



Open market operations

Information about the community testing phase for open market operations (credit operations in euro, foreign currency transactions, fixed-term deposits)

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1. Testing principles Test scenarios and general assumptions



• The following fundamental test cases are part of community testing:

Test case ID	Domain	Functionality	Test case name
ECMS_TC_CPTY_13	Monetary Policy Operations	Liquidity providing operations	Successful settlement of a LTRO operation with or without netting
ECMS_TC_CPTY_14	Monetary Policy Operations	Liquidity providing operations	Successful repayment of a LTRO operation at maturity with or without netting
ECMS_TC_CPTY_15	Monetary Policy Operations	Liquidity providing operations	Successful settlement of a non-euro LPO operation with or without netting
ECMS_TC_CPTY_16	Monetary Policy Operations	Liquidity providing operations	Successful repayment of a non-euro LPO operation at maturity with or without netting
ECMS_TC_CPTY_17	Monetary Policy Operations	Liquidity absorbing operations	Successful settlement of a LAO operation with or without netting
ECMS_TC_CPTY_18	Monetary Policy Operations	Liquidity absorbing operations	Successful repayment of a LAO operation at maturity with or without netting

 To be able to conduct tests on open market operations, role no. 65 (ECMS Entity – U2A Open Market Operations Read Only) and role no. 72 (ECMS Entity – U2A Pool Position Execution) are required.



- Open market operations in euro are conducted by Deutsche Bundesbank in accordance with the test plan.
- Testing open market operations in foreign currency is only offered to counterparties, who have access to this kind of operation in the production environment at the beginning of the test period.
- Counterparties do not have to take any action to ensure a credit operation's allotment and settlement on its value date.
 - Sufficient collateral will be provided by Deutsche Bundesbank.
 - Allotment amounts are the same for every counterparty in the respective open market operation and will be registered by Deutsche Bundesbank.



- Payments in CLM should be checked on settlement and maturity days, but it is also possible to look at them at a later date.
- Counterparties have to ensure sufficient liquidity in CLM for the settlement of fixed-term deposits and the maturing of credit operations in euro.
- Some counterparties may depend on their parent to provide liquidity via TARGET/CLM, if liquidity management for their MCA has been transferred to this entity. Consequently, these institutes are responsible for the provision of liquidity (just like in the production environment). The co-managers have already been informed accordingly.
- Counterparties do not have to take any action when open market operations in foreign currency reach maturity.
- Bundesbank's BIC code for open market operations is MARKDEFFCMS.

Please send an e-mail to <u>ecms-test@bundesbank.de</u> in case of questions or if you notice any bugs or abnormalities.



General remarks:

Please adhere to the **testing restrictions** set in the "Testing conditions" by the ECB.

ECMS - Professional use (europa.eu)

The ECB's "Testing conditions" are updated every two weeks.

For additional information on the ECMS Community Test, please visit <u>Test and Migration | Deutsche Bundesbank</u>.

This Community Test focuses on the fields relevant to the testing of open market operations. For additional information, please visit <u>ECMS User Handbook for Counterparties (europa.eu</u>).

We require confirmation of the test cases you conducted. Please complete the survey sent to you.



2. Testing period and test cases 08/10/2024 – 18/10/2024

2. Testing period and test cases **Testing period**



Start: 08/10/2024 Ending:

18/10/2024

Monday, 07 October	Tuesday, 08. October	Wednesday, 09 October	Thursday, 10 October	Friday, 11 October
	MRO Settlement 20550001 (Page 15)	USD Settlement 20550005 (Page 12)	FTD Settlement 20550002 (Page 10)	MRO Maturity 20550001 (Page 15)
			USD Settlement 20550003 (Page 11)	LTRO Settlement 20550004 (Page 13)
Monday, 14 October	Tuesday, 15 October	Wednesday, 16 October	Thursday, 17 October	Friday, 18 October
USD Maturity 20550003 (Page 11)	FTD Maturity 20550002 (Page 10)		LTRO Maturity 20550004 (Page 13)	
			USD Maturity 20550005 (Page 12)	

2. Testing period and test cases target ecms 2.1. Collection of fixed-term deposits (ECMS_TC_CPTY 17-18)

Tender ID:	20550002
Value Date:	Thursday, 10th October, from 12:00 p.m.
Maturity Date:	Tuesday, 15th October
Duration of Operation:	5 days
Allotment Amount:	€2m
Interest Rate:	x.xx %

The fixed-term deposit has effects on collateral. The collateral pool position is going to increase daily by 194.44 (accrued interest).

The booking is made in CLM via pacs 009.

2. Testing period and test cases 2.2. Foreign currency transaction (ECMS_TC_CPTY 15-16)

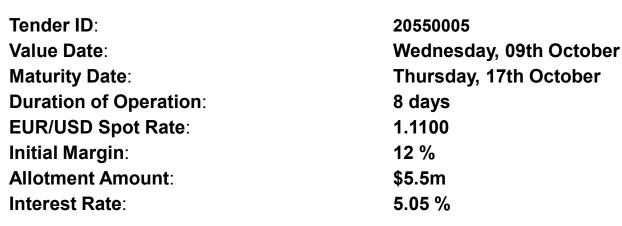
Tender ID:	20550003
Value Date:	Thursday, 10th Ocotber
Maturity Date:	Monday, 14th October
Duration of Operation:	4 days
EUR/USD Spot Rate:	1.1100
Initial Margin:	12 %
Allotment Amount:	\$5.5m
Interest Rate:	5.05 %

The amount of outstanding interest affects the collateral pool position.

Changes to the credit line in CLM are booked via pacs 009 as foreign currency transactions are not settled via TARGET Services.

target ECMS

2. Testing period and test cases 2.2. Foreign currency transaction (ECMS_TC_CPTY 15-16)



The amount of outstanding interest affects the collateral pool position.

