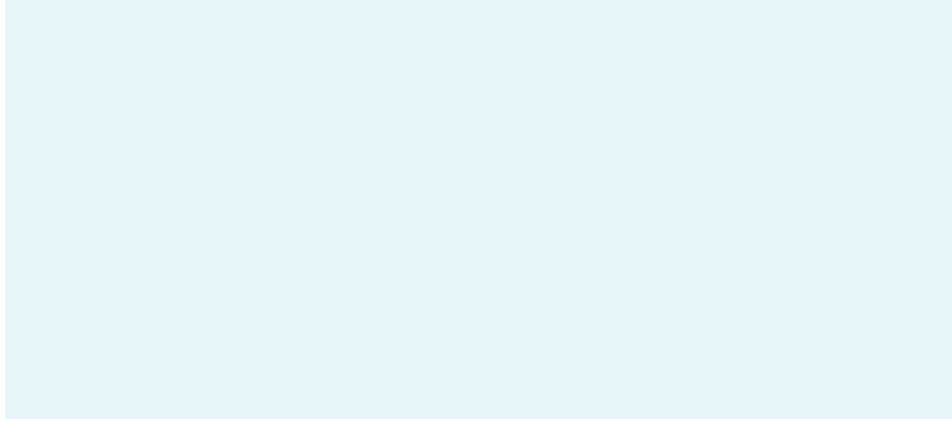




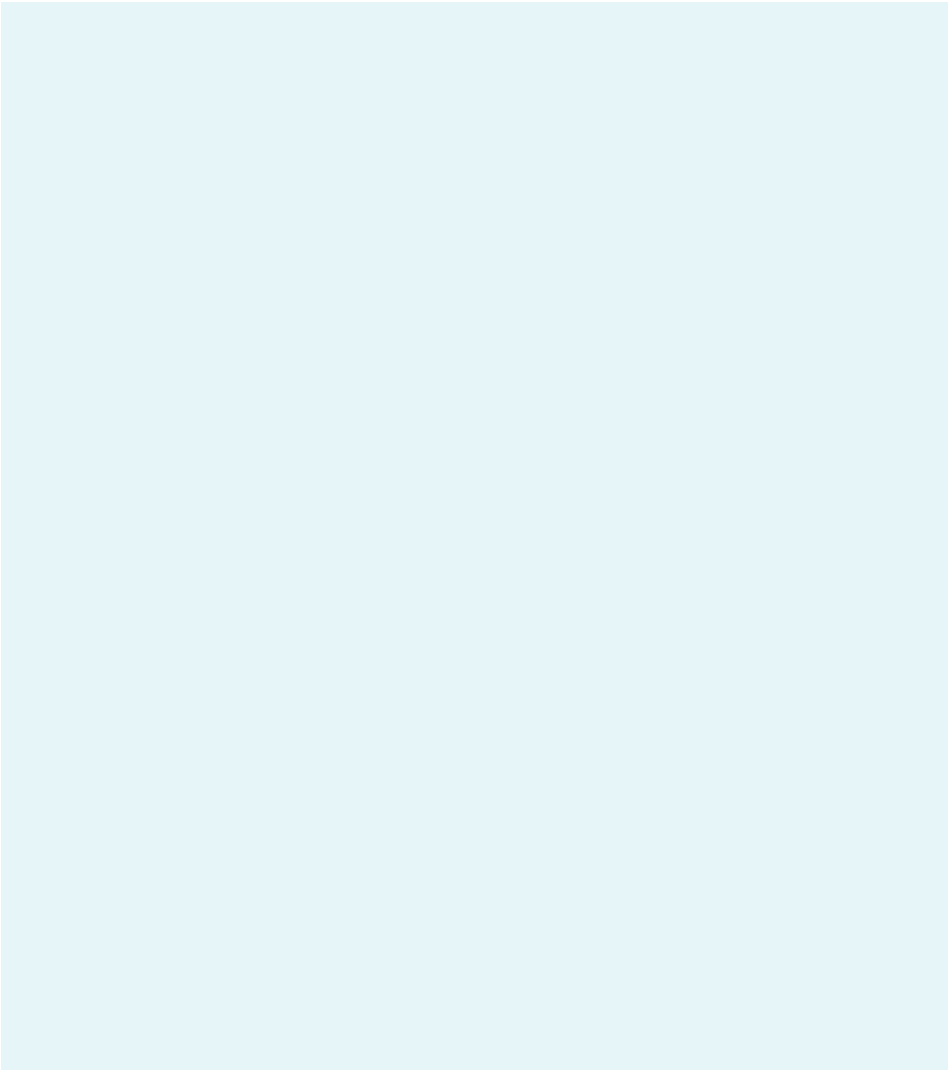
THE ROAD TO LIBORATION

What Does It Mean For Corporates?





