst	allment		Use Banking Formula		
Commission Value				+ Insert	X Delete
Commission Percent	Commission Value	Valid From	Valid To		Status
٩	٩	٩	۹ ا		٩
	4.00	01/02/2022	25/02/20	29	Active

Return fee and returnable front-end fee used within a term loan banking product definition:

#### BANKING PRODUCT FACTORY USER GUIDE

	2 Details 3 Availability	4 Dimensions (5) Produc	tt Formula Engine 6 (				
terest & Com	missions		!				
Item Ni	ame		Export Ø Refresh				
٩							
Onbo	arding Loan I&C						
	it Interest & Commission Item						
	Main Information						
	Banking Product	Item Name	Start Date	End Date			
	Term Loan Euro - Return Fee	Onboarding Loan I&C	27/01/2020	04/04/2050			
	Settings						
	Interest List	Minimum Interest Rate	Commission List	Is Negotiable	Edit Commission List		
	TermLoan Eur	4	Term Loan With Return Fe				
					Main Information		
					Name	_	
					Term Loan With Return Fee		
					Commissions in List		
						+ Insert existing	× Remove
					Name		
					٩		
					CA Administration		
					Commission Appl		
					Front-End Fee Re		
					Management Fee	EUR Monthly	
					Management Fee New Contract Ver Payment Holiday	sion Commission	

ReturnCommissionFormula banking product formula used within a term loan banking product definition:

CURRENT STATUS: NEXT STATUS: APPROVED CLOSED	CODE PRODUCT TL - RF Term Loan Euro - Return	START DATE END DATE n Fee 01/04/2020 17/04/2025	VERSION VERSION DATE 10 15/03/2022 09:34	G Save and reload & Business Transactions +
1 Main Info 2 Details	3 Availability 4 Dimensions	5 Product Formula Engine	6 Documents 7 Lean Core Settings	8 History 9 Origination Elements 10 GL Settings
Banking Product Formulas		Export Ø Refre	Test Scenarios	■ Export ) Ø Refresh
Name	Formula Type	Formula	Name	Test Formula Type
٩	٩	٩	٩	٩
ReturnCommissionFormul	la CommissionFormula	ReturnCommissionFormula	Term Loan Euro - Multiple Interest	a and Commissi CommissionFormula

The ReturnCommissionFormula banking product formula was already mapped to the entity holding contract records, thus no more actions are required for its definition. The picture below illustrates the mapping:

#### BANKING PRODUCT FACTORY USER GUIDE

uumCommissionFormuta Mapping Hum Commission Formuta Mapping - For Transaction	Banking Product Term Loan Euro - Return Fee		Formula Type	Eor		
Mapping	Term Loan Euro - Return Fee			10	mula	
		÷ #	CommissionFormula	↓ <b>≠</b> _ 1	ReturnCommissionFormula	↓ <b>/</b>
urn Commission Formula Mapping - For Transactio						
	n Return Good	↓ <b>#</b>				
						Map Data
1 Definition		2 Input		3 Output		
Formula parameter mapping						
Data Mapping Type		Banking Product				
		•				
Master Entity		FTOS_CB_Contract				
Operation Name		ReturnCommissionFormu	da			
Name		Return Commission Form	ula Mapping - For Transaction Return Go	od		
1 Definition		(2) Input		3	Output	
FTOS_CB_Contract - In	nput					
	FTOS CB ContractFee contractId FTOS	CB Contract				
	Value Fee from FTCS CB ContractFee : Currency from FTCS_CB_ContractFi					
	blo : Is Returnable from FTOS_CB_Co					
	Amount from FTOS_CB_Contract					
ReturnAmount	FTOS CB ContractEvent contractid FTOS	CB Contract				
× contractE	ventStatusId : Business Status from	FTOS CB ContractEvent				
× returnAm	Bepayment Principal Amount	rom FTOS_CB_ContractEvent				

At the contract level, the **Fees & Commissions** section contains the returnable front-end fee, as it was defined with Automatically load on contract = True.

Overview	2 Payments	3 Contracts & Documents	4 History	5 Accounting Entrie	S
General Data					
Contract ID	Customer	Banking Product		Currency	
		V 🖋	ro - Return Fee	EUR	$\downarrow$
Activation Date	Main Bank Account	Current Account		Destination Bank Account	
22/02/2022	FIN000003060	+ / FIN000002624	4 🗸 🗸		
Amount	Advance Amount Percentage	Advance Amoun	t Value	Available Amount	
10.000		0	0		0
Start Calculation Date For Amount Unused	Maximum Disburse Date			Managing Branch	
22/03/2022	22/02/2023			root	
Auto disbursement					
Aufo disbursement					
EES & COMMISIONS	Currency	Fee Date	Percent Fee	Value Fee Periodicity Type	
Second Se	Currency EUR	Fee Date 22/02/2022	Percent Fee	Value Fee Periodicity Type 4.00 Monthly	
Seconditions Contraction Fee Fee			Percent Fee		
C Administration Fee	EUR	22/02/2022	Percent Fee 4.000	4.00 Monthly	

The following example illustrates the return fee commission automatically calculated for a Returned Amounts or Goods contract event.

			Returned #	mount Or Goods		
EDIT CONTRACT EVENT						
General Data				Unpaid Info		
Event Date	Date For Return	Event Value		Accrued Interest	Unpaid Amount On Contract	Unpaid Amount For Customer
02/03/2022	01/03/2022		2,080	٥	٥	117,826.78
External Identifier						
Capital				Fees		
Remaining Principal At Date	Repayment Principal Amoun	t Returned Acc	crued Interest	Return Fee		Return Fee Value
6,000	2,00	•	٥	Return Fee EUR $\psi$		80
Principal To Be Returned	Interest To Be Returned	Interest For F	teturned Amount			
0		•	0			
Early Repayment Options				Early Repayment Result		
Keep Contract Period	Fee Value To Principal			Future Installments No	Future Annuity	
				6	785.03	
Import Schedule						
						Simulate Returned Amount Of Goods

### Manage Insurances

When you build a product, you can add insurance to it, such as credit insurance, life insurance, home insurance, etc. For any banking product you can select an existing insurance or create a new one.

To manage an insurance, follow the steps below:

and the Insurances list page opens.

