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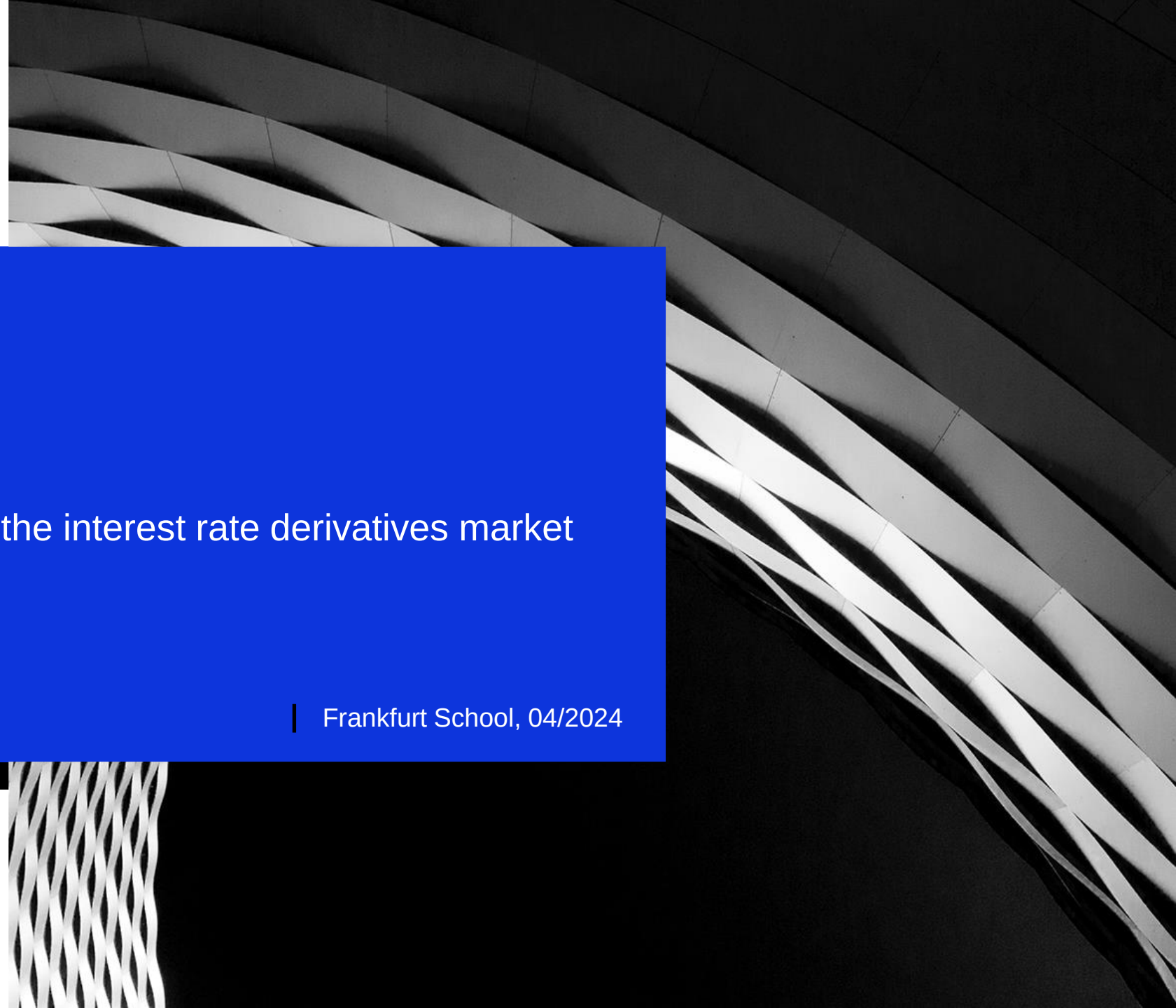

IBOR Transition

A fundamental change for the interest rate derivatives market

Stefan Wingenbach
Lars Klockmann

Frankfurt School, 04/2024

Agenda

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2 **IBOR TRANSITION**

Background
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3 **DERIVATIVES MARKETS**

New Market Standard
ISDA Fallback

4 **WHAT IS NEXT?**

EUR Market

5 **QUESTIONS & ANSWERS**

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- Director at LPA
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- Certified PMP and CFA Charterholder
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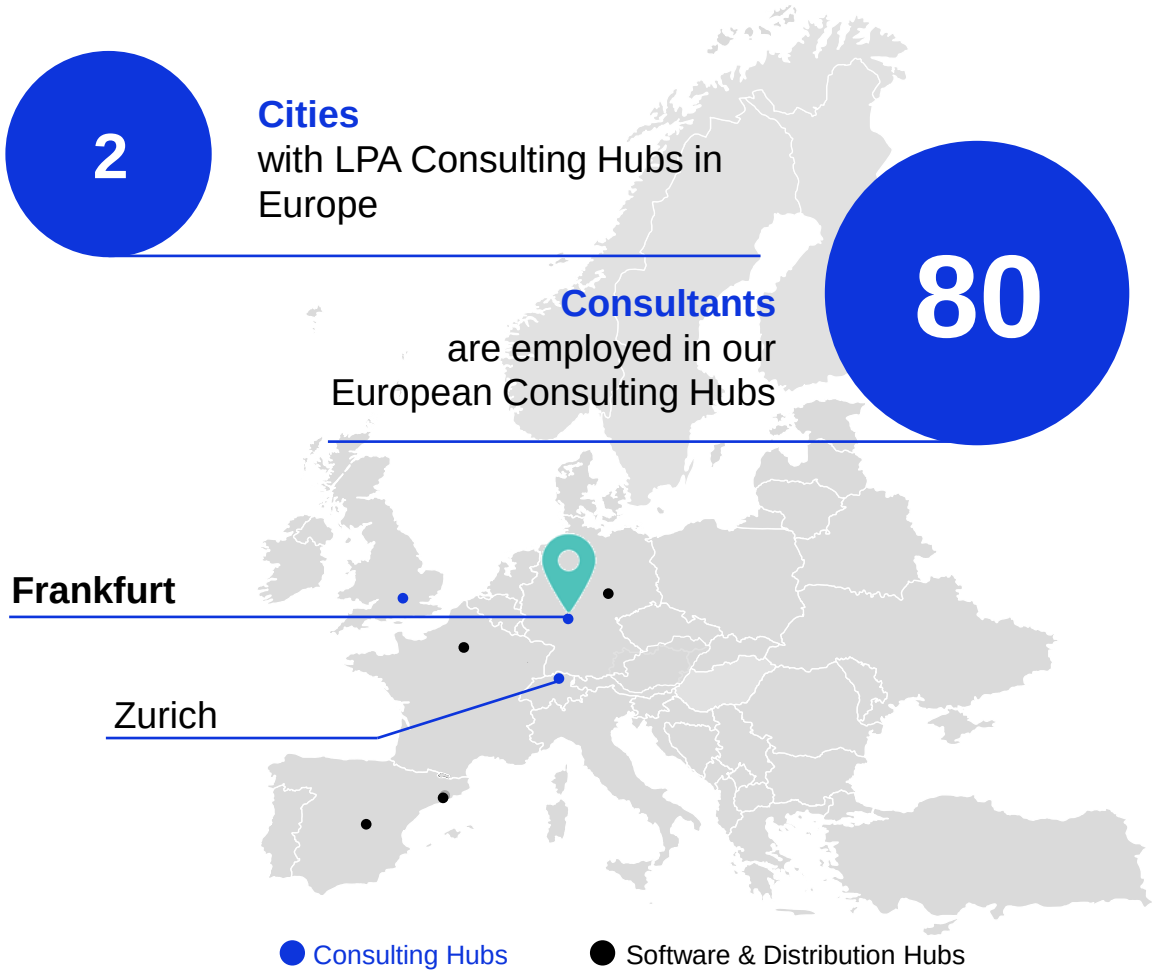

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INTRODUCTION

IBOR Transition

Financial crisis 2008: Decreasing liquidity of interbank lending enabled manipulation of LIBOR.

Until the regulation and reform of the reference interest rates, these were determined on the basis of expert judgment.

Panel banks	Voluntary participation of the banks
“Expert judgment”	Bank employees with appropriate market knowledge **estimate** the value per bank
Averaging	Adjustment of extreme values (individual methodology in details)
Fixing	Publication of one value per point in time as reference interest rate

! Employees of various panel banks exploited the system to gain economic profits by reporting false values

USD interbank loan portfolio (diverse maturities)

Quelle: Board of Governors of the Federal Reserve System

Structural challenge for the old system: very few transactions on the interbank markets. The financial crisis led to a significant decline in unsecured interbank loans with maturities of several months (risk reduction; influence of regulation; central bank policy).

Banks have paid a total of more than USD 10 Billions in fines during the LIBOR scandal.

EU fines banks record $2.3B over Libor

Euribor faces wind-up as banks distance themselves from benchmark

Landesbanken wird Euribor-Festsetzung zu heiß

Wall Street gets slammed with $5.8 billion in fines for rate rigging BUSINESS INSIDER

Libor Trap: Banks Want Out But Regulators Won't Let Them Leave Forbes

Panel Banks do **not have any economic interest** in contributing to LIBOR

Cost of compliance increased dramatically since the scandal

Litigation risks remain high, both for the participating banks, but more importantly for the staff involved in contributing data to the LIBOR

Operational risk remains high

IOSCO develops Principles for financial benchmarks to harmonize markets.

