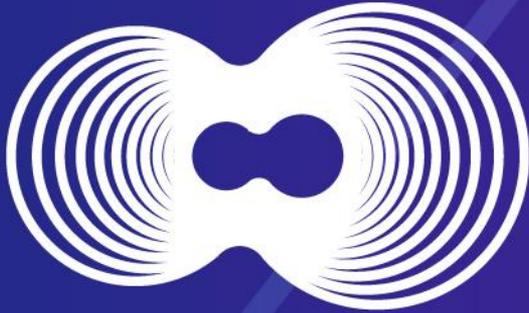


14-15
NOVIEMBRE

HOTEL LAS AMÉRICAS
CARTAGENA DE INDIAS,
COLOMBIA.



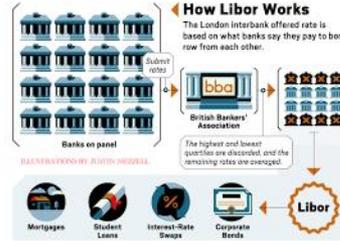
**18° CONGRESO
DE RIESGO
FINANCIERO**

MEJORES PRÁCTICAS EN
UN CONTEXTO DESAFIANTE

**ARMEL ROMEO
KOUASSI**

Director de Balance
y Portafolio de Tesorería,
Northern Trust

LIBOR TRANSITION READY?



Accelerate Your LIBOR Transition

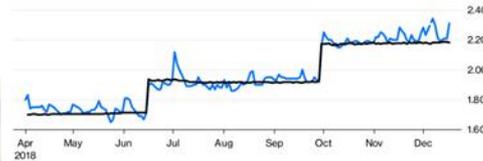


The future of LIBOR

A Bumpier Ride

Libor is less volatile than its dollar replacement

✓ Secured Overnight Financing Rate ✓ Overnight dollar Libor



Source: Bloomberg

BloombergOpinion



Worthless Benchmark

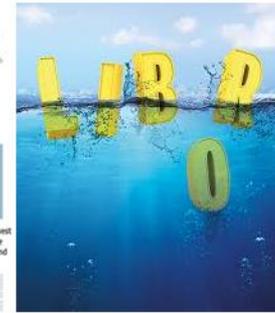
How the benchmark interest rate Libor is calculated – and the influence banks have on it

Example: Dollar Libor

1 The 18 banks on the panel report daily on the interest rates they were (allegedly) charged to borrow money

2 The data is collected by Thomson Reuters

3 Of the 18 reported interest rates, the highest and lowest four are discarded. An average is calculated using the remaining 10, which becomes the Libor for the day and loan period in question.



LIBOR WON'T GO AWAY THAT FAST



FIVE CONTENDERS TO REPLACE LIBOR



Secured Overnight Fund Rate. Administrator :
Federal Reserve Bank of New York



Sterling Overnight Index Average Uncollateralized.
Administrator : Bank of England



Tokyo Overnight Average Rate, Uncollateralized
near Risk Free Rate. Administrator: Bank of Japan