1. In the main menu, click Product Factory > Banking Product Dimensions > Insurances,

2. On the **Insurances list** page, you can add new interests or search, edit, export and delete existing ones.

## Adding Insurances

- 1. To add an insurance, click the **Insert** button.
- 2. In the newly opened **Add Insurance** page, fill in the following fields from the **Insurance** section:

$\overline{\mathbf{e}}$										Save and close	Save and reload
Edit Insurance											
Main Information											
Code	Name			Currency			Class			Insurer	
u	Life Insurance			USD 4			↓ Life Insurance		. ●		
Periodicity Type Monthly	Insurance Value is Percentage	Operation Item	¥	Is Included Installment	Into Repayment Sched		Is Mandator	datory For Applicant		Is Mandatory For [	Debtor
Use Banking Formula				Insurance	Values			(+ In	sert X	Delete Expo	rt Ø Refresh
					Begin Date	End Dat	e	Percent	v	alue	Interest Discount
					۹	٩		٩		۹	٩
					21/07/2020	17/02/3	2021	3.0	000		1.00
					18/02/2021	02/10/3	2021	3.2	000		0.90
					31/01/2022	26/01/3	2022	5.0	000		

- **Code:** Insert a code for the insurance.
- Name: Insert a suggestive name for the insurance. Make sure it is a unique name.
- **Periodicity Type:** Select the type of periodicity for the insurance: Once, Monthly, Trimestrial, Semestrial or Annual.
- Currency: Select the corresponding currency for the insurance.
- **Insurer:** Insert the name of the company that issues the insurance.
- **Operation Item:** Select the corresponding operation item responsible for notification.
- Use Banking Formula: Select the checkbox if the insurance is to be defined with an attached business formula for value.
- Banking Formula Type: Select the banking formula type to be used for insurance calculation. This field is visible and mandatory to be filled in when Use Banking Formula = True.
- Is Mandatory For Applicant: If you select this checkbox, then the insurance is mandatory for the customer.

- Is Mandatory For Debtor: If you select this checkbox, then the insurance is mandatory for the debtor.
- Is Included Into Repayment Schedule Installment: If you select this checkbox, then the insurance is included in the payment installments.
- **Class:** Select insurance class for this specific insurance: Credit insurance, Home insurance, Life insurance or Other insurance.
- Insurance Value is Percentage: If you select this checkbox, then the insurance value is a percentage from the banking product's value.
- **Description:** Insert a suggestive description for the insurance.
- 3. Click the Save and Reload button.
- 4. In the **Insurance value** section, insert or delete the values of the insurance.
- 5. To add a new insurance value, click **Insert** and fill in the following fields in the newly opened **Add Insurance Value** page:
  - **Begin date:** Select a date when the value is valid for the insurance.
  - End date: Select the end date when the value is no longer valid.
  - **Percent:** Select the percentage for the insurance.
  - Value: Select the value for the insurance.
  - Interest discount: Select the discount to be applied to the insurance.
- 6. Click the Save and Close button.

### Insurance Lists

An insurance list allows you to group multiple insurances into a collection that you can use in a banking product. It is possible to group under the same umbrella the following classes of insurances created individually in the Insurance menu: Credit, Home, Life, and Other insurances. To manage insurance lists, follow the steps below:

1. In the main menu, click Product Factory > Banking Product Dimensions > Insurance

List, and the Insurances Lists List page opens.

€		+ Insert	🕆 Delete	む Export	Q Advanced find
Insuran	ces Lists list				
	Name				
	٩				
	Advanced Loan Insurance List				

2. On the **Insurances Lists List** page, you can add new interests or search, edit, export and delete existing ones.

## Adding Insurance Lists

- 1. Click the Insert button. The Add Insurance List page is displayed.
- 2 Enter a **Name** for the insurance list.

¢	)	Save and close	Save and reload	Save and new
Ad	d Insurance List			
	Main Information			
	Name			
	Advanced Loan Insurance List			

- 3. Click the Save and Reload button.
- 4. Click the **Insert existing** button to add the applicable insurance in the **Insurances in List** section.

surances in List		List Is Attached to Products	List is Attached to Products					
	+ Insert existing X Remove existing			Export Ø Refresh				
Name		Name	Status	Banking Product Type				
٩		٩	٩	٩				
LifeInsurance EUR		Term Loan Euro BP Tests	Version Closed	Unsecured Loan				
		Term Loan Euro BP Tests	Version Closed	Unsecured Loan				

5. Click the Save and Close button.

### Discounts

Banks can offer discounts of any nature for any banking product. You can either select an existing discount or create a new one.

In the main menu, click **Product Factory** > **Banking Product Dimension** > **Discounts**, and the **Discounts list** page opens.

$\bigotimes$		+ Insert	🕀 Delete	초 Export	Q Advanced find
Discou	nts list				
	Name				
	٩				
	Commission discount				
	Discount Life Insurance				
	Interest Discount				
	ManagementFeeDiscount				

Here you can add a new discount or search, edit, export and delete existing ones.

### Adding Discounts

- 1 To add a new discount, click **Insert** and fill in the following fields:
  - Name: Insert the appropriate name for the discount.
  - **Applied to dimension:** Select one of the dimensions: Interest, Commission or Insurance.
- 2. Click the **Save and Reload** button.
- 3 If you selected the **Interest**, then fill in the following:
  - Interest Type: Select one type from the list.
  - Interest: Select the exact interest configured in the Interests menu.
- 4. If you selected the **Commission**, then fill in the following:
  - Commission Type: Select one type from the list.
  - **Commission:** Select the exact commission configured in the Commissions menu.
- 5. If you selected the **Insurance**, then fill in the following:

- Insurance Class: Select one from the list.
- Insurance: Select the exact insurance configured in the Insurance menu.

The **Banking Products** section, displayed after saving the discount, shows the products where the discount is applied. If it is empty, there are no banking products associated.

Discount	t								
Main I	Information								
Name			Applied to Dimension			Insurance Class			
Con	nmission discount		Commission		•			*	
Commi	ission Type		Commission						
Fror	nt-end Fee	$\downarrow$	30days		× #				
Banki	ing Products								
									Export Ø Refresh
	Name			Banking Product Code			Status		
	٩			٩			٩		
	Corporate Loan for IT companies			123456			Draft		

6. Click the Save and Close button.

### Questions

Create interactive questions for your banking product using the **Questions** menu. The questions are further used to determine the eligibility of a customer or their scoring. The questions can later be added to a digital journey as well. For example, here's a digital journey with a question in the Loan Origination, displayed to determine the customer's eligibility.

IT LOAN APPLICATION				
	We ask for this information :	Eligibility Questions	d to consider you for a mortgage	
DEPOSIT SOURCE		Select		-
RETIREMENT DATE				
RETIRED		Yes ( No	ß	

### Adding Questions

 In the main menu, click Product Factory > Banking Product Dimension > Questions, and the Banking Product Questions List page opens.

Here you can add a new question or search, edit, export and delete existing ones.

<sup>2</sup> To add a new question, click **Insert** and fill in the following fields:

lain Information					
Question Question1 anking Products	Question Type Test	Answer Entity	Answer Field	Is for solicitant?	Is for coborrower?
Name		Product Type		Banking Product Code	
٩		٩		٩	
Onboard	ing Loan Duplicate	Term Loan		OL DD	
Term Los	an Advanced	Term Loan		TL_ADV	
Term Los	an Advanced	Term Loan		TL_ADV	
Term Los	an Advanced	Term Loan		TL_ADV	
	an Advanced	Term Loan		TL_ADV	

- **Question:** Insert the appropriate name.
- Question Type: Select the type of answer the customer has to give: text, numeric or option set
- Is for solicitant?: If you select this checkbox, then the question is directed to the customer requesting the banking product.
- Is for coborrower?: If you select this checkbox, then the question is directed to the customer who is a coborrower for a bank product.
- Answer entity: Select the entity where the answer should go.

