IBOR TRANSITION
BDO GLOBAL INSIGHTS SERIES: VALUATION AND RISK

BDO International IBOR Webinar

GLOBAL FINANCIAL SERVICES GROUP
18 JUNE 2020

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AGENDA

01

IBOR Reform - Cash Compensation & Derivative Transition

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02

Libor to SOFR transition

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Emerging Market IBOR reform

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04

Q&A

IBOR REFORM - CASH COMPENSATION & DERIVATIVE TRANSITION

18 June 2020

MICHAEL HAMMER
HEAD OF GLOBAL IBOR TASKFORCE

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NEW REFERENCE RATES

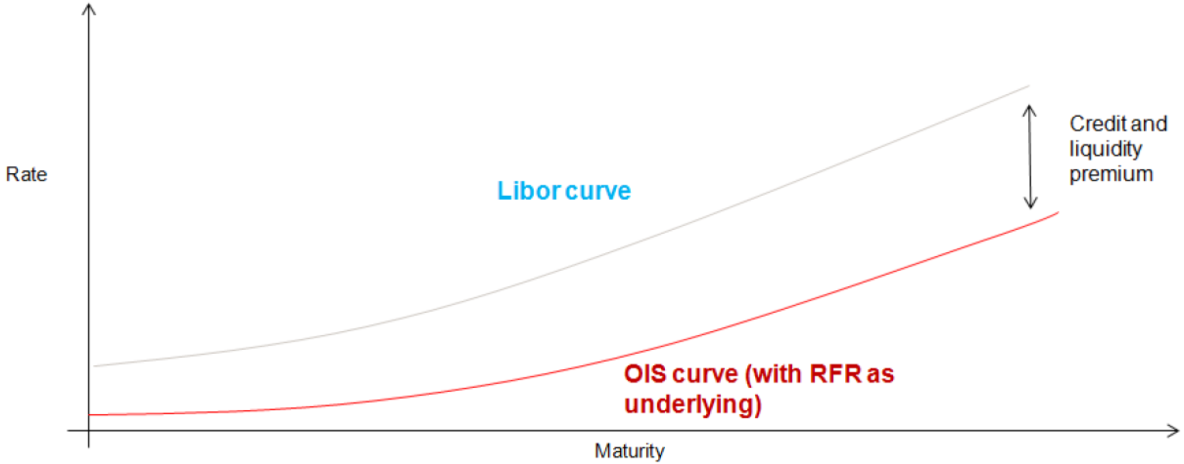
▶ Working groups were set up in each currency area to define new RFR - Overnight rates already determined

Main Alternative Overnight Risk-free-Rates (RFR) world-wide

Currency	Name	Abbreviation	Type	Available	Administrator	Publication
	Euro Short-Term Rate	€STR	Unsecured wholesale rate	2 OCT 2019	ECB	9am next day
	Secured Overnight Financing Rate	SOFR	Secured Treasury repo rate	✓	Federal Reserve Bank of New York	8am next day
	Sterling Overnight Index Average	SONIA	Unsecured wholesale rate	✓	Bank of England	9am next day
	Swiss Average Rate Overnight	SARON	Secured general collateral repo rate	✓	SIX Swiss Exchange	6pm same(!) day
	Tokyo Overnight Average Rate	TONA	Unsecured wholesale rate	✓	Bank of Japan	10am next day

NEW REFERENCE RATES - LIBOR VS. TERM RATES

Differences between term RFRs and LIBOR



Source: Bank of England

- Term benchmarks: In a similar way to LIBOR, RFR Term Rates (e.g. compound in arrears) should compensate lenders for the time value of money; However,
- No credit premium: LIBOR includes term bank credit risk; RFRs are near risk-free
- No liquidity premium: LIBOR will include the premium paid on longer-dated funds; RFRs based on overnight rates do not include a premium for term

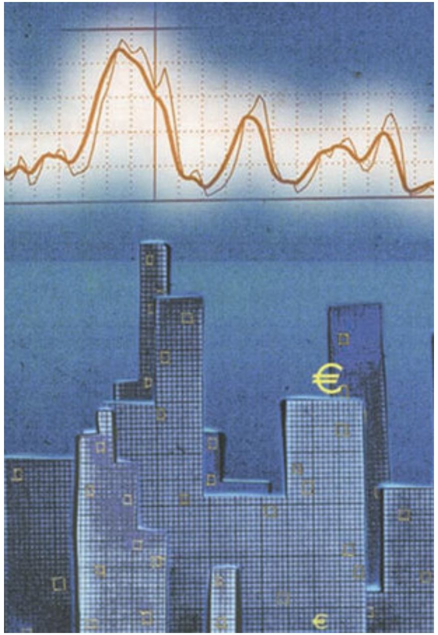
NEW REFERENCE RATES

€STR

- **Unsecured overnight-lending rate of Eurozone banks with market participants acc. to money market statistics directive of ECB**
- no interbank rate, based on all financial market participants
- Published daily on Target 2 business days based on previous day‘s transactions with minimum volume of 1 mio EUR

