BENCHMARK REFORM AMID A PANDEMIC

BCMSTRATEGY, INC.
STRATAGEM PARTNERS

JULY 2020

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INTRODUCTION

The shift away from the London Interbank Offer Rate (LIBOR) to execution-based market reference rates was always going to be a massive challenge. While the policy trajectory in this area has been clear for years, the full implications of the shift is only just coming into focus as implementation approaches.

The challenges go far beyond merely "re-papering" existing contracts to replace the single global reference rate (LIBOR) with market-based benchmarks tied to individual nations. While the compliance and legal documentations are certainly important, systematically shifting to new benchmarks presents significant management and training challenges to ensure sales teams implement the new benchmarks appropriately. In the early days, when liquidity is thin and historical data is limited, major technical challenges include identifying appropriate mechanisms for measuring market, credit and operational risks. Increased reliance on local market benchmarks may generate increased levels of concentration and sovereign risk in portfolios.

And then the COVID-19 pandemic hit.

Policymakers remain focused and committed to maintaining -- if not accelerating -- the transition to market-based benchmarks in the next 18 months regardless of the health situation. This White Paper seeks to help strategists and executives consider the broad range of challenges.

BACKGROUND

The Interbank Offer Rate and London

Interbank offer rates (IBORs) articulate an average rate at which banks are willing to borrow from each other (at the wholesale level), usually on an overnight, unsecured basis. Longer tenors (3 months, 6 months) also exist.

The overnight rate is viewed as a benchmark "risk-free rate" because it represents the lowest risk borrowing within the private sector. Bank lending to third party borrowers therefore is quoted as the amount over the IBOR, with higher risk borrowers requiring a higher spread over the inter-bank rate.

For decades, cross-border commercial lending and derivatives contracts globally have been quoted in relation to the London Interbank Offer Rate (LIBOR). Individual currency denominations for LIBOR (USD LIBOR, EUR LIBOR, GBP LIBOR, etc.) became the global pricing convention for international capital markets. While other interbank offer rates have existed in capital markets around the world, capital markets converged over time on the London-based LIBOR as a critical benchmark rate-of-performance measurement for investment securities and as a proxy rate for wholesale funding. Over time it also became the pricing benchmark for retail mortgages in the UK and other economies around the world. For example, estimates indicate that in 1999, roughly 200,000 LIBOR-linked residential and buy-to-let mortgages existed in the UK market.

The Shift to Decentralized Market Rates

Following the Great Financial Crisis, market participants and policymakers agreed that LIBOR was insufficiently transparent. Consensus was reached to shift towards Interest rate benchmarks based on market transactions published daily within national markets. LIBOR will thus cease to exist as a benchmark at the end of 2021.

The shift requires more than just a "global replace" from one acronym (LIBOR) to another acronym. In many instances, the shift to a new pricing framework requires lenders to renegotiate (or at least acquire borrower consent to change) existing legacy contracts. Sales teams must be trained to require all new contracts as well as replacement contracts to be priced in relation to the newly issued national benchmarks. The operational, conduct, and compliance risks are significant, yet they are potentially more straightforward than the strategic and portfolio management implications.

BACKGROUND

Implications

The shift from a centralized, uncollateralized yet global pricing benchmark to a decentralized and often collateralized national benchmark generates real and difficult risk measurement. issues The new benchmarks lack robust time series and liquidity data, making risk measurement (and contract pricing) potentially prone to errors. A shift towards setting IBORs within national currency areas holds intuitive appeal for those that seek convergence between national and offshore trading for reserve currencies, but it can create an environment for shifting market dynamics that will require financial institutions to think carefully -- if not reconsider -- their approaches to country risk and portfolio concentration risks.

The shift may also create the need for central banks to adjust not only their reserves practices but also some aspects of monetary policy. For example, decreased demand for dollar-denominated credit abroad can decrease non-U.S. central bank needs for holdings in those currencies to support financial stability needs in the local market.

Finally, the shift occurs *before* final regulatory standards on multiple technical details. In addition, since the shift occurs from one global standard to many different national standards based on currency of denomination, cross-border firms and their banks face an exponential increase in their regulatory monitoring and risk management requirements because they must track multiple policy shifts in multiple currency markets simultaneously with internal efforts to map existing contract exposures. It is a massive undertaking.

The COVID-19 Context

The IBOR transition process represented a massive strategic challenge to most lenders and borrowers before the COVID-19 pandemic hit. Many in the markets may have hoped that the transition period would be extended. However, as BCMstrategy, Inc.'s proprietary data has been showing throughout 2020, policymakers have persistently pursued LIBOR transition initiatives. In some cases, policy initiatives have accelerated.