#### NOTE

The entity must be directly related to the entity on which the questions are posted. If the two entities are not related, the question is not displayed in the flow.

• **Answer Field:** Select the attribute of the previously selected entity where the answer is recorded.

3. Click the Save and Reload button.

### **IMPORTANT!**

In order for the question to be added to the banking product, the status must be changed from draft to active.

- 4. The **Banking Products** section displays the products which use the question. If the section is empty, there is no associated product to the question. To add a question to a banking product, see the Questions section within the Dimensions tab of a banking product.
- 5. Click the Save and Close button.

# **Product Filter**

You can filter banking products by navigating through the list of products based on a filtering scope using the **Product Filter**.

Filter through the attributes of a banking product in the **Availability** tab's **Product Availability Item Filters, Interest & Commissions Item Filters, Insurance Item Filters** and **Product Discount Item Filter** sections.

## Adding Product Filters

- In the main menu, click Product Factory > Banking Product Filter, and the Banking Product Filters List page opens.
- 2. In the newly displayed **Add Banking Product Filter** page, click **Insert** and fill in the following fields:

#### **BANKING PRODUCT FACTORY USER GUIDE**

							B Save and close	O Save and reloa
nking Product Filter								
Information								
	Filter Scope	Filter Type						
	Availability	• Numeri	o interval ·					
act Availability item Filters			Ø Refresh	Interest & Commission Item Filters				Ø Refo
Description	Danking Prod	het		Description		Interest Commission Item	Danking Product	
٩	٩.			۵.		٩	(a	
Age ≻< 10 · 20	SiceBU							
Age >< 18 - 64	BNPL Sice	Availability Rules			No data	3		
Age >< 18 - 64	BNPL Lists							
Age ≻< 18 - 64	BNPL Intere							
Age ≻< 18 - 64	BNPL Disco							
Age >< 18 - 65		Term Loan EUR						
Age ≻< 18 - 65		Euro BP Tests						
Age >< 18 · 65		Euro BP Tests						
Age >< 18 - 65	Regression	Term Loan EUR						
ince item Filters			Ø Refesh	Product Discount Item Filter				O Refr
Description	Insurance her		Danking Product	Banking Product Discount		Description		
٩,	٩.		٩	٩		٩		
	No data				No data	,		

- Name: Insert a name for the filter you are building.
- Filter Scope: Choose one of the attributes for filtering: Availability, InterestCommissions, Insurance, Discount or All.
- Filter Type: Choose one of the dedicated types: Text Value, Numeric Value, Numeric Interval, Date Value, Date Interval, OptionSet or LookUp.

For OptionSet and LookUp attributes, you can add multiple values.

If you select LookUp attribute, two new fields are displayed: Entity and Entity View. For more details, see Views.

3. Click the Save and Reload button.

The **Product Availability Item Filter** section displays the banking products where the selected banking product filter is used.

### NOTE

The data inserted here is shown in the **Availability** tab in the **Product Availability Item Filter** section of the Banking Product pages.

# Agreements

Agreements are set up independently from the banking products because a product may require multiple types of agreements, while a certain type of agreement can be required by multiple products.

To manage agreements:

 In the main menu, click Product Factory > Banking Agreements, and the Agreements List page opens.

<ul> <li>•</li> </ul>					+ Insert	🔒 Delete	쇼 Export	Q Advanced find
Agre	ements list							
	Name							
	٩							
	Customer Contract							
	GDPR							

2. On this page, you can you can add new agreements or edit, delete, export and search existing ones.

### Adding Agreements

- 1. To create a new agreement, click the **Insert** button. The **Add Agreement** is displayed.
- 2. In the newly displayed **Add Agreement** page, fill in the following fields from the **Agreement** section:
  - Code: Enter the code of the agreement. The code must be unique.
  - Name: Enter the name of the agreement. The name must be unique.
  - Display Name: Enter the display name of the agreement.
- 3. Click the **Save and Reload** button. The **Banking Product Agreements section** is displayed.

4. Click the **Insert** button to attach an agreement to the banking product.

•			Save and close     Save and reload     Save and network
dd Banking Product Agreemen	nt		
Main Information			
Agreement	Code	Banking Product	Is Mandatory

### **Banking Product Agreements**

You can associate the agreement with banking products (see "Managing Banking Products" on page 20 for details) and specify if the association is mandatory using the **Banking Product Agreements** section.

#### NOTE

You can also associate banking products with agreements from a banking product (see Documents tab in a banking product page for details).

# Product Classification

You can classify your banking products using the **Banking Product Classification**. Once defined, a product classification can be attached to different products, and then the contracts based on these products further inherit the same classification. Banking product classification has no business functionality implications, being intended only for the bank's internal segmentation needs.

To manage product classifications:

- In the main menu, click Product Factory > Banking Product Classifications, and the Banking Product Classifications List page opens.
- 2. On this page, you can you can add new product classifications or edit, delete, export and search existing ones.

Ð				+ Insert 🙆 Delete	Q Advanced find
roduct Classifications list					
Code	Name	Classification Type	Valid From	Valid To	
٩	٩	٩	٩		
Classification Regulatory 2	REG2	Regulatory	01/03/2021	31/03/2021	
REG1	Classification Regulatory	Regulatory	01/01/2020	31/12/2030	
REG3	Reg 3	Regulatory	22/03/2022	09/04/2022	
RESTRUCTL1	Classification Restructuring Level1	Restructuring	22/10/2021	31/12/2021	

### Adding Product Classifications

- 1. On the **Banking Product Classifications List** page, click **Insert**, and the **Add Product Classification** page opens.
- 2. On the newly displayed **Add Product Classification** page, fill in the following fields :

${ { { { { { { { { { { { { { { { } } } }$							🖹 Save a	nd close	Save and reload	B Save and new
Add Product Classification										
Main Information										
Name Classification Restructuring Level	Code RESTRUCTL1	Valid From 20/04/2022	ö	Valid To 30/04/2028		Classification T		₀ -	Is Default	
Classified Banking Products			_		,		-			

- **Classification Type:** Select the type of classification for the new banking product classification record.
- Name: Insert a name for the new classification item.
- Is Default: If this checkbox is selected, then this becomes the default banking product classification item.
- Code: Insert a unique code for the new classification item.
- Valid From: Select the date from which the product classification item is valid.
- Valid To: Select the date until when the product classification item is valid.
- 3. Click the Save and Reload button.

4. The **Classified Banking Products Section** is displayed after saving the classification item record and allows you to insert existing banking products that should be classified with this new classification item. The following information is displayed about each banking products: code, name, class, subclass, category and subcategory.

### NOTE

The data inserted here is shown in the Product Classification section from the Main Info tab of each Banking Product page.