> *Work must begin in earnest on planning transition to **alternative reference rates that are based firmly on transactions**. Panel bank support for current LIBOR until end-2021 […]. The **planning and the transition must now begin**.*
>
> - Andrew Bailey, The Future of LIBOR, **27. Juli 2017** -

2012 LIBOR Scandal

2013 IOSCO and FSB: „Reforming Major Interest Rate Benchmarks“

2016-17 EU Regulation 2016/1011 and 2017/1147: From 2022 no new business for non-compliant critical benchmarks

2019/20 Evolved IBORs and alternative RFRs are established

End of 2021 Publication of GBP-, CHF- and JPY-LIBOR as well as EONIA discontinued.

30th June 2023: USD LIBOR Cessation -
LIBOR is gone

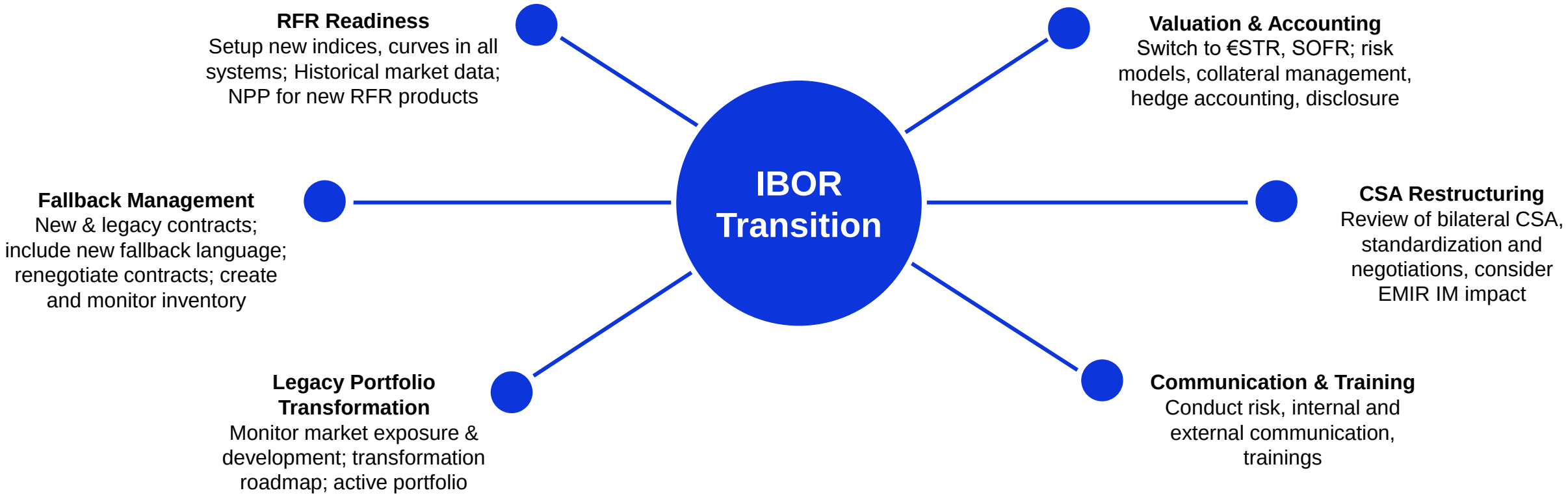
EURIBOR is alive

IOSCO, Principles for Financial Benchmarks 2013

- Motivation: Draw consequences from LIBOR scandal and regulate benchmarks
- Increase supervision, quality and transparency of benchmarks
- The FSB is responsible to support the international implementation of the principles
- **Transaction-based** definition of benchmarks (Principle 7)

Main objective:
remove dependency on survey based benchmarks

The IBOR transition affects almost all existing processes and areas of a bank. Insurance companies and asset managers are also affected.



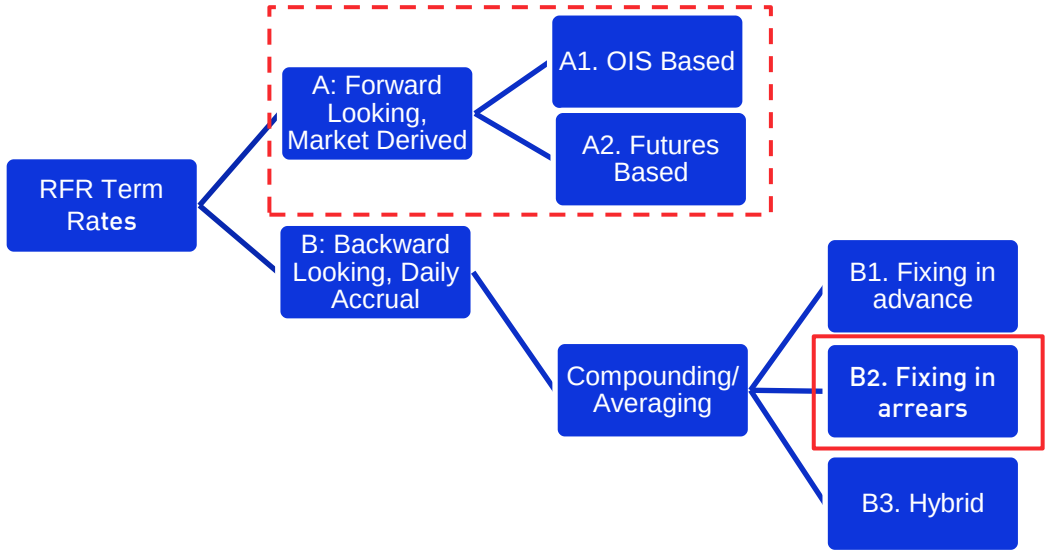
Private Sector Working Groups set up new / reformed existing risk-free rates “RFRs” as an alternative for LIBOR.

	Old RFR	New RFR	Administrator	Productive	Underlying Transactions	Secured	Transition Approach	OIS Clearing	PAI for Clearing
	EFFR	SOFR	FED	05-2018	Repo-Market	Yes	Coexisting Benchmarks	Yes	Yes Since Oct. 19th, 2020
	EONIA	€STR	ECB	10-2019	Money-Market Statistics	No	New Benchmark; Old Benchmark redefined as Tracker	Yes	Yes Since July 23rd,.2020
	SONIA	(reformed) SONIA	BoE	04-2018	Money-Market Statistics	No	Reform of existing Benchmark	Yes	Yes
	TOIS	SARON	SIX	12-2017	Repo-Market	Yes	Reform of existing *Benchmark; Cutover TOIS to SARON*	Yes	Yes

LIBOR term rates are replaced by RFRs – for most use cases by a backward looking compounding version.

Tenor of the Risk-Free Rates (Overnight) and maturities of the interest periods (e.g. 1, 3, 6 months) do not match (any more).
New concepts for deriving a term rate based on risk-free rates are needed.

Term RFR Methods



Calculation

OIS transactions or Quotes for term periods

1M or 3M Futures with usual maturities – interpolation between periods

The period rate is set one period in advance, with daily compounding

The period rate is set at the end of the period, similar to OIS with daily compounding

Fixing x Days (Beginning Suspension Period) before end of interest period

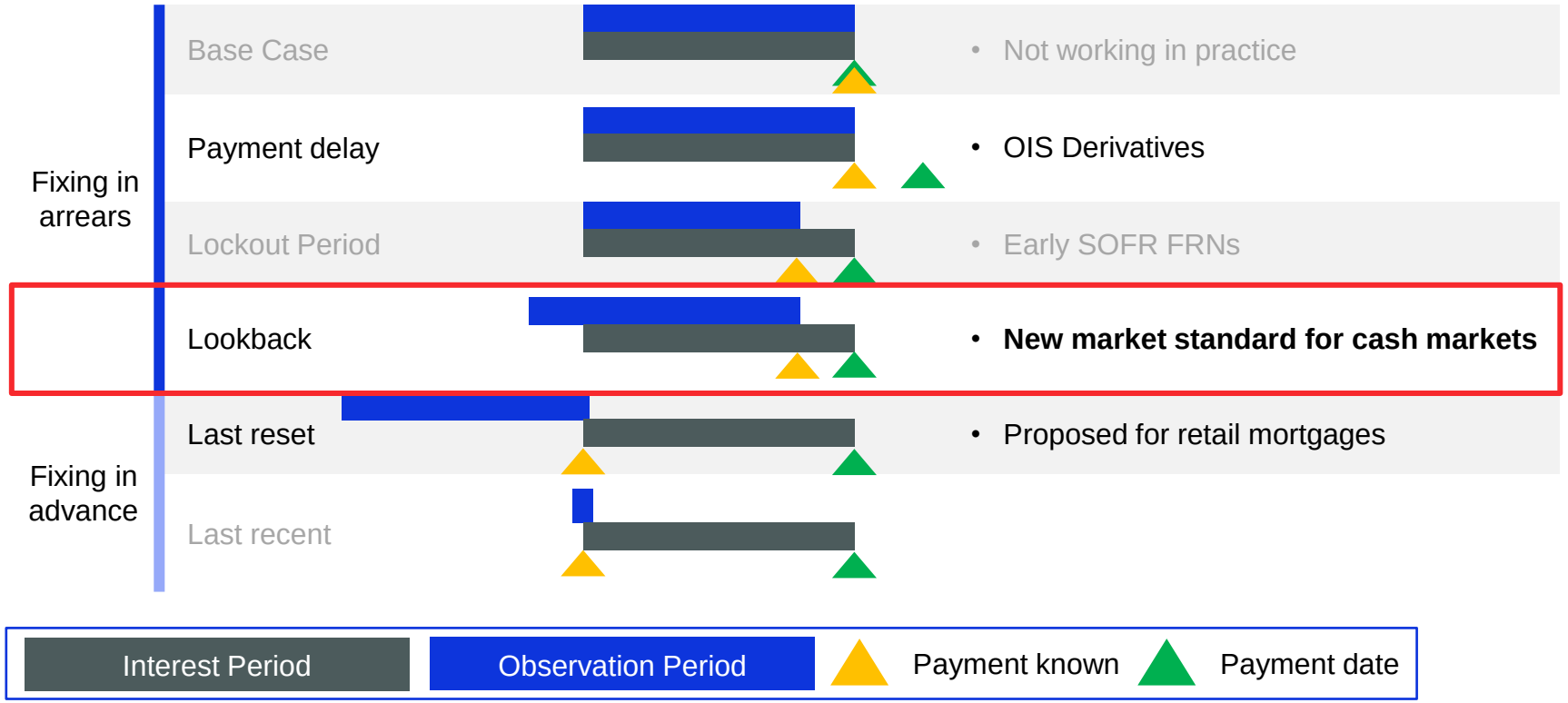
Valuation

- Easy to define
- Volume/ liquidity problematic
- Interpolation is intuitive but not trivial
- Liquidity could be possible
- Easy procedure
- No easy hedging strategy
- OIS as Hedging Instrument
- Operational problems for loans & bonds

Usances differ according to currency, client- and product type:

- **The interbank market has fully adapted the backward-looking, compounded, in arrears methodology (analogous to the practices for OIS swaps).**
- **In the client business, forward looking term rates have become established in individual market areas.**

FSB has indicated various conceivable versions of compounded RFRs (Excerpt below). Lookback seems the most likely for Cash Markets.