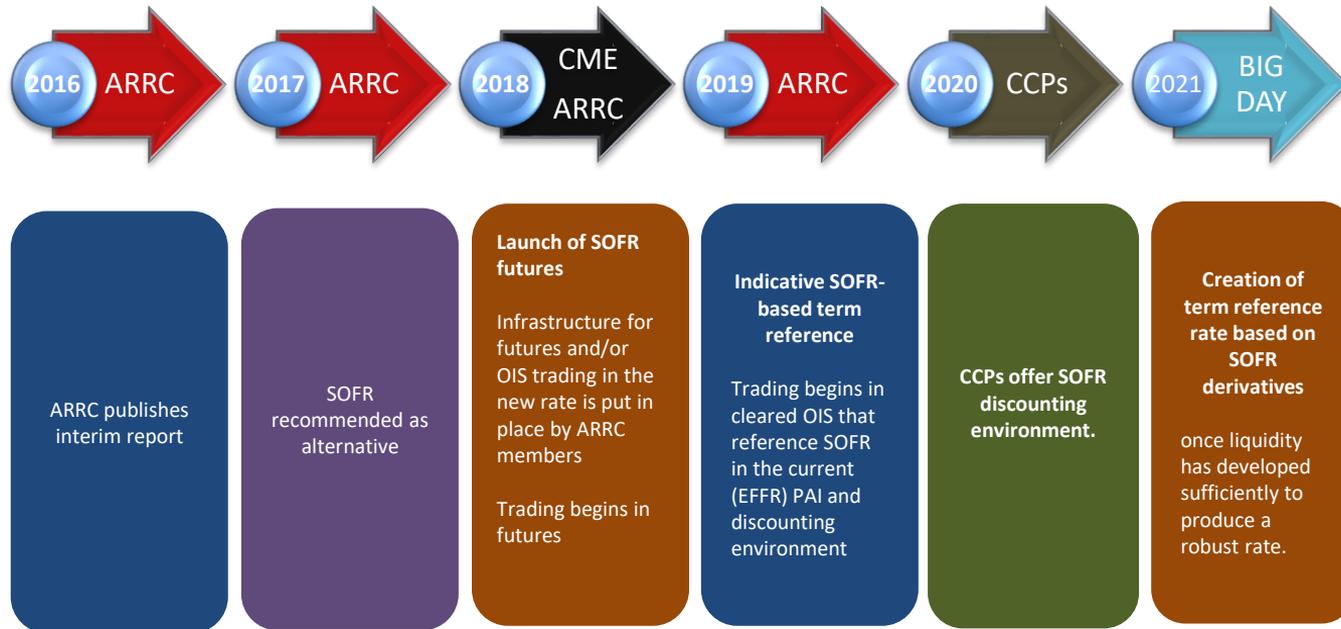
Swiss Average Overnight Rate. Collateralized.
Administrator: SIX Exchange



Euro Short Term Rate. Administrator: European
Central Bank

TIMELINE

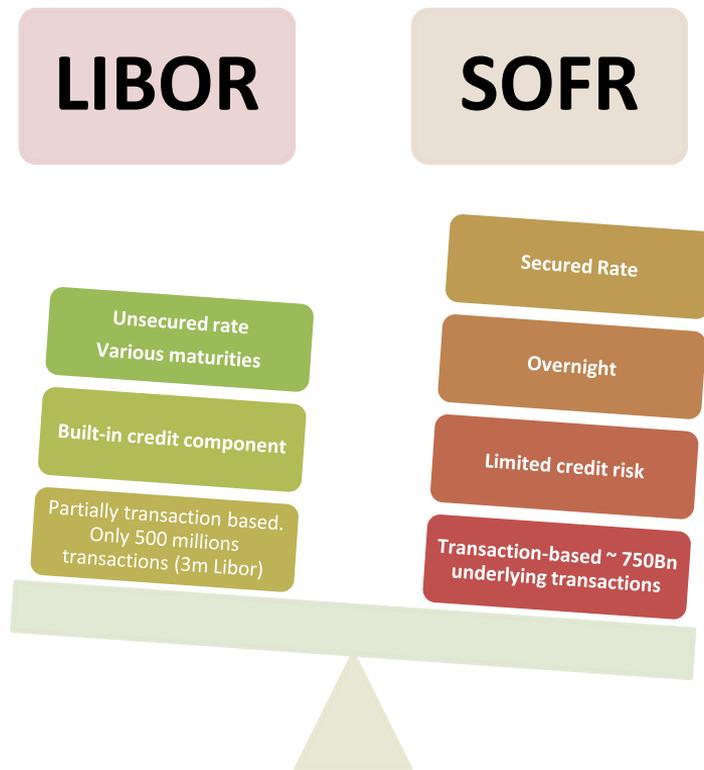
Considering the magnitude of the tail risk if LIBOR were to disappear, it is prudent to prepare for SOFR. How to prepare is a hard work that should start now.