▶ **Method:**

1. Capture and aggregate transactions per interest rate
2. Elimination of 25% of highest and lowest rates weighted by volumes
3. Finally volume weighted average of the remaining 50%



NEW REFERENCE RATES

Transition EUR Collateral Rate from EONIA to €STR at Central Counterparties (CCP) - DERIVATIVES

- EONIA = €STR + 8,5bps Spread, determined by ECB on May 31st, one year observation period, due to bid-ask change
- No EONIA panel banks any further
- **€STR publishes at 8am T+1**, EONIA changed to T+1 at 9:15 am – not 7pm T+0 as until Oct 2019.
- Correction window > 2bps – **republishing €STR at 9.00am**
- From 2022 on no publication of EONIA
- €STR administered by ECB ➔ no registration for BMR compliance needed, EONIA registered Dec 11th 2019
- LCH settles €STR Swaps from Oct 21st, EUREX from Nov 18th on.

EURO WG Report Feb 2020 - Transition Recommendations:
- T+2 Settlement not necessary for Derivates & MM, most banks can handle this
- Cash Products: repaper contracts asap, Pricing be switched to €STR directly
- all affected systems ready to handle €STR?

Switching collateral, variation margin to €STR requires discounting with €STR!!
AND leads to a one-off payment for collateral switch to €STR flat - July 27th 2020

DISCOUNTING TRANSITION EONIA - €STR JULY 27th

EONIA - €STR Transition on Oct 2nd 2019

- Coordinated Transition Date for all Clearing Houses (Eurex, LCH, CME) 27.7.2020
- Cash-Collateral interest rate change: EONIA to €STR flat requires shift in discount rate for all swap valuations (incl. EURIBOR!!)
- Discount Rate changes by 8,5bps – Δ €STR vs. EONIA
- Cash compensation : those who benefit from shift in interest/discount rate will reimburse those who lose
- Bilateral agreement necessary – check for transaction inventory per counterparty and agree compensation
- LCH Transition Plan:

1. **LCH is planning to update the PAI and discounting on all SwapClear EUR-denominated products from EONIA to €STR flat;**
2. **LCH plans to apply cash compensation payments for all accounts with a live EUR-denominated position**
3. **The conversion date is planned to be on or around 27nd July 2020.**

DISCOUNTING TRANSITION EONIA - €STR JULY 27th

Cash Compensation & Discounting Risk

Discounting Risk/Delta

P/L Effect on the Portfolio, because:

- Discount Rate of Cash Flows ≠ Forward rate of the Floating Swap Leg
- eg: pay fix 5% against 3 Mon EURIBOR +30bps ➔ Discounting of the floating leg using EONIA, from 22.6. on using €STR

Discounting Delta: shift in EONIA/€STR changes the fair value of the transaction

- Hedge of Discounting Delta with Basis Swap EURIBOR/EONIA - future EURIBOR/€STR
- Switch from EONIA to €STR is supposed to bring high €STR Swap volume => €STR Liquidity is key for building term structure
- BUT: No transition of the Forward rate of the EURIBOR floating Swap leg ➔ EURIBOR under the new methodology is BMR compliant!!

DISCOUNTING TRANSITION EONIA - €STR JULY 27th

Example Cash Compensation & Discounting Risk

Taking the example of a cash compensation mechanism, the following table illustrates the residual impact of a 1-basis-point parallel shift of the EONIA discount curve level on the estimated value transfer. A dummy IRS portfolio with an overall NPV of €6 billion ranging from 2 to 50 years is taken as an example (see Table A.1; most values rounded to €1,000; EONIA replaced by €STR as the discounting curve and all EURIBOR zero curves kept constant).

