Hogan Lovells Lee&Lee

The future of LIBOR

APLMA presentation

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Featured image from Hogan Lovells 2018 *Capture* Photography Competition

LIBOR – what is it? (1)

"London Interbank Offered Rate"

- key reference rate for about $350tn of financial products, ranging from interest rate swaps and corporate loans to credit cards, mortgages and savings accounts
- syndicated loans, bonds, and derivatives are not the only products impacted…

LIBOR – what is it? (2)

Wide impact of LIBOR transition

Product	Product examples
Over-the-counter (OTC) derivatives	Interest rate swaps, forward rate agreements (FRAs), cross-currency swaps
Exchange-traded derivatives (ETDs)	Interest rate options, Interest rate futures
Loans	Syndicated loans, business loans, mortgages, credit cards, auto loans, consumer loans, student loans
Bonds and floating rate notes (FRNs)	Corporate and non-US government bonds, agency notes, leases, trade finance, FRNs, covered bonds, capital securities, perpetuals
Short-term instruments	Repos, reverse repos, time deposits, credit default swaps (CDS), commercial paper
Securitized products	Mortgage-backed securities (MBS), asset-backed securities (ABS), commercial mortgage-backed securities (CMBS), collateralized loan obligation (CLO), collateralized mortgage obligation (CMO)
Other	Late payments, discount rates, overdraft

Market participants	
Central counterparties (CCPs)	Asset managers
Exchanges	Pension funds
Government-sponsored enterprise (GSE)	Hedge funds
Investment banks	Regulated funds
Commercial banks	Insurance/ Reinsurance
Retail banks	Corporations
	Non-bank lenders
	Supranationals
	Others

Source: IBOR Global Benchmark Survey 2018 Transition Roadmap (AFME, ICMA, ISDA, SIFMA, SIFMA AMG)

LIBOR – what is it? (3)

Key features

- ICE LIBOR Output Statement defines LIBOR as:

  "*A wholesale funding rate anchored in LIBOR panel banks' unsecured wholesale transactions to the greatest extent possible, with a waterfall to enable a rate to be published in all market circumstances* "

- Five currencies (CHF, EUR, GPB, JPY, and USD)

  +

- Seven tenors (Overnight/Spot Next, 1 Week, 1 Month, 2 Months, 3 Months, 6 Months and 12 Months)

  =

- Publication of 35 rates every applicable London Business Day

LIBOR – who does it?