# **Product Dictionaries**

This page contains a series of topics that explain the dictionaries used by Banking Product Factory and how they can be managed by users with the associated role of Banking Product Admin:

Allocation Method	
Banking Product Type	
Collateral Type	
Commission Schema	
Commission Type	
Covenant	477
Loan Periodicity	.479
Operation Item	480
Product Destination Type	482
Reconciliation Accounts	483
Transaction Type	

### Allocation Method

Allocation methods represent the order in which a financial institution proportionally allocates a portion of the payment to either fees, commissions, interest, and other credit items associated with the account, with the aim of closing the loan principal. FintechOS uses allocation methods to determine the order in which credit items are prioritized when repaying loans, credit accounts, and so on.

You can manage allocation methods though the **Allocation Method** menu, which stores information about the details and the banking products using those specific definitions in their setup. Follow these steps to manage such records:

 In the main menu, click Product Factory > Banking Product Dictionaries > Allocation Method, and the Allocation Method page opens.

¢				+ Insert	🕆 Delete	쇼 Export	Q Advanced find
Allocat	ion Method						
	Name						
	٩						
	BPAdminAllocMethod						
	CostOrder						

2. On the **Add Allocation Method** page, you can add new allocation methods or search, edit, and delete existing ones.

#### NOTE

You can insert, update, or delete allocation method records if you have the associated role of Banking Product Admin.

### **Creating Allocation Methods**

To create a new allocation method, follow these steps:

1. Click **Insert** on the **Allocation Method** page to open the **Add Allocation Method** page.

2 Enter a **name** for the allocation method.

		Save and close	Save and reload	Save and new
lethod				
d Details	Banking Products			
	Banking Products			

- 3. Click the **Save and Reload** button. The **Allocation Method Details** and the **Banking Products** sections are displayed.
- 4. In the newly displayed Allocation Method Details section, click Insert to open the Add Allocation Method Details.
- 5. Fill in the following fields:

$\bigotimes$			Save and close	Save and reload	Save and new
Add Allocation Method Detail					
Allocation Method					
Credit Item	¥ #	Minim Overdue Days			
		Maxim Overdue Days			

- **Credit Item**: Select the credit item of the allocation method.
- Minimum Overdue Days: Enter the minimum number of overdue days for the credit item.
- Maximum Overdue Days: Enter the maximum number of overdue days for the credit item.

**IMPORTANT!** The maximum and minimum number of overdue days is relevant when creating allocation methods as an account can have one or more loan principals. If, for example, there are two loan principals, the allocation method is applied based on the oldest one. Thus, depending on the date, the installment is allocated to the oldest loan principal and then moved to the other credit items.

6. Click the Save and Close button.

# **Banking Product Type**

The banking product types are the types of products that can be created using Banking Product Factory. They are created based on the banking product models used by banks: bank account, card, deposit, mortgage, term loan, and so on. During product definition, it is important to choose the right type of product to build, because the displayed fields depend on this choice.

Banking Product Factory enables you to define the desired banking product types by managing the records in the **Banking Product Type** menu:

1. In the main menu, click **Product Factory** > **Banking Product Dictionaries** > **Banking Product Type**, and the **Banking Product Type List** page opens.

€		+ Insert	🗊 Delete	₫ Export	Q Advanced find
Banking	Product Types list				
	Name				
	٩				
	Bank Account				
	Card				
	Credit Card				
	Deposit				
	Leasing				
	Mortgage				
	Overdraft				
	Term Loan				

2. On the Banking Product Type List page, you can: create a new banking product type record, associate transaction types to a banking product type, edit an existing record from the list by double-clicking it and editing the Name field, delete or search for a specific record.

# NOTE

You can insert, update, or delete records if you have the associated role of Banking Product Admin.

# **Creating Banking Product Type Records**

Follow these steps to create new banking product type records:

- 1. Click the **Insert** button on the **Banking Product Type List** page. The **Add Banking Product Type** page is displayed.
- 2. Fill in the following fields:

¢	)				Save and close	Save and reload	Save and new
Ad	d Banking Product Type						
	Main Information						
	Name	Product Type		Bank Account Type			
	Term Loan	Term Loan	) •	Loan Term Account	)•		

- Name: Enter the name of the new banking product type.
- **Product Type:** Select from the drop-down the product type.
- **Bank Account Type:** Select from the drop-down the new bank account type to be used with the new banking product type.
- 3. Click the Save and Close button. The new banking product type record is saved.

You can proceed to associate transaction types to it within the **Transaction Types** section of the **Edit Banking Product Type** page.

# Associating Transaction Types to Banking Product Types

The transaction types associated to a banking product type are the ones available for that type of product. These transactions are automatically associated when creating a new banking product. However, you can remove the associated transactions that should not be available for a specific product at the banking product level's **Lean Core** tab.

Name Product Term Loan Term Transaction Types Name	t Type n Loan	Bank Account Type	+ Insert) X Delete 1 Export) Ø Refn
Transaction Types	n Loan	Loan Term Account	+ Insert X Delete Export O Refr
			+ Insert X Delete Export 3 Refn
U Naille		Transaction Type	
٩		٩	
Term Loan_DSB		Disbursement	
Term Loan_ER		Early Repayment	
Term Loan_PH		Payment Holiday	
Term Loan_RG		Returned Amount or Goods	

Follow these steps to create association records between a transaction type and a banking product type:

- On the Edit Banking Product Type page, within the Transaction Types section, click the Insert button. The Add Banking Product Type Transaction Type page is displayed.
- 2 Fill in the following fields:

${igodot}$			Save and close	G Save and reload	Save and new
Add Banking Product Type Transaction Type					
Main Information					
Banking Product Type		Transaction Type			
Term Loan	ν	Early Repayment			*

- **Banking Product Type:** Automatically filled with the banking product type. It can't be edited.
- **Transaction Type:** Select from the drop-down the transaction type to be associated with the new banking product type. There is a unique constraint for the association between a banking product type and a transaction type.
- 3. Click the Save and Close button. The new association between the transaction type and banking product type is saved. The name of the record is automatically updated as banking product name\_\_\_\_\_\_\_ transaction type code, for example Term Loan\_DSB for the association between Term Loan banking product type and Disbursement transaction type.

# **Collateral Type**

The **Collateral Type** dictionary is used to define the types of collateral used in the banking products' definition.

To manage collateral type records:

1. In the main menu, click Product Factory > Banking Product Dictionaries > Collateral

ateral Type list		
Name	Adjust Percent	
٩	٩	
Cash		100.0
Commercial Real Estate		80.0
Equity		70.0
FixDeposit		100.0
Fixed Income		60.0
Government		90.0
Industrial Real Estate		80.0
Others		50.0
Residential Real Estate		80.00

Type, and the Collateral Type List page opens.

Or you can manage collateral types from FintechOS Portal's Core Banking Operational

> Collateral Type menu.

 On the Collateral Type List page, you can add new allocation methods or search, edit, and delete existing ones.

### NOTE

You can insert, update, or delete records if you have the associated role of Banking Product Admin.