A (backward-looking compounded) RFR Term Rate can be calculated by daily balance calculation using RFRs.

$$\left[\prod_{i=1}^{d_b}\left(1+\frac{RFR_i \times n_i}{365}\right)-1\right]\times\frac{365}{d}$$

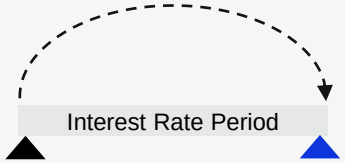
d_b	number of business days in the interest period
d	number of calendar days in the interest period
RFR_i	the interest rate applicable on business day I
n_i	the number of calendar days for which rate RFR_i applies (on most days, n_i will be 1, but on a Friday it will generally be 3, and it will also be larger than 1 on the business day before a holiday).
”365”	the market convention for quoting the number of days in the year

LIBOR is forward-looking (fixed in advance) while RFRs follow a significantly different computation methodology based on a daily compounded formula.

Forward Looking Term Rates (LIBOR)

Forward-looking

- Interest rate applicable to interest period is known and fixed in advance at the begin of the interest period.



- Fixing at begin of period is used to determine interest rate payment at end of period.
- **Interest payment is known in advance and determined as:**

$$Notional \times \frac{n_c}{DCB} \times LIBOR\ (or\ Term\ RFR)$$

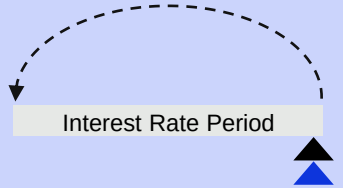
(Notional x Year Fraction x Interest Rate per annum)

- "n_c" is number of calendar days in contract's calculation period,
- "DCB" is the day count basis (360)

Backward Looking Compounded RFR *("OIS-Style")*

Backward-looking

- Interest rate applicable to interest period is based on historical market information / fixings during the interest period.



- RFR fixings only known during interest rate period
- **Interest payment is only known in the end of period:**

$$Notional \times \frac{n_c}{DCB} \times \left[\prod_{i=1}^{d_b}\left(1+\frac{RFR_i \times d_i}{DCB}\right)-1\right] \times \frac{DCB}{d_c}$$

(Notional x Year Fraction x **Compounded RFR (annualised)**)

- "n_c" is number of calendar days in contract's calculation period,
- "d_b" is number of RFR banking days in calculation period,
- "d_i" is number of calendar days applicable*) to RFR_i,
- "d_c" is number of calendar days in RFR calculation period,
- "DCB" is the day count basis (e.g. 360 for USD)

Forward-looking term RFRs are available for selected use cases in USD, GBP, JPY and EUR.

					
Administrator	CME, ICE	Refinitiv & ICE	ECB	QUICK	-
Forward-looking Term RFR	Term SOFR *(TSRR)*	Term SONIA *(TSRR)*	Term €STR *(EFTERM, Refinitiv Term €STR)*	TORF	-
Tenors	1-, 3- und 6-months	1-, 3-, 6- und 12-months	1-, 3-, 6- und 12-months	1-, 3- und 6-months	-
History since	April 2021	June/July 2020	November 2022	April 2021	-
Selected use cases [1, 2, 3, 4]	Retail loans and special forms of financing			All loans and bonds	-
	Multi-lender facilties, SME loans, hedge derivates for cash products and trade finance	Export finance/ emerging markets, private banking & retail, SME loans und trade finance	Mortgages for retail customers, consumer loans, SME loans and trade finance		

Every term rate uses a methodology which is based on prices of the derivatives market.

Therefore, the application of forward-looking term RFRs is still strongly restricted by the authorities. That is because the underlying derivates market must have high liquidity to be able to derive robust forward-looking term RFRs.

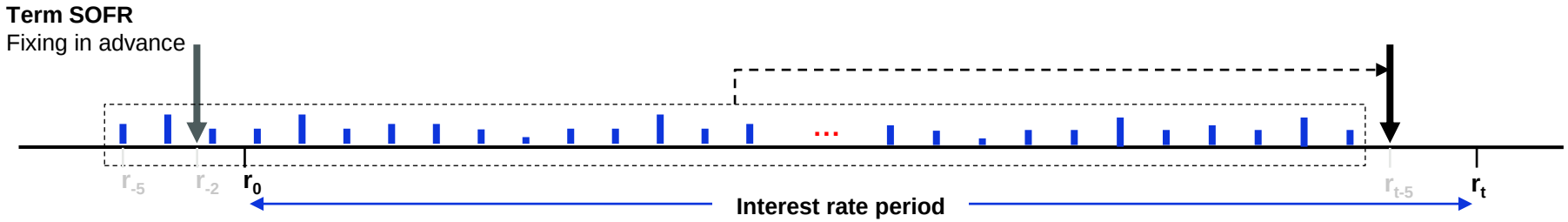
[1] use-cases-of-benchmark-rates-compounded-in-arrears-term-rate-and-further-alternatives.pdf (bankofengland.co.uk)
[2] Recommendations by the working group on euro risk-free rates on EURIBOR fallback trigger events and €STR-based EURIBOR fallback rates (europa.eu)
[3] ARRC_Scope_of_Use.pdf (newyorkfed.org)
[4] ARRC_Press_Release_Term_SOFR.pdf (newyorkfed.org)

While most large markets adapted new rates as market standard, EUR still uses EURIBOR. Offering and standards differ widely between markets.

	Compounded	RFR-Index	Averages	Term Rate	Credit Sensitive Rate (CSR)	IBOR
	Backward-Looking	Backward-Looking	Backward-Looking	Forward-Looking	Forward-Looking	Forward-Looking
	€STR	€STR Index	€STR Compound Averages	EFTERM, Refinitiv Term €STR	European AXI	EURIBOR
	SOFR	SOFR Index	SOFR Averages	CME Term SOFR (client business), ICE Term SOFR	BSBY, AMERIBOR	N/A
	SONIA	SONIA Index	N/A	ICE Term SONIA, FTSE Term SONIA	N/A	N/A
	SARON	SARON Index	SARON Compound Rates	N/A	N/A	N/A

Available, market standard | Available, commonly used | Available, uncommon | Available, only legacy business

Difference between Compounded SOFR and Term SOFR.
Term SOFR is similar to LIBOR from a mechanical perspective.



Term SOFR vs. Compounded SOFR

- Derivation of the fixing based on Compounded SOFR derivative markets (futures & OTC, see right). Like Compounded SOFR, the Term SOFR Fixing also contains a **significantly lower implicit credit risk than LIBOR and is quoted systematically lower.**
- Currently, there is no (liquid) market for Term SOFR. From a theoretical perspective, there should be no (significant) basis between Term SOFR and Compounded SOFR due to the construction of the fixing from derivative markets. **Therefore, both rates should came up (roughly) with the same pricing.** *(-> Delta between 3M Term SOFR Fixing and 3M SOFR Swaps less than +/-1,0 bp)*
- **Mechanics** of Term SOFR are **analogous to LIBOR** (fixing at the beginning, payment at the end of the interest period).
- Therefore, **external shocks (positive and negative) are reflected immediately within Compounded SOFR** whereas Term SOFR reflects this only at the next fixing – and thus for the next interest period. *(-> e.g. corona crisis: for single interest periods, Term SOFR was fixed more than 70 bp above compounded SOFR for the same interest period)*

	(Compounded) SOFR	Term SOFR
Admin	FED	CME
Term	Business daily	1m, 3m, 6m, 12m
Underlying market	ON Repo (collateralized by US Treasurys)	SOFR-linked derivatives (Futures & OTC)
History	Since April 2018	Since Apr 2021
Rate type	Backward-looking (Aggregation of daily fixings to a term rate)	Forward-looking (term rate)
Fixing	In arrears (at the end of the interest period)	In advance (at the beginning of the interest period)
Use Case	Interbank and client business	Client business only

The difference between term SOFR (credit) & SOFR OIS (funding) creates a basis risk for the bank