e.g. – US dollar LIBOR panel composition

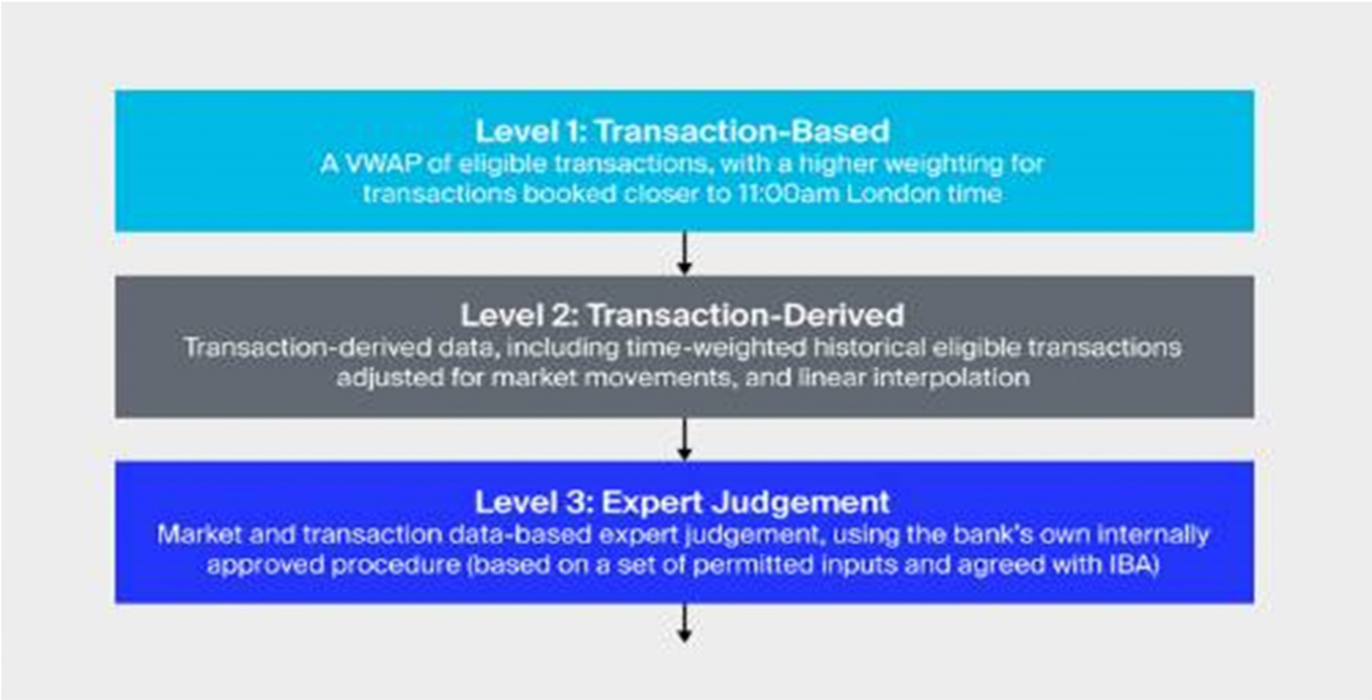
- 16 banks currently* contribute to the fixing of US Dollar LIBOR:

(**today: see ICE panel website*)

- Bank of America N.A. (London Branch)
- Barclays Bank plc
- Citibank N.A. (London Branch)
- Cooperative Rabobank U.A.
- Credit Agricole Corporate & Investment Bank
- Credit Suisse AG (London Branch)
- Deutsche Bank (London Branch)
- HSBC Bank plc
- JPMorgan Chase Bank, N.A. (London Branch)
- Lloyds Bank plc
- MUFG Bank, Ltd
- National Westminster Bank plc
- Royal Bank of Canada
- Sumitomo Mitsui Banking Corporation Europe Limited
- Norinchukin Bank
- UBS AG

LIBOR – how is it set?

Use of a standardised, transaction data-driven Waterfall Methodology



Source: https://www.theice.com/iba/libor

Background to LIBOR Reform (1)

2011-2014: LIBOR misconduct allegations

- 2011
  - First bank to report in public filings that it is being investigated in relation to LIBOR conduct
- 2012
  - First bank to settle with regulators and other authorities (June 2012)
  - Regulators and authorities continue probes into alleged manipulation of LIBOR and other benchmark rates by other large US and European bank
- 2013 and 2014
  - Investigations, including in Japan, Australia, Switzerland, the UK and US, into various US and European banks conclude
  - Findings of LIBOR misconduct in various forms made, focusing on particular LIBOR currencies (especially JPY but also Swiss Franc, USD and GPB)

LIBOR: Reform (1)

2012: Wheatley

- Following the widespread allegations and numerous fines imposed on several international banks, UK Government conducted the **Wheatley Review (2012)**, where FSA's Martin Wheatley:
  - recommended reform, rather than replacement, of LIBOR
  - called for strict processes to verify submissions with transaction data
  - suggested that market participants should play a significant role in LIBOR production and oversight

LIBOR: Reform (2)

2013: Statute

- Significant reforms came in:
  - British government regulates LIBOR by criminal and regulatory laws passed by Parliament
  - Financial Services Act 2012:
    - brings LIBOR activities under UK statutory regulation oversight (including submission and administration of LIBOR)
    - creates a new criminal offence for knowingly or deliberately making false or misleading statements in relation to benchmark-setting such as for LIBOR