Changes to the credit line in CLM are booked via pacs 009 as foreign currency transactions are not settled via TARGET Services.

target ECMS

2. Testing period and test cases target ecms 2.3. Longer-term refinancing operation (ECMS_TC_CPTY 13-14)

Tender ID:	20550004
Value Date:	Friday, 11th October
Maturity Date:	Thursday, 17th October
Duration of Operation :	6 days
Reference Entity:	Average MRO rate
Allotment Amount:	€2m
Spread:	0 bp

The daily accrued interest affects the collateral pool position. Therefore, the amount that has to be collateralised increases with every passing day. The MRO rate is 3.65% until 14th October and 4.0% from 15th October onwards.

Until the day of the interest rate change on 15th October, you will see the provisional interest amount for the maturity date of €1,216.67.

From the day after the interest rate change on 16th October, you will see the provisional interest amount for the maturity date of €1,333.33.

The booking is made in CLM via pacs 009.

2. Testing period and test cases 2.3. Longer-term refinancing operation (CPTY 13-14)



Example calculation of Interest for LTRO

	August 28th	August 29th	August 30th	August 31st	September 01st	September 02nd	September 03rd	September 04th
	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday
Days	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
Duration of operation: 12	2.000.000,00							
Interest accrued for the previous day	0	236,11	236,11	236,11	236,11	236,11	236,11	236,11
Interest rate valid for this day in ECMS	4,25	4,25	4,25	4,25	4,25	4,25	4,25	4,5
Weighted average rate for calculating interest accrued (displayed in ECMS)		4,25	4,25	4,25	4,25	4,25	4,25	4,25
Spread	0	0	0	0	0	0	0	
Interest accrued so far	0	236,11	472,22	708,33	944,44	1.180,56	1.416,67	1.652,78



Interest calculation for Day 12: 2,000,000*4.35416667*12/36000 Interest calculation for Day 11: 2,000,000*4.34090909*11/36000

2. Testing period and test cases 2.4. Main refinancing operation – Fixed Rate Tender (not a fundamental test case)



The daily accrued interest affects the collateral pool position. Therefore, the amount that has to be collateralised increases by €152.08 on a daily basis.

target ECMS

The booking is made in CLM via pacs 009.

* Allotment amount and interest rate are set by Deutsche Bundesbank and are the same for every counterparty.

* There were technical problems with this tender.

2. Testing period and test cases Explanation of netting results



			Netting for		Netting for		Netting for		Netting for
Monday, 07 October		Tuesday, 08 October	October 08th	Wednesday, 09 October	October 09th	Thursday, 10 October	October 10th	Friday, 11 October	October 11th
		MRO Settlement 20550001 (Page 15)	+1.5 Mio	USD Settlement 20550005 (Page 12)	+5,5 Mio	FTD Settlement 20550002 (Page 10)	-2 Mio	MRO Maturity 20550001 (Page 15)	-1.5 Mo
							2 Mio from your bank account in CLM	LTRO Settlement 20550004 (Page 13)	+2 Mio
						USD Settlement 20550003 (Page 11)	5.5 Mio		
			1.5 Mio to your bank		5,5 million		5.5 million		0.5 Mio to your
			account in CLM		collateral blocked		collateral blocked		bank account in CLM
	Netting for		Netting for				Netting for		
Monday, 14 October	October 14th	Tuesday, 15 October	October 15th	Wednesday, 16 October		Thursday, 17 October	17th September	Friday, 18 October	
USD Maturity 20550003 (Page 11)	-5.5 Mo	FTD Maturity 20550002 (Page 10)	+2 Mio			LTRO Maturity 20550004 (Page 13)	-2 Mio		
							2 Mio from your bank account in CLM		
						USD Maturity 20550005 (Page 12)	-5,5 Mio		
	-5.5 million		2 Mio to your bank				-5,5 million		
	collateral blocked		account in CLM				collateral blocked		



3. Monitoring of operations

3. Monitoring of operations Test cases for open market operations



Testing activities to check for the fundamental test cases' success:

For 3.1. Pool Overview

• Please check if the settled operation is displayed in "Pool Overview", with the correct settlement amount and the calculated interest amount.

For 3.2. Collateral

• Please check whether the calculated interest amount for outstanding open market operations is displayed in "Exposure".

For 3.3. Exposure

• Please check whether the calculated interest amount is displayed for outstanding fixed-term deposits.

Payments should be checked in CLM on settlement and maturity days, but it is also possible to look at them at a later date.

For additional information on fundamental test cases, please visit <u>ECMS user testing - fundamental test cases</u> (<u>europa.eu</u>).

3. Monitoring of operations Test cases for open market operations



Testing activies exceeding the fundamental test cases:

Zu 3.2. Collateral

• Please check whether the operations that have to be netted display the correct nominal, interest and netting amounts.



Module: Collateral and Credit

Screen: Pool Overview >> Pool Overview >> press button "Search" >> select data set in "List Pools Overview" >> press button "View"

Development Pool overview	^					
Pool Overview						
Display : Counterparty Pool			-			* •
Pool Identifier 🚥 🔻		Pool Reference			Counterparty == 🔻	٩
Pool Type 🚥 🔻		Insufficient Collateral	•	•	Is Active == 💌	•
Validity Start Date 🚥 🔻	t	Validity End Date		ä		
D Reset						Q Search
List Pools Overview						
<u>10 ×</u>						Q]) * 🕸 () 🖗
n Tenesaleterateur	SCP Pool		SCP Pool	ELA Pool		Anno da contacionala
Pool Identifiel Pool Type Counter POOL000000 SCP	Darty Total Collater Total Credit \$ SCL \$ 4,658,453,836.5 1,919,821.88 4,656,534,0	ECL \$ RCL \$ 114 4,656,534,014 4,656,534,014			Is Active \$ V Update Date Yes 25/01/2024 2	♥ Updater User 12 Is Locked ♥ ♥ Lock Origin ♥♥ 2. No