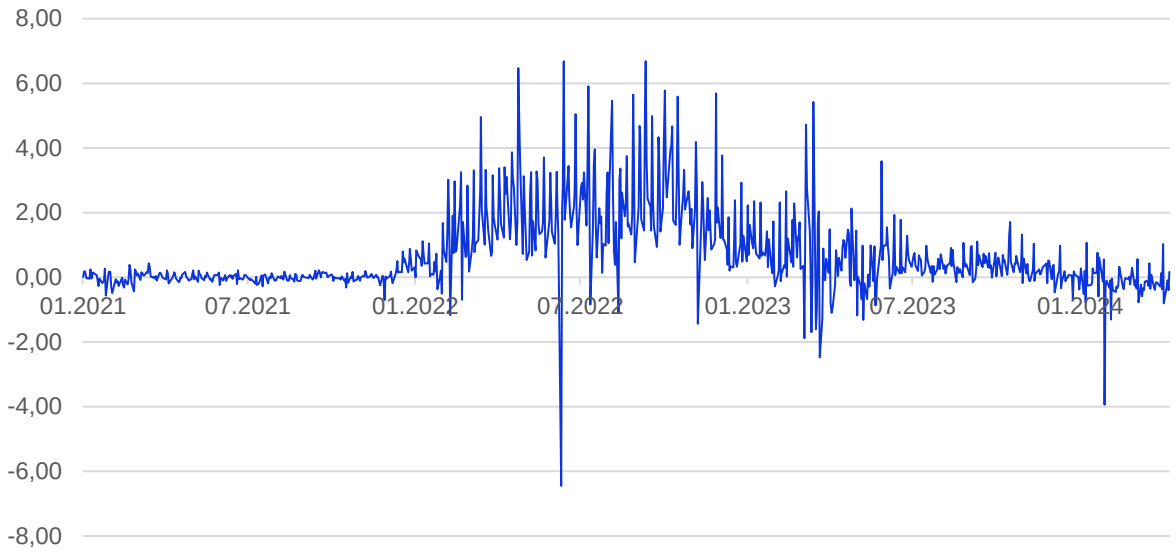
Basis risk management – the bank has different ways to handle basis risk.

Without hedging: Implementation of an **additional premium** to cover future fluctuations. The method is **not effective against fluctuations in earnings**.

Micro-hedging: Hedging of the fixing risk in the market. Due to the fixing methodology of the CME Term SOFR (considered period: 7 hours), **there is a high uncertainty**. Results in **additional hedging and capital costs**.

Macro hedging: Market makers offer term SOFR / SOFR OIS basis swaps for customer-related business. Results in **additional hedging and capital costs**.

Difference between Term SOFR and SOFR OIS



! The difference between the two interest rates is due, among other things, to the different convexities between futures (basis for term SOFR) and the OIS, whose difference **increases with rising interest rates and higher interest rate volatility**.

NEW CONVENTIONS

Derivatives Markets

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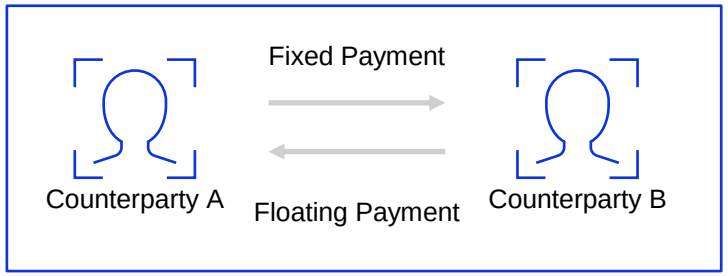
Recap: Interest Rate Derivatives

Bilateral Transactions (OTC)



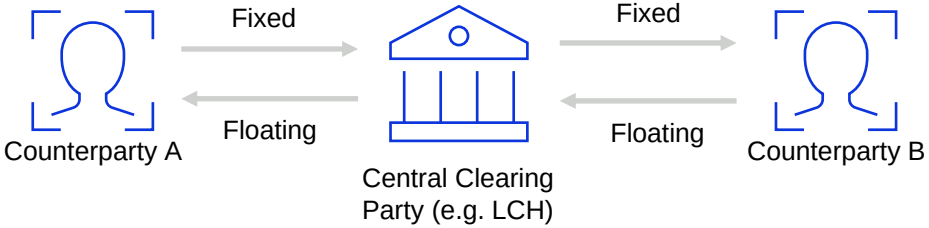
Collateralized

Requires **Credit Support Annex (CSA)** to be agreed separately to the master agreement

Collateral is usually provided in cash and is based on the current NPV

Uncollateralized

Cleared Transactions (via CCP)



Collateral is provided in cash and is based on the current NPV

An interest-rate swap is a bilateral agreement between to counterparties to exchange payments based on a fixed and a floating interest rate.

- One counterparty makes payments computed under a fixed interest rate specified in the contract.
- The other counterparty makes floating-rate payments (often linked to LIBOR) on the same principal.
- The agreement can be made bilaterally (OTC) or with a CCP as intermediary (cleared)
- Transactions are mostly collateralized (except for client business). Therefore there is a regular exchange of cash (or securities).
- Note: the principal is not exchanged (i.e. “notional“ principal).

The collateral is based on the derivative's market value. Nowadays, we (have) used multi-curve pricing.

Single-curve approach: All linear IRDs depend on only one zero-bond curve.

Procedure: With this single zero-bond curve we

1. calculate the **forward rates** with which we obtain the future cash flows and
2. **discount** these future cash flows

at the same time to price our IRD.

*Until **the financial crisis** of 2007–2008, **Libor** was seen as a **good proxy** for the theoretical concept of the **risk-free rate**, which motivated its usage for discounting.*

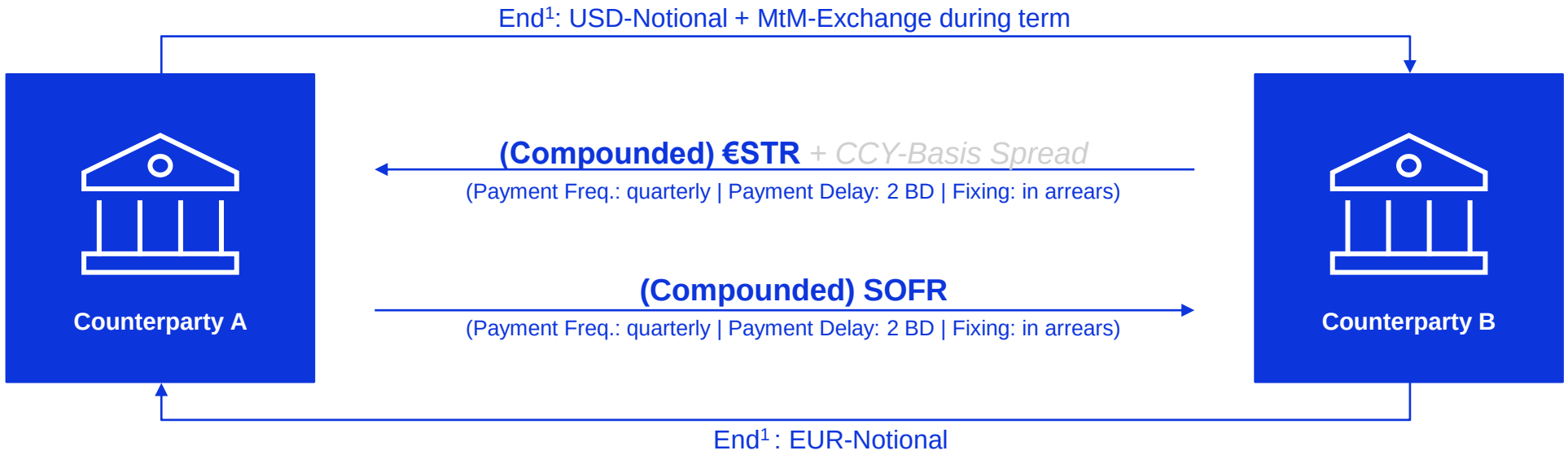
Multi-curve approach: One discount curve and distinct forward curves.

Procedure: For pricing a linear IRD, we

1. **calculate the future cash flows** with the **forward rate curve** (based on **Libor**) and
2. **discount** these future cash flows with a **risk-free zero-bond curve** (no counterparty risks)

Both the discounting and forward curve are affected by the transition from IBOR to Risk-free Rates and we came back to a world with a single-curve approach.

The new market standard for trading Cross-Currency Swaps in the interbank market in a post-IBOR world is “OIS-style”.



New Conventions for CCY-Swaps

(Source: Bloomberg)

Overview			Float Leg		Float Leg	
Currency	EUR		Day Count	ACT/360	Day Count	ACT/360
Currency2	USD		Pay Freq	Quarterly	Pay Freq	Quarterly
Settlement	T+2 Days	May 04 2022	Index	ESTRON Index	Index	SOFRRATE Index
Term	5 Year	May 04 2027	Reset Freq	Daily	Reset Freq	Daily
Discounting	OIS		Bus Adj	Mod Following	Bus Adj	Mod Following
MTM	Yes		Adjust	Accrl and Pay Date:	Adjust	Accrl and Pay Date:
			Roll Conv	Backward (EOM)	Roll Conv	Backward (EOM)
			Calc Cal	TE,FD	Calc Cal	TE,FD

[1] Usually no Exchange of notional at the beginning of the trade as notional exchange at spot FX is value neutral

For the transition of legacy trades, the IBOR Transition concerns both the Cash Flow and the Discounting Switch.

DISCOUNTING SWITCH

Realized at CCPs in 2020
- EUR, 07/2020: EONIA -> €STR
- USD, 10/2020: EFFR -> SOFR

Cleared transactions: to follow CCPs procedures

Bilateral transactions

Collateralized: Compensation to be agreed upon. Identification and offsetting of valuation effects is up to the bilateral counterparts.

Uncollateralized: No Compensation. Portfolio effects with collateralized hedging positions to be analysed.