LIBOR: Reform (3)

2014: transfer of oversight

- British Banker's Association (BBA) transferred oversight of LIBOR to UK regulators
- ICE Benchmark Administration Ltd (IBA) took over administration of LIBOR from BBA

LIBOR: Replacement (1)

2014: Review

- **IOSCO's Principles for Financial Benchmarks: Review by Administrators of EURIBOR, LIBOR and TOBOR (2014)**:
  - said ICE LIBOR closer to principles than BBA LIBOR

  but

  - questioned whether LIBOR provided an accurate or reliable representation of the economic realities it sought to measure

- Financial Stability Board (FSB) publishes **Reforming Major Interest Rate Benchmarks (2014)**:
  - suggested a 'multi-rate' approach to reforming interest rate benchmarks across currencies, ie
    - (1) strengthening existing IBORs (anchoring in real transactions; implementing IOSCO Principles

  and

    - (2) developing alternative nearly risk-free reference rates ("**RFRs**")

LIBOR: Replacement (2)

2017-2018: Bailey

- 27 July 2017: Andrew Bailey speech as Chief Executive of FCA
  - highlighted limitations on LIBOR reform (due to absence of active underlying markets on which these benchmarks are based)
  - stressed focus should be on LIBOR discontinuation and switch to RFRs post transition period during which panel bank support to sustain LIBOR to continue
  - banks committed to continue LIBOR submissions until end-2021 (Nov 2017)

- 12 July 2018: Andrew Bailey's second speech
  - reaffirmed commitment to transition to RFRs
  - **"The discontinuation of LIBOR must not be considered a remote probability 'black swan' event. Firms should treat it as something that will happen and which they must be prepared for"**

RFRs – what are they? (1)

"Risk Free Rates"

- Backward-looking overnight rates
- LIBOR vs RFRs:
  - No "moral hazard" – grounded in real transactions
  - No credit risk premium – derived from secured / collateralised markets
  - No term funding premium – does not include the premium paid on longer-dated funds
  - No liquidity premium – derived from liquid markets

RFRs – what are they? (2)

Selected to date

Currency	RFR	Secured?	Publication time
Sterling (£)	SONIA (Sterling Overnight Index Average) *SONIA reform was completed on 23 April 2018*	N	09:00 GMT *T+1*
Euro (€)	ESTER (Euro Short-Term Rate) *This is a new overnight rate being developed by the ECB and expected to be published by October 2019*	N	09:00 CET *T+1*
US Dollar ($)	SOFR (Secured Overnight Funding Rate) *This is a new rate which has been published since 3 April 2018*	Y	08:00 ET *T+1*
Swiss Franc (CHF)	SARON (Swiss Average Rate Overnight) *This replaced TOIS fixing in December 2017*	Y	12:00, 16:00 and 18:00 CET *same day*
Japanese Yen (¥)	TONA (Tokyo Overnight Average Rate)	N	10:00 JST *T+1*

Source: The future of LIBOR: what you need to know (second edition); LMA/ACT

RFRs – Asia (the exception) (1)

Singapore

- Association of Banks in Singapore Benchmarks Administration Co Pte Ltd ("**ABS**") and the Singapore Foreign Exchange Market Committee ("**SFEMC**") – gathered proposals to strengthen SIBOR
- Joint public consultation exercise concluded July 2018
- Key principle is to strengthen SIBOR, computing SIBOR using the following waterfall methodology:
  - transactions in the underlying wholesale funding markets;
  - transactions in related markets; and
  - expert judgment.

RFRs – Issues?