***Alternative Reference Rates Committee (ARRC)** is a group of private-market participants convened by the Federal Reserve Board and the New York Fed to help ensure a successful transition from U.S. dollar (USD) LIBOR to a more robust reference rate.*

KEY DIFFERENCE BETWEEN LIBOR AND SOFR

SOFR is still an overnight rate, the market needs to model a term-structure (yield curve) with different maturities to reflect expectations about where interest rates will be in the future



SELECTED IN JUNE 2017 AND PUBLISHED IN APRIL 2018, SOFR MARKET IS STILL IN A NASCENT STATE.

\$41bn+
of SOFR floating rate
notes issued to date

**Federal Home Loan
Bank \$11.6bn**

- \$4bn on 11/15/2018
- \$3.6bn on 12/6/2018
- \$4bn on 12/21/2018

Fannie Mae \$11bn

- \$6bn on 7/26/2018
- \$5bn on 10/30/2018

Freddie Mac \$5.1bn

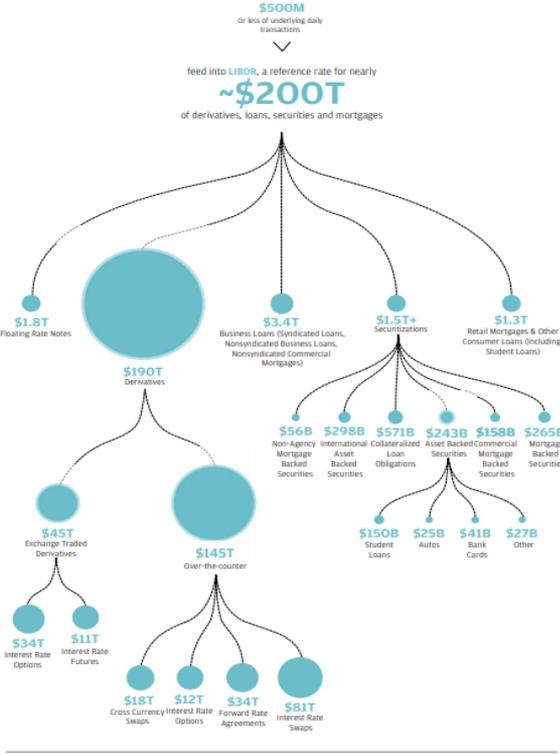
- \$1bn on 11/8/2018
- \$2bn on 12/19/2018
- \$552mn on 01/09/2019
- \$1.195bn on 01/10/2019
- \$340mn on 01/11/2019

Issuances as of January 11, 2019
Source: Bloomberg, CME

Source: J.P Morgan

LIBOR REFERENCE INDEX FOR SIGNIFICANT AMOUNT OF TRANSACTIONS

The problem with LIBOR

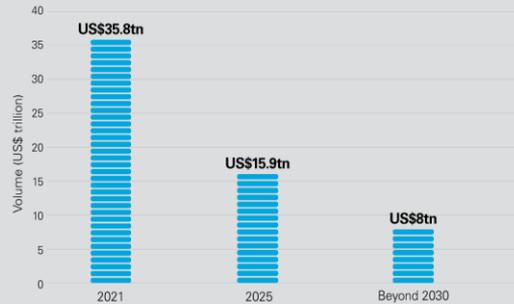


Source: J.P Morgan

SOF R volumes reliably remain between **\$700-\$800B** on a daily basis

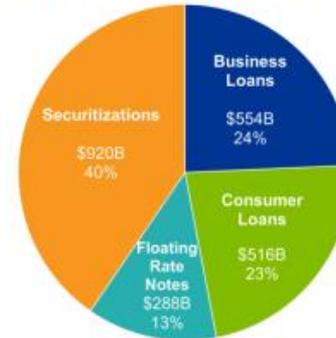
THERE WILL BE EXISTING POSITIONS THAT REFERENCED LIBOR BEYOND 2021

US\$ LIBOR-related notional outstanding 2021 and beyond (as of 2016)



Source: BlackRock calculations, NYFRB, Second Report of The Alternative Reference Rates Committee, March 2018

Exhibit 3: Breakdown of USD LIBOR Notional Outstanding Not Maturing by 2022 (ex Derivs.)