LATERAL	EXPOSURE	
Marketable Asset Collateral	Credit Freezing	
Externally Managed Collateral	Euro LPO	
Cash Collateral	Total Euro LPO	Total Euro LPO Margin
Fixed Term Deposit	Total Euro LPO Interess	st
Total FTD used as Collateral Total FTD used as Colla	teral Interest	87.5
FTD Positions	Non-Euro LPO	
	Total Non-Euro LPO	Total Non-Euro LPO Margin
TRIPARTY COLLATERAL		919,793.97
Credit Claims	Total Non-Euro LPO Int	715.41
Total Collateral		
Total Collateral Operations Relative Credit Limit	Marginal Lending Facili	lity
4,658,453,836.5	Total Exposure	
Total Collateral affected to OMO Total Collateral Value 1,919,821.88	4,658,453,836.5	1,919,87



"List Pools Overview" contains the following information:

Field	Explanation
Pool Identifier	Pool ID
Pool Type	Type of pool
Counterparty RIAD Code	Equal to your MFI Code
Total Collateral Value	Consolidated collateral amount
Total Credit	Consolidated amount of open market operations and marginal lending
SCL	Current credit line

For additional information on the different fields, please visit the UHB (User Handbook), Chapter 3.5.1.1.1.



"View Screen" contains the following information (part 1):

Field	Explanation
FTD used as collateral	Fixed-term deposits relevant to the collateral position
FTD used as collateral Interest	Outstanding interest amount for fixed-term deposits relevant to the collateral position
FTD Positions Button	List of all fixed-term deposits (please view chart)

To view the following screen, you have to go to screen "Pool Overview" and then press button "FTD Positions".

Pool Id 🕈 🛛 🖓	Counterparty 🖨 💎	Actual Position 🖨 🔗	Provisional Position 🗢 🐬	Conservative Position 🗢	9
P00L0000000		0	0		0

Fixed-term deposits not relevant to the collateral position are also included in the overview.

For additional information on the different fields, please visit the UHB (User Handbook), Chapter 3.5.1.1.1.



"View Screen" contains the following information (part 2):

Field	Explanation
Total Euro LPO	Sum of all liquidity-providing operations in euro (nominal amount)
Total Euro LPO Margin	Margin for all liquidity-providing operations in euro
Total Euro LPO Interest	Outstanding interest amount for all liquidity-providing operations in euro
Total Credit	Sum of all credit positions in the pool

Field	Explanation
Total Non Euro LPO	Sum of all non-euro liquidity-providing operations (nominal amount)
Total Non Euro LPO Margin	Margin for all non-euro liquidity-providing operations
Total Non Euro LPO Interest	Outstanding interest amount for all non-euro liquidity-providing operations



Testing activities to check for the fundamental test cases' success:

For 3.1. Pool Overview

• Please check if the nominal and interest amounts for your fixed-term deposits and liquidity-providing operations match with your allotted operations.



Module: Collateral and Credit

Screen: Collateral >> Fixed Term Deposit >> Display FTD Operation >> press button "Search" >> select data set in "Search Result: Fixed Term Deposit" >> press button "View"

🗘 Collateral		^																
Fixed Term Deposition	sit	< 0 D	isplay FTD O	peration														
Cash Collateral		> m N	etting FTD		>													
A Trinsche		~	-															
Display FTD Operation	0																	
Search Criteria : Fixed Term	Deposit																5	
Internal Reference ID						o	MORefNo == 🔻					FTD	Identifier ==	•				
Bidder Id					Q	Poo	I Identifier == 👻				Q	Allotm	nent Date ==	-			~	1
Settlement Date					—	Mat	turity Date 🛛 == 👻				—	Used As 0	Collateral ==	•			-	
Allotment Status	0 -				-		U2A == 🔻				-	Upd	late Date ==	-			<u>ط</u>	ł
D Reset																	Q Seard	h
Search Result : Fixed Term I	Deposit																	~
10 💌																Q	🗈 🖈 🖾 🗘 🕯	9
🔲 OMORefNo 🖘 Internal Refe	er FTD Identifier E	Bidder Id 🔶 🖓	Pool Identifie	Segregated O	Nominal 🗢 🖙	Currency 🗢	S Allotment Dat	Settlement D	Maturity Date \$	💎 Used As Colla 🛛	Interest Rate 👳	Accrued Inter	Last Interest 💬	Next Interest	Allotment Sta	Status Reaso	Update Date 💎 🛛	Jpdat
20240170 DEFTD24062	5 DEXSWF2400		P00L000000	FTD	3,000,000	EUR	25/06/2024	25/06/2024	27/06/2024	No	2.5	0	27/05/2024		Pending Closu		26/06/2024 19	
20240046 DEFTD24052	8		POOL000000	FTD	2,300,000	EUR	28/05/2024	28/05/2024	05/06/2024	Yes	3.75				Rejected		29/05/2024 10	
	5 DEFBZM2400		POOL000000		5,000,000		15/05/2024	16/05/2024	17/05/2024	No	3		17/05/2024		Closed		24/05/2024 11	
	6 DEOORO2400		POOL0000000		10,000,000		16/05/2024	16/05/2024	17/05/2024	No	5		17/05/2024		Closed		23/05/2024 20	
	5 DEQJFA24002		POOL0000000		1,000,000		15/05/2024	17/05/2024	22/05/2024	No	1		21/05/2024	22/05/2024	Closed		21/05/2024 11	
20230507 DEFTD240424			POOL0000000		2,400,000		28/03/2024	28/03/2024	03/05/2024	Yes	-0.022917		03/05/2024		Closed		02/05/2024 19	
20230506 DEFTD240424 20240001 DEFTD240424	4 4 DENPVX24000		POOL0000000		1,000,000		28/03/2024	28/03/2024 24/04/2024	03/05/2024 26/04/2024	Yes	0.1		03/05/2024		Closed		02/05/2024 19	
DEF1024042	MDEINF VX24000		P002000000	FID	3,000,000	LUN	24/04/2024	24/04/2024	20/04/2024	165	1	2/1.10	20/04/2024		ciosed		23/04/2024 19	