Not forward-looking or term rates, therefore impact on…

- Pricing and risk management
  - credit/term risk: not priced into RFRs; components of total price will need to be adjusted
- Cash management
  - must be re-rated daily:
    - surplus cash balances to accommodate rate movements?
    - hurdles to repay mid-interest period?
- Operational issues
  - borrower payment/lender loan product systems: must be adapted (costs of entry? reduced liquidity?)
- Market uniformity
  - times: publication of/transition to each rate (different for different currencies and jurisdictions)
  - methodologies: eg spread adjustment – will need to be bespoke for SONIA/SOFR
    - fragmentation (currencies; products)

RFRs – Some Transitional Challenges

Challenges we are facing and should consider

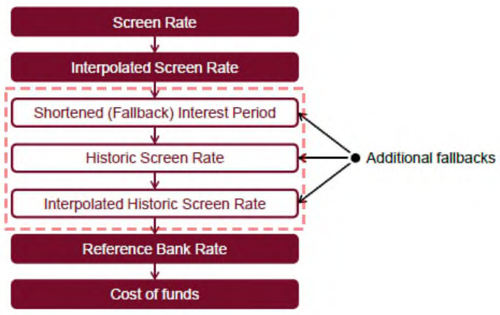
- selection: determining an appropriate replacement benchmark rate
- contractual: how to manage legacy loan agreements referencing LIBOR
- economic: including calculation of credit spread to minimise value transfer
- technical: determining appropriate fallbacks
- operational: systems; calculation methodologies
- cross-product and cross-currency: coordination of matching reference rates

RFRs – Loan Documentation (1)

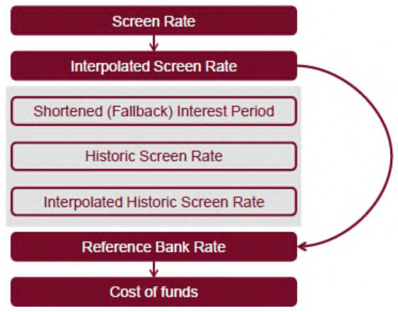
Key provisions

- LMA interest fall back provisions:

Option 1



Option 2



- Replacement of Screen Rate wording
  - recently updated: LMA May 2018 rider
  - widened from 2014 wording, but not a solution – still needs Majority Lender consent
- Cost of Funds wording – the ultimate fallback…

RFRs – Loan Documentation (2)

Hard-wired approach?

- ARRC proposed framework
- Components necessary for hard-wired approach:

  (i) triggers for transition from LIBOR to a new rate;

  (ii) what the new rate is (defined waterfall);

  (iii) spread adjustment to account for the difference between LIBOR and the new rate; and

  (iv) mechanism to amend the loan agreement (if waterfall fails to result in fallback rate)
- Not possible yet…
- …still need forward-looking term rate

Litigation risk (1)

Expect litigation over unamended instruments:

- if a LIBOR continues in some reduced form alongside replacements (twilight zone LIBOR)
- about latest available rate language? (floating obligations may become fixed ones)
- about fallback clauses (lender discretion clauses, lender's cost of funds?)
- other exposures:
  - competition/anti-trust law implications in settling a new benchmark
  - inadequate disclosures re effect of uncertainty about end of LIBOR
  - exposure as reference bank

Litigation risk (2)

How will courts approach cases where there is no negotiated amendment?

- limits of legal doctrines:
  - construction of contracts (the 'alternative valuation machinery' cases)
  - implication of terms
  - 'impracticability'
- courts will be reluctant to reform or amend or re-write contracts by adding LIBOR replacement language
- cross border risks – New York vs English law. Singapore law?
- frustrated contracts – parties' obligations are treated as discharged

What next? (1)

Action points

- Identify long dated instruments (ie terms post 2021): will need to be amended if LIBOR discontinues ('bucketise')
- Consider amendment mechanic for when new benchmarks set
- For new documents:
  - always include Cost of Funds provisions
  - lower creditor thresholds & snooze you lose/yank the bank provisions
  - update Replacement of Screen Rate/Fallback provisions

What next? (2)

Conclusion?

- LIBOR currently tabled to discontinue
- BUT currently no solution / forward-looking rate
- 2 years left to end-2021 deadline
- Possibility will continue…
- …non-LIBOR LIBOR?
- Expert determination?

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