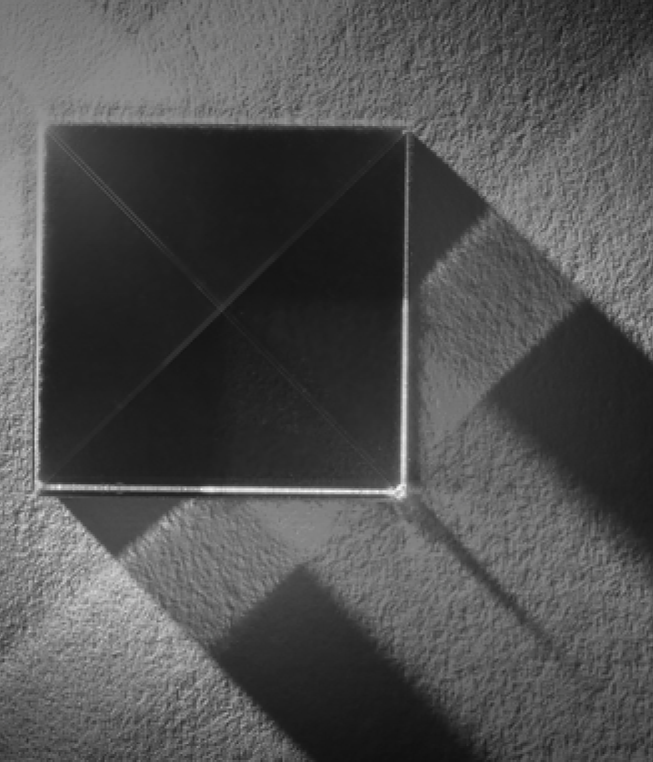
THE CAPCO INSTITUTE
JOURNAL
OF FINANCIAL TRANSFORMATION



ALTERNATIVE RISKS

Life after LIBOR:
What next for capital markets?

MURRAY LONGTON

ALTERNATIVE CAPITAL MARKETS

#49 APRIL 2019

THE CAPCO INSTITUTE

JOURNAL OF FINANCIAL TRANSFORMATION

RECIPIENT OF THE APEX AWARD FOR PUBLICATION EXCELLENCE

CONTENTS

ALTERNATIVE MODELS

ALTERNATIVE RISKS

ALTERNATIVE MARKETS

DEAR READER,

Welcome to edition 49 of the Capco Institute Journal of Financial Transformation.

Disruptive business models are re-writing the rules of our industry, placing continuous pressure on financial institutions to innovate. Fresh thinking is needed to break away from business as usual, to embrace the more rewarding, although more complex alternatives.

This edition of the Journal looks at new digital models across our industry. Industry leaders are reaching beyond digital enablement to focus on new emerging technologies to better serve their clients. Capital markets, for example, are witnessing the introduction of alternative reference rates and sources of funding for companies, including digital exchanges that deal with crypto-assets.

This edition also examines how these alternatives are creating new risks for firms, investors, and regulators, who are looking to improve investor protection, without changing functioning market structures.

I am confident that you will find the latest edition of the Capco Journal to be stimulating and an invaluable source of information and strategic insight. Our contributors are distinguished, world-class thinkers. Every Journal article has been prepared by acknowledged experts in their fields, and focuses on the practical application of these new models in the financial services industry.

As ever, we hope you enjoy the quality of the expertise and opinion on offer, and that it will help you leverage your innovation agenda to differentiate and accelerate growth.

Lance Levy, **Capco CEO**

LIFE AFTER LIBOR: WHAT NEXT FOR CAPITAL MARKETS?

MURRAY LONGTON | Principal Consultant, Capco

ABSTRACT

In the aftermath of the financial crisis, rigging scandals, and sanctions, the days of LIBOR, the London Interbank Offered Rate, are numbered. As the predominant interest rate benchmark for USD, GBR, CHF, and JPY derivatives contracts, replacing LIBOR will fundamentally change the financial services industry. In this paper, we share what businesses should expect to come next, and how they can prepare for the transition.

1. INTRODUCTION

Since 2008, there has been less liquidity in the interbank market to derive rates – this has been the natural result of the introduction of Basel III and its demands to require banks to reduce their reliance on short-term funding. Lehman Brothers and Northern Rock were the antagonists in the liquidity versus capital paradigm. Their inability to rollover short-term wholesale deposits was a catalytic factor in the 2008 crash. The regulatory response to this, Basel III, required institutions to demonstrate and maintain stronger capital ratios, reduce systemic risk, and show movement away from a top-heavy reliance on short-term interbank funding.