Search Result : Fixed Term Deposit > View : Fixed Term Deposit		History
Operations Details		
OMORefNo	Revision	Transaction Type
20230531	1	Fixed-Term Deposits
Operation Name	Operation Type	Procedure
Fine-tuning	Liquidity Absorbing	Quick Tender
Auction Type Fixed Rate Tender	All Method	Business Value Type RATE
Quotation	Reference Entity	Allotment Date
		15/05/2024
Maturity Date	Settlement Date	Duration in Days
17/05/2024	16/05/2024	1
Spread	Segregated Operation Type	
0	FTD	
Allotment Details		
Internal Reference ID	Bidder Id	NCB identifier
DEFTD24051500247		DE06999
Pool Identifier POOL0000000	Nominal 5,000,000	Currency EUR
. 001000000		Lon
FTD Identifier	Used As Collateral	
DEFBZM240010008	No	Bids [1]



Module: Collateral and Credit

Screen: Display FTD Operation >> scroll downwards >> press button "Movements Details" >> select data set in "Search Result: Exposure Movement" >> press button "View"

Amounts in EUR		
Provisional Interest in EUR	Provisional Maturity Amount in EUR	Outstanding Amount In EURO
416.67	5,000,416.67	5,000,000
Interest Details		
Reference Rate	Interest Rate	Accrued Interest
10	3	0
Is Different Accounting Rate	Accounting Rate	Accrued Accounting Interest
No		416.67
Trans Fee Amount	Last Interest Calculation Date	Next Interest Calculation Date
	17/05/2024	

Status Details		▲
Allotment Status Closed	Status Resson	Is Amended
Closed		No
Action To Validate	U2A	
	Yes	Business Validation Errors [0]

Payment Details

Movements Details



Search Result	Exposure Movemen	t														^
10 💌	.0 - ★ @ □ () ♦											1 🛛 () 🔊 🖓				
Pool Movement ID	🖗 Main Reference 🕈 🖓	Counterparty 🗧 🖓	Pool Identifier 🛊 🔇	7 Amount 🗘 🛛 🖓	Pool Variation \Rightarrow	Intended Settleme	Event Description 🖗	Collateral Insufficie	Absolut Credit Limi	Netting Indicator 🖓	Netting Reference 🕏	Movement Status 🖓	Update User Id 🛊 🖓	Update Date 🛊 🛛 🖓	Movement Type Q	Is From Migration 🖓
PMLDE	20230531		P00L000000	0		17/05/2024	Accrued interest on	No	NO	Yes	DENET24051770014	Settled		16/05/2024 19:19:59	Interest	No
PMLDE	20230531		P00L000000	5,000,000		16/05/2024	Fixed Term Deposit	NO	NO	Yes	DENET24051650015	Settled		15/05/2024 19:34:14	Fixed Term Deposit	NO
PMLDE	20230531		P00L000000	5,000,000		17/05/2024	Fixed Term Deposit	NO	NO	Yes	DENET24051770014	Settled		16/05/2024 19:19:56	Fixed Term Deposit	No
PMLDE	20230531		P00L000000	416.67		17/05/2024	Accrued interest on	NO	NO	NO		Settled		16/05/2024 19:13:12	Interest	NO



"View Screen" contains the following information:

Field	Explanation
Provisional Interest	Provisionally calculated interest amount to be paid at maturity
Outstanding Accrued Interest	Interest amount accumulated so far
Total Accounting Interest	Final interest amount from an accounting perspective
Amount prepared for Accounting	Interest amount accumulated so far from an accounting perspective



Modul: Collateral and Credit

Screen: Collateral >> Fixed Term Deposit >> Netting FTD >> "Display Netting Result FTD" >> press button "Search" >> select data set in "Search Result: Netting Result" >> press button "View"