Table A.1
Residual impact of a 1-basis-point parallel shift of the EONIA discount curve level on the estimated value transfer

Trade tenor (years)	EONIA DV01	EONIA Gamma	NPV (EONIA discounting)	NPV (€STR discounting)	NPV change (value transfer)	NPV change (shifted EONIA level + 1 basis point)	Estimated impact on value transfer (absolute)
2	€159,000	-€30	-€1,041,252,000	-€1,042,599,000	-€1,347,000	-€1,347,000	€0
5	€296,000	-€100	-€988,968,000	-€991,481,000	-€2,513,000	-€2,513,000	€0
10	€575,000	-€400	-€1,102,064,000	-€1,106,968,000	-€4,904,000	-€4,900,000	€4,000
20	€897,000	-€1,200	-€955,363,000	-€963,061,000	-€7,699,000	-€7,688,000	€11,000
30	€1,269,000	-€2,500	-€910,859,000	-€921,753,000	-€10,894,000	-€10,873,000	€21,000
50	€2,443,000	-€8,000	-€1,063,998,000	-€1,085,060,000	-€21,062,000	-€20,993,000	€69,000
Total	€5,638,000	-€12,200	-€6,062,504,000	-€6,110,923,000	-€48,419,000	-€48,314,000	€105,000

Source: Euro WG

DISCOUNTING TRANSITION EONIA - €STR JULY 27th

Additional topics

- **Transition third party deals:** ie. not exchange cleared – Corporates, etc.?

  Matched positions will result in open positions – Talk to Counterparties/ transition required to close positions again

- **Transition of Swaptions:** option expires after July 27th, how to deal with the anticipated discount transition? Not covered by CSA's – how to compensate for value transfer?

  How to hedge a swaption with an existing swap? Consultations ongoing…..

- **Accounting Impact:**

  - EURO WG recommendation – compensation payment immediately P/L effective
  - National GAAP - Impartial income recognition?
  - Hedge Accounting – creating ineffectiveness

NEW REFERENCE RATES

SOFR - Secured Overnight Financing Rate

- Determined by US ARRC (Alternative Reference Rates Committee) as new riskless benchmark rate
- Overnight repo rate based on US Treasuries
- Traded since April 2018
- Repo: Borrowing money against cash collateral
- SOFR includes 3 types of repos:

1. **General Collateral Financing Repo Transaction** – based on a basket of Treasuries without direct allocation via Fixed Income Clearing Corporation (FICC)
2. **Repos via FICC delivery vs. payment (DvP): exact specification of the delivered bond**
3. **Tri-Party Repos cleared via BoNY Mellon**

- **NY Fed calculates SOFR based on the reported transactions**

Interest rate influenced by the liquidity of US Treasuries

SECURED OVERNIGHT FINANCING RATE DATA

Statistics on the Secured Overnight Financing Rates
See Secured Overnight Financing Rates Chart

Export to:
Excel | XML: Volume | Rates

DATE	RATE (PERCENT)	PERCENTILES				VOLUME (US$ BILLIONS)
		1ST (PERCENT)	25TH (PERCENT)	75TH (PERCENT)	99TH (PERCENT)	
09/11	2.15	2.12	2.14	2.23	2.30	1,179
09/10	2.14	2.11	2.13	2.22	2.28	1,186

NEW REFERENCE RATES

SOFR - Secured Overnight Financing Rate

Key differences between LIBOR and SOFR

LIBOR	SOFR
1. Unsecured rate	1. Secured rate
2. Various maturities	2. Overnight
3. Built-in credit component	3. Minimal credit risk
4. Partially transaction based	4. Wholly transaction-based
5. $500 million underlying transactions*	5. $750 billion underlying transactions

*Note this is for 3-month LIBOR

NEW REFERENCE RATES - SOFR

SOFR – Averages und Index – Result of Public Outreach

- SOFR is a short-term Overnight rate ➔ Term structure does currently not exist
- Daily compounding necessary to determine 30-, 90- and 180- days rate.
- NY FED: from March 2nd on publication of such rate to facilitate market
- Calculation formula published: SOFR daily compounded applying SOFR Publication days

SOFR AVERAGE START DATE	SOFR ON START DATE	FIRST COMPOUNDING TERM*
Wednesday	w	(1 + w × 2/360)
Thursday (Holiday)	N/A	(1 + w × 1/360)
Friday	y	(1 + y × 3/360)
Saturday	N/A	(1 + y × 2/360)
Sunday	N/A	(1 + y × 1/360)
Monday	z	(1 + z × 1/360)

* Note: if, in the example above, Monday were a holiday and the start date of the average fell on the preceding Friday, then the first compounding term would be (1 + y × 4/360).