CASH FLOWS

Cleared transactions: to follow CCPs procedures

-> Realized in Q4 2021: *EONIA -> €STR | CHF-, JPY- , EUR- and GBP-LIBOR to Compounded RFR + ISDA-Spread*

Bilateral transactions: bilateral agreements needed, e.g. integration of adequate fallbacks, execution of cessation events, transition to new benchmarks

-> Realized in Q1 2022: *CHF-, JPY- , EUR- and GBP-LIBOR follow the ISDA-Fallback Mechanism where applicable*

The ISDA fallback mechanism consists of 3 components and was introduced to the market by a supplement[1] and a protocol for the ISDA 2006 definitions.

1. **IBOR Cessation Trigger Date** — ISDA fallback has already been activated by FCA Announcement on 05th March 2021.
2. **Adjusted Reference Rate (*ARR*)** — Backward-looking compounded RFR fixed in arrears for the respective currency.
   (Attention: Fallback for EUR-LIBOR is €STR, not EURIBOR!)
3. **Spread Adjustment** — Economic compensation when switching to a systematically lower benchmark.
   Method: 5-year historical median daily spread between ARR and IBOR.
   (Attention: ISDA Spread Adjustment is defined per currency and tenor)

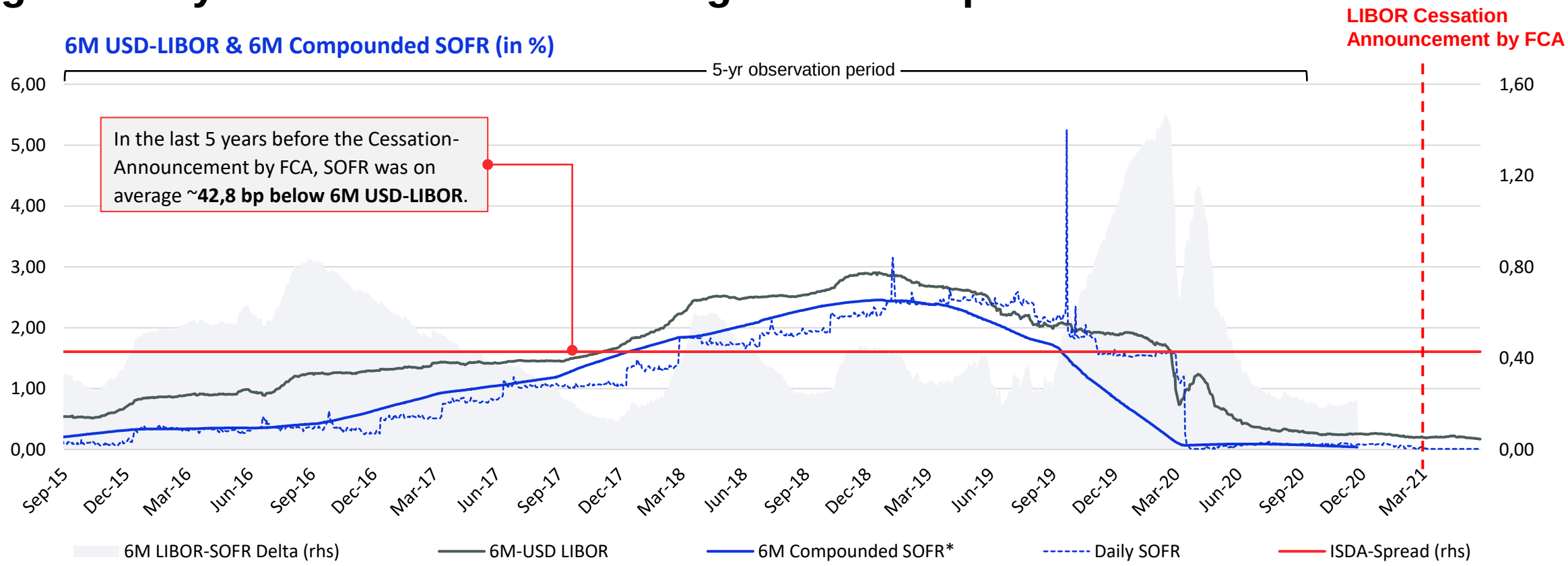
Finally fixed for LIBOR with FCA Announcement as of 05th March 2021

ISDA Spread in % p.a. *(Spot Spread in bp as of 06/2021)*	Cessation Effective Date	1M-LIBOR	3M-LIBOR	6M-LIBOR	12M-LIBOR
USD-LIBOR	30th Jun 2023	0.11448	0.26161	0.42826	0.71513
GBP-LIBOR	31st Dec 2021	0.03260	0.11930	0.27660	0.46440
CHF-LIBOR	31st Dec 2021	-0.07050	0.00310	0.07410	0.20480
JPY-LIBOR	31st Dec 2021	-0.02923	0.00835	0.05809	0.16600
EUR-LIBOR	31st Dec 2021	0.04560	0.09620	0.15370	0.29930

Source: https://assets.bbhub.io/professional/sites/10/IBOR-Fallbacks-LIBOR-Cessation_Announcement_20210305.pdf

[1] Effective as of 25th January 2021

Economic difference between (6M-)USD LIBOR and SOFR: SOFR is significantly lower due to the missing credit component of LIBOR



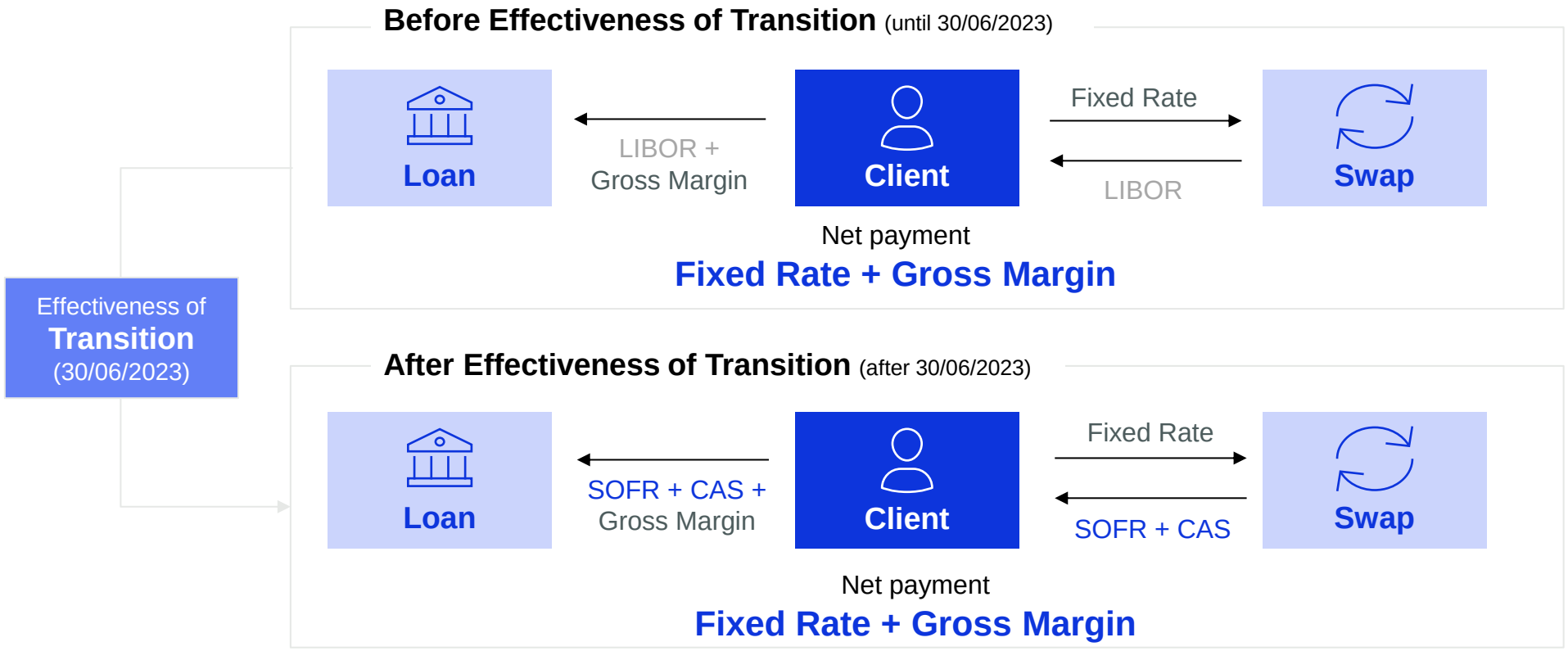
The Federal Reserve Bank of New York has developed SOFR in order to move away from LIBOR.

- **LIBOR:** unsecured rate, contains **Credit Risk Premium** of the panel banks, as well as a **Term Risk Premium** (xM-rate)
- **SOFR** (Secured Overnight Financing Rate) is by definition **Risk-Free** and contains **no Term Component** (overnight)

-> These two elements result in the **LIBOR fixing systematically higher than SOFR**.

* 6M Compounded SOFR determined ex post based on the SOFR fixings of the following 6 months

Floating Rate Loan Hedged with Payer-Swap: Hedged interest rate in the combination of loan and swap remains constant.



! If the **Loan is perfectly hedged with a Swap**, and both products are transitioned in the same manner (i.e. CAS, transition date, conventions) the **net payment of the client is not affected** by the transition*.

* Should the loan refer to Term RFR and derivative to compounded RFR (or vice-versa) there will be a mismatch in the hedge.

> The fallback is a parachute if you're going paragliding... the fallback gives you survival certainty – it doesn't give you painless certainty

François Jourdain, chair of sterling RFR working group, risk.net 29.05.2018

EUR

What is next?

EURIBOR experiences continuous reforms since 2019 and is to be adjusted again mid-2024 to anchor the quotes in real transactions.