Running in parallel to Basel III, the FCA (Financial Conduct Authority) Wheatley Review of LIBOR in 2012 performed analysis across ten currencies and fifteen tenors ranging from overnight to one year. The review would act as the "blueprint" for LIBOR reform, with analysis focused on setting interest benchmarks and understanding the costs to banks of unsecured borrowing for a given currency and time period.[1] The review required greater regulatory oversight of LIBOR markets and elimination of the less liquid currencies and tenors from the required daily submission, "making explicit and clear use of transaction data to corroborate their submissions."[2]

The combination of Basel III's liquidity requirements and FCA's demand for a panel of experts to exercise "expert judgment" resulted in the Bank of England beginning their consultation for replacement "risk free rates" (RFRs, hereafter) in March 2015.

In July 2017, the FCA identified SONIA (Reformed Sterling Overnight Index Average) as the Pound Sterling RFR. Ultimately, this then led to the FCA's 2018 commitment to remove LIBOR by 2022. SONIA was chosen as the preferred risk-free alternative because it is able to evolve over time (demonstrating robustness to changes in underlying markets), it tends to be predictable (tracks Bank Rate very closely), and is already referenced in the liquid overnight index swap (OIS) market; hence making the transition easier.[3]

[1] https://bit.ly/2IlRJo9
[2] Ibid
[3] https://bit.ly/2TSoTSh

2. SO, WHAT IS GOING TO CHANGE?

Before looking at what will change, it is important to understand how the IBOR benchmarks have operated until recently. For two decades, participants have used IBORs as a way of measuring the overall "well-being" of the banking system – it was a very direct mechanism by which a bank would understand the financial health of other banks and how they are performing. End of day submissions by individual banks would be taken as gospel and the published rates would be accepted as stated. The non-binding quotes had no transactional data supporting them and there was no substantial evidence of the liquidity of the specified markets, thus allowing the interbank offered rates to be easily manipulated.

Inevitably, the introduction of the new RFRs will challenge the status quo and the subsequent reformation of the interbank offered rates will require market participants to change. With the main message from regulators and governing bodies reiterating the importance of integrity, robust transactional data, and protection against manipulation, the collaborative effort has already resulted in some very important moves away from the normal practice. Regulators and market participants will feel these changes as they mark an important paradigm shift in the way business has been practiced for the past twenty years.

By the end of 2021, market participants must provide a sound, tactical, and timely plan to move toward the near-risk free "alternative reference rates" (ARR). This was outlined by Andrew Bailey, Chief Executive of the FCA in July 2018,[4] marking the end of the well-established IBOR benchmark.

Secondly, new RFRs will be introduced. The Bank of England and other central banks have been working on this since 2015. The established working groups have identified their respective RFRs based on the guiding principles set out by the FSB (Table 1).

Thirdly, the new RFRs are overnight rates, based solely on real transactions, predominantly because of the recommendations of the Financial Stability Board (FSB) and the Financial Stability Oversight Council (FSOC) to pursue a two-pronged reform approach for strengthening global benchmarks. The first prong encourages the development of RFRs that are more firmly based on transactions and adhere to IOSCO principles for financial benchmarks. Members believe that there are certain financial transactions (predominantly derivatives) that are better suited to reference rates that are closer to risk-free. The second prong looks to strengthen existing IBORs and other potential reference rates based on unsecured bank funding costs by underpinning them to the greatest extent possible with transaction data.

Given that IBORs represent the average rate at which "panel banks" borrow money in the interbank market (thus reflecting credit and liquidity risks associated with lending), the difference between IBORs and RFRs are important to note from an economic point of view. In the first instance, RFRs are backward-looking, relying on sufficient and reliable market data – a stark contrast to what has previously existed. Where IBORs have looked at the future interest rates and market conditions when setting a rate, the new RFR methodology will not reflect future expectations in the market, thus causing fluctuations in funding risk.