Source: Federal Reserve Bank of NY

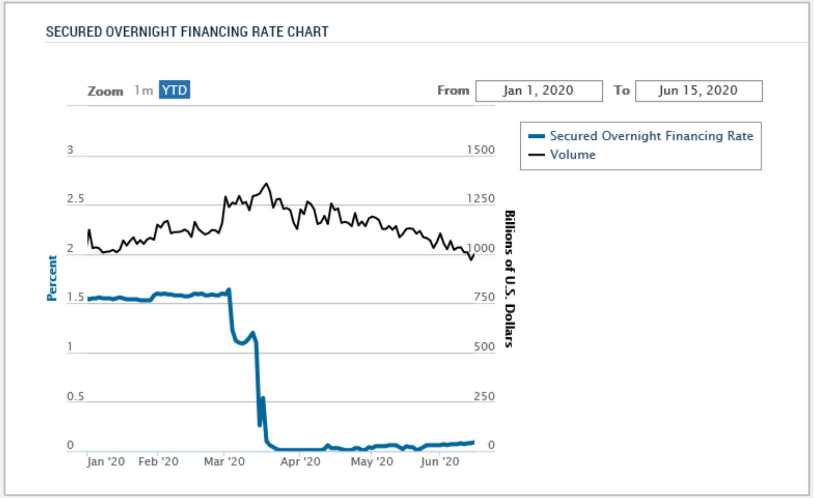
- SOFR Index measures the cumulative impact of compounding the SOFR on a unit of investment over time, with the initial value set to 1.00000000 on April 2, 2018.

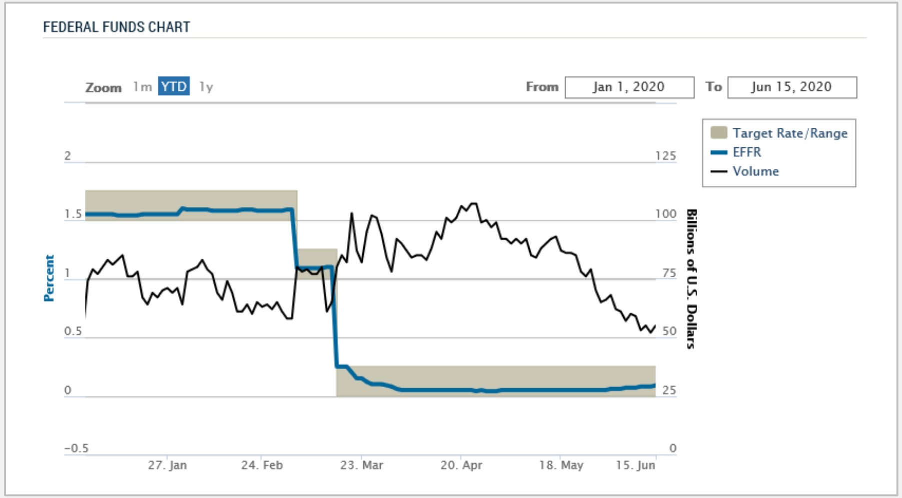
PUBLICATION DATE	SOFR VALUE DATE	SOFR	CALENDAR DAYS APPLICABLE	INDEX
Mon 4/2/2018	Thurs 3/29/2018	N/A*	N/A	1.00000000
Tue 4/3/2018	Mon 4/2/2018	1.80%	1	(1)(1 + 1.80% × 1/360) = 1.00005000
Wed 4/4/2018	Tue 4/3/2018	1.83%	1	(1)(1 + 1.80% × 1/360) (1 + 1.83% × 1/360) = 1.00010084
Thurs 4/5/2018	Wed 4/4/2018	1.74%	1	(1)(1 + 1.80% × 1/360) (1 + 1.83% × 1/360) (1 + 1.74% × 1/360) = 1.00014917
Fri 4/6/2018	Thurs 4/5/2018	1.75%	1	(1)(1 + 1.80% × 1/360) (1 + 1.83% × 1/360) (1 + 1.74% × 1/360) (1 + 1.75% × 1/360) = 1.00019779
Mon 4/9/2018	Fri 4/6/2018	1.75%	3	(1)(1 + 1.80% × 1/360) (1 + 1.83% × 1/360) (1 + 1.74% × 1/360) (1 + 1.75% × 1/360) (1 + 1.75% × 3/360) = 1.00034365

* Note: there was no SOFR for 3/29/2018. The first SOFR was published on 4/3/2018 for the value date of 4/2/2018; 3/30/2018 was a holiday according to the SIFMA calendar for U.S. government securities.