Collateral	•						
I Marketable Assets							
I Fixed Term Deposit	Dinput FTD Operation						
I Cash Collateral							
I Externally Managed Collateral	C Display PTD Operation						
	Amend FTD Operation						
Triparty >	C Recycle PTD Operation						
Credit Claims	Cancel FTD Operation						
Non Marketable Asset Fees	Confirm CLM Rejection						
cposure 🗸	Netting FTD	< 🗘 Manual Netting FTD					
10 Interest Rates	-						
ansfer 🗸 🗸		Display Netting Result F					
lidation / Rejection		Recycle Netting Result F	TD				
		Cancel Netting Result FI	то				
otification							
Number		•	Netting Date 🔤 👻		—	Creation Date 👻	
Netting Status 🛛 🖛 👻		•					
							Q s
Reset							Q S
n Result : Netting Result			$<$ Page 1 of 3	× ×			Q 21) ★ 🖾 (
Result : Netting Result	tifler ● 🛛 ▽ Counterparty RIAD Co.▽	Amount • 🖓 Margin	K < Page 1 of 3 Amount ♦ ♡ Netting Currency ♥		ting Date 🗢 🔗 Netting	g Setup 🕈 🗢 🗸 Netting Status 🕈	
Result : Netting Result	tilfier 章 ♡ Counterparty RIAD Co♡	-2,000,000	Amount O EUR	♥ Interest Amount ◆ ♥ Nett 888.89 23/0	09/2024	Settled	(Q_27) ★ ⊠0 C ↓ Update Date € ♥ Update User Id € 23/09/2024 02:31:01:039
Result : Netting Result	tifier \$	-2,000,000 2,000,000	Amount Verting Currency Netting Currency EUR EUR EUR	Interest Amount ◆ Net 888.89 2370 0 1970	09/2024 09/2024	Settled Settled	Q 21 ★ 2 (↓ Update Date • ↓ Update User id • 23/09/2024 02:31 01:039 19/09/2024 12:08:41:388
Result : Netting Result	tifier \$ 💎 Counterparty RIAD Co.⊽	-2,000,000 2,000,000 2,000,000	Amount Constraint Currency Currency Currency Constraint Currency C	Interest Amount \$ Nett 888.89 23/0 0 19/0 0 18/0	09/2024 09/2024 09/2024	Settled Settled Settled	Q ≥1 ★ ■ C
Result : Netting Result	tifier ● ♡ Counterparty RIAD Co⊘	-2,000,000 2,000,000 2,000,000 -1,500,000	Amount Image: Second seco	Interest Amount € Nett 888.89 23/0 0 19/0 0 18/0 208.34 18/0	09/2024 09/2024 09/2024 09/2024	Settled Settled Settled Settled	Q 21 ★ 2 0 0 Q
n Result : Netting Result	iffier 章 ♡ Counterparty RIAD Co♡	-2,000,000 2,000,000 2,000,000 -1,500,000 1,500,000	Amount ● ♥ Netting Currency ● 0 EUR	Interest Amount Nett 888.89 23/0 9 0 100 18/0 200.34 18/0 100 16/0 100 16/0	09/2024 09/2024 09/2024 09/2024 09/2024	Settled Settled Settled Settled Settled	Q 21 ★ 21 Q ✓ Update Date 4 ✓ Update User fit 3 23/09/2024 02.31 01 039 13/09/2024 12:08 41:38 10/09/2024 12:08 4642 17/09/2024 12:03 06 452 16/09/2024 02:31 06:11 16/09/2024 02:31 06:11
h Result : Netting Result	tifier \$ 💎 Counterparty RIAD Co	-2,000,000 2,000,000 2,000,000 -1,500,000	Amount Image: Second seco	Interest Amount € Nett 888.89 23/0 0 19/0 0 18/0 208.34 18/0	09/2024 09/2024 09/2024 09/2024 09/2024 09/2024 09/2024	Settled Settled Settled Settled Settled Waiting T2Response	Q 21 ★ 2 0 0 Q
h Result : Netting Result	tifier 9 💎 Counterparty RIAD Co🖓	-2,000,000 2,000,000 -1,500,000 1,500,000 -3,000,000	Amount 9 7 Netting Currency 9 0 EUR 0 EUR 0 EUR 0 EUR 0 EUR 0 EUR 0 EUR	Interest Amount \$ Nett 888.9 23/C 6 190 1 180 2 208.34 1 190 1 190 1 190 1 190	09/2024 0000000000000000000000000000000000	Settled Settled Settled Settled Settled	Q 21 ★ C Q 2009/2024 02-31 01:039 Update User 1d 2 19/09/2024 12:08.41:388 19/09/2024 12:038 642 1 19/09/2024 12:038 642 1 1 1 10/09/2024 12:038 642 1 1 1 1 10/09/2024 02:04 16:103 1 1 1 1 1 10/09/2024 02:31 06:117 1 <
Reset	Ilfier 章 - ♡ Counterparty RIAD Co♡	-2,000,000 2,000,000 -2,000,000 -1,500,000 1,500,000 -3,000,000 -1,500,000	Amount	Interest Amount. Wett 888.89 237 6 1897 2 1897 2 208.34 1 1807 1 1999 1 1,25	39/2024	Settled Settled Settled Settled Settled Walting T2Response Walting T2Response	Q 20 ★ Image: Control of the second



Display Netting Result FTD			
Search Criteria : Netting Result			* •
Search Result : Netting Result > View : Netting Result		His	story 🔨
Transaction Reference Number	Pool Identifier	Counterparty RIAD Code	
Amount -2	Margin Amount 000,000	Interest Amount 0	888.89
Netting Currency	Netting Date	Netting Setup	
EUR	23/09/2024		
Netting Status Settled	Error Description		
		-	_
Movements Details			
Netting Movement PMLDE00000	Netting Interest Movement PMLDE00000	Margin Movement	
Netting Details			
Settling Operation (0)	Maturing Operation [1]	Maturing Early Repayment (0)	
Setting operation to	maturing operation [1]	watung cany nepayment (oj	
FootPrint			



Testing activities to check for the fundamental test cases' success:

For 3.2. Collateral:

• Please check if the calculated interest amounts match your allotted operations on a daily basis and at maturity.



Module: Collateral and Credit

Screen: Exposure >> Open Market Operations >> Operations >> Display OMO Instruction >> press button "Search" >> select data set in "Search Result: Allotment" >> press button "View"

