AFP 2020 VIRTUAL EXPERIENCE 10/19-10/29

Transitioning from LIBOR: A Corporate's Next Steps.

Introduction & Impact on Global Corporations.

October 2020.

ZANDERS
TREASURY ▪ RISK ▪ FINANCE

Speakers

Mack Makode, VP & Treasurer at Under Armour

Mack Makode is the VP & Treasurer at Under Armour with over 15 years' experience in the industry. Prior to joining Under Armour he was the VP & Assistant Treasurer at Mylan, Assistant Treasurer of GE Industrial and Treasurer of various GE Capital businesses.

Mack holds an MBA in Finance and Marketing from The Wharton School and a Ph. D. in Structural Engineering from Johns Hopkins University.

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Laurens Tijdhof is a Partner and Owner at Zanders, a leading consulting company in the areas of Treasury, Risk & Finance. He joined Zanders in 2000 and is joint responsible for the global corporate treasury & risk practice. Furthermore he is heading the international divisions, which includes the offices in Belgium (Antwerp), the UK (London), Switzerland (Zurich) and the US (New York).

Laurens studied at Tilburg University (Netherlands) and holds master degrees in Business Administration (MA), Fiscal Economics (MSc) and Tax Law (LLM). Laurens is a regular conference speaker, guest lecturer and author of articles in specialist publications.

Agenda

1. Introduction to IBOR Reform
2. IBOR Reform Transition Impact for Corporates
3. Treasury Technology and IBOR Reform

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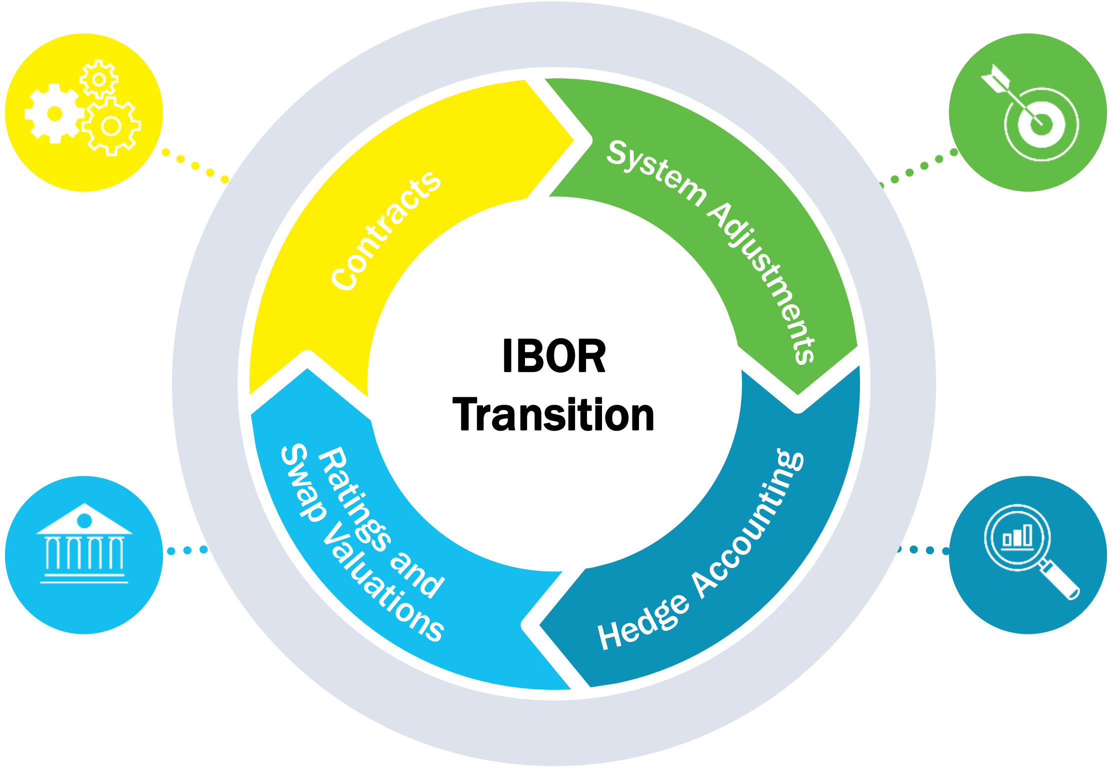
IBOR Transition

How will the IBOR Reform impact the Corporate Treasurer Globally?