Table 1: Overview of alternative reference rates

COUNTRY	WORKING GROUP	ALTERNATIVE RFR	ADMINISTRATION	COLLATERAL	PUBLICATION
U.S.	Alternative reference rates committee	Secured overnight financing rate (SOFR)	Federal Reserve Bank	Secured	April 2018
E.U.	Working group on risk-free reference rates for the Euro Area	Euro short term rate (ESTER) replaces EONIA	European Central Bank	Unsecured	October 2019
U.K.	Working group on sterling risk-free reference rates	Reformed sterling overnight index average (SONIA)	Bank of England	Unsecured	April 2018
SWITZERLAND	The national working group on CHF reference rates	Swiss average rate overnight (SARON)	SIX Swiss Exchange	Secured	Already published
JAPAN	Study group on risk-free reference rates	Tokyo overnight average rate (TONA)	Bank of Japan	Unsecured	Already published

[4] Bailey, A., 2018, "Interest rate benchmark reform: transition to a world without LIBOR," Speech by Chief Executive of the FCA, at Bloomberg, London – on transitioning from LIBOR to alternative interest rate benchmarks, https://bit.ly/2YOYpgC

Secondly, RFRs are based on overnight rates, borrowed on a secured basis. This reflects the requirement for greater control over risk exposure.

Thirdly, IBORs have embedded credit premium, whereas RFRs have no premium, marking a shift away from the risk premium a borrower must pay to lenders as “compensation” for supplying funds at an unsecured rate.

Fourthly, each RFR is calculated on a currency-by-currency basis with no standardized/consistent approach. Cross currency issues will pose a challenge to many participants because the USD-LIBOR and EURIBOR have been the bedrock elements of the global funding markets (many banks will fund their domestic currency assets is USD markets, using cross-currency swaps to hedge funding with USD referenced in one leg and the local currency referenced in the other).

Finally, there is no certainty there will be a term rate for all currencies. While central banks are looking at the creation of forward-looking term rates, this is not guaranteed to work. It is, therefore, probable that many bank clients will likely opt for a new RFR, though some will certainly will opt for overnight rates.

3. WHAT WILL BE IMPACTED BY THIS CHANGE?

As with any regulatory change, there is speculation as to what market participants will do. Many participants are adopting a “wait and see approach” under the modus operandi that IBORs will continue to exist in some shape or form.[5] Some are expected to accept the fallback RFR and transition as and when confirmed. While, others are expected to adopt a “halfway house” approach and start trading out of IBOR-based products over time.

With the new RFRs building a benchmark that provides credible and robust reference rates, it is a given that both cash and derivatives markets will migrate. It is suggested that the former (cash) will find this transition the most difficult due to the unique nature of contracts and tighter links to IBORs. However, at the highest level, the following products will be impacted:

- All IBOR-based term/RCF/money market loans
- All IBOR-based commercial paper
- Trade discounts
- Liquidity deposits
- OTC Derivatives (cleared)

Given that the existing market value of all products that reference IBORs exceed U.S.$400 trillion in size[6] and OTC derivatives and ETDs represent approximately 80% of LIBOR-linked contracts,[7] we can state with confidence that OTC derivatives and ETDs, syndicated loans, securitized products, business loans, retails loans, floating rate notes, and deposits will all be impacted by this transition.

To understand the impact of this across the industry, let us take a very simple model where the Treasury Function of Bank “X” (which specializes solely in fixed-income securities) will have to change. For the purpose of this example, let us focus on repos (overnight unsecured lending rates, general collateral lending rates, treasury bill, or bond rates, etc.) and how a suite of products will be impacted by an IBOR to RFR transition.

The Treasury Function of the bank will need to map out a strategy for creating liquidity at a new rate, including its use of “price alignment interest” calculations and discounting. Should a fallback rate be selected, and LIBOR becomes obsolete, the bank will have to demonstrate a number of key requirements to regulators: liquidity, transaction volumes, resilience through periods of illiquidity, resilience to changes in regulatory approach, transparency of data, and evidence of governance structures against a new rate.