NEW REFERENCE RATES

SOFR vs. EFFR YTD 2020





Source: NY Fed

DISCOUNTING TRANSITION EFFR - SOFR OCT 17th

Transition USD Collateral Rate from EFFR to SOFR at Central Counterparties (CCP) - DERIVATIVES

- Transition Date aligned by all Clearing houses (LCH, CME): **17.10.2020**
- Effective Federal Funds Rate (EFFR): Unsecured Overnight Deposit rate in US-Interbank Market
- Cash-Collateral Rate: from EFFR to SOFR ➔ changing the discounting for all collateralised swap transactions (incl. LIBOR!!)
- Attention: difference to EONIA/€STR: Δ EFFR vs. SOFR NOT fixed – as per end Feb/2020: EFFR & SOFR at 1,58% tough SOFR is a secured rate !!
- Compensation : difference between discounting with EFFR and SOFR as cash compensation AND
  Basis-Swaps EFFR/SOFR to recreate the initial risk position
- Bilateral agreement necessary – check for transaction inventory per counterparty and agree compensation
- Scope (as per CME):

Fixed/Float IRS	*Overnight Index Swaps*	*Forward Rate Agreements*
Zero Coupon Swaps	*Basis Swaps*	*Swaptions*

DISCOUNTING TRANSITION EFFR - SOFR OCT 17th

Transition USD Collateral Rate from EFFR to SOFR at LCH - DERIVATIVES

LCH Proposed Compensation Process

1. Compensation for the valuation and risk change will be provided as a combination of cash and compensating swaps;
2. Client accounts will be able to elect cash-only if they choose to do so via their clearing broker;
3. An auction will be used to facilitate the cash-only election and to determine the cash compensating amounts;
4. All USD-discounted positions in SwapClear are in scope, including non-deliverable currencies.[2]
5. We are targeting the conversion to take place over the weekend of 16-19 October 2020.

2. The main use of Fed Funds discounting in LCH today is for USD LIBOR, USD Fed Funds and USD SOFR interest rate swaps; and USD CPI zero coupon inflation swaps. However, Fed Funds is also used in discounting for MXN swaps and non-deliverable swaps in 8 other currencies (KRW, CNY, INR, BRL, COP, CLP, THB, TWD).

DISCOUNTING TRANSITION EFFR - SOFR OCT 17th

Transition USD Collateral Rate from EFFR to SOFR at CME – Risk Transfer

To mitigate both the potential re-hedging costs associated with this transition and the sensitivity of valuations to closing curve marks on October 16, 2020, CME will facilitate a mandatory process to book a series of EFFR/SOFR basis swaps to participants' accounts. Such basis swaps will restore participants' positions to their original risk profiles and will be booked at closing curve levels ($0 NPV) as of October 16, 2020. The hypothetical examples below illustrate the economic impact of the proposed process. (Note that such risk exposures would be bucketed and exchanged at key benchmark tenors in the actual transition process.)

16-Oct-20	Risk Profile Before Risk Exchange		Risk Exchange via Basis Swaps		Risk Profile after Risk Exchange	
	EFFR	SOFR	EFFR	SOFR	EFFR	SOFR
Firm 1	$0	$218,076	$218,076	($218,076)	$218,076	$0
Firm 2	$0	$240,663	$240,663	($240,663)	$240,663	$0
Firm 3	$0	($86,923)	($86,923)	$86,923	($86,923)	$0
Firm 4	$0	$110,181	$110,181	($110,181)	$110,181	$0
Firm 5	$0	($481,997)	($481,997)	$481,997	($481,997)	$0

To facilitate smooth operational processing, market participants would be able to choose to have such basis swaps booked as either float-versus-float basis swaps or as pairs of fixed-versus-float swaps with equal and opposite fixed cash flows.

Risk Exposure Buckets (LCH):
2Y, 5Y, 10Y, 15Y, 20Y, 30Y

- 10Y EFFR vs. SOFR is approx. 3bps

➔ If jumping to 6bps at conversion and then back to 3 bps, excess cash compensation is offset by valuation of basis swap.

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DISCOUNTING TRANSITION EFFR - SOFR OCT 17th

Transition USD Collateral Rate from EFFR to SOFR at CME – Key takeaways

3 One-day forward rate and discount factor

Tenor	One-day forward rate OIS (%)	SOFR (%)	Difference (bp)	Discount factor OIS	SOFR	Difference (bp)
September 30, 2019						
1 year	1.391	1.428	-3.72	0.98606	0.98569	3.67
2 years	1.23	1.284	-5.38	0.97564	0.9746	10.38
5 years	1.166	1.2	-3.44	0.94415	0.9426	15.52
15 years	1.512	1.513	-0.15	0.81297	0.81282	1.5
20 years	1.649	1.639	1.08	0.74924	0.75047	-12.28
25 years	1.748	1.722	2.51	0.69286	0.69594	-30.76
30 years	1.83	1.796	3.38	0.64226	0.64653	-42.73
October 2, 2019						
1 year	1.511	1.551	-3.93	0.98487	0.98448	3.87
2 years	1.36	1.418	-5.82	0.97313	0.97201	11.18
5 years	1.28	1.315	-3.54	0.93901	0.93743	15.83
15 years	1.562	1.563	-0.06	0.8079	0.80784	0.59
20 years	1.696	1.684	1.19	0.74394	0.74529	-13.42
25 years	1.791	1.763	2.72	0.68767	0.69095	-32.82
30 years	1.868	1.832	3.52	0.63756	0.64195	-43.9