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Introduction to LIBOR

What is LIBOR?

History

- LIBOR was developed in the 1970s for Eurodollar deposits
- In the mid 1980s, an increasing number of banks were trading actively in relatively new instruments such as swaps, options and forwards linked to LIBOR
- In January 1986, BBA started fixing interest-settlement rates; BBA LIBOR

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"LIBOR:

The world's

most important

number"

Introduction to LIBOR

What is LIBOR?

Importance

LIBOR is a widely used interest rate benchmark and serves as a price reference for broad range of financial instruments. The volume of outstanding financial contracts that reference LIBOR is estimated at approx. USD 300 trillion globally and USD 150-160 trillion in USD LIBOR (FSB, 2014).

"LIBOR: The world's most important number"

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Introduction to LIBOR

What is LIBOR?

Definition

The London Interbank Offered Rate (LIBOR) is

- a measure of the average rate at which banks are willing to borrow wholesale unsecured funds;
- calculated as a trimmed mean of submissions from selected panel banks;
- administrated by ICE Benchmark Administration;
- published for USD, GBP, EUR, CHF and JPY in maturities ON/SN, 1W, 1M, 2M, 3M, 6M, 12M.

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"LIBOR:

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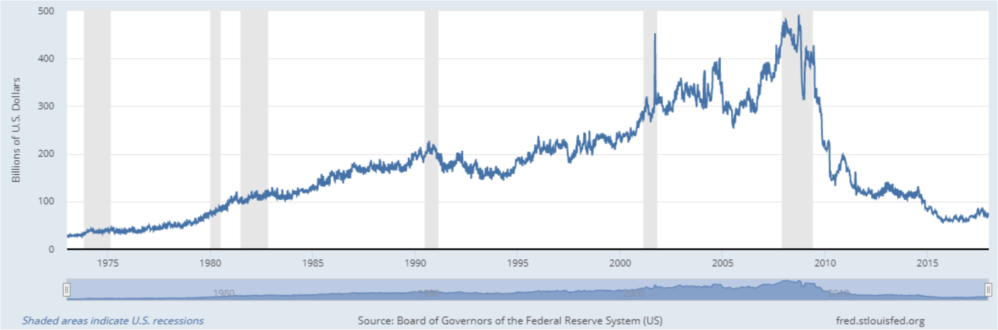
Introduction to LIBOR

What happened?

- **Declining liquidity** of the underlying interbank markets is one of the key drivers for reform and transition away from LIBOR.



- The calculation of LIBOR is based on the support of submitting panel banks reliant on their **expert judgment**, leaving room for **manipulation**.

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Head of Yen products: "What's the call on the Libor?"
Trader 2: "Where would you like it, Libor that is?"
Trader 3: "Mixed feelings, but mostly I'd like it all lower so the world starts to make a little sense."
Trader 4: "The whole HF [hedge fund] world will be kissing you instead of calling me if Libor moves lower."
Trader 2: "OK, I will move the curve down 1 basis point, maybe more if I can."

"Measuring the rate at which banks are not borrowing from one another"

Chief Executive FCA on LIBOR

Introduction to LIBOR

Regulatory developments ARRC and IOSCO

- The Federal Reserve Board and the New York Fed jointly convened the ARRC in 2014 and reconstituted in 2018 to help ensure a successful transition from USD LIBOR to a more robust reference rate, its recommended alternative, the Secured Overnight Financing Rate (SOFR).
- In July 2013, IOSCO published the Principles for Financial Benchmarks (Principles) which addressed conflicts of interest in benchmark-setting processes, as well as other matters related to benchmarks.