Other regulatory standards may have been delayed or modified due to the pandemic, but the LIBOR transition is not one of those standards. At the end of June, global policymakers released a statement making clear that experience with market volatility has only increased their commitment to implement the transition to market-based benchmarks. Their statement

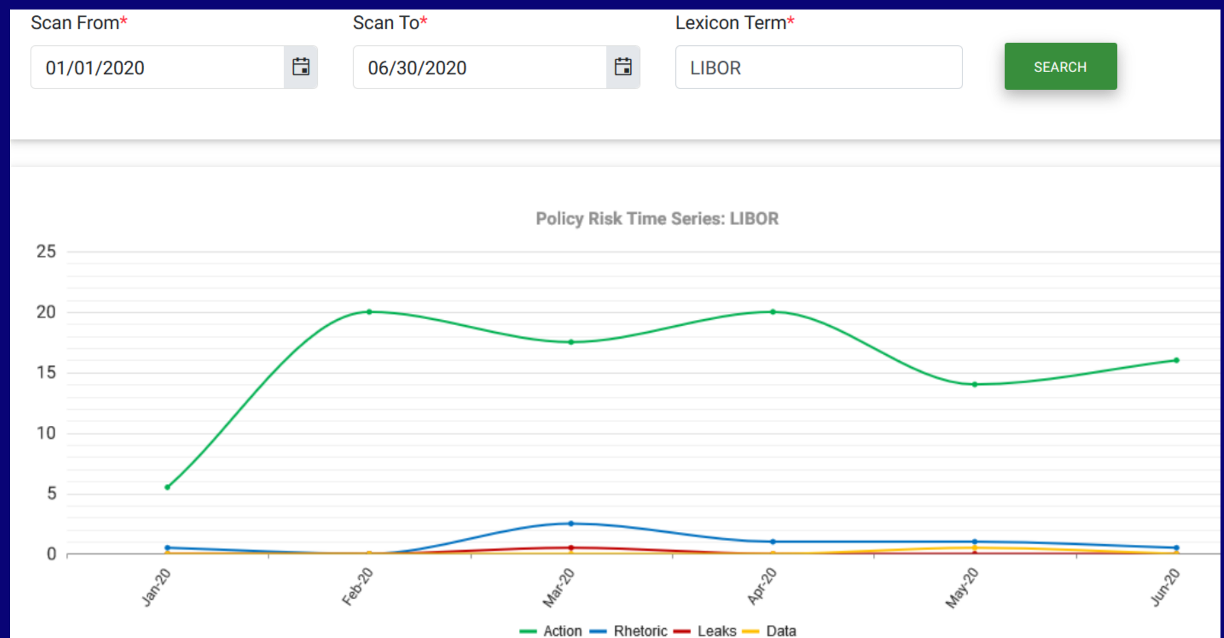
BACKGROUND

indicates that COVID-19 has created an inflection point in multiple ways. In addition to banks migrating away from LIBOR benchmarks for funding in recent years, it seems that pandemic-related market volatility created additional challenges:

"The increase in the most widely used LIBOR rates in March put upward pressure on the financing cost of those paying LIBOR-based rates. For those borrowers, this offset in large part the reductions in interest rates in those jurisdictions where central banks have lowered policy rates."

The COVID-19 pandemic has provided policymakers with additional reasons to implement the transition away from LIBOR because legacy contracts are interfering with central bank efforts to deliver financial stability through monetary policy. These developments help shed light on why policy activity regarding the LIBOR transition remained elevated and even accelerated in the early days of the pandemic, as illustrated by our data below.

Firms at every stage of the LIBOR transition process must focus with renewed intensity on the full range of transition issues as well as the key management and market challenges that will require attention over the next 12-18 months.