Curve analytics: Numerix

Key takeaways:

- Understanding the effects of SOFR discounting is key for trading & risk management
- Market risk will be dependent on SOFR instead of OIS
- SOFR-EFFR-basis swap helpful hedging discounting risk
- Switching from OIS to SOFR discounting will reshape future Cash Flows as they will be impacted by SOFR discounting

TRANSITION TO FALLBACK RATES

Transition from IBOR to RFR – Derivatives und ISDA

- Transition as a result of feedback on ISDA OUTREACH: Setting Parameters for Spread & Term Adjustments
- IBOR is not published or quotes are deemed not representative:
  1. An overnight, Risk Free Rate per currency is identified.
  2. These overnight rates will be observed for each interest period, daily compounded and paid at the end of the accrual period.
  3. The spread will be added to this compounded interest amount to create the full coupon.
  4. This coupon period will be adjusted backwards by two days to allow for payments to occur on time.

TRANSITION TO FALLBACK RATES

Credit & Term Adjustments Derivatives – Million USD Question

- **Spread determination??**

  1) **Averaged using a historic median methodology** (= the value that divides a sample in two parts) - excludes outliers, trimmed arithmetic mean too complicated, stable method

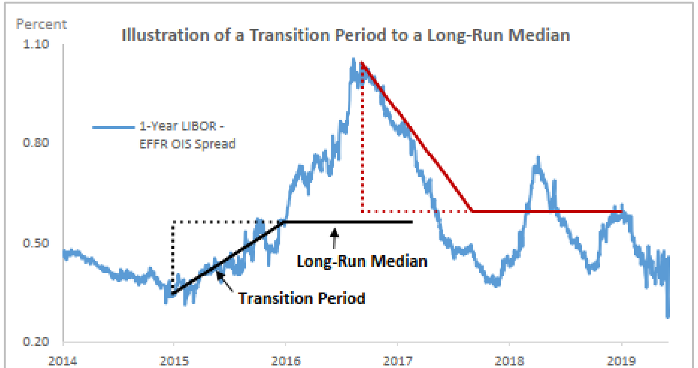
  2) Look-back Periode of 5 years –
  less value transfer due to shorter observation period! Benign markets, alternative 10Y?, markets price on future expectations not historic data!! SOFR Data more reliable for 5Y

  3) negative spreads will be included

  4) 2 days backward shift

  5) No transition period

  6) The spread will vary per index tenor: eg 1 month USD LIBOR spread ≠ 3 month USD LIBOR



Source: Ice Benchmarks Administration, Refinitv, and Federal Reserve Board staff calculations

- Bloomberg will be the calculation agent!! (calender days)
- The market has all relevant info to prepare transition !!
- For Cash products ARRC suggests a 1-Year Transition Period for Spread Adjustments!!

FALLBACK RATES - CORPORATE LOAN PRODUCTS

Transition from IBOR to new RFR – Amendment or Hardwired?

- Amendment Approach:
  - LIBOR is not representative/not published
  - Borrower and Agent identify a Fallback Rate and Spread Adjustment
  - Lenders (ie. 51%) have to decline within 5 days
  - If they do, then a prime rate shall apply until agreement is reached

- Hardwired Approach:
  - LIBOR is not representative/not published
  - Adjustment to SOFR plus spread

Prime Based Rate is higher than LIBOR or SOFR. **Fitch: Ratings downgrade if companies move into Prime based rate borrowing - Go for Hardwired!**