UNDERLYING INTEREST

EURIBOR underlying interest:

*"The rate at which **wholesale funds** in euro could be obtained by **credit institutions** in current and former European Union and European Free Trade Association countries in the **unsecured money market**"* – EMMI

Reforms to move towards a transaction-based system:

- **07/2019**: Introduction of **Hybrid Methodology** with 3-level waterfall[1]
- **04/2021**: Introduction of 4 non-material adjustments (e.g., transaction size from 20 Mio. to 10 Mio., longer lookback)[1]
- **06/2022**: Additional changes to enlarge transactions' pool[1]
- **11/2022:** Enlargement of panel banks with RBI inclusion[2]
- **05/2024:** Removal of expert panel (Level 3) and link to EFTERM if sufficient number of eligible transactions is not available[3]

NEW (WATERFALL) HYBRID METHODOLOGY

Transaction-based

contributions based solely on eligible transactions in the unsecured euro money market, with a minimal notional amount of 10 million euros

Transaction-derived

contributions based on transactions across the broader money market maturity spectrum.

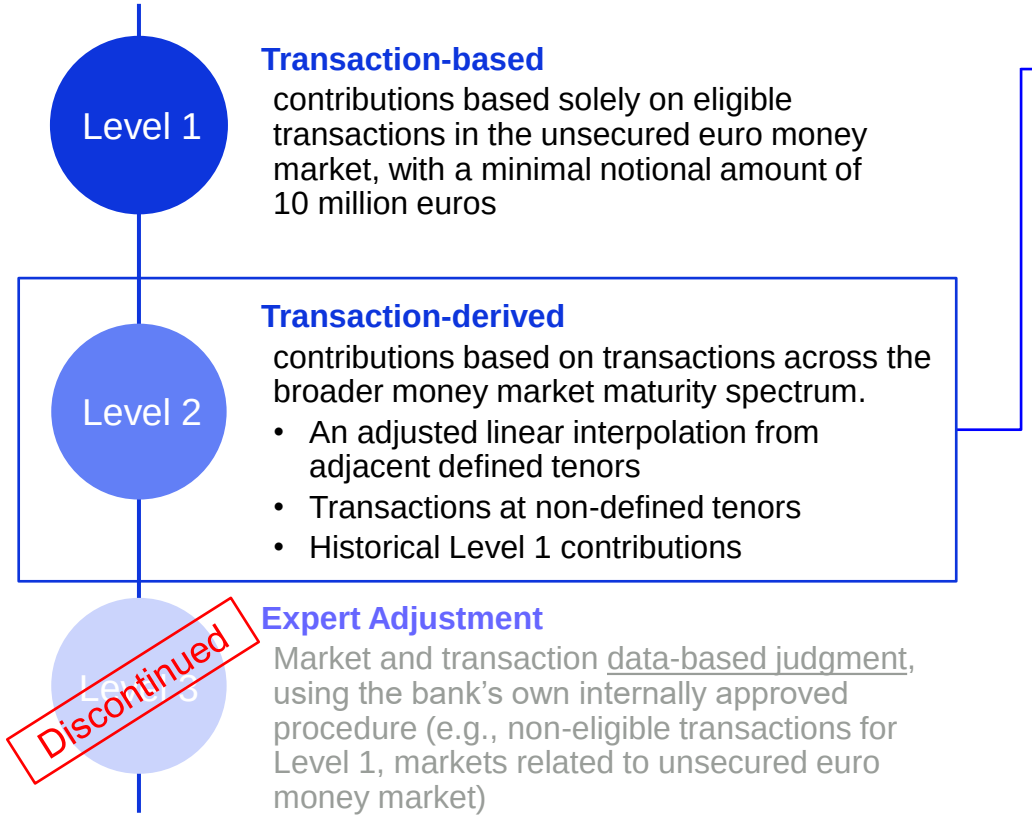
- An adjusted linear interpolation from adjacent defined tenors
- Transactions at non-defined tenors
- Historical Level 1 contributions

RFR-link > new Backstop for Level 2.3

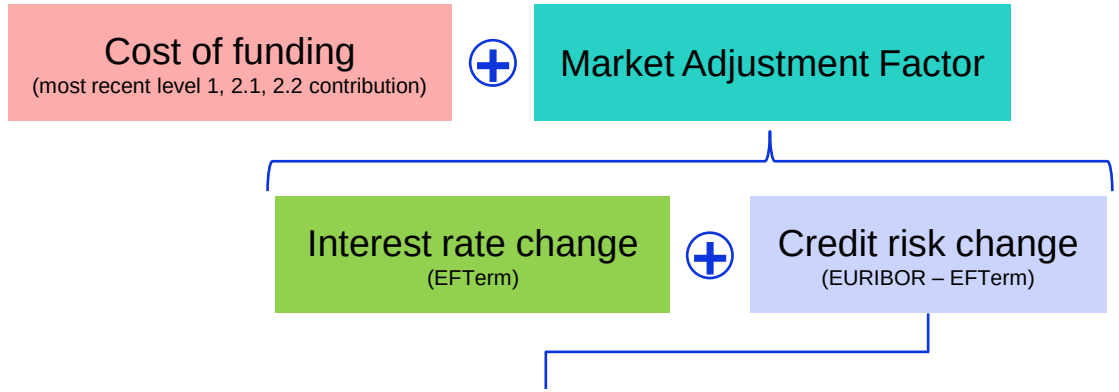
in case of an insufficient number of eligible transactions. Fixings are to be derived from the (historic) spread to EFTERM, which is then added to the current EFTERM-fixing.

1) EMMI - BMR Compliance; 2) RBI becomes a contributor to EURIBOR; 3) Final results: Euribor Consultation Paper

Excursus: Adjustment of EURIBOR Methodology in May 2024 envisages a discontinuation of the expert panel and a more data-driven reference rate.



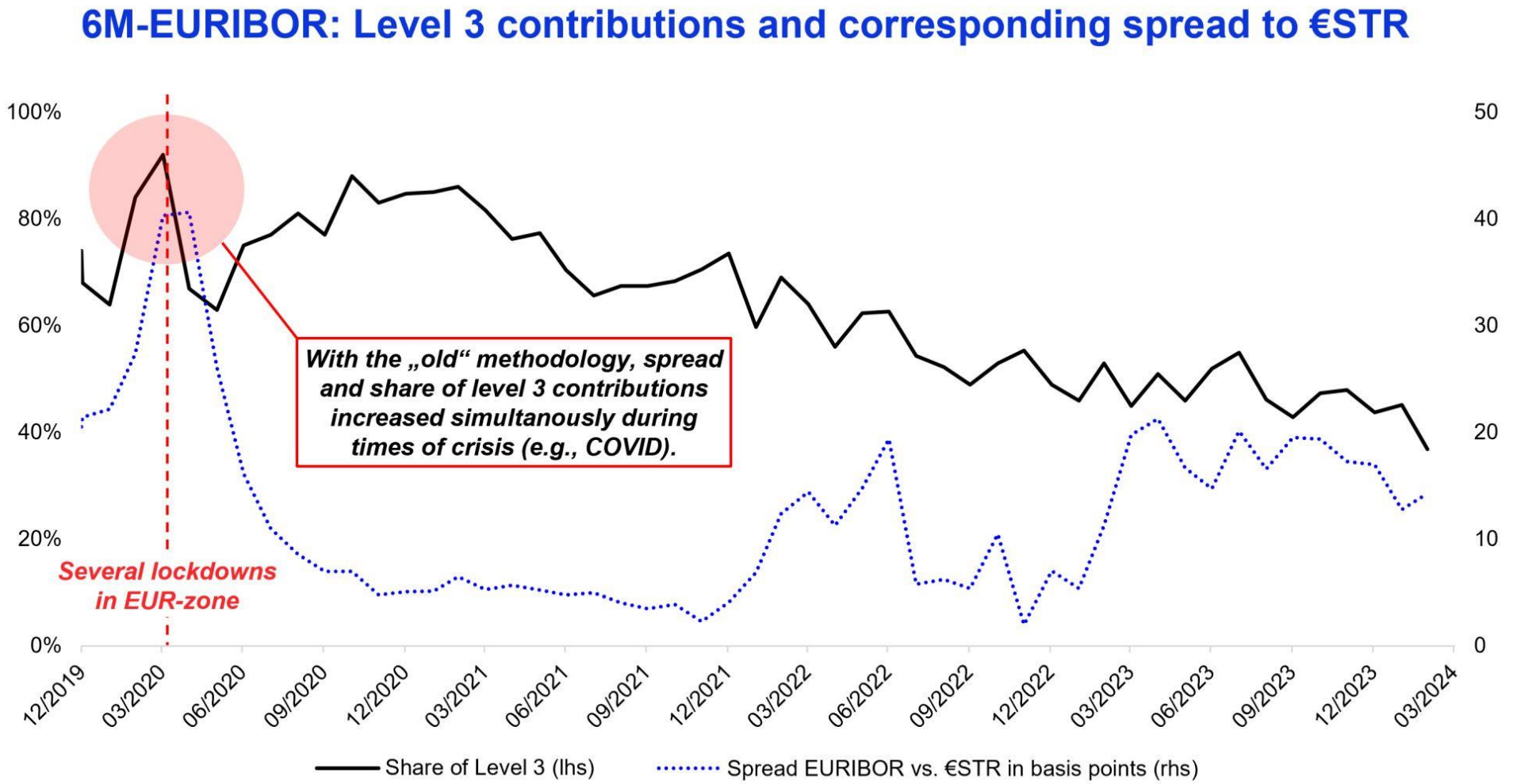
The new level 2.3 in detail



- Level 2.3 is relevant in case there are not enough eligible transactions based on EURIBOR which is most likely in times of market turmoil and rising credit spreads.
- **By using the last available EURIBOR fixing and current (risk-free) EFTerm as a proxy for credit risk, the actual credit risk is systematically underestimated!**