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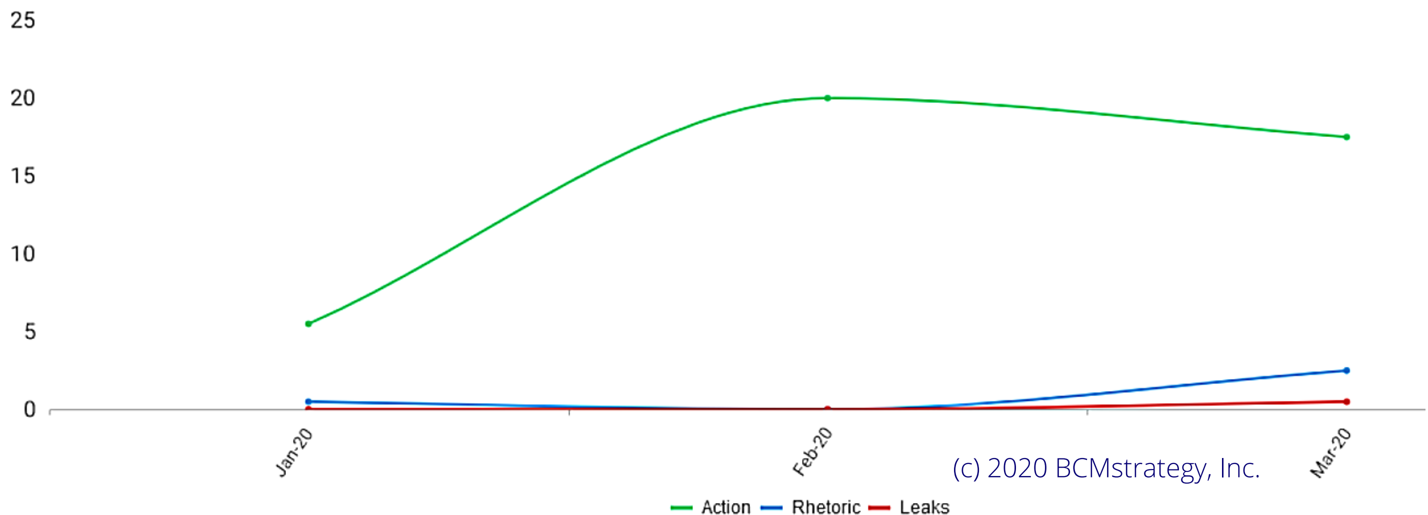
Meet the New Global Reserve Currency Benchmarks

Following the LIBOR transition at the end of 2021, interbank lending for overnight, 3-month, and 6-month tenors for individual currencies will be priced in relation to market prices rather than LIBOR. The new reference rates for global reserve currencies appear below.

The Pandemic Crisis Period 1Q2020



The most significant official sector action at the start of the year concerning the LIBOR transition initiative occurred in London. The Bank of England (the Bank) together with the main UK policymaking bodies responsible for the LIBOR transition (the Financial Conduct Authority (FCA); the Working Group on Sterling Risk-Free Reference Rates (RFRWG)) published six new documents regarding the transition in the UK.

The documents were:

· Priorities and Milestones for 2020

· White Paper suggesting some alternatives for benchmark rates

· A Lessons Learned document regarding legacy LIBOR contract conversions to SONIA

· A Fact Sheet

· A Joint Statement from the Bank of England and the FCA regarding SONIA/Sterling interest rate swaps

· A Joint Letter from the Bank of England and the FCA urging financial firms subject to their jurisdiction to take prompt action regarding the LIBOR transition.

"2020 will be a pivotal year in the transition journey, with critical focus on enabling the flow of new business away from sterling LIBOR. The Working Group on Sterling Risk-Free Reference Rates has therefore defined a key priority to cease issuance of sterling LIBOR cash products by the end of Q3."