C Exposur	ne		~																				
🗘 Cred	it Freezing		>																				
🗘 Oper	n Market Ope	erations	< 0.	Operations			<	Diceloud	OMO Instruction	-	-												
🗘 Stan	ding Facilities	5		Early Repayn	ment				Calculated interes		- 62												
Q LP O	perations Ne	tting		TLTRO3 Proc			> [~]	Display	calculated interes	n.	_												
🗘 OMO In	terest Rates		~	_	_	_	_																
🗘 Transfer	r		~																				
=											targ	<u>т</u> есмя		Bu	siness Date 05/	04/2024 🇮 🙏 👱 DEC	8 🕶 🔺 AEAC-I	N, U2A-User of	f 0458468 for D	E01109 👻			
Display OM	0 Instruction																						
Search Criteria : A	Allotment																					1	* ^
	Internal Reference	oe ID == 👻							OMORef	No == +							Pool	Identifier == ·	•				۹
	Bidd	erid == 👻					a		MP Operation Ty	pe == •							Fx	Currency ==					
	Allotment	Date == 👻					-		Settlement De	te == •						8	Mat	unity Date == ·	•			ſ	*
	Allotment St	stue () -					-		U	2A == 👻						•	Upr	date Date == ·	•			1	—
D Reset																						Q, Sea	arch
U Resex																						 Q, 368	itai
Search result : All	otment																					 	~
10 💌																						Q 10 * 🗐 ()	9
	Internal Refer MP 0				Allotment Dat.		Maturity Date.		Initial Margin # Currency #	🖓 Fx Rate 🗢	Fx Currency 4			Interest Rate 🖗 S	pread 🗢 🖓 🖡	Accrued Inter [®] Last Interest					Update User IC		
	DELP0240404. MR0 DELP0240404. MR0		P00L0000000.		04/04/2024	05/04/2024	08/04/2024	2,000,000	EUR				(eo (eo	4	0	0	08/04/2024	Validated Validated	Pending	04/04/2024 1			
	DELPO240404. LTRO		P00L0000000.		04/04/2024	04/04/2024	08/04/2024	3.000.000	EUR				(eo	4.5	0.1	383.33 05/04/2024	08/04/2024	Settled		04/04/2024 1			
	DELP0240321 MR0		P00L0000000.	- 2	21/03/2024	21/03/2024	27/03/2024	2,500,000	EUR			1	(eo	4	0	0	22/03/2024	Validated	Pending	21/03/2024 1			
20240002	DELP0240311 LTRO	LTRO	P00L0000000.	u - 1	11/03/2024	12/03/2024	13/03/2024	2,500,000	EUR			١	(eo	4.68	0	325 13/03/2024		Closed		12/03/2024 1			
20240001	DELP0240311 LTRO	LTRO	P00L0000000.		11/03/2024	11/03/2024	13/03/2024	5,000,000	EUR			1	(eo	4.5	0.1	766.67 13/03/2024		Closed		12/03/2024 1			
20230212	DELP0240228 TLTR	O-III TLTROIILS	-10 POOL0000000.	. 2	29/08/2023	30/08/2023	29/03/2024	1,000,000	EUR			1	(eo	4.395667	0	25,769.35 28/03/2024	02/04/2024	Settled		27/03/2024 1			
	DELP0240228 TLTR			-	29/08/2023	30/08/2023	29/03/2024	4,500,000	EUR				(eo	4.395557	0	115,962.08 28/03/2024	02/04/2024	Settled		27/03/20241			
	DELP0240228 MR0		P00L0000000.	_	07/02/2024	07/02/2024	28/02/2024	1,100,000	EUR				(eo	0	0	0 28/02/2024		Closed		29/02/2024 1			
20230410	DELP0240228. MR0		P00L0000000.	- 2	28/01/2024	31/01/2024	04/03/2024	1,100,000	EUR			1	(eo	0	0	0 04/03/2024		Closed		04/03/2024 0			



Search result : Allotment > View : Allotment				Hatary 🔿	
Operation Detaile					
OMDRetNo	Revision		Procedure		
202.6026			Standard Tender		
Operation Name Longer-form Reflaxacing	Segregated Operation Name LTRO		Operation Type Liquiday Providing		
Transaction Type	Auction Type		All Method		
Reverse Transactions	Fixed Rate Tender				
Reference Entity	Business Value Type		Quotetion		
Average MRO rate			Spread		
Allotment Date 64/04/2024	Settlement Date 04/04/2024		Maturity Date 08/04/2024		
Original Settlement Date	Original Termination Date		Duration in Days		
				4	
Currency	Px Currency		Fx Rate		
TTR					
MP Operation Type LTRO					
Allotment Details					
Internal Reference ID	Bioder Id		Pool Identifier		
DELPO240404022468					
NCB Identifier DEX6999	Nominal	3,000,00	Fx Amount		
Allotment Statue	Status Reason	al e a a a a a a a a a a a a a a a a a a	Preliminary Collateral Insufficiency		
Settled			No No		
Eligible to Early Repayment	Is Partially Reimburged		Ia Fully Early Repaid		
No.	<u>No</u>		No		
Base (1)	Business Velidation Errors [3]		Instruction Status Activated		
300 L1					
Operation Amounta in EUR					
Operation Amounta In EUR					
Initial Mergin		Provisional Interest in EUR		Provisional Maturity Amount in EUR	
n na magn			1,633.33	Tomorran matering sensor in East	3,001,533.33
Externally Covered Amount		Reimburged Amount In EUR		Outetanding Amount In EURO	
	0		0		3,000,000
Amounts in Currency					
Provisional Interest in ourrency		Provisional Maturity Amount in Currency		Reimbursed Amount In Currency	
					0
Outstanding Amount In Currency					
Interest					
Reference Rete		Dayo Bace		Interest Rate	
ECB Main refinancing operations Acorued Interest		Actual On 360 Socread		Accrued Interest In Currency	45
	383.33		0.1	L Contraction of the second se	
Externally Covered Interest		le Interest Rate Dismisses		Accounting Rate	
Accrued Accounting Interest		Yes Is Different Accounting Rate		Accrued Accounting Interest Currency	
	383.33	No			
Lest Interest Calculation Date 05/04/2024		Next Interest Calculation Date 08/06/2024		Next Revoluction Date	
0.0 T 20.0		00 00 1010			
Payments Details					
			nenta Detaila		



Module: Collateral and Credit

Screen: Display OMO Instruction >> scroll downwards >> press button "Movements Details" >> select data set in "Search Result: Exposure Movement" >> press button "View"