# **Creating Collateral Types**

Follow these steps to create new collateral type records:

- 1. Click the Insert button on the Collateral Type List page, and the Add Collateral Type page is displayed.
- 2 Fill in the following fields:

${}^{igodol}$			Save and close	Save and new
Add Collateral Type				
Main Information				
Name	Code	Adjust Percent	Priority	
Cash	CA		100	4
Banking Products				

- Name: Enter the name of the collateral type.
- **Code:** Enter the code of the collateral type.
- Adjust Percent: Enter the adjusted value of the collateral type.

## NOTE

When a collateral type is defined, you can set an adjustment percent. The adjustment percent is a customization applied for that collateral. Further, when a collateral is linked to a secured loan contract, its market value is automatically adjusted by Core Banking using the adjustment percent.

- **Priority:** Enter the priority of the collateral type to be considered within a contract.
- 3. Click the Save and Reload button.

In the newly displayed **Banking Products** section, you can see the banking products that have this collateral type associated.

# **Commission Schema**

Commission schema records are used to categorize commission types. For example, there is an administration fee commission schema, a payment holiday commission schema, and so on.

To manage commission schemas:

 In the main menu, click Product Factory > Banking Product Dictionaries > Commission Schema, and the Commission Schema List page opens.

€		+ Insert	🕆 Delete	む Export	Q Advanced find
Comm	ssion List list				
	Name				
	٩				
	30days list				
	Analysis & Monthly Fees				
	AutomaticLoadCommList				
	BL1D				
	BloomDaily				
	BNPLFEE				
	BPACommList				
	BUTest				
	BUTest2				
	BY_LIST				
5	20			1 2	3 4 5 6

2. On the Commission Schema List page, you can add new commission schema or search,

edit, and delete existing ones.

### NOTE

You can insert, update, or delete allocation method records if you have the associated role of Banking Product Admin.

# Creating Commission Schemas

Follow these steps to create new commission schema records:

- Click the Insert button on the Commission Schema List page, and the Add Commission Schema page opens.
- 2 Enter a **name** for the commission schema.

$\bigotimes$		Save and close	Save and reload	Save and new
Add Commission List				
Main Information				
Name				
Management Fed				
Commissions in List	List Is Attached to Products			

3. Click the **Save and Reload** button. The new commission schema is created and ready to be used.

# **Commission Type**

Commission types are used to categorize commissions according to their intended usage. For example, there are administration fee type commissions, front-end fee type commissions, payment holiday fee type commissions, return fee type commissions, and so on.

To manage commission types:

1. In the main menu, click Product Factory > Banking Product Dictionaries > Commission

€			+ Insert 🖸 Delete 🕹 Export Q Advanced fin
Commi	ission Types list		
	Name	Periodicity Type	
	Q	٩	
	Administration Fee	Monthly	
	AdministrationFee	1DAY	
	Commission Undrawn Amount (overdraft) Monthly	Monthly	
	Commission Undrawn Amount (overdraft) Once	Once	
	Commission Unusage Monthly	Monthly	
	Commission Unusage Once	Once	
	Commission Usage Monthly	Monthly	
	Commission Usage Once	Once	
	Front-end Fee	Once	
	Management Fee		
5	10 20		1 2

Type, and the Commission Types List page opens.

2. On the **Commission Types List** page, you can add new allocation methods or search, edit, and delete existing ones.

### NOTE

You can insert, update, or delete allocation method records if you have the associated role of Banking Product Admin.

# **Creating Commission Types**

Follow these steps to create new commission type records:

- Click the Insert button on the Commission Types List page. The Add Commission Type page is displayed.
- <sup>2</sup> Fill in the following fields from the **Commission Type** section:

¢	)					6	Save and close	Save and reload	🖹 Save	and new
Ad	d Commission Type									
	Main Information									
	Commission Schema		Name	Periodicity Type			Operation Item			
	Management Fee	↓ <i>∎</i>	Administration Fee	Monthly	0	•				↓ ∥

- **Commission Schema:** Select the schema to which this commission type belongs, if any.
- Name: Enter the name of the commission type.
- **Periodicity type:** Automatically filled-in when you choose the commission type.
- **Operation Item:** Select the operation item to which this commission type should be applied.
- 3. Click the **Save and Close** button. The new commission type is created and ready to be used.

# Covenant

Covenants are conventions that applicants must abide by after getting the loan. This is usually applicable for corporate clients that must meet certain requirements in order to continue to receive disbursements. The **Covenant** dictionary is used to manage the covenant records further used in Banking Product Factory and in Core Banking.

To manage covenant records:

1. In the main menu, click **Product Factory > Banking Product Dictionaries > Covenant**,

and the **Covenants List** page opens.

¢			+ Insert 🕃 Delete 🔮 Export Q. Advanced find
Coven	ants list		
	Name	Туре	Description
	٩	٩	٩
	Borrowers should perform tax obligations	Affirmative	The lenders expect the borrowers to perform their tax obligations to both the
	Lender can monitor borrower's current ratio	Financial	The lender may continuously monitor the borrower's current ratio to ensure it $\ldots$
	Lender posses the righ to prevent merges or acquisitions	Negative	A clear stipulation that the lenders possess the right to prevent mergers or ac

2. On the Covenants List page, you can add new covenant record or search, edit, and

delete existing ones.

### NOTE

You can insert, update, or delete records if you have the associated role of Banking Product Admin.

# **Creating Covenants**

If you want to create other records than the predefined covenant records that come out-of-the-box with the Banking Product Factory package, follow these steps:

- 1. Click the **Insert** button on the **Covenants List** page. The **Add Covenant** page is displayed.
- 2. Fill in the following fields:

${igodot}$			🗟 Save and close 🕓 Save and reload 🕞 Save and new
Add Covenant			
Main Information			
Name	Туре		Description
Borrowers should perform tax obligations	Affirmative	•	The lenders expect the borrowers to perform their tax obligations to both the business and towards their employees.

- Name: Enter the name of the covenant.
- **Type:** Select the type of the covenant from the drop-down. Possible values: Affirmative, Negative, and Financial.
- **Description:** Enter the description of the covenant.
- 3. Click the **Save and Reload** button. The new covenant is created and ready to be used.

# Loan Periodicity

Loan periodicity is the dictionary used to define the regularity of payments. For example, payments related to loan contracts, commissions, or installments can be performed once, daily, monthly, yearly, and so on.

To manage loan periodicity records:

1. In the main menu, click Product Factory > Banking Product Dictionaries > Loan

$\overline{}$		+ Insert 🛈 Delete 🖞	Export Q Advanced fir
oan Periodicity			
Name Name	Periodicity	Measurement Unit	
٩	٩	٩	
Once		0 Once	
1DAY		1 Days	
Weekly		1 Weeks	
Monthly		1 Months	
Bimonthly		2 Weeks	
Trimestrial		3 Months	
4 Weeks		4 Weeks	
Semestrial		6 Months	
Annual		12 Months	
15Days		15 Days	
5 10 20			1

Periodicity, and the Loan Periodicity page opens.

2. On the **Loan Periodicity** page, you can add new loan periodicity record or search, edit, and delete existing ones.

### NOTE

You can insert, update, or delete records if you have the associated role of Banking Product Admin.