PREPARED BY:



Introduction

Corporate treasurers soon will be experiencing significant change – the death of LIBOR as they know it. New products will be coming to market, replacing many of the variable-rate products treasurers are used to. The industry is planning on discontinuing LIBOR entirely after 2021. This change will not only transform the landscape of available products, but given LIBOR’s ubiquity in the plumbing of financial systems, its departure will have an extraordinary impact on treasury processes, technology, and operations.

Why the Need To Transition Away From LIBOR?

LIBOR is the reference interest rate for more than US\$260 trillion of loans and exposures. It underpins millions of contracts ranging from complex derivatives to residential mortgages and corporate loans. LIBOR is also entrenched in adjacent processes such as risk, valuation, and accounting, is used in non-financial contracts such as late-payment clauses, and is a performance benchmark for measuring returns. The extent to which LIBOR has filtered through the financial world is extraordinary.

Yet LIBOR’s role in the financial system is coming to an end. The benchmark is set based on expectations of the wholesale unsecured interbank lending market, but activity in this market has declined substantially in recent years. As Randy Quarles, Vice Chairman for Supervision for the Federal Reserve Bank, has noted, there are often no more than six or seven transactions per day underpinning one- and three-month LIBOR. For some currency-tenor combinations of LIBOR, there are many days in which there are no transactions at all. This means LIBOR is increasingly dependent on judgment of panel banks rather than actual transactions, and its vulnerability to manipulation has led banks to become increasingly uncomfortable providing that judgment. With dwindling support from the panel banks, this calls into question the sustainability of LIBOR as a reference rate in its current form.

Regulators, meanwhile, are ratcheting up the pressure for the industry to move away from LIBOR. The FCA announced in 2017 that after 2021 it will no longer persuade or compel banks to submit the rates required to calculate LIBOR. In September 2018, UK regulators sent “Dear CEO” letters to major financial institutions in the UK requesting board-approved summaries of firms’ assessments of key risks relating to LIBOR discontinuation and details on their plans to mitigate those risks. Regulators in the US and other jurisdictions likely will follow suit.






What Are the Alternatives?

Regulators have convened currency-based working groups to identify and promote the adoption of a robust alternative to each LIBOR currency. The working groups have identified alternative reference rates (Figure 1), and, outside of the EUR alternative, these rates are now available and the market has gradually started using them. In the US, the Secured Overnight Funding Rate (SOFR) has been identified as the preferred alternative. It is an overnight collateralized rate based on the daily repurchase

agreement (repo) market, which typically has more than \$750 billion in transactions each day.

However, the timing of the transition from LIBOR to alternative rates will vary by currency, depending on liquidity in particular markets. For example, in the UK, reformed SONIA is already widely used as the reference rate in the derivatives market; by contrast, SOFR was published only starting in April 2018 and significantly more work is required to develop the requisite market structure and liquidity.

FIGURE 1 Overview on alternatives and key development timelines

Currency LIBOR	Alternative Rate	O/N Rate Available?	Term Rate Available?	Working Group
	SOFR Secured Overnight Financing Rate	✓ Since April 2018	~ Planned by end of 2021	Alternative Reference Rates Committee (ARRC)
	Reformed SONIA Sterling Overnight Index Average	✓ Since April 2018	~ Under consultation	Working Group on Sterling Risk-Free Rates
	SARON Swiss Average Rate Overnight	✓	✗ Under consideration	National Working Group on Swiss Franc Reference Rates
	TONAR Tokyo Overnight Average Rate	✓	✗ Under consideration	Study Group on Risk-Free Reference Rates
	ESTER Euro Short Term Rate	✗ To begin on October 2019	✗ Under consideration	Working Group on Euro Risk-Free Rates

Source: Oliver Wyman analysis

Can I “Find and Replace” LIBOR With the Alternatives?