As of 2016. Source: BlackRock calculations, NYFRB, Second Report of The Alternative Reference Rates Committee, March 2018.

THE IMPACTS OF THE TRANSITION.....



WHAT'S YOUR LIBOR SPIRIT ANIMAL?

1. When asked who is leading your LIBOR transition program, you say:

- A** "[Name] is the lead and has pulled together an enterprise working group"
- B** "We have many leads from each of our businesses and functions"
- C** "Maybe someone from rates. Or legal. I don't know"

2. Your firm is proceeding under the assumption that:

- A** LIBOR discontinuation is a certainty; we have defined a base-case set of outcomes, but will monitor and adapt accordingly
- B** LIBOR's longevity is uncertain, but we will wait and see what happens
- C** LIBOR will continue. Why would we assume anything else?

3. You're drafting a contract for a new LIBOR-based issuance. Your template:

- A** Includes disclosures on discontinuance of LIBOR and new fallback language with trigger, alternative reference rate, and spread methodology
- B** May or may not consider discontinuance for LIBOR and/or new fallback language
- C** Is the same as usual – use LIBOR and if it's unavailable use Prime, last available LIBOR or poll a number of banks

4. LIBOR is permanently discontinued today and you need to quantify the impact to your firm. You:

- A** Run a report that shows notional exposure to LIBOR, and potential risk and value impact across various scenarios
- B** Build on a static report of LIBOR-dependent products and processes
- C** Launch an urgent firm-wide exercise to pull data and start crunching; this might take a while

5. It's 2019. Regulators ask for your plan to address the discontinuance of LIBOR and how you comply with European Benchmark Regulation (as applicable). You:

- A** Refresh your existing response plan
- B** Pull together everyone who has worked on the transition in some capacity and start compiling activities
- C** What's European Benchmark Regulation?



Mostly A: Lion
Organized, prideful

Congratulations! You are ahead of the pack, and on your way to building a strong LIBOR transition program. Your firm is committed to supporting the transition and is well informed. There is still a lot to be done, so keep up the forward momentum while watching out for industry developments and unknown unknowns