# **Creating Loan Periodicity Records**

Follow these steps to create new loan periodicity records:

- 1. Click the **Insert** button on the **Loan Periodicity** page. The **Add Loan Periodicity** page is displayed.
- 2. Fill in the following fields from the Loan Periodicity section:

### **BANKING PRODUCT FACTORY USER GUIDE**

¢	)			Save and close	Save and reload	Save and new
Ad	d Loan Periodicity					
	Main Information					
	Name	Periodicity	Measurement Unit			
	Trimestrial	3	Months	•		

- Name: Enter the name of the periodicity.
- **Periodicity:** Enter the number of measurement units for the periodicity.
- Measurement Unit: Select the measurement unit applicable for the periodicity from the drop-down. Possible values: Days, Weeks, Months, Years, and Once.
- 3. Click the **Save and Reload** button. The new loan periodicity is created and ready to be used.

# **Operation Item**

Operation items are those items that relate to a bank's core business, such as all types of fees, commissions, principals, interests, advances or penalty calculations. You can also consider them as balance types that add up to a certain deal or used in tracing what happened on a particular deal. For instance, on the first day of using a new loan, there is only the Loan Principal (LP) on that deal, or it can also have an Advance (ADV) in some particular cases or even a Frond-End Fee (FEF). As the deal progresses, depending on the definition and costs, as well as on repayments, the loan principal can become Paid Principal (PP) or Overdue Principal (OVP) if due amounts are not paid.

Banking Product Factory enables you to define the desired operation items by managing the records in the **Operation Item** menu. To manage operation item records:

 In the main menu, click Product Factory > Banking Product Dictionaries > Operation Item, and the Operation Item page opens.

Operation Item		+ biset Codete & Export Q Advanced find
Code	Name	Include In Penalty Calculation
٩	٩	(All)
RPF	Repayment Fee	Ð
LP	Loan Principal	Ø
ш	Life Insurance	
LAF	Loan Admin Fee	
u	Loan Interest	Ø
FEF	Front-end Fee	Ø
MGT	Management Fee	•
OVP	Overdue Principal	۲
VI OVI	Overdue Interest	•
PI	Paid Interest	۲
5 10 20		1 2

2. On the **Operation Item** page, you can add new operation item record or search, edit, and delete existing ones.

### NOTE

You can insert, update, or delete records if you have the associated role of Banking Product Admin.

# **Creating Operation Item Records**

Follow these steps to create new operation item records:

- 1. In the FintechOS Portal, click the **Insert** button on the **Operation Item** page. The **Add Operation Item** page is displayed.
- 2. Fill in the following fields:

€		🗟 Save and close 🕓 Save and reload 🔒 Save and
Add Operation Item		
Main Information		
Code	Name	Include In Penalty Calculation
LP	Loan Principal	

- Code: Enter the unique code of the operation item.
- Name: Enter the name of the operation item.

• Include In Penalty Calculation: Select the checkbox to mark this new item as an operation item used for penalty calculation.

### NOTE

If a banking product has in its attached interests list an interest with Is General = True, then at the contract level the penalty percent is applied to all operation items that are overdue and are marked with Include In Penalty Calculation = True. Read more information about interests and how to define them on the Interests page within the Banking Product User Guide.

- Penalty Item (for Repayment Notification): This field is displayed and mandatory only if Include In Penalty Calculation = True.
   Select from the list an existing operation item in whose penalty calculation this new item must participate.
- 3. Click the Save and Close button.

# Product Destination Type

The **Product Destination Type** dictionary is used to define the destination types that help differentiate banking products.

To manage product destination type records:

1. In the main menu, click Product Factory > Banking Product Dictionaries > Product

Destination Type, and the Product Destination Types List page opens.

€		+ Insert 🛈 Delete	La Export Q Advanced find
Product	Destination Types list		
	Display Name		
	٩		
	Loan Collateral		
	Loan disbursements		
	Personal		
	Repayments		

2. On the Product Destination Types List page, you can add new allocation methods or

search, edit, and delete existing ones.

# **NOTE** You can insert, update, or delete records if you have the associated role of Banking Product Admin.

# **Creating Product Destination Types**

Follow these steps to create new product destination type records:

- Click the Insert button on the Product Destination Types List page. The Add Product Destination Type page is displayed.
- 2. Fill in the following fields:

${ { { { { { { { { { { { { { { { { } } } } } } } } } } } } } } $			Save and close	🖏 Save and reload	Save and new
Add Product Destination Type					
Main Information					
Name	Display Name	Is Default			
Personal Loan	Personal Loan				

- Name: Enter the name of the product destination type.
- **Display Name:** Enter the display name of the product destination type.
- Is Default: If selected, this is the default product destination type.
- 3. Click the **Save and Reload** button. The new product destination type is created and ready to be used.

# **Reconciliation Accounts**

Reconciliation is an accounting process that compares two sets of records to check that figures are correct and in agreement. Reconciliation also confirms that accounts in the general ledger are consistent, accurate, and complete. Core Banking uses reconciliation accounts in its accounting processes, while Banking Product Factory uses such accounts in the product definition itself, as tools for monitoring the activity for a specific product or groups of products. Reconciliation accounts are also known as self-bank accounts or internal bank accounts. When creating a banking product, you must choose such a reconciliation account within the **Associated Transactions** tab of the banking product. These accounts are later used by the contracts based on those banking products when performing debit or credit transactions.

Banking Product Factory enables you to manage the reconciliation accounts used within your bank in the **Reconciliation Accounts** menu.

To manage reconciliation accounts:

1. In the main menu, click **Product Factory** > **Banking Product Dictionaries** > **Reconciliation Accounts**, and the **Reconciliation Accounts** page opens.

${igodot}$		+ Insert @ Delete & Export Q. Advanced find
Reconciliation Accounts		
Bank Account Number	Currency	Business Status
٩	Q	α )
Reconciliation HUF	HUF	Opened
Reconciliation RON	RON	Opened
Reconciliation USD	USD	Opened
Reconciliation VND	VND	Opened
special fund eur	EUR	Opened
5 10 20		1 2 3 4 5 6 7 8

2. On the Reconciliation Accounts page, you can: create a new reconciliation account, edit an account from the list by double-clicking it, search for a specific record by filling in any or all of the column headers of the displayed records list, view the debit and credit operations performed through each reconciliation account by double-clicking the desired account and observing the Debit Operations and Credit Operations sections, or delete an account.

OPENED					C Sav	e and reload B Business Transactio
t Bank Account						
Main Information						
Bank FintechOS Bank	Internal Bank Account	Currency	¥ \$	Bank Account Number Reconciliation EUR test	Initial Balance	
Debit Operations						Export S Refresh
Value date	Operation date		Currency	Amount Detail text		
			No d	ata		
Credit Operations						Export Ø Refresh
Value date	Operation date		Currency	Amount Detail text		
٩	۵ (م		٩	۵ ۵		
			No d	ata		

### NOTE

You can insert, update, or delete records if you have the associated role of Banking Product Admin.