If the new reference rates were equivalent in number to LIBOR but calculated differently, the transition to them would be largely administrative. However, the new rates are materially different from LIBOR and from each other.

Credit spread

Alternative rates are nearly “risk-free” rates, while LIBOR includes a spread related to bank credit risk. As a result, LIBOR historically has trended higher than alternative rates, and the gap has increased substantially during times of market stress, reflecting the submitting bank’s creditworthiness. For instance, the spread between LIBOR and rates similar to SOFR averaged 36 bps over the past 10 years, but spiked to more than 460 bps during the 2008 financial crisis¹.

Term rates

Alternative rates are overnight rates, while LIBOR is published for seven tenors, with the most commonly used LIBOR tenors being one, three, and six months. The development of term rates for these alternatives is still underway and will take some time.

In short, shifting from LIBOR to proposed alternatives will not be like converting from German Marks to Eurodollars. It will require a re-think of the pricing, cashflow, and risk profiles of financial instruments.

¹ Calculated using 3-month Treasury repo rate (which is a component of SOFR) as proxy for SOFR prior to SOFR publication in April 2018. 3-month rate calculated based on a geometric average of the overnight rate over a 90 day period on a forward looking basis



Term Rates

Term rates are of particular interest to corporate treasurers as they are the most commonly used benchmark rates. LIBOR is called a “forward-looking rate” because the rate due is set at the beginning of the period. This provides visibility into the total interest payment due at the end of the period. An alternative overnight rate like SOFR is repriced daily and represents the prior day’s realized rates, rather than the interest rate due for taking out an overnight transaction today.

Currency working groups are in the process of identifying methodologies to develop a term rate based on the recommended overnight benchmark rates – either by compounding the overnight rate or by developing a forward-looking rate based on derivatives of the overnight rate.

Methodologies for compounding the overnight rate differ on when the interest rate will be set relative to the interest payment due date. “Compound setting in arrears” term rate would compound daily values of the overnight rate, throughout the relevant term period. The interest rate would be set a few days (for example, around 2 to 5 days) in advance of the payment due date to allow for payment calculation and settlement. An alternative methodology is “compound setting in advance”, where instead of compounding throughout the relevant term period, compounding happens for the previous term range. The interest rate due is therefore known at the beginning of the payment period.

“Compound setting in arrears” more closely reflects the interest rate movements for

the relevant period. This approach may be preferred for risk management and could make the new term rates easier to hedge than under the “setting in advance” methodology. However, this approach could be operationally complex, as the interest payment would only be known days prior to its due date. “Compound setting in advance” may be easier to implement operationally and would reflect interest rate movements near the relevant period. However, the rate is inherently historical-looking, so it may not be appropriate for times of quickly moving interest rates.