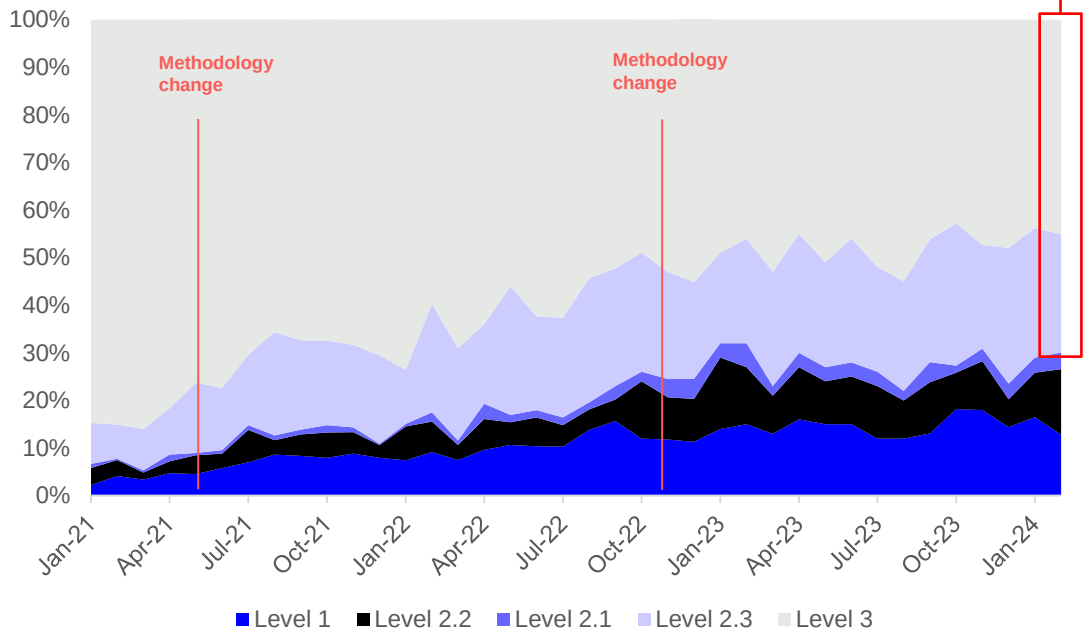
By adjusting the calculation methodology towards a more robust EURIBOR, the underlying goal is to attract more banks that participate as contributors. However, it creates an ultimate dependency on EFTerm and could mean the beginning of the end of EURIBOR.

Reliance on non-market-based contributions tends to spike with market turbolences, however new Level 2.3 would not increase in EURIBOR levels



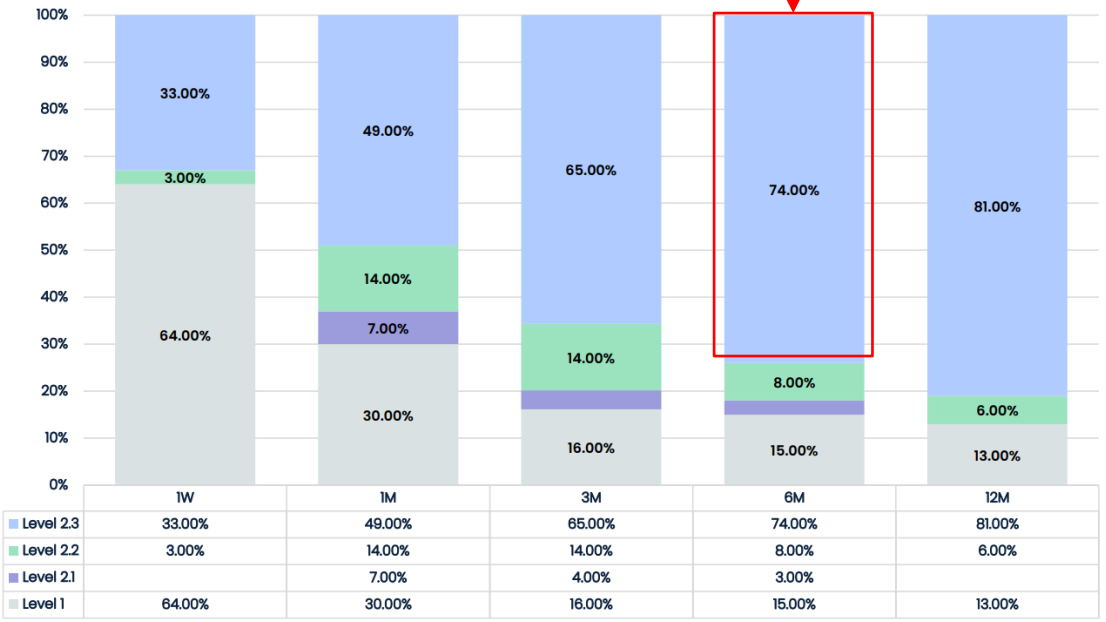
EURIBOR moved away from expert judgement, now market transactions adjusted for interest rate and credit risk make up for the bulk of contributions.

History of EMMI transparency indicators for 6M EURIBOR



EURIBOR Transparency Indicators (January 2025)

Latest methodology change in May 2024 with termination of Level 3 contributions, now Level 2.3 absorbed all non-market-based share, which remained mostly unchanged