# Creating Reconciliation Accounts

Follow these steps to create reconciliation accounts:

- 1. Click the **Insert** button on the **Reconciliation Accounts** page. The **Add Bank Account** page is displayed.
- 2. Fill in the following fields:

$\bigotimes$						Save and close	Save and reload	Save and new
			Self Bank	Account				
Add Bank Account								
Main Information								
Bank	Internal Bank Account	Currency		Bank Account Number	Initial Balance			
FintechOS Bank		HUF	↓ <i>≠</i>	Reconciliation HUF		999,999,999.99		
Debit Operations								
Credit Operations								

- **Bank:** Banking Product Factory automatically completes this field with the bank marked as Main Bank in the system.
- Internal Bank Account: This checkbox specifies that the account is an internal bank account, used for reconciliation. Automatically checked as True. You can't change this value.
- **Currency:** Select from the list the currency of the reconciliation account.
- **Bank Account Number:** Enter the bank account number for the reconciliation account.
- Initial Balance: This field represents the reconciliation account's initial amount. It is automatically completed with the value of 999,999,999.00. You can edit the value.
   The initial balance is needed especially for those accounts that are used for debit purposes, representing the source for some transactions.
- 3. Click the **Save and Reload** button. The reconciliation account is saved and its status becomes **Opened**, ready to be used.

The **Debit Operations** and **Credit Operations** sections are now displayed, still empty. New lines show up in these two sections when transactions are performed for contracts based on banking products that use this reconciliation account. The following information is displayed about each transaction:

- Value date: The date when the transaction was requested in the system.
- **Operation date:** The date when the transaction was operated by the system.
- Currency: The currency of the transaction.
- Amount: The amount of the transaction.
- **Detail text:** The text representing information about the transaction, such as event type, repayment notification number, due date, and so on.

# Transaction Type

Any transfer of funds between two bank accounts is recorded as a transaction. There are different types of transactions used in the financial world.

The transaction types are associated with banking products within the **Associated Transactions** tab during product definition, either automatically or manually. The **Transaction Type** menu holds the accounting model and the item configuration. It is used for inserting the financial data transactions.

For using transaction types in conjunction with Core Banking, see Transaction Types Used in Core Banking.

### NOTE

You can insert, update, or delete records if you have the associated role of Banking Product Admin.

To manage transaction types, follow these steps:

1. In the main menu, click Product Factory > Banking Product Dictionaries > Transaction

Type, and the Transaction Types List page opens.

€			+ Insert 🛈 Delete	쇼 Export	Q Advanced find
Transa	ction Types list				
	Name				
	٩				
	Accruals and Provisions				
	Agreement				
	Deposit Liquidation				
	Disbursement				
	Early Repayment				
	Early Termination Deposit				
	Interest Capitalization				
	LoanContract				
	Overdraft Payment				
	Payment Deposit				
5	10 20				1 2

2. On the **Transaction Types List** page, you can add a new transaction type record or search, edit, and delete existing ones.

# **Creating Transaction Types**

 To create a new transaction type, click the Insert button on the Transaction Types List page.

		Transaction	Configuration
ransaction Type			
tings			
ne	Transaction Code	Process Type	Edit Form Transaction Operation Type Is System Transaction
Disbursement	DSB	Disbursement V	FTOS.CB_EventDisbursement FTOS.CB_EVENTDISBURSEMENT FT
utomatic Transaction Real Tim	e Process Only One Draft	Generate New Contract	Commission Type Return Commission Type
		Version	•
counting Configurations			Purge Configurations
Generates Accounting Entry	OL Master Entity		To Be Purged Purge Number of Days Master Purge Entity
	FTOS_CB_ContractEvent	◎ ・	General State Stat
nsaction Value Types			Transaction Item Accounting Configurations
nsaction Accounting Models			

- 2 In the Add Transaction Type > Settings section, fill in the following fields:
  - Name: Enter the name of the transaction type.
  - Transaction Code: Enter the code of the transaction type.
  - **Process Type:** This field associates the process type with the transaction operation type, which makes the connection with the transaction motor of bank accounts. Select one of the processes defined within the system.

### NOTE

There is no integration at this point with a payment gateway.

- Edit Form: The form used to edit this transaction type. The lookup only shows forms defined on the Contract Event entity.
- Transaction Operation Type: The transaction operation type makes the connection with the transaction motor of bank accounts. Select one of the transaction operation types defined within the system.
- Is System Transaction: This checkbox marks the transaction as being neither a credit of the account, nor an allocation of funds, but a transaction that does not influence other transactions within the account. System transactions are meant to be used only for accounting. It is used when there's a need for a transaction for the sole purpose of generating accounting entries (accruals, provisions).

• Is Automatic Transaction: This checkbox marks the transaction as automatic. If selected here, then you cannot select it within the contract operations.

# **IMPORTANT!**

If a transaction type is marked as an automatic transaction (Is Automatic Transaction = True), then that transaction type cannot be selected in the **Events** page when closing contract events.

- Real Time Process: This checkbox marks the transaction as being processed in real-time. If you select the checkbox, then the transaction is processed right away. If you don't select it, then the transaction is inserted as a bank account transaction queue record.
- **Only One Draft:** If you select this checkbox, there can be only one record of this transaction type in Draft status created at the contract level.
- Generate New Contract Version: This checkbox allows you to specify if a new contract version should be generated by this transaction type.
- **Commission Type:** Select the commission type applicable for this transaction type. Return fee commissions are filtered out and can't be selected.
- **Return Commission Type:** The return fee commission type applicable for this transaction type. Only return fee commissions can be selected.
- Is Clawback Transaction: If selected, this checkbox marks the transaction as generating a clawback commission. The transaction type is to be used in third-party management invoicing activities. Default value: False.
- 3. In the Add Transaction Type > Accounting Configurations section, fill in the following fields:
  - Generates Accounting Entry: Select this checkbox to create an entry in the Operational Ledger. It generates records in the Accounting Entry entity.
  - **OL Master Entity:** Select the entity referenced by the accounting systems.

- 4. In the Add Transaction Type > Purge Configurations section, fill in the following fields:
  - **To Be Purged:** This checkbox marks the transaction as purgeable. If selected, it allows you to purge or archive records in Draft status.
  - Purge Number of Days: Enter the default number of calendar days that a record can be kept in Draft status before it is purged. For additional information, see the Core Banking System Parameters page. This field is displayed only when To Be Purged = True.
  - Master Purge Entity: Select the master purge entity under which the draft records are. This field is displayed only when To Be Purged = True.
- 5. Click the Save and reload button.

### **IMPORTANT!**

If a transaction type is marked to automatically generate accounting entries (Generates Accounting Entry = True), then the following sections are displayed: **Transaction Value Type**, **Transaction Item Accounting Configuration**, and **Transaction Accounting Models**.

# Transaction Value Type

Transaction value types are defined as header items or detail items. Header items are the general details of a transaction (for example date, customer, currency, and so on). The detail items are grouped into numeric or text information.