Mostly B: Turtle
Slow and steady

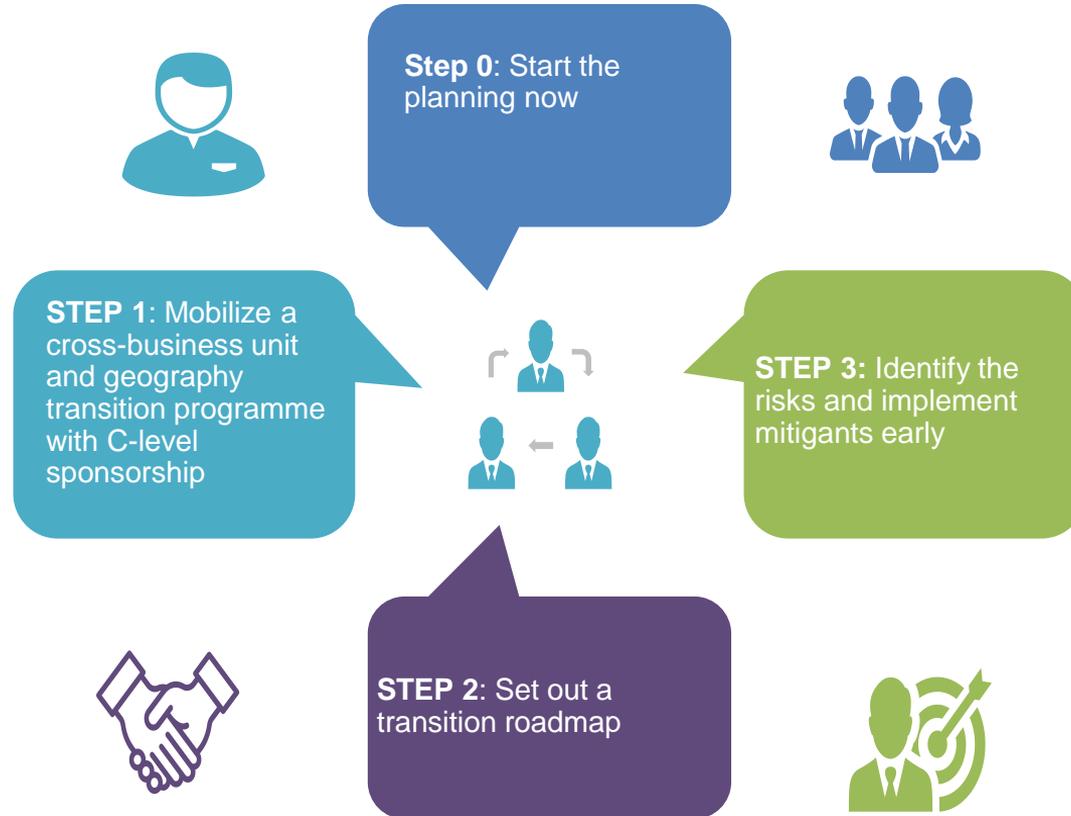
Moving in the right direction, there is still a bit of hesitance in committing to the transition given the number of uncertainties. However, there are a number of "no regrets" efforts that your firm can focus on to stay in good shape for the transition



Mostly C: Ostrich
Head in the sand

It's not too late! While LIBOR transition has not been at the top of the management agenda for your firm, this is the time to begin focusing. Get involved in industry discussions and consider what you need to do to build awareness and support within the organization to get mobilized

THE PATH FORWARD: STEPS TO CONSIDER FOR A LIBOR TRANSITION PROGRAM



1

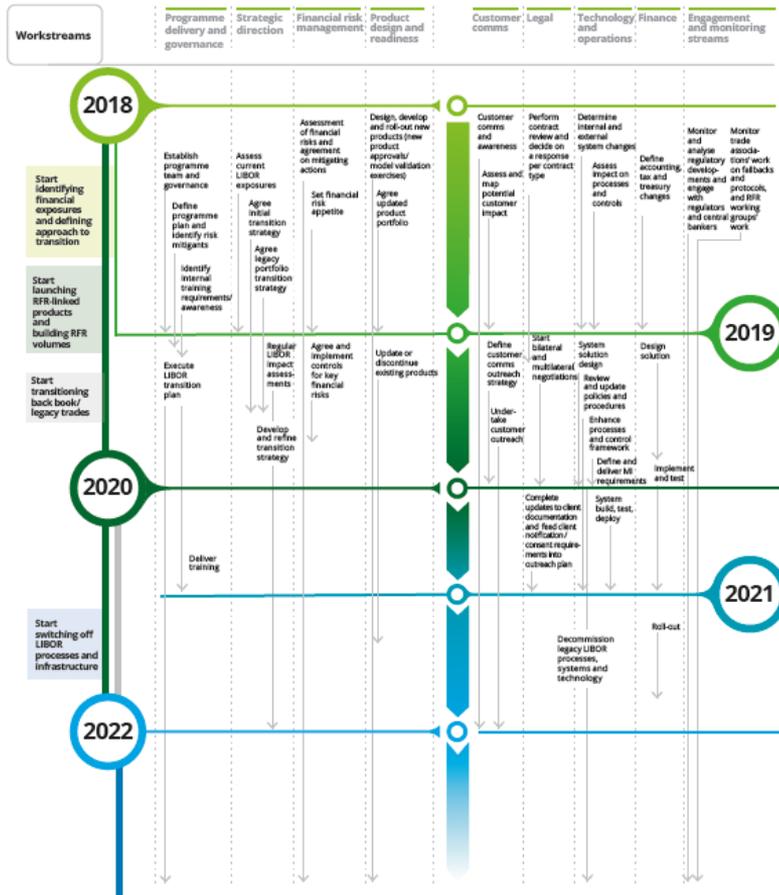
MOBILIZATION : SAMPLE GOVERNANCE STRUCTURE