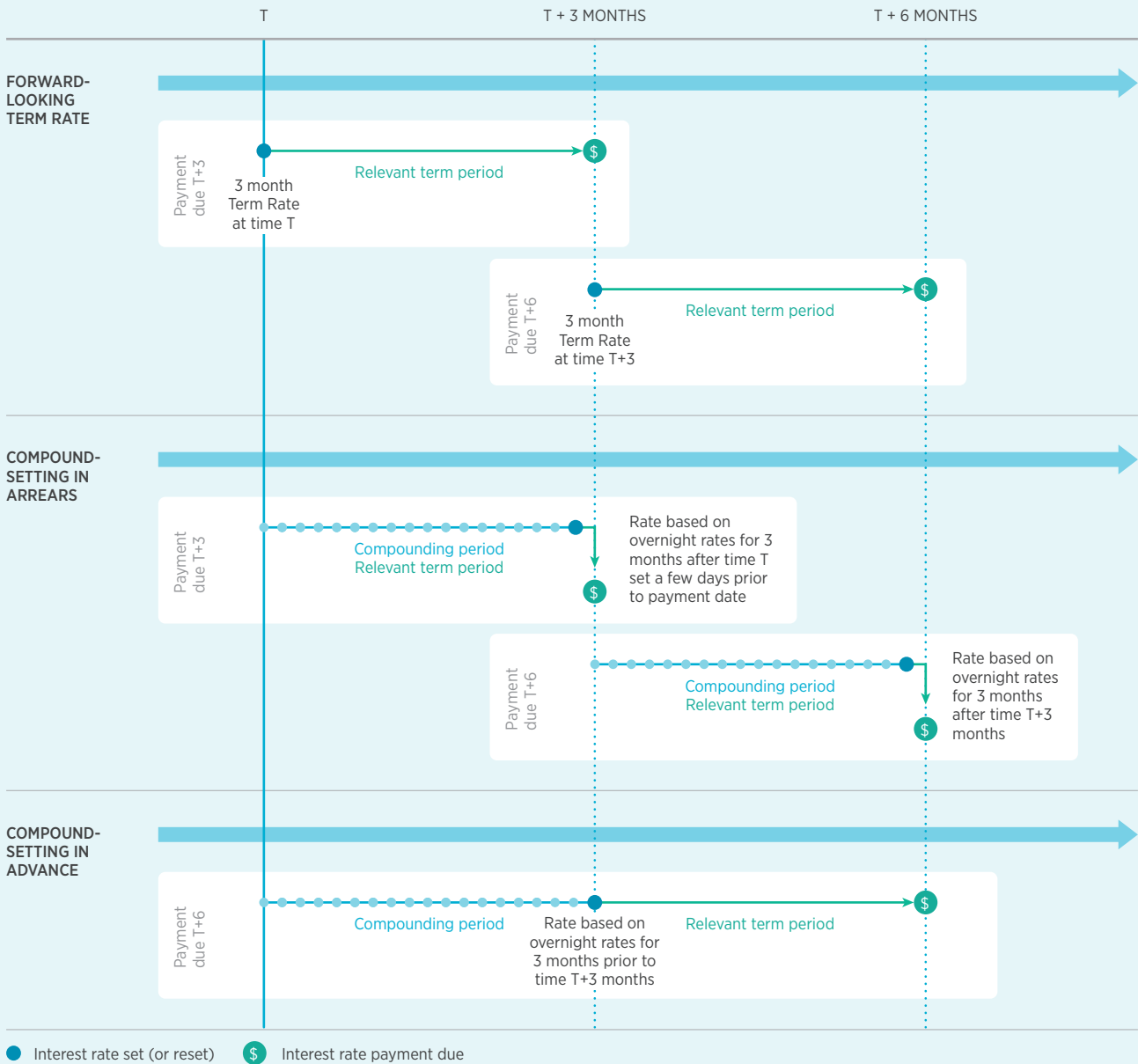
The development of a forward-looking rate is contingent on there being sufficient liquidity in the futures and/or OIS markets for the respective alternative overnight rates. With reformed SONIA being already widely used in the derivatives market, the Sterling Working Group issued a consultation² from July to October this year on the specifics of developing a term SONIA reference rate. The Working Group expects to have a benchmark GBE term rate available by 2019.

In the US, the ARRC has committed to a series of market development milestones through its “Paced Transition Plan.” Within the plan, US\$ term reference rates are expected to be available at the end of 2021, given the anticipated time required to develop liquidity in the derivatives market that would underpin the term rates.

The availability of term rates for other currencies is still uncertain.

² <https://www.bankofengland.co.uk/paper/2018/consultation-paper-on-term-sonia-reference-rates>

FIGURE 2 Visualization of different term compounding approaches



Source: Oliver Wyman analysis

What Does LIBOR Transition Mean For Corporates?