Search Result : Expo	osure Movement														
10 💌	• (2.3) * 41日 (2.4)														
Pool Movement ID ¢	🖓 Main Reference 🕈	Counterparty	Pool Identifier ♦	🖓 Amount 🗘 🖓	Pool Variation \$	Intended Settlement Date 🖣	Event Description \$	Collateral Insufficiency \$	Absolut Credit Limit Breac	Netting Indicator \$	Netting Reference 🛊 💦	Movement Status 🛊 🛛 🖓	Update User Id 🛊 💦 🖇	Update Date 🕈 🛛 🖓	7 Movement Type 🕈
PMLDEO	20240025			1,533.33		08/04/2024	Credit Operation Interest	No	No	No		Prepared		04/04/2024 19:12:57:789	Intereot
PMLDED	20240025			3,000,000		04/04/2024	Credit Operation Settlement	No	No	No	DENET24040410002001	Settled		04/04/202412:02:41:874	Caoh
PMLDED	20240025			383.33	-383.33	05/04/2024	Credit Operation Interest	No	No	No		Settled		04/04/2024 19:19:43:674	Intereot

Search Result : Exposure Movement $>$ View : Credit Operation Settlement Movement		History 👗
MOVEMENT DETAILS		
Counterparty	Pool Identifier	Pool Movement ID
		PALDE
Main Reference	Amount	Mvt Currency
20240026	3,000,000	EUR
Counterparty's MCA	CLM CB Account	Real Settlement Date
BEGODI	MARKDEFFCMS	04/04/2024
Intended Settlement Date	Value Update Reason	MP Operation Type
04/04/2024	Exposure Initiation	LTRO
STATUS DETAILS		
Instruction Status	Is Valuated	Collateral Insufficiency
Settled	No	No
FootPrint		



12/01/2024 02

12/01/2024 02

97.22 11/01/2024 19

138.89

88.5

0

97.22

Module: Collateral and Credit

Screen: Exposure >> Open Market Operations >> Operations >> Display Calculated Interest >> press button "Search" >> select data set in "Search Result: Calcualted Interest" >> press button "View"

Deposure		^																		
Credit Free	ezing	>																		
🗘 Open Mark	ket Operations	< 🗘 Opera	ations	C Dimba	OMO Instruction	_														
🔅 Standing R	acilities	> C Early			Calculated interest	- 64														
LP Operation	ions Netting		03 Process	> Uspay	calculated interest	_														
OMO Interest	Rates	~	_	_																
🗘 Transfer		~																		
Search Criter	ria : Calculate	ed Interest																		*^
Ir	nternal Reference	e ID == 👻						Da	ate == 💌				8		Transaction Type					-
	Creation I	Date == 🔻						Update Da	ate == 🔻				Ê							
D Reset																				Q Search
Search Resu	ilt : Calculate	d Interest																		
10 👻																			Q 41) ★ 🕱	1007
Internal Refer	Counterparty #	Date 🖨	🖓 Transaction T	Provisional In.	Provisional In:	Outstanding 💬	Outstanding 🖓	Accrued Interg	Accrued Inter	Paid Accrued	Paid Accrued	Externally Co	Not Externall	Interest Rate 👳	Total Accoun	Total Accoun	Amount prep	Amount prep	Update Date 😜	Update User 🕼
DELP0240110		19/01/2024	Interest Calcul_	715.4	777.78	715.4	777.78	97.23	105.71	89.43		0	89.43	3.5	715.4	777.78	89.43	97.23	19/01/2024 10	
DELP0240110		18/01/2024	Interest Calcul	715.4	777.78	625.97	680.56	97.22	105.69	89.42		0	89.42	3.5	625.97	680.55	94.94	103.22	18/01/2024 02	
DELP0240110		17/01/2024	Interest Calcul	708.04	777.78	531.03	583.33	97.23	106.81	88.51		0	88.51	3.5	531.03	583.34	88.51	97.23	17/01/2024 08	
DELP0240110		16/01/2024	Interest Calcul	708.04	777.78	442.52	486.11	97.22	106.79	88.5		0	88.5	3.5	442.52	486.11	88.5	97.22	16/01/2024 02	
DELP0240110		15/01/2024	Interest Calcul	708.04	777.78	354.02	388.89	291.67	320.4	265.52		0	265.52	3.5	354.02	388.89	265.52	291.67	15/01/2024 17	
DEFTD240111		15/01/2024	Interest Calcul	388.89		388.89		291.67						3.5	388.89		291.67		15/01/2024 11	
DEFTD240111		12/01/2024	Interest Calcul	388.89		97.22		97.22						3.5	97.22		97.22		12/01/2024 09	

222.22

138.89

88.5

0

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2.5

3.5

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222.22

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88.5

97.22

12/01/2024

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12/01/2024

Paid Accrued I.

Paid Accrued I

Interest Calcul_

777.78

708.04

0

777.78

DELP0240109.

DELP0240109.

DELP0240110.



To be able to match the calculated interest amounts with the tender operations, you need the "Internal Reference ID" from the "Display OMO Instruction Screen" (for more, please go to page xx)

"View Screen" contains the following information:

Field	Explanation
Provisional Interest	Provisionally calculated interest amount to be paid at maturity
Outstanding Accrued Interest	Interest amount accumulated so far
Total Accounting Interest	Final interest amount from an accounting perspective
Amount prepared for Accounting	Interest amount accumulated so far from an accounting perspective



"Display Calculated Interest" contains the following information:

Field	Explanation
Transaction Type	Interest rate payment or interest rate calculation
Provisional Interest	Provisionally calculated interest amount to be paid at maturity
Outstanding Interest	Interest amount accumulated so far
Accrued Interest	Interest amount accumulated on a daily basis
Interest Rate	Interest rate applied to an operation

3. Monitoring der Geschäfte 3.3. Exposure



Testing activities to check for the fundamental test cases' success:

For 3.3. Exposure:

• Please check if the calculated interest amounts match your allotted operations on a daily basis and at maturity.