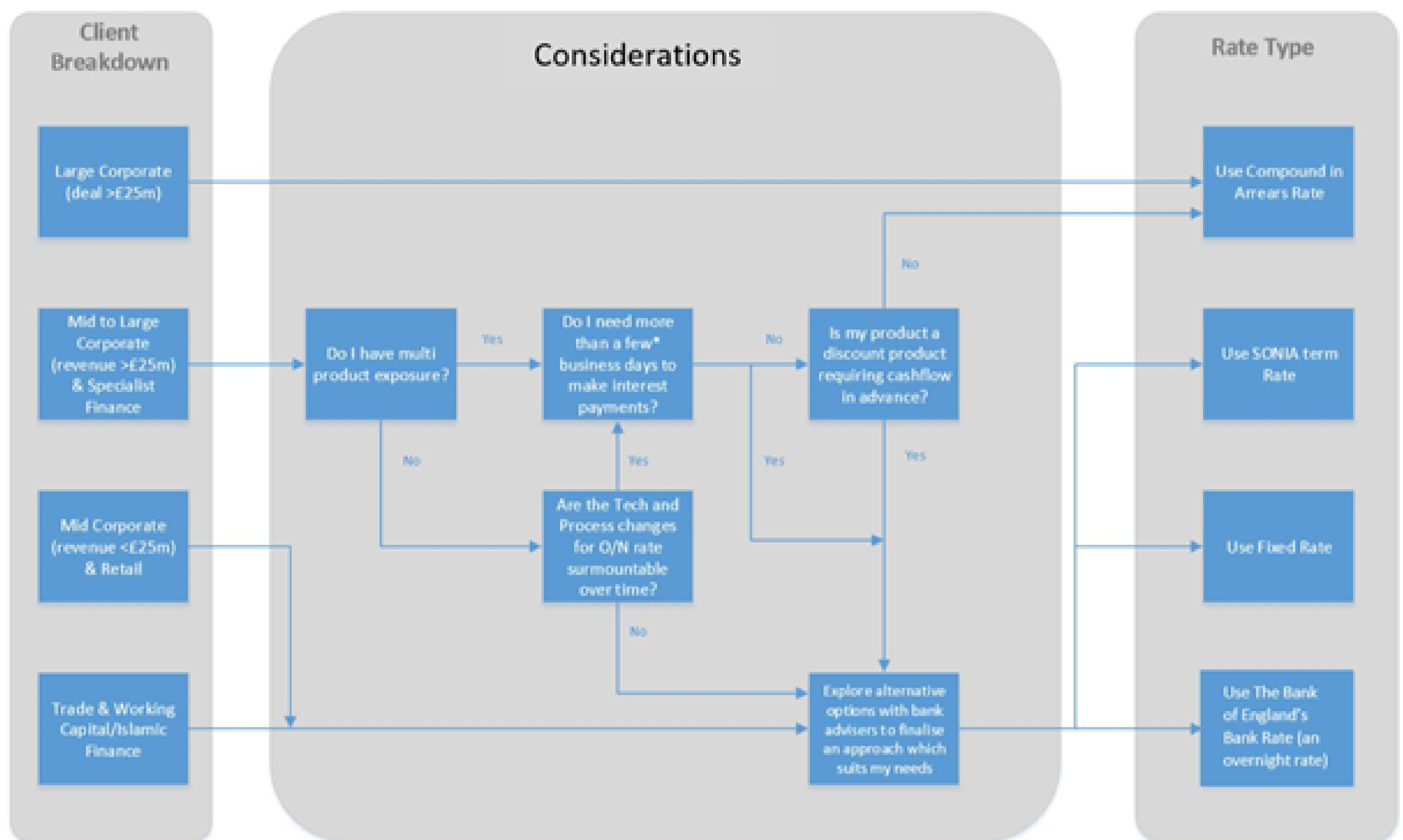
Tushar Morzaria,
Chair, Working Group on Sterling Risk-Free Reference Rates,
16 January 2020

The Pandemic Crisis Period 1Q2020

While the priorities/roadmap document and the Lessons Learned document were likely of greatest interest to project managers and compliance officers, the White Paper and the Joint Statement held the most significant strategic implications for financial market participants.

Policymakers in London were requesting (but not requiring) that as of 2 March 2020, market participants shift to relying on SONIA when writing new interest rate swaps denominated in GPB. While the depth and liquidity of the SONIA market and a priority for maximum market consistency were important in the decision-making process, policymakers also highlighted the need to provide a mechanism for transition regarding multi-currency borrowing situations where term rates are not available in all currencies.

To facilitate the transition (and to accelerate SONIA adoption), the Bank of England included in the White Paper the following decision tree to guide market participants:

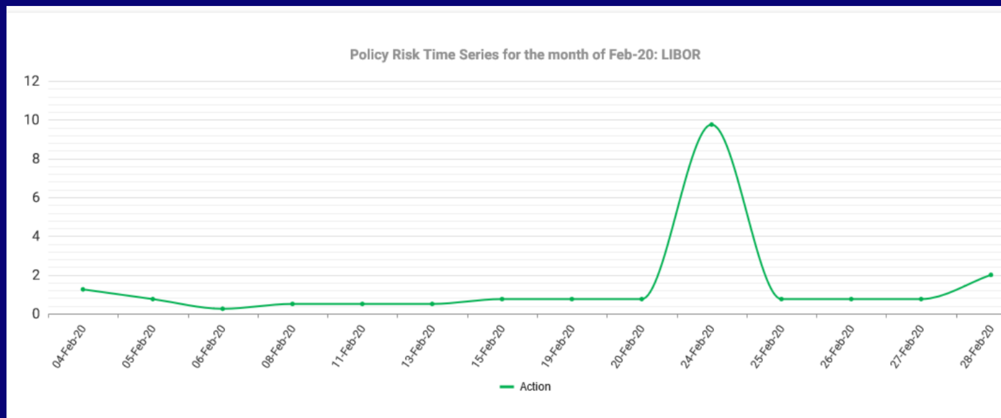


The decision tree inadvertently illustrates the scale and scope of the transition. For firms to offer SONIA-based loan products at scale by 3Q2020, underwriting staff must be trained to internalize the decision tree above. In addition, a broad range of systems (loan bookings, Treasury management, settlement systems, regulatory capital calculations, accounting frameworks) must be ready by 30 September 2020 to facilitate the transition. Finally, standard documentation to meet each of the scenarios above will be required.

Then the pandemic hit.