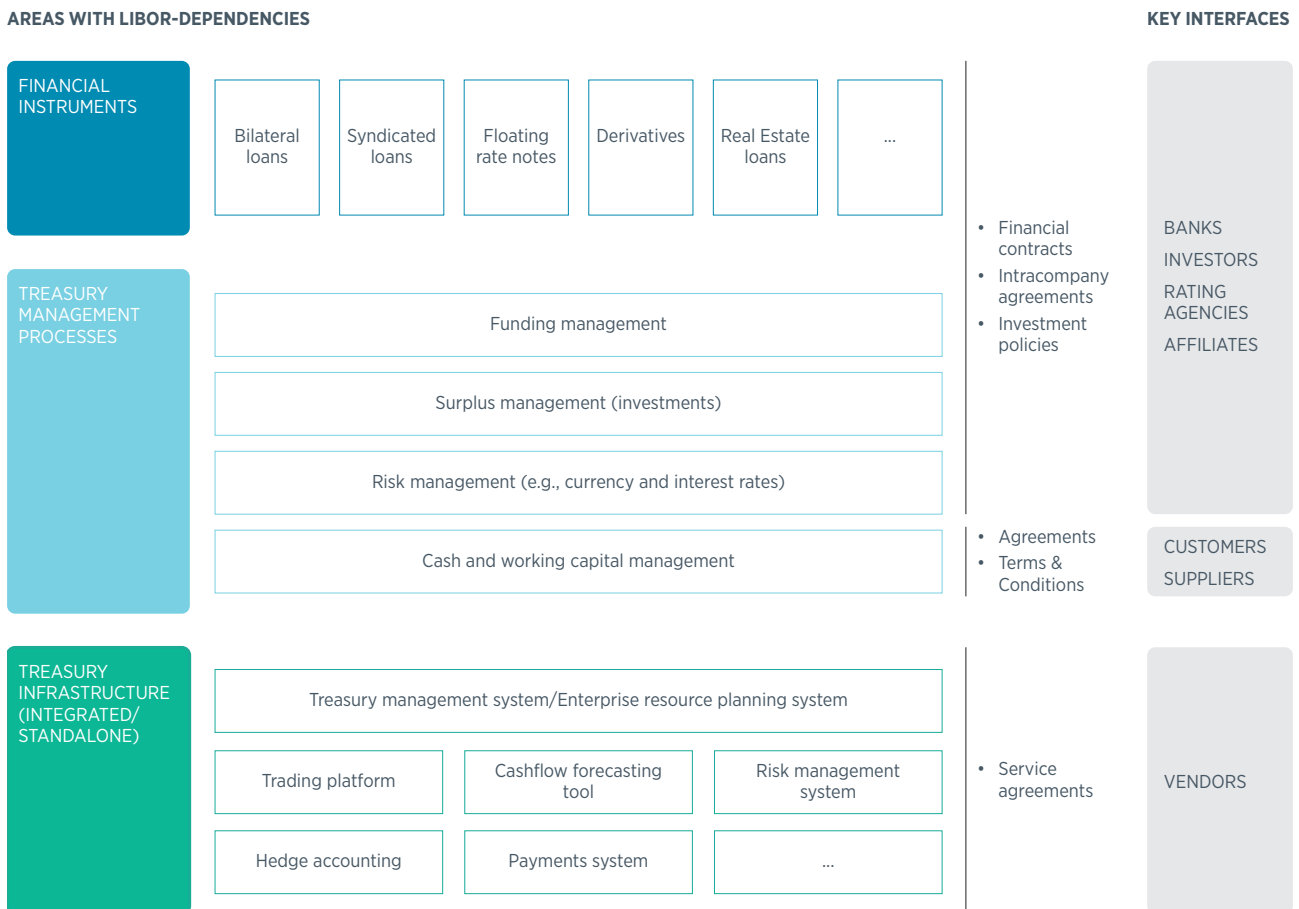
LIBOR underpins a significant amount of financial transactions and is embedded in processes and systems in financial-services firms around the world. Corporates will therefore have to manage the impact on LIBOR-based financial instruments and ensure the adjacent treasury management

processes and infrastructure are operationally ready (Figure 3).

Financial Instruments

The most immediate and obvious impacts are in financing and funding arrangements, such

FIGURE 3 Overview of LIBOR impact on Corporates



Source: Oliver Wyman analysis

as bonds, loans, and committed lines, and associated hedging instruments to manage the interest rate and currency risks.