Mobilize a cross-business unit and geography transition programme with C-level sponsorship

Develop work streams to facilitate impact analysis and planning, develop Governance and additional work streams to support consistency of messaging and information sharing across the enterprise.

SET OUT A TRANSITION ROADMAP



KEY RISKS AND POTENTIAL MITIGANTS

 **Insufficient industry action, because transition is not mandated by regulation or legislation, leads to delays and/or sanctions**

- ✓ Educate senior stakeholders on why it is essential to mobilise and fund a programme
- ✓ Engage with industry working groups, central banks and regulators
- ✓ Document plans and progress in relation to transition as part of an engagement strategy

 **Financial exposures to LIBOR continue to grow and lead to systemic risk**

- ✓ Establish a strategy and target for reducing LIBOR exposures
- ✓ Consider how best to build demand for RFR-linked products
- ✓ Put in place the capability to monitor and manage LIBOR exposures

 **Information asymmetries, inadequate disclosures and conflicts of interest give rise to conduct risk**

- ✓ Establish a clear client communication strategy
- ✓ Have a system in place to distinguish between customers e.g. less sophisticated customers
- ✓ Ensure disclosures are clear, fair and not misleading
- ✓ Ensure customers understand the risks or outcomes they might face from transition

 **Contractual continuity gives rise to legal risk**

- ✓ Analyse contractual language and affected counterparties early
- ✓ Amend contracts to address permanent discontinuation scenario
- ✓ Ensure compliance with EU BMR

 **Lack of awareness of frontline staff leads to poor client outreach outcomes**

- ✓ Implement an internal communications strategy
- ✓ Consider roll-out of training programmes, leading practices and a "red-flag" system, which highlights key issues employees should consider before taking action or a process by which to escalate certain issues

 **The broader impacts of transition, including operational issues and existing regulatory rules, lead to delays**

- ✓ Ring-fence sufficient time and resource to identify and make operational changes
- ✓ Include broader impacts, and consider wider rules, such as margin requirements and the Fundamental Review of the Trading Book, in the initial impact assessment

 **Insufficient RFR liquidity makes it difficult to build a curve and price products**

- ✓ Monitor liquidity on legacy LIBOR and new RFR-linked products across jurisdictions
- ✓ Decide whether to contribute to RFR liquidity by issuing RFR-linked products
- ✓ Assess whether a term rate is essential for all parts of the market

 **Accounting implications may result in de-recognition of contracts and/or discontinuation of hedge relationships**

- ✓ Identify instruments that might be affected by accounting issues
- ✓ Consider whether repapering is needed and evaluate how existing hedges might be affected by it
- ✓ Ensure all staff and customers are aware

 **Amendments to existing contracts may result in potential tax issues**

- ✓ Identify the instruments that might be affected
- ✓ Review the nature of amendments to existing contracts and review intra-group arrangements
- ✓ Ensure all staff and customers are aware

 **Firms do not focus sufficiently on the switch from EONIA and Euribor, as well as other global reform efforts, in 2019 which results in disorderly transition**

- ✓ Have a clear view on what is achievable in time for the 1 January 2020 deadline for EU BMR
- ✓ Apply lessons learned from the transition of EONIA, and possibly Euribor, to the transition of LIBOR
- ✓ Monitor benchmark reform efforts across other jurisdictions

CONCLUSION : A BUMPIER RIDE.....



THANK YOU! CARTAGENA . . . IN THE FOOTSTEPS OF GABRIEL GARCÍA MÁRQUEZ