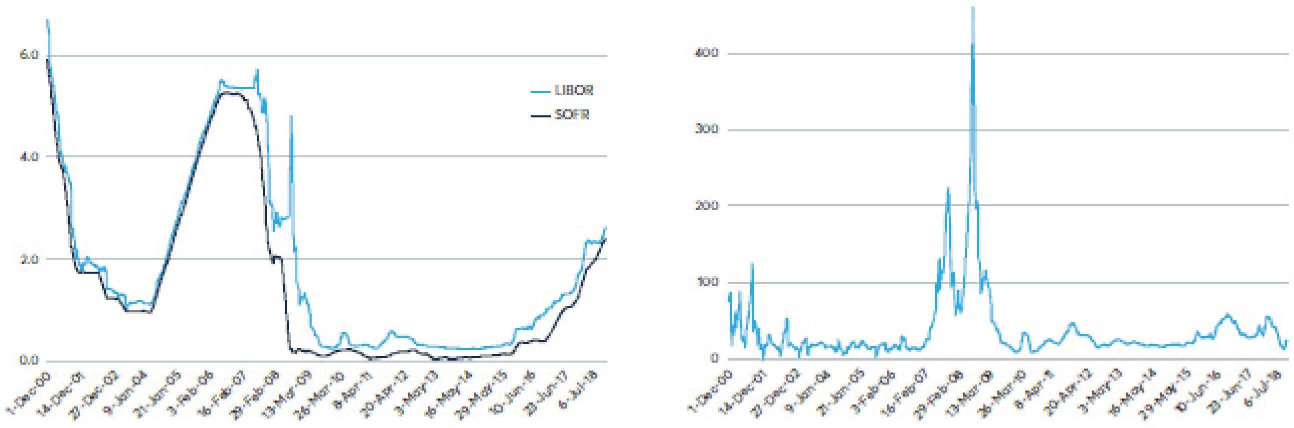
NEW REFERENCE RATES - USD LIBOR VS. SOFR

Historic Comparison

3-Month USD LIBOR, 3-Month Daily Compounded SOFR, and the SOFR-LIBOR Spread

Left panel – Levels, pct/yr.

Right panel – LIBOR minus SOFR (basis points/yr)



Data sources: Bloomberg LLC, CME Group, Federal Reserve Bank of New York

REPLACEMENT OF IBOR RATES

To Do's

- ➢ Check impact on products and business – which benchmarks, which products
- ➢ Analyse loan agreements
- ➢ Start immediately to include fallback provisions in all contracts
- ➢ Setting up a project – timeline, resources,…
- ➢ Review hedge accounting strategies
- ➢ Dispose of floating securities with old IBORs?
- ➢ Establish fallback scenarios – clear requirement by benchmark directive
- ➢ Communicate to customers – loans, client info as service provide

BENCHMARK RATE REFORM

Any further questions???

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Disclaimer:

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LIBOR TO SOFR TRANSITION

June 18, 2020

SUDIP CHATTERJEE
MANAGING DIRECTOR
VALUATION AND BUSINESS ANALYTICS

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KEY RISKS TO CONSIDER WHILE TRANSITIONING FROM LIBOR

Contractual Risk

- Uncertainty around the entire process
- Develop a comprehensive list of contracts
- Negotiate amendments to contracts, lack of homogeneity among contracts may create additional challenges
- Counterparty concentration risk associated with securitized products require additional negotiation
- Legacy securities may lose certain features due to a change in interest rate basis
- Dealers may hold larger derivatives book than usual
- Books will include both LIBOR and RFR –indexed instruments used for hedging

Liquidity Risk

- Certain instruments may be adversely impacted in the market
- RFR linked products may take some time before they gain market wide acceptance
- LIBOR linked products may encounter the counter effect; due to a decrease in market activity, it will be harder to execute certain type of trades
- Monitor liquidity on legacy LIBOR and new RFR linked products across jurisdictions
- Depending on market liquidity, the all important Liquidity Coverage Ratio (LCR) where the high-quality liquid assets that forms the numerator may be difficult to obtain

Basis Risk

- Basis risk between LIBOR and RFR will require some analysis
- Construct separate strategies for cash and derivative products
- Timing difference between the indices, spread adjustments, and term structure of rates will compound the basis risk analysis
- Basis risk analysis between LIBOR and RFRs should consider stress scenarios
- Open line of communication between all the entities

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HOW TO GET THERE…

Organize a Formal LIBOR Steering Committee or Task Force

- LIBOR transition committee with C-level presence
- Representation across business units and various control functions
- A clear roadmap defining roles and accountability for the transition
- Given the uncertainty and challenges the program must be flexible
- Inform senior stakeholders about the importance of reputational and conduct risks

Perform an Entity Wide Risk Assessment

- Inventory of LIBOR products
- Identify the instruments that are affected
- Risk assessment program and mitigation plans
  - Client
  - Contracts and balance sheet items
  - Scenario analysis
  - Systems and technology
- Legal framework and strategy sessions
- Strong project management and governance

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HOW TO GET THERE…

Prepare a Comprehensive Transition Plan

- Quantify LIBOR financial and operational exposure across systems, models and contracts
- Given the uncertainty, plan for resources and budget for the transition
- Transition approach with altered fallback language in LIBOR contracts
- Difference between alternative rate and LIBOR may require new line of business

Execute on Transition Plan

- Regular and effective updates on risk exposure
- Ability to reperform exposure reporting using automation
- New product design and pricing
- Funding and hedging strategies
- Monitor regulatory developments and implement technology based solutions to reduce cost and increase efficiency

WHAT IS FALLBACK LANGUAGE?