In this section, you can create and determine the values calculated for each transaction. The additional data from here is used in the **Transaction Accounting Models** section.

- To add a new transaction value type, click the Insert button under the Transaction Value Type section. The Add Transaction Value Type page opens.
- 2. Fill in the following fields:

🚱 Add Transaction Value Type			Save and close 🗘 Save and reload 💮 Save and new
Transaction Value Type			
Value Type Name DocTest	Transaction Type Disbursement	+ /	Is Header
Туре	Value Type Attribute		Formula
Numeric	eventValue	Ŷ	scent/Jalus * 4

- Value Type Name: Enter the name of the value type.
- Transaction Type: Select the transaction value type.
- **Type:** Select the type of the transaction. The following options are available: Numeric or Text.
- Value Type Attribute: Select the value of a specific attribute from the source entity. It is a list of all the attributes defined in the SourceEntityId field from the FTOS\_GL\_TransactionType entity.
- **Is Header:** When selected, it defines the header items of the transaction.
- Formula: Supports only basic math operations: addition (+), subtraction (-), multiplication (\*), and division (/). Input a specific formula based on the Value Type Attribute chosen.
- 3. Click the Save and close button.

When a transaction value type is marked as a header item, (Is Header = True), the transaction values are set into the attribute values of the Operation Transaction entity. If the **Value Type Name** field is not an attribute of that entity, then an error is displayed.

A JSON file with default values is sent when using the function for setting the operation transaction values. The JSON file has the following form:

```
[
   {
    attributeName: 'DescriptionText',
    value: 'Disburse 1500'
   },
   {
```

```
attributeName: 'ProvisionAmount',
value: '15.00'
}
]
```

The JSON file checks if there is any default value for the attributeName, from the Value Type Name field. If no values are returned, the Formula field is checked. When neither field returned any values, the source entity of the attribute from the Value Type Attribute field is checked.

# Transaction Item Accounting Configuration

The **Transaction Item Accounting Configuration** section holds the configuration of each transaction. It helps define an account from the Accounting Chart.

This section holds the configuration for an item with the respective chart account. It represents the listing of the names of the accounts for the company inserted in the **Legal Entity** menu.

- To add a new transaction item accounting configuration, click the Insert button under the Transaction Item Accounting Configuration section. The Add Transaction Item Accounting Config page opens.
- 2. Fill in the following fields:

$igodoldsymbol{\epsilon}$		Save and close Save and reload	Save and new
Add Transaction Item Accounting Config			
Transaction Item Accounting Config			
Accounting System 0002	Accounting Scope	Chart Account	Ŷ
Operational Item Repayment Fee	Currency	Take From Banking Product	

- Accounting System: Select the accounting system.
- Accounting Scope: Select the accounting scope.
- Chart Account: Select the accounting chart.
- Operational Item: Select the item of operations.

- Currency: Select the currency of the accounting entry line.
- **Take From Product:** If selected, then the configurations for each transaction are inherited from the banking product level.
- 3. Click the Save and close button.

# Transaction Accounting Models

This section holds the accounting models, all the rules used in order to generate accounting entries for each transaction.

The details from the **Debit Account Rule** and the **Credit Account Rule** are defined by the information from the **Transaction Item Accounting Configuration** section. All other details are defined by the information from the **Transaction Value Type** section.

- To add a new transaction accounting model, click the Insert button under the Transaction Accounting Models section. The Add Transaction Accounting Model page opens.
- 2. Fill in the following fields:

$\bigcirc$				B Save and close	G Save and reload	Save and new
Add Transaction Accounting Mode	91					
Transaction Accounting Model						
Transaction Type	Disbursement	+ /	Accounting System	DocTest		+ #
Line Condition						
Debit Account Rule			Credit Account Rule			
Debit Customer Rule	SourcePartnerid		Credit Customer Rule	DestinationPartnerId		
Accounting Entry Value Rule			currencyRule	Currencyld		
item Rule	Itemid		DescriptionRule	DescriptionText		
Entityld Rule			Transaction Id Rule			
Transaction Detail Rule	Contractid		Transaction Value Type	EventValue		↓ <i>#</i>

- Transaction Type: The transaction type. It is auto-filled.
- Accounting System: The accounting system.

- Line Condition: Enter the condition applied in order to post the accounting entry line.
- **Debit Account Rule:** Enter the accounting entry value of the debit account. It is auto-filled.
- **Debit Customer Rule:** Enter the rule to save the partner transaction in the debit-credit relationship. It is auto-filled.
- Accounting Entry Value Rule: Enter the posted accounting entry value.
- Item Rule: The transaction item of the accounting entry line. It is auto-filled.
- EntityId Rule: Enter the internal status of the record.
- **Transaction Detail Rule:** Enter the rule to identify and post the ID of the operational transaction detail.
- **Credit Account Rule:** Enter the credit account of the accounting entry line. It is auto-filled.
- Credit Customer Rule: It is auto-filled by the destination partner ID.
- currencyRule: The accounting entry line currency. It is auto-filled.
- **DescriptionRule:** The description of the generated accounting entry. It is auto-filled.
- **Transaction Id Rule:** Enter the related contract ID of the transaction.
- **Transaction Value Type:** Select the value type of the transaction. It is defined in the **Transaction Value Type** section.
- 3. Click the **Save and close** button.

# Using Banking Products in Digital Journeys

All the information regarding a banking product is stored in the Banking Products entity, therefore, all the fields of a previously configured banking product are available.

To use a previously created banking product in a form driven flow, you, as a consultant or a developer, have to create an endpoint with a script, while being logged in Innovation Studio. Later, in the **Advanced** tab of a digital journey, call the endpoint and add the product to the journey. You can consult an example of the call for the FTOS\_BP\_GetBankingProductDetails endpoint.

### NOTE

The Banking Product Factory endpoints are configured during the installation process. For more, details see the Creating Endpoints page in the Innovation Studio User Guide.

For information about the available endpoints, please consult the **Banking Product** Factory Developer Guide.

# Example of call for the FTOS\_BP Get BankingProduct Details endpoint

This endpoint returns the product details.

### Input:

 bakingProductId - from FTOS\_BP\_BankingProduct (attribute: FTOS\_ BP\_BankingProductid)

### Output:

Section with the following fields:

- **product.Name** from FTOS\_BP\_BankingProduct (attribute: Name)
- product.ProductImage from FTOS\_BP\_BankingProduct (attribute: productImage)
- product.Benefits from FTOS\_BP\_BankingProduct (attribute: Benefits)
- product.DisplayConditions from FTOS\_BP\_BankingProduct (attribute: displayConditions)
- product.NoOfDebtor from FTOS\_BP\_BankingProduct (attribute: NoOfDebtor).

### Call example:

Change the banking product id with your own banking product id.

```
ebs.callActionByNameAsync('FTOS_BP_
GetBankingProductDetails', { bankingProductId : "f625e5e5-
bc51-4bf8-8ff0-b8a295694a23"})
.then(function (res) {
    res = res.UIResult;
}).catch(function (err) {
    console.log(err);
})
```