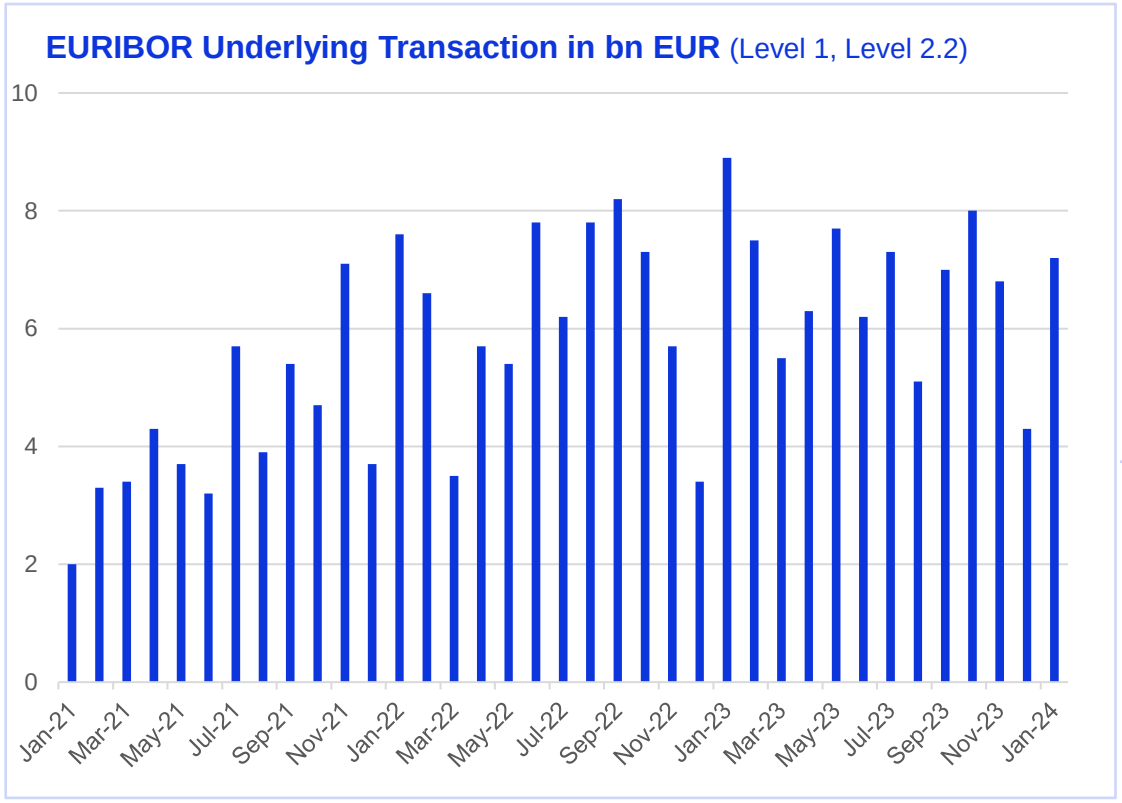


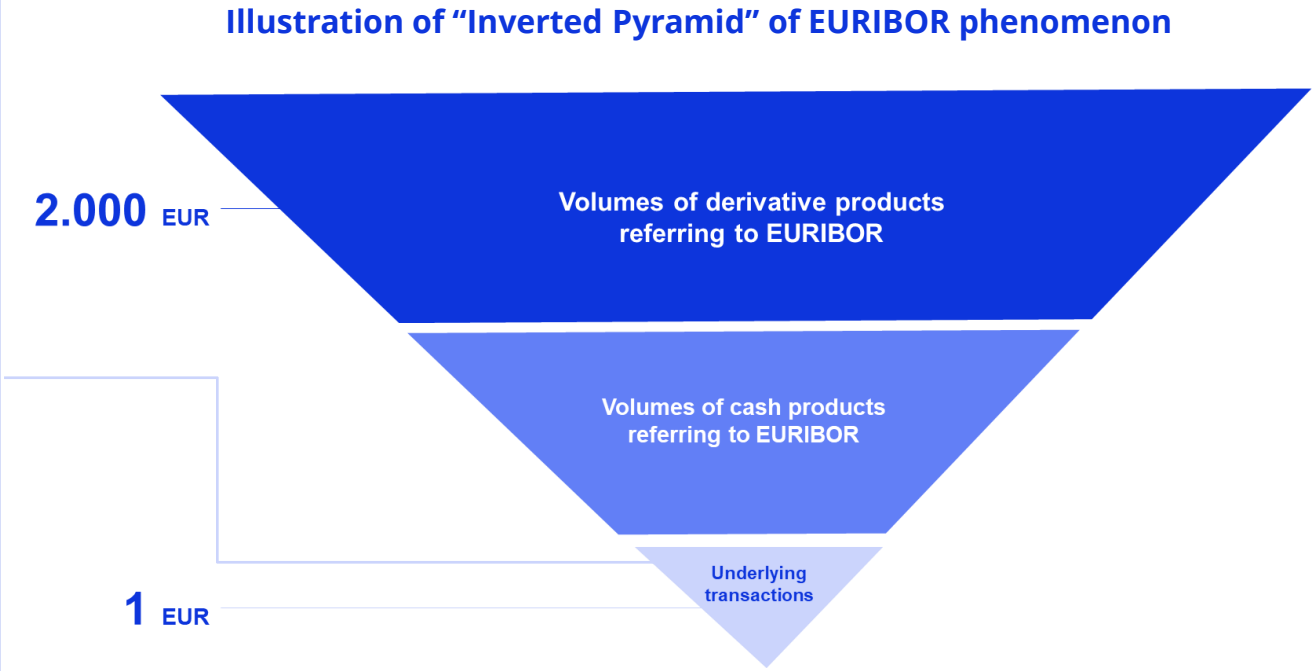
	1W	1M	3M	6M	12M
Level 2.3	33.00%	49.00%	65.00%	74.00%	81.00%
Level 2.2	3.00%	14.00%	14.00%	8.00%	6.00%
Level 2.1		7.00%	4.00%	3.00%	
Level 1	64.00%	30.00%	16.00%	15.00%	13.00%

Source: https://www.emmi-benchmarks.eu/globalassets/documents/pdf/euribor/transperancyindicator/d0090-2025---euribor-transparency-indicators---january-2025.pdf

Actual transactions	**Level 1**	Transactions in the underlying interest at the defined tenor
	Level 2.2	Qualifying non-standard maturity transactions where the maturity date falls between two defined tenors
Derived or historical transactions	**Level 2.1**	Linear interpolation, with a spread adjustment, from Level 1
	Level 2.3	Interest rate and credit risk adjusted Level 1 and 2 contributions from prior fixing dates
~~Expert judgement~~	~~**Level 3**~~	~~Data-based judgment using internally approved procedure~~

EURIBOR transactions on underlying interest are significantly dwarfed by the notional volumes of cash and derivative contracts that refer to the rate.



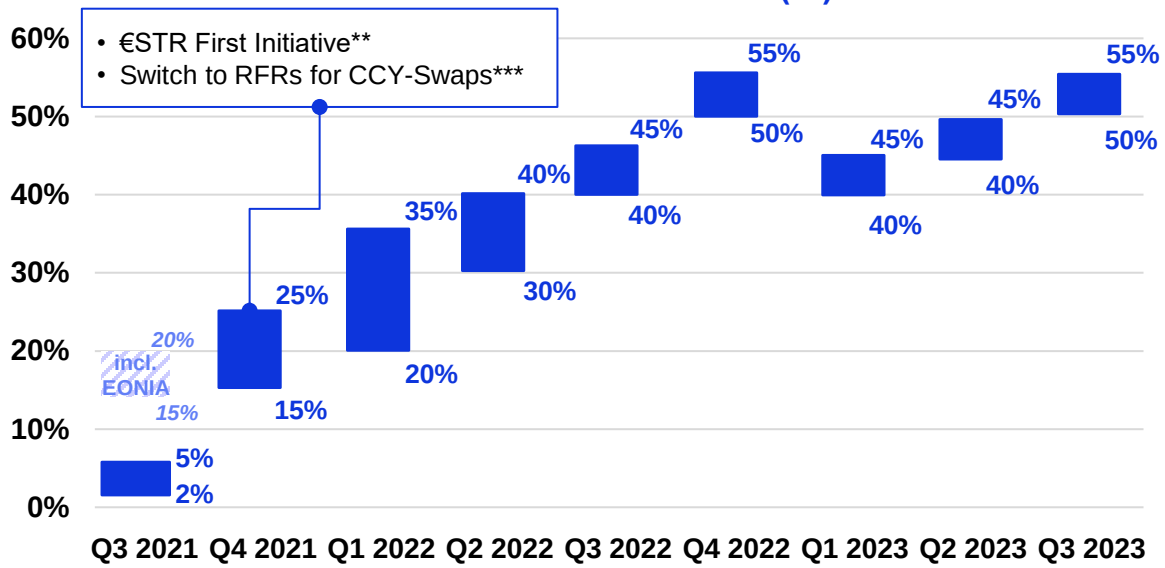


Accounting for EURIBOR methodology constraints (e.g., transaction size > EUR 10 Mio.) actual transaction correspond to an **average volume per business day of less than EUR 500 million** while for instance LCH (one of the largest derivatives CCP) clears daily **more than EUR 1 trillion of derivatives referring to EURIBOR**.

Source: Transparency Indicator Reports | The European Money Markets Institute (EMMI) (emmi-benchmarks.eu) ; Trading volume LCH Swap Clear, numbers based on January 2024 data

€STR-based derivatives market continued to grow in the recent quarters. Can it continue its growth path?

Share €STR of EUR market* (%)



The share of €STR volume in the EUR-denominated market continues to grow. The €STR volume already accounts for **50-55% of the EUR-denominated market**.

Roadmap for the establishment of an €STR market

€STR Liquidity < 1 year
Increase of liquidity for maturities up to one year, as a basis for construction of Term €STR

Establishing Term €STR
Term €STR as a basis for the use in the entire product range desired by the EUR Working Group

Change in customer business
Conversion of customer business and/or conclusion of new business to term €STR

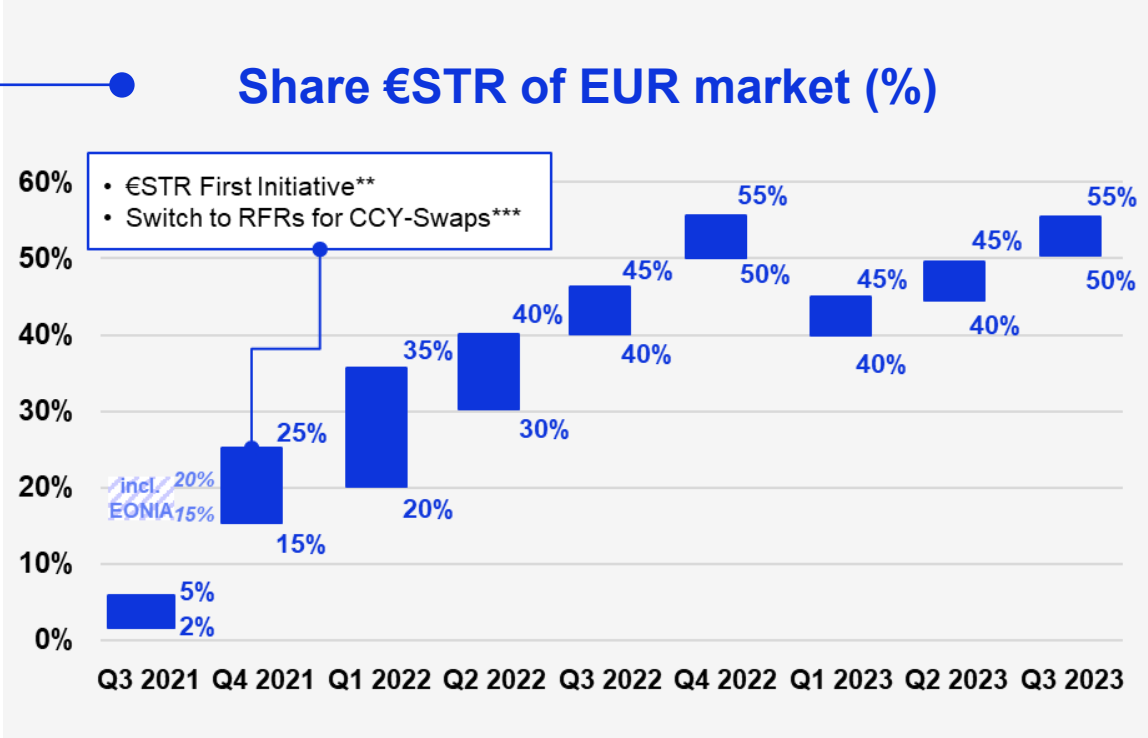
Change in the interbank business
Liquidity growth at longer maturities due to conversion of bank management to €STR

* EUR_RFR_WG_-_13_November_2023_Meeting_minutes.pdf (europa.eu)
** ESMA - EUR WGs €STR First Initiative
*** Supported by various NWGs. Recommendation refers to USD, CHF, GBP and JPY: CH, EU, UK, US

The eurozone is taking a special path in the IBOR transition with an unclear outcome so far.

TAKEAWAY

- EONIA got replaced by the new risk-free rate €STR, which already gained market share of above 50%.
- All major currencies converted their main reference rate from LIBOR to a risk-free rate. Currency-markets already trade based on €STR for EUR.
- Even though EURIBOR's methodology was reformed repeatedly, structural issues remain (i.e. "inverted pyramid").
- The next adjustment eliminates EURIBOR's Level 3 with the goal to reduce compliance risks and operational costs, it also links it to €STR in case of diminishing liquidity.
  It seems like a silent transition to €STR through the back door.
- More information is published in our article on L-P-A.com
  "Is the future EURIBOR?"



The future of EURIBOR remains unclear. Official parties continue to support EURIBOR and leave a potential transition to the market. The market, however, seems to wait for an official sign.


Questions
& Answers

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