Prepare for **discontinuation of LIBOR** after 2021

All participants in financial markets need to implement a **managed transition process**, including replacing references to LIBOR in existing contracts.

Introduction to LIBOR

Regulatory developments

BMR

- The EU Benchmark Regulation came into effect in January 2018. The Benchmarks Regulation introduces a regime for benchmark administrators that ensures the accuracy and integrity of benchmarks.

Prepare for
discontinuation of LIBOR
after 2021

All participants in financial markets need to implement a managed transition process, including replacing references to LIBOR in existing contracts.

Introduction to LIBOR

Regulatory developments LIBOR not sustainable

- In July 2017, FCA decides to no longer compel panel banks to submit quotes for LIBOR after 2021
- FSB stated in 2018 that it should be presumed that LIBOR will not be sustainable
- In July 2020, FSB discussed the impact of COVID-19 on global benchmark transition. The FSB's Official Sector Steering Group (OSSG) is monitoring the developments closely and recognises that some aspects of firms' transition plans are likely to be temporarily disrupted or delayed, while others can continue. COVID-19 has highlighted that the underlying markets LIBOR seeks to measure are no longer sufficiently active.

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Prepare for discontinuation of LIBOR after 2021

All participants in financial markets need to implement a managed transition process, including replacing references to LIBOR in existing contracts.

Scope of the Transition

The transition from IBOR to alternative reference rates hits each company in many aspects of the finance and risk process

1 Affected currencies

Disappearing IBORs

- LIBOR (USD, GBP, CHF, JPY and EUR)

Strengthened methodologies

- EURIBOR, TIBOR

Coexisting IBOR & RFR (Transition not mandatory)

- AUD
- BRL
- CAD
- HKD
- MXN
- SGD
- ZAR

2 IBOR alternatives

Industry working groups have been formed in all jurisdictions.

They have identified **overnight RFRs** for the following currencies:

Currency	RFR	Published since	Secured	Admini-strator
USD	SOFR	April 2018	Y	Fed
EUR	€STR	Oct 2019	N	ECB
GBP	SONIA	April 2018	N	BoE
CHF	SARON	Dec 2017	Y	SIX
JPY	TONAR	Dec 1992	N	BoJ

3 IBOR ≠ overnight RFR

Differences IBORs vs overnight RFR

- **IBORs are forward-looking** term rates that embed bank credit and liquidity risk,
- the **RFRs** are **overnight rates** and are intended to be **nearly risk-free.**
- RFRs have been identified because they are **robust** and anchored **in active, liquid underlying markets.**
- National working groups (NWGs) are assessing forward-looking rates derived from RFR derivatives.
- The **Financial Stability Board (FSB)** recognizes that there may be a role for such rates for certain cash products but it considers the greater robustness of **overnight RFRs a more suitable** alternative in the majority of case where an IBOR is currently used.

RFRs require a different look at coupon calculation

-3M Today +3M

Legend:

observation period:	period used to calculate the averaged RFR
second observation period:	period used to calculate the adjustment payment
interest period:	period for which an interest instalment is paid

payment date

payment known

Source: FSB – Overnight Risk-Free Rate – A user's guide

IBOR Transition

Transition differs materially per currency on several transition items

	US transition	Remarks	Timing
Alternative reference	SOFR AMERIBOR ICE BYI	Contracts referencing USD LIBOR are expected to be transformed to SOFR Depending on contract fallback language	Expected: Liquidity for new deals in Q1/Q2 of 2021 Expected: Transition of existing deals in Q3/Q4 2021
Term rates	Under construction	ARRC (the US working group on alternative risk-free rates) is working on term rates	Realization is unclear, but not expected earlier than Q3/Q4 of 2021
Derivatives (reference rates)	ISDA protocol is available If protocol is not signed, you need to negotiate with your counterparty CCPs will define their own transition	ISDA protocol is not final, but suggesting USD LIBOR = SOFR + 5y avg LIBOR vs SOFR spread	Expected: Q3/Q4 of 2021
Derivatives (valuation)	CCP change to SOFR discounting Non-CCP change discounting based on CSA, or after negotiation with counterparties	CCP change PAI (and therefore discounting) from EFFR to SOFR Different transition timing may require dual discounting methodologies Compensation for fair value change	CCP: 17-10-2020 Non-CCP: expected end of 2021