The Pandemic Crisis Period 1Q2020

February and March 2020 saw policymakers globally accelerating their LIBOR transition efforts in parallel with extraordinary and unprecedented efforts to prop up the global economy. While the majority of public policy activity in each month was driven by COVID-19 policy andongoing Brexit preparations, the BCMstrategy, Inc. PolicyScope Platform made it easy to keep an eye on public policy activities related to the LIBOR transition. It was illuminating to see that even amid an historic shuttering of the global economy, LIBOR transition issues remained actively on the agenda.



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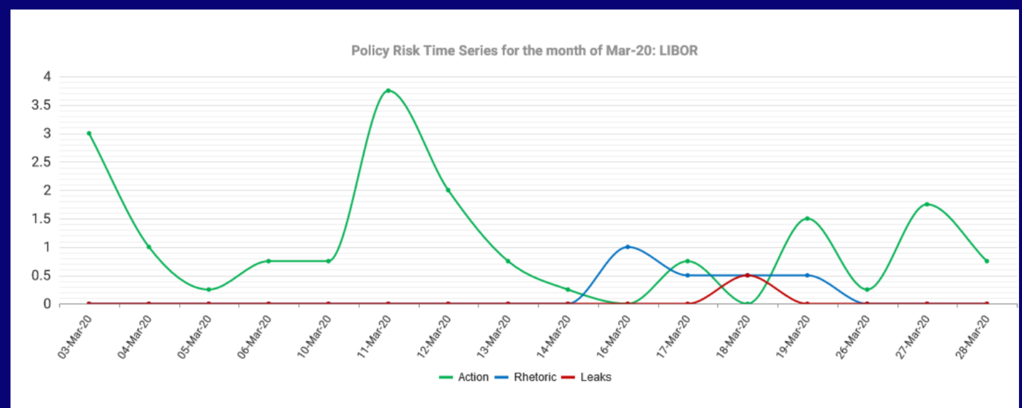

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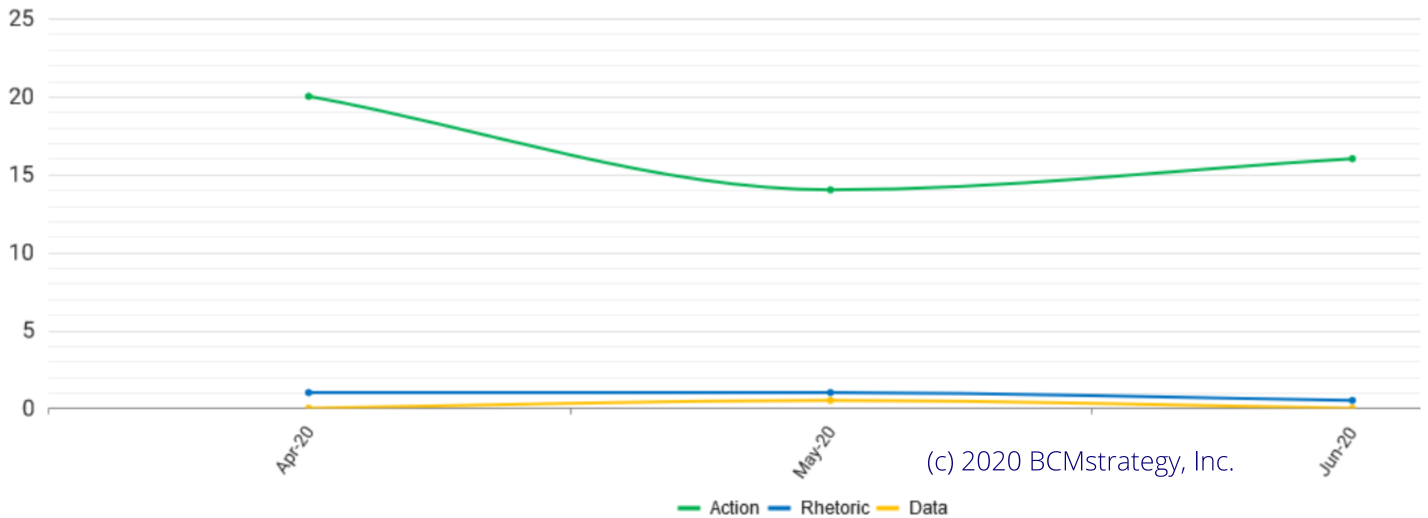
By the end of March, regulatory consultations in the UK were proliferating in a range of areas including tax policy and insurance regulation. The message was clear long before pandemic-era mobility restrictions lifted: the LIBOR transition would still go forward despite COVID-19.

The Pandemic Crisis Period 2Q2020



Throughout the spring, and despite ongoing lockdowns across the global economy, ·policymakers kept up the pressure for financial institutions to continue preparing for the 2021 LIBOR transition.