- Fallback language represents the contractual provisions utilized to describe the process that can be employed to identify a replacement rate if a benchmark rate such as LIBOR is unavailable.
- Outside of the derivatives world, fallback language is frequently inconsistent across different products. Existing contractual fallback language was originally intended to address a temporary unavailability of LIBOR and not a permanent discontinuation.
- It is customary to believe that ARRC is responsible for alignment of fallback language across cash products and has also been actively engaged in the work led by ISDA to consider best practises for contract robustness in derivatives.
- In addition to the fallback language itself, the firms will need to consider other contractual features that may have an impact for the LIBOR transition such as maturity date, counterparty, and calculation agent.

KEY CONCEPTS AND CONSIDERATIONS FOR FALLBACK LANGUAGE

- The key concepts of fallback language are:
  - Fallback trigger event: outlines the circumstances that will require a benchmark replacement such as LIBOR not available.
  - Benchmark replacement: identifies the benchmark rate that would replace the current benchmark rate following a trigger event.
  - Benchmark replacement adjustment: a spread is added to the replacement rate to make up for the difference with the current benchmark rate.
- Fallback language for over-the-counter derivatives typically falls under the definitions of ISDA master agreement. ISDA is working with clearing houses (LCH, CME) for an effective/smooth transition. The fallback language for cash products varies significantly across product type, vintage and originator.
- ARRC formed its Consumer Products Working Group to set out the guiding principles with modified language for new consumer loans which are consistent across all cash products.

RECOMMENDATIONS FOR FALLBACK LANGUAGE REFORM

- As defined by ARRC, for the four major product types, the same set of parameters need to be applied to modify the fallback language:

Parameters

- Trigger Description
- Benchmark Replacement Waterfall
- Benchmark Replacement Adjustment
- ARMs Consider Index and Margin

Product Types

- Floating Rate Notes
- Bilateral Business Loans
- Syndicated Loans
- Securitizations

- Both on and off-balance sheet exposures must be considered for this transition. Firms should not relay on ambiguous fallback language because it could lead to litigation or conduct risk.

- Based on product types and number of counterparties, firms should calculate net exposure and prioritize outreach.

VALUATION AND RISK

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DISCUSSION TOPICS

- The impact of the US and EU IBOR transition on emerging markets in Africa (insights from South Africa)
- The potential knock-on impact on hedge accounting

BDO REFORM IN SOUTH AFRICA (SA)

Timeline of progress

August 2018

SARB published Consultation Paper on RFR benchmarks & established SARB Working Group & Market Practitioners Group (MPG)

May 2019

SARB published report on stakeholder feedback; lack of market consensus on RFR alternatives by MPG

2020

SARB technical paper not released by end of 2019;

Likely to be 18-24 month delay after LIBOR reform

BDO

BDO REFORM IN SOUTH AFRICA (SA)

Summary of SARB proposal

Phase out: JIBAR

- *Replace JIBAR with either:*
- Reformed Hybrid JIBAR (based actual deposit market transactions); or
- Term Depo benchmark (interest benchmark derived from ZAR depo transactions)

Reform of: SABOR

- *Replace SABOR with either:*
- SABOR Money Market (O/N interest rate benchmark excluding FX swaps / depos)
- ZARIBOR (derived from O/N interbank ZAR depos)

Introduction of: Near-risk free reference rate

- *Proposals to create a liquid near-risk free reference rate:*
- Improve liquidity in the secondary market for Treasury Bills
- Designate ZARIBOR as an O/N risk free rate (interbank rate)
- Use SASFR as a reference rate for the OIS market (SA Secured Financing Rate - derived from Repos with the SARB and O/N funding in government bond repo market)
- Use GB Repo rate (benchmark derived from government bond repo transactions)

CHALLENGES RELATED TO EMERGING MARKETS

Where local IBOR reform may be delayed after LIBOR / EURIBOR transition

- Lack of market maturity and liquidity in OIS, O/N or alternative reference rate markets
- Managing dual benchmark rate markets
- Applying hedge accounting will become more challenging
- Many EM contracts have break / penalty clauses arising from any major restructure

QUESTIONS & ANSWERS

MANY THANKS FOR YOUR ATTENTION