Less impact for EUR

EURIBOR is most commonly used

EURIBOR is reformed and is compliant with regulation (so less contract transition or issues with non-existence of term rates)

EONIA will discontinue, but is less often used

GBP market more advanced

SONIA is currently equally or more often used then GBP LIBOR

BoE pushes markets to use SONIA io GBP Libor as from Q3 2020

Term Sonia Reference Rates (TSRR) expected for use before end of 2020

EUR compares to USD

CCP changes to €STR discounting in June 2020

Bilateral expected in 2021

GBP market more advanced

CCPs already apply SONIA discounting

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USD SOFR FRN Comparison Chart

Alternative Reference Rate Committee (ARRC) Publication August 2019

- Significant variations in market conventions persist for SOFR
- Differences in approaches arise depending on both:
  - Specific Floating rate note (FRN)
  - Financial Institutions
- In August 2020 ARRC guidance on bi-lateral and syndicated loans fallback language was issued
- We recommend engaging with your financial counterparties to understand their proposed methodology
- Be prepared to challenge your bank's recommendation to ensure the agreed approach meets your requirements

	Multiple FRNs 2018-2019	Goldman Sachs FRNs May 2019	European Investment Bank FRNs June 2019; World Bank FRNs July 2019	Morgan Stanley FRNs June 2019; Bank of America FRNs July 2019	Standard Overnight Index Swap (OIS)
Averaging Method	Simply Averaging	Daily Compounding	Daily Compounding	Daily Compounding	Daily Compounding
Payment Date	On the interest period end date	On the interest period end date	On the interest period end date	2 business days following the interest period end date	2 business days following the interest period end date
Lookback	1 business day	2 business days	5 business days	No lookback	No lookback
Lockout	Generally 2 business days	None	None	Only applicable on final interest period: 2 business days	None
Day Count Convention	Actual/360	Actual/360	Actual/360	Actual/360	Actual/360

Current Guidance on RFRs

- As of current date, market conventions for coupon calculations on SONIA based RFRs are ahead of other currencies. There still remains uncertainty on SOFR, ESTR, SARON, TONAR.
- Guidance on SONIA
  - The convention in Sterling market for averaging SONIA is to use the Daily Compounded-in-Arrears approach.
  - Products that use SONIA- FRNs and OIS- already follow this approach where interest is calculated as a compound average of the individual SONIA rates across the interest period, typically 6 or 12 months.
  - To get around the uncertainty of making the payments on due date, Lookback approach with an Observational Shift of 5 days is suggested.