The Financial Stability Board (FSB) retained an active LIBOR transition policy agenda despite otherwise delaying other regulatory policy initiatives. Policymakers from Australia to Sweden reiterated their public advice to financial institutions to maintain transition efforts.

Announcements were balanced with consultations seeking insight into how COVID-19 was impacting financial institution efforts to transition away from LIBOR and data releases showing continued market pressure within LIBOR spreads.

Consider the following sequence of events in April alone:

· **April 8**: Australian regulators release publicly and jointly the feedback they received from financial institutions regarding the transition away from LIBOR. Among other things, financial institutions reported:

* low liquidity in the replacement benchmark rates resulting in firms continuing to underwrite contracts using LIBOR as their benchmark

*aggregate notional exposure at present for LIBOR contracts was approximately A$10 trillion.

*Levels of preparedness were uneven in Australia, as in other parts of the world.

Policymakers were unmoved, indicating that "prompt action is imperative" and that failing to act now to transition legacy contracts creates "significant reputational operational and legal risks….risking disruptions in financial markets."

The Pandemic Crisis Period 2Q2020

• **April 10**: The Prudential Regulation Authority in the UK publishes its 2020/21 Business Plan in which it indicates that it

"has considered further potential supervisory tools that authorities could use to encourage the reduction on the stock of legacy LIBOR contracts to an absolute minimum before the end of 2021, and will keep the use of such tools under review in light of progress made by firms on the transition. The Bank, the PRA and the FCA will step up engagement with firms on LIBOR transition through our regular supervisory relationship, reviewing management information and collecting data from firms to assess progress."

April 14: The FSB letter to the Group of 20 Finance Ministers and Central Bank Governors makes clear that despite the considerable pandemic response work underway and despite considerable pandemic-related market volatility/financial stability issues, the FSB views the transition away from LIBOR to be a priority.

April 15: In a highly unusual move, the Secretary General of the Financial Stability Board held a conference call with all major financial trade associations and released a statement at the start of the call. The message was simple: the LIBOR transition as a priority for work during 2020.

Securities regulators in the United States have mostly remained on the side-lines in 2020. But inaction does not signal inattention. Instead, it reflects a stable policy trajectory. At year-end 2019, U.S. securities regulators issued no-action letters providing markets with assurances that efforts to transition existing swaps contracts away from LIBOR would not constitute a "material" amendment that would re-characterize the contracts as "new" and, thus, would not trigger regulatory requirements regarding clearing, portfolio reconciliation, trade execution. However, mandatory recertification of "eligible counterparty status" would still be required alongside regulatory reporting requirements.

Transition challenges continued to multiply. With workforces operating remotely and data locked in secure servers, even relatively simple impact assessments become difficult . Firms operating both interbank offer rates and the new market-based benchmark rates simultaneously across multiple thousands (if not millions) of long-dated legacy contracts may find that a rapid shift to remote working may compromise the ability to prepare documentation into machine-readable form to accelerate risk assessments.

Most Basel III implementation measures were delayed or temporarily adjusted dramatically. Regulatory reporting and tax payments have been delayed globally. To date, the LIBOR transition has occurred within an effectively benign low rate environment supplemented significant central bank pandemic-related asset purchases that impact the supply and demand curve for safe assets to underpin bank funding strategies.

Shifts in interest rates and/or shifts in the shape of volatility for key overnight rights in repo markets and in overnight interest rate swap markets may generate less-smooth transitions that will trigger more rapid reactions from policymakers. Substantial shifts between GPB and EUR money markets throughout the now-combined Brexit transition process and pandemic responses may yet generate additional market and policy volatility to an already difficult and technical transition process.

The Monitoring Challenge

Financial firms and their corporate customers face a mammoth monitoring challenge when managing the LIBOR transition process. Effective transition planning requires visibility into moving pieces across multiple dimensions.

Internal Monitoring

Firms must have an accurate and comprehensive assessment of how many and which specific contracts contain LIBOR pricing provisions. They must also monitor internal sales teams to ensure that new contracts are not written using LIBOR pricing. Finally, they must monitor the contract re-pricing and replacement process to ensure that transition efforts are not generating new risk exposures for the firm.

These are far from trivial initiatives. Properly structured internal monitoring mechanisms include:

• Scenario and impact analyses that simulate changing methodologies as well as multiple new benchmark rates, transition alternatives, and decisions

• Real time documentation/evidencing and communications of findings, requirements, proposed decisions across the organization to appropriate stakeholders.

• Implementing new audits trails that can support ex-post risk management and regulatory scrutiny regarding *both* the transition of legacy contracts to the new benchmark environment *and* the sales process for newly written contracts.

• A responsive and consistent approach for addressing new findings or issues as they are uncovered internally.