Market making capabilities will need to be determined from bank-wide business priorities, focusing on the commercial, client, process, infrastructure, and controls challenges:

[5] Garcia, C., and J. M. Schneider, 2018, “So long, Libor: transition is underway to SOFR and other alternative reference rates,” View Point, PIMCO, August, https://bit.ly/2O9ctQL

[6] IIF, 2018, “Capital markets monitor: Libor transition: progress, but challenges remain,” Institute of International Finance

[7] FSB, 2014, “Final report of the market participants group on reforming interest rate benchmarks,” Financial Stability Board, July 22, https://bit.ly/2UJL8ac

- **Commercially:** what the implications of capital allocation means to new markets and initial product offerings.
- **Clients**: how the definition of client strategy for onboarding, categories, disclosures, etc., should be determined.
- **Process:** redefining of trade capture and operational support, aligned to commercial strategy and business decision.
- **Infrastructure:** how to implement infrastructure for new products, how to evaluate market data systems (legacy and new) and connectivity requirements, and the implementation of risk/pricing models for new products.
- **Controls:** assess legal jurisdictional and cross-border impact on existing regulations and create policy and procedures for new rates.

Although the above example focuses on the impact upon a Treasury Function in a fictional bank, it does show how banks will have to adopt new processes for impacted businesses. From an industry point of view, participation in working groups will be necessary to fully understand the changes coming, but also to provide feedback on RFR selection options and calculation methodology. The reason being two-fold: initially, to understand changes to trading and execution scenarios and, secondly, how the market infrastructure (middleware, CCPs, etc) will need to be setup.

Another important consideration is assessing the impact on existing loans or contracts maturing post LIBOR removal. For example, clients with loans that expire beyond 2021 will either need to refinance or convert their existing facilities to the appropriate RFR through an "amendment and waiver" request. This is a notoriously laborious and complex process. Furthermore, current market standards only cater for temporary unavailability of IBORs, there has been no definitive confirmation of what the market will look like with no IBOR benchmark. From a syndicate loan point of view, contracts typically require 100% syndicate consent before any change can be made to address the existing benchmark, let alone a new benchmark. Legally, new wording will have to be added to contracts that allows for majority lender consent and re-papering will require significant time and cost. Lastly, each borrower will need to agree the conversion mechanism with its lender group, subject to the RFR selected.

Any affected product (from a client point of view) will either need to be canceled or amended by the end of 2021. Any clients who benefits from hedge accounting will need to sync up with auditors to understand any potential impact. More importantly, clients will have to consider the impact on their cash requirements if interest costs can only be determined immediately before falling due.

4. WHAT NEXT?

In today's regulatory and operating environment, non-compliance and lax controls can be extremely costly. Financial institutions need to engage in an enterprise-wide transformation early to identify, prevent, and mitigate risk. A comprehensive IBOR transition program will comprise the following:

- Setting up a LIBOR/IBOR transition "project management office" (PMO) to build a structured program that will ensure the successful delivery of the LIBOR transition.
- Alignment of business lines and functional groups, including asset/liability management, collateral management, CCP & Clearing, etc.
- Impact and risk assessment.
- Implementation of the necessary adjustments and compliance solutions, including adjustment to multi-curve variation, changes to discounting curves, establishing a parallel discounting regime, and stress testing.
- Contracts and client communication management.

In conclusion, banks and asset management firms are already creating impact assessments to understand how the shift away from IBOR may affect their products and overall business, and to that end are working to develop wider IBOR transition programs. As organizations push ahead, they need to ensure that individual business lines and functional groups have the support needed to transition to, and make available, new RFR products, services, and offerings, particularly from a treasury and funding point of view.

ABOUT CAPCO

Capco is a global technology and management consultancy dedicated to the financial services industry. Our professionals combine innovative thinking with unrivalled industry knowledge to offer our clients consulting expertise, complex technology and package integration, transformation delivery, and managed services, to move their organizations forward.

Through our collaborative and efficient approach, we help our clients successfully innovate, increase revenue, manage risk and regulatory change, reduce costs, and enhance controls. We specialize primarily in banking, capital markets, wealth and asset management and insurance. We also have an energy consulting practice in the US. We serve our clients from offices in leading financial centers across the Americas, Europe, and Asia Pacific.

WORLDWIDE OFFICES

APAC
Bangalore
Bangkok
Hong Kong
Kuala Lumpur
Pune
Singapore

EUROPE
Bratislava
Brussels
Dusseldorf
Edinburgh
Frankfurt
Geneva
London
Paris
Vienna
Warsaw
Zurich

NORTH AMERICA
Charlotte
Chicago
Dallas
Houston
New York
Orlando
Toronto
Tysons Corner
Washington, DC

SOUTH AMERICA
São Paulo

WWW.CAPCO.COM

CAPCO