Agenda

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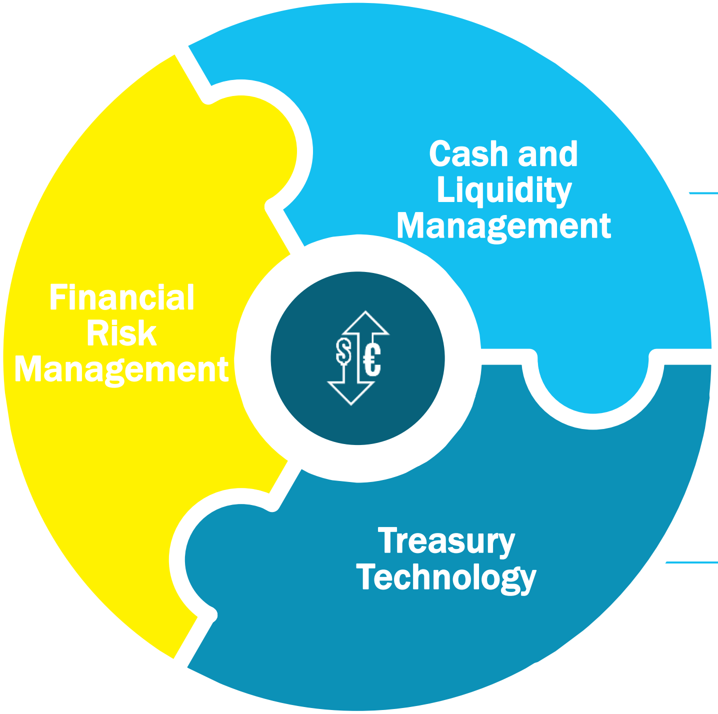
2. <u>**IBOR Reform Transition Impact for Corporates**</u>
3. Treasury Technology and IBOR Reform

IBOR Transition

Impact on Treasury Landscape

- Validation or change of hedging strategies
- Update valuation models
- Ensure availability of accurate market data for valuations and processing



- Consider or re-negotiate external contracts
- Pricing of intercompany loans and cash pool agreements
- Consider internal contracts
- Consider potential tax impact on debt instruments

- Analyze impact on ERP and TMS systems
- Alternative Reference Rate details
- Adjust interest curves

IBOR Transition

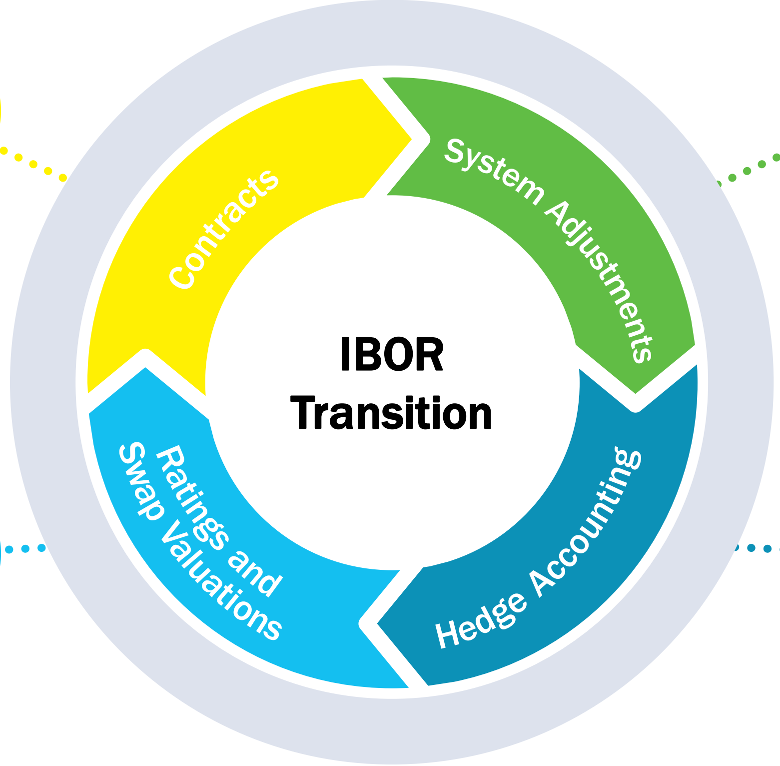
How will the IBOR Reform impact the Corporate Treasurer?