Market Monitoring

Because the new benchmark rates are tied to observable markets, new kinds of market monitoring mechanisms may be required. Simply tracking new data inputs for the market-based benchmarks will be insufficient to develop robust risk assessments.

New market aggregates cannot be simply be incorporated into existing spreadsheets on a "global replace" basis because the new benchmarks are fundamentally different from their LIBOR/IBOR predecessors.

The Monitoring Challenge

Because the new benchmarks are collateralized, they may exhibit different market behaviour than their predecessors. Because the new benchmarks will reflect localized market conditions within individual countries, their market behaviour may also be different. The time series regarding USD LIBOR transactions in London thus may not provide a reliable foundation for trajectory trend projection with respect to SOFR. Market fragmentation effects alone may generate pricing discontinuities.

Divergences between cash and derivatives markets for the same reference rate may generate additional challenges for financial engineers seeking to identify risk exposures. Thin liquidity and high volatility for the new benchmarks as well as the fading LIBOR benchmarks create real challenges for firms. Without sufficient observations in their databases, extreme market movements such as we saw in March and April 2020 can skew valuations and risk estimates dramatically. An additional layer of internal monitoring and oversight is required to ensure that modelling systems do not over-estimate or misestimate the shape and structure of the yield curve and risks based on pandemic-related data.

Since market conventions have not yet been finalized in many areas, market monitoring requires close attention to issuance practices and terms for a range of floating rate notes...and which reference rate they use. Market monitoring may also include assessing whether (and to what extent) reliance on instruments using the new benchmark rates maintains or diverges from prior corporate hedging and finance behaviour.

Much monitoring can be automated. But care is required to ensure that automated systems can deliver meaningful insight.

Public Policy Monitoring

The LIBOR transition is unique in recent history because policymakers are requiring market participants to shift towards standards that are not yet fully developed. Final regulatory and other policy specifications cannot be generated until sufficient time series data exists.

Financial institutions and their corporate customers in particular must build nimble systems that can respond efficiently to shifts in public policy priorities for every jurisdiction that represented in their portfolios.

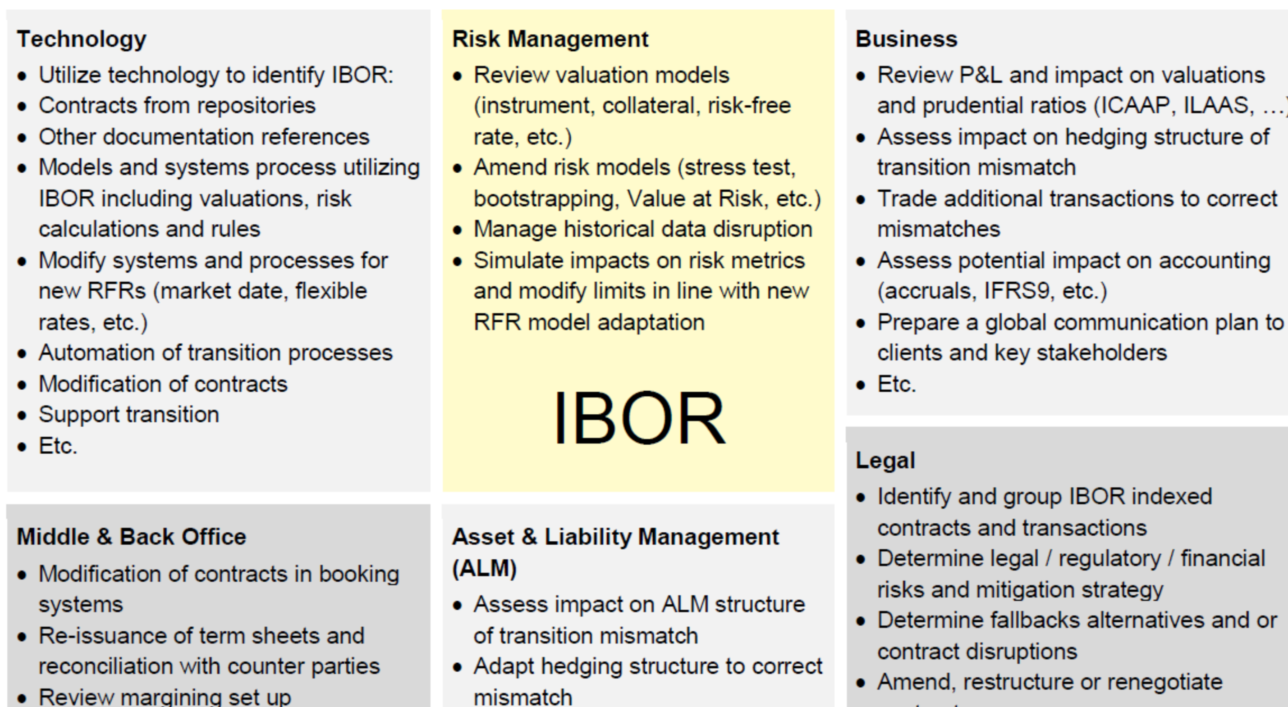
Maintaining a meaningful mechanism for monitoring public policy sentiment can be challenging. Most LIBOR-related initiatives rarely attract media attention. Some initiatives may be buried in other regulatory initiatives. Where previously only one policymaker needed to be monitored (the Bank of England), now multiple policymakers across the globe must be monitored for every currency in which a firm transacts business.