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Module: Collateral and Credit

Screen: Exposure >> LP Operations Netting >> "Display Netting Result LPO" >> press button "Search" >> select data set in "Search Result: Netting Result" >> press button "View"

C Exposure	^					
Credit Freezing	>					
Open Market Operations	>					
Standing Facilities	>					
C LP Operations Netting	Manual Netting LPO					
🗘 OMO Interest Rates	 Display Netting Result LPO 					
Pool Overview	Display Netting Result LPO					
Search Criteria : Netting I	Result					* ^
Transaction Reference			Counterparty == 💌	Q	Pool Identifier == 💌	Q
Numbe	r					
Netting Currenc	y •	•	Netting Date		Creation Date	
-						
D Reset						Q Search
U Reset						C Search

Search Result : Netting Result

10	*	K < Page 1 of2 > > (Q 14) ★ ∰											
	Transaction Reference	Pool Identifier \$	Counterparty RIAD Co	Amount 🗢 🔗	Margin Amount 🗢 🛛 🖓	Netting Currency 🖨 🚿	🛛 Interest Amount 🖨 🖓	Netting Date 🖨		💎 Netting Status 🖨	♥ Update Date ♥ ♥ Update User Id ♥		
E	DENET	POOL	DE	-919,793.97	-110,375.28	USD	715.4	19/01/2024		Waiting FXPayment	19/01/2024 07:03:05:774		
	DENET	POOL	DE	-3,000,000	0	EUR	361.11	12/01/2024	MRO + LTRO	Settled	12/01/2024 02:26:21:996		
	DENET	POOL.	DE	910,332.27	109,239.87	USD	0	11/01/2024		Settled	11/01/2024 08:47:26:620		
	DENET.	POOL	DE	3,000,000	0	EUR	0	10/01/2024	MRO + LTRO	Settled	09/01/2024 19:15:58:090		
	DENET.	POOL	DE'	0		EUR		24/11/2023		Failed	24/11/2023 17:00:56:041		
	DENET	POOL	DE	-1,000,000	0	EUR	138.89	17/11/2023	MRO + LTRO	Settled	17/11/2023 10:50:45:870		
	DENET	POOL.	DE	1,000,000	0	EUR	0	15/11/2023	MRO + LTRO	Settled	15/11/2023 08:02:36:970		
177	DENET	POOL.	DE	2,000,000	0	EUR	0	14/11/2023	MRO + LTRO	Settled	14/11/2023 10:00:41:152		
1	DENET	POOL	DE	1,500,000	0	EUR	0	25/10/2023		Settled	24/10/2023 19:17:07:033		
	DENET	POOL	DE	2,000,000	0	EUR	0	29/09/2023	MRO + LTRO	Settled	29/09/2023 15:11:47:547		

3. Monitoring der Geschäfte 3.3. Exposure (Netting)



Search Result : Netting Result $>$ View : Netting Result		History
Transaction Reference Number DENET2401121	Pool Identifier POOL00000	Counterparty RIAD Code
Amount -3,000,000	Margin Amount	Interest Amount 361.11
Netting Currency EUR	Netting Date 12/01/2024	Netting Setup MRO+LTRO
Netting Status Settled	Error Description	
Movements Details		
Netting Movement PMLDE0000	Netting Interest Movement	Margin Movement
Netting Details		۵
Settling Operation [0]	Maturing Operation [1]	Maturing Early Repayment [1]
FootPrint		



"Netting Results LPO" contains the following information:

Field	Explanation
Amount	Nominal netted amount
Margin Amount	Netted margin of foreign currency transactions
Netting Currency	Currency of operations that have to be netted
Interest Amount	Netted interest payments
Netting Date	Date of netting
Netting Setup	Type of netted operations

For additional information on the different fields, please visit the UHB (User Handbook), Chapter 3.3.3.2.3.1.



Module: Collateral and Credit

Screen: Exposure >> LP Operations Netting >> "Display Netting Result LPO" >> press button "Search" >> select data set in "Search Result: Netting Result" >> press buttin "View" >> press button "Settling Operation"

Movements Details			^
Netting Movement PML/PE0000	Netting interest Movement PML0E000	Margin Movement	
Netting Details			
recursy periods			
Setting Operator [0]	Maturing Operation [1]	Maturing Early Repayment [1]	
FootPrint			

Internal Referenc	Pool Identifier 🖨 🖓	OMORefNo 🗧 🖓	Accrued Interest	Fx Amount 🗧 🖓	Outstanding Amo	Contract Currency.	Fx Currency 🖨 🖓	Instruction Status,	Used As Collatera	To Be Netted 🖨 🐬	Creation Date 🕈 🖓	Update Date 🔶 🖓	Creation User Id 💎	Update User Id 🗬
DELPO.	POOL.	20230184	0		0	EUR		Closed	Yes	No	09/01/2024 14:39:	12/01/2024 02:26:		
DELPO	POOL	20230180	0		0	EUR		Closed	Yes	No	09/01/2024 14:34:	12/01/2024 02:26:		



- With "View" it is possible to view data from the List screen for a single operation.
- With "Settling Operation", "Maturing Operation" and "Maturing Early Repayment" it is possible to view details about the netted operations.
- "Display Netting Result LPO" contains the following information:

Field	Explanation
Accrued Interest	Currently outstanding interest amount
Outstanding Amount	Currently outstanding nominal amount
Contract Currency	Currency of operation
Instruction Status	Current status of operation

Attention! When the operation reaches maturity, the accrued interest amount and the outstanding amount both turn to $0 \in$. It is not possible to check past values.

For additional information on the different fields, please visit the UHB (User Hand Book), Chapter 3.3.3.2.3.3.



Testing activies exceeding the fundamental test cases:

Additionally, for 3.3. Exposure:

• Please check if your booked and matured operations were netted correctly based on the nominal amounts, interest amounts and the booking date.

Additional information



- Please send an e-mail to ecms-test@bundesbank.de in case of questions or if you notice any bugs or abnormalities.
- We require confirmation of the test cases from page 4 you conducted. Please complete the survey sent to you.