Change in Contracts Documentation

- Review exposure and maturity profile of the affected instruments
- Analyze impact of changes in the T&C of contractual documentation including ISDA addendums
- Review ISDA and ARRC fallback provisions & their validity
- Analyze tax implications due to contract update or re-contracting
- Perform risk and control assessment
- Reputation/ operational risks if the transition timelines are not followed

Use of risk ratings & re-valuation of existing positions e.g. Swaps

- Develop and validate models, end user computing tools using new ARRs
- Perform re-evaluation of existing positions & compute Loss/Profit
- Evaluate changes in cashflows due to Bank's (counterparty) credit risk, different term structure of the ARRs and spreads adjustment



Review and update of IT solutions and models

- Analyze impact on systems, processes and financial models
- Analyze changes to the Data model
- Update/ upgrade of existing solutions to replace IBOR with ARR
- Partnership with new vendors to complete full transition of IBOR
- Review and enhance reporting

Review of existing Hedges and Hedge Accounting

- Re-analyze the suitability of products for hedging requirements. e.g. Hedges taken again IBOR referencing positions
- Review use of ARR as a benchmark rate for Hedge Accounting. Analyze impact due to delays in adoption across different currencies
- Analyze impact due to accounting rules update

IBOR Transition: IBOR Scan Approach & Methodology

IBOR Scan

Program initiation

- Achieve senior management awareness and understanding
- Assign program manager and core team

1. Impact Assessment

- Create an inventory and exposure of products linked to IBOR rates
- Review contracts' documentation
- Analyse business processes
- Assess system and data requirements
- Assess hedging, accounting and tax implications

2. Roadmap

- Order tasks by priority
- Assess dependencies between tasks
- Set timelines, activity and resource plan

IBOR Scan & Execution

3. Execution and Monitoring

- Update or upgrade systems and IT
- Contact customers, banks, stakeholders and renegotiate contracts
- Adjust models to ARRs and revalidate
- Update hedge relationships
- Educate relationship managers to liaise with customers on this change
- Post-execution impact assessment
- Monitor market response

Track progress and dependencies

Monitor regulatory developments

IBOR Scan – Sample Data Gathering Checklist

S.No	Area of Impact and Checklist Item*
A	**Contract Documentation**
1	All internal and external debt financing documentation, including the transaction details for any undocumented transactions
2	Derivative agreements for any instrument with a floating interest rate component
3	Current active ISDA agreements, if any (if ISDA's with all banks are identical, one example is sufficient)
4	Any supply chain, supply chain finance, AP or AR documentation with interest rate components
5	Any other financing or commercial documentation with floating interest rate components
B	**Risk Ratings and re-valuation of existing swaps**
1	Latest derivative portfolio valuation report
2	Latest credit risk analysis for internal and external counterparties
C	**IT solutions/ Treasury technology**
1	Treasury management system functional specification document
2	Treasury Management system user manual
3	Overview of current licensing/ commercial engagement with system vendor
D	**Review of Existing Hedges and Hedge Accounting**
1	Hedge accounting overview and latest hedge accounting report

**Note, all documentation preferably be provided in a readable PDF format to facilitate RPA bot analysis, if not possible OCI need to be applied*

Agenda

1. Introduction to IBOR Reform
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3. **Treasury Technology and IBOR Reform**

Treasury Technology and IBOR Reform

Zanders has analysed TMS Vendors' planned developments

Change in interest rate calculation process

- Changes in compounding rules
- Separation of RFR and spread components
- Interest rate fixing and settlement changes

Yield curves and forward rates

- Use of new yield curves and cross currency basis spread curves (configuration)
- Daily calculations of forward rate and future cash flows are affected by gaps and also more calculations needed

Period end accounting

- Adjustment to period end accounting rules due to change in determining interest settlement amounts (both for NPV as well as accruals)

With TMS providers announcing detailed plans relating to the IBOR transition, the Corporate Treasurer should take action :

- Engage with your TMS provider to understand their development and roll-out plans
- Identify and document your functional (and technical) requirements
- Consider which system versions will be supported and what the expected timeline is – if on older versions, TMS system upgrades may need to be considered
- Understand and agree IBOR specific calculation methodologies to be implemented
- Prepare implementation and roll-out plans; identify internal/external resource requirement and establish project timelines

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