This White Paper focuses on global reserve currencies. However, the shift away from LIBOR impacts all jurisdictions which must now float their own risk-free rates. Architecture decisions will be influenced by decisions taken in other national capitals. Proactively monitoring policy developments will be essential for firms seeking advanced insights and actionable intelligence.

Technology to the Rescue

Many of the monitoring challenges reference din this White Paper can be addressed by advanced technology and process automation. However, merely purchasing a state-of-the-art system will not insulate firms from operational risks and strategic missteps.

The Management Challenge



Successful management of the LIBOR transition process requires far more than merely tracking legacy contracts to renegotiate and updating technology systems. It requires leadership to ensure that a broad range of professionals are aware and motivated to implement major changes in business operations.

As noted in the grid above, multiple professionals across the front and back office teams must work together to manage the transition. One sales professional that makes repeated mistakes when renegotiating a legacy LIBOR contract generates a ripple effect of bad data and increased financial as well as operational risk exposures for the firm. The longer mistakes go undetected, the harder they will be to unwind.

Identifying the challenges is far easier than addressing them. Even when technology processes can automate elements of compliance and risk evaluation, those systems will under-perform if the relevant professionals have not been incentivized to engage in a constructive manner.

The COVID-19 situation generates a silver lining in this context. While it is true that managers can no longer conduct in-person meetings or random spot checks, it is also true that increased reliance on digital communications means more professionals are available for structured training. Training mid-level and junior team members regarding emerging best practices can provide value-added for firms seeing to optimize efficiency.

ABOUT BCMSTRATEGY, INC.

WHO WE ARE

BCMstrategy, Inc. is an early stage technology company led by experienced technology and public policy professionals with multiple patents and a track record of success in a range of innovative initiatives at the global level. We measure today's public policy risk and help professionals anticipate outcomes accurately based on concrete, objective, transparent data.

MISSION

We are bringing the data revolution to policy intelligence so that strategists, executives, investors and journalists can make better decisions based on concrete facts. We accomplish this task by using patented, next-generation technology to convert the words of the public policy process into structured integers using objective, transparent patented processes in order to support both data visualization and risk measurement

PRODUCTS AND SERVICES

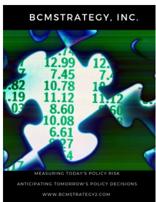
BCMstrategy, Inc. data and analysis are available to individuals through the PolicyScope Platform. Enterprise wide deployments through web apps and APIs are availagle upon request.

ABOUT STRATAGEM PARTNERS

WHO WE ARE

Stratagem Partners is a specialist strategy, risk and public policy advisory group that helps companies maximize value and navigate complex challenges by mobilizing innovative technology paired with deep subject matter expertise across multiple disciplines (financial services, management consulting, academia, regulatory agencies, and public policy, crisis communications, distributed workforce management, financial risk measurement, risk management, and crisis nerve center platform operations).

PRODUCTS AND SERVICES



BCMstrategy, Inc.: A technology company that uses patented technology and 9+ levels of automated analytical processes to deliver accelerated strategic insights regarding global public policy processes.

Truthsayers: A technology company providing the next generation of people analytics tools through cloud-based neuro assessment, diagnostic and profiling tools at the intersection of Behavioural Science , Neuroscience, Psychology, Technology, Data Science and Machine Learning.

SoluxR: A technology company that is the world's first to augment and automate strategic risk management using Natural Language processing, Text mining and AI.

Groupdolists: A technology company that brings response teams together during disruptions by instantly activating response plans, mobilising front lines, centralising critical information, and automatically documenting all activity.

Think The Unthinkable: A strategic management firm for executive leaders to enhance internal communication, transform leadership, and make firms fit for the new normal of radical uncertainty.

Centigo: The leading domestic Swedish management consulting firm specializing in business-critical and cross-functional change management.

Basinghall Analytics: A specialized, expert-led consultancy focused on quantitative risk models (credit, market, liquidity risk, stress testing).

Adam Global: The world's leading platform for mutlidisciplinary professional business services including leagl, tax, accounting, and management consulting.