Financial Arrangements Maturing After 2021

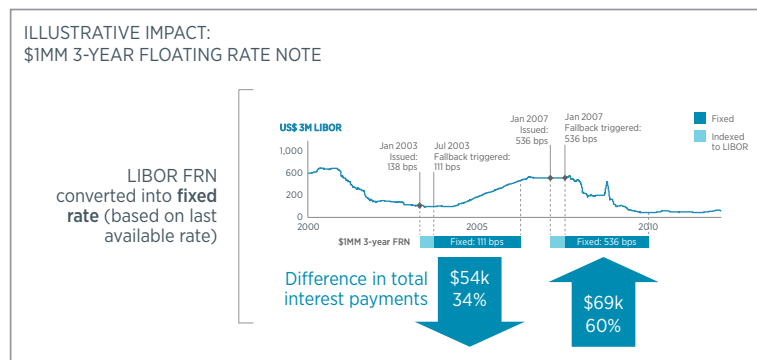
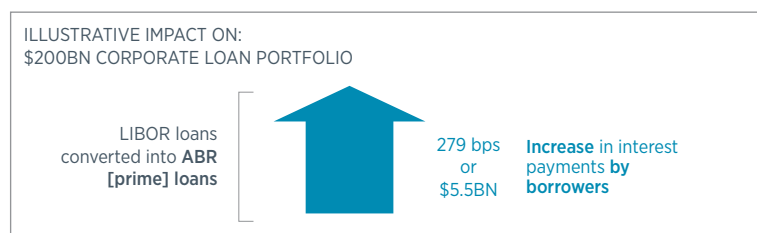
If these arrangements mature after the end of 2021, the nature of impact will depend on the “fallback provisions,” which specify an alternative rate in case LIBOR is unavailable. Thanks perhaps to historic confidence in LIBOR, these provisions assume only a short period of unavailability of LIBOR caused by, say, a technical glitch. They are inadequate

for a permanent discontinuance of LIBOR. Such provisions might stipulate, for example, that if LIBOR is unavailable the rate last used will continue unchanged (Figure 4). If this “same rate” were to persist over months or years and interest rates move significantly, there would be either considerable gains or losses relative to the payments currently expected through the life of the contract after LIBOR ended.

Given the potential economic impact, it would be prudent for corporate treasurers to review these contracts to understand

FIGURE 4 Most commonly observed legacy fallback provisions by product types

Product	Example of legacy fallback
Loans	<ul style="list-style-type: none"> Falls back to prime rate or alternative base rate, such as the Federal funds effective rate
Floating Rate Notes (FRN)	<ul style="list-style-type: none"> Fixed at LIBOR for previous interest period
Securitizations	<ul style="list-style-type: none"> Agency Mortgage Backed Securities (MBS): Government-sponsored enterprises may be asked to name successor rate Other securitizations: Fixed at LIBOR for previous interest period
Derivatives	<ul style="list-style-type: none"> Mean of rates quoted by major banks in New York City¹
Mortgages	<ul style="list-style-type: none"> Noteholder names successor rate²



1. ISDA is developing new fallback language that will be proposed as a change to definitions used for ISDA Master Agreements

2. “The New Landscape”, David Bowman, Special Advisor, New York Federal Reserve Board of Governors, 2017

Source: Oliver Wyman analysis



the fallback provisions (and associated financial implications), consider whether and how easily these contracts could and should be amended, and prepare for potential negotiations.

Financial Arrangements Maturing Before 2021

LIBOR-based financial arrangements maturing before 2021 are unlikely to be renewed without changes. Corporates should determine if alternative non-LIBOR-based products exist and, if these do not yet exist, demand appropriate alternatives. The timing of availability of these alternative products will depend on whether forward-looking term rates are required in the product structure. For instance, institutions have recently started to issue floating-rate notes based on SOFR and reformed SONIA. However, where a term rate is preferred (e.g. bilateral loans), viable alternatives may not be available until much later in the transition timeline.

At a minimum, corporates should push to incorporate new fallback provisions designed with the permanent discontinuation of LIBOR in mind, into new contracts. Industry working groups have been working to define industry standards for these new fallback provisions. The ARRC, for example, recently released a consultation on new provisions for floating rate notes and syndicated loans, and is likely to release recommended fallback language later this year.

Treasury Management Processes

Corporate treasurers will also need to ensure their business processes are ready to support the transition away from LIBOR. While the

impact on some processes such as funding and financing activities are clear, others are less intuitive. Examples of these include:

Surplus management

For corporates with substantial surplus and investments, LIBOR may be used as a benchmark for performance measurement or embedded in net asset value (NAV) measures. To the extent it is embedded in NAV measures, this may impact, for example, money market fund management and accounting.

Risk management

Corporates will need to manage a change in interest rate profiles as the market evolves (e.g. if the LIBOR market becomes less liquid) and as alternative rates are adopted in financing arrangements. It will also be important to be able to determine the impact of legacy and emerging fallback scenarios. For example, ISDA has recommended language for derivatives fallbacks in which some IBORs are replaced with the alternative rates plus a fixed term adjustment and credit risk spread component. Corporate treasurers will need to ensure they understand the associated financial implications. Because the alternative rates are new, historical information will be limited, making it trickier to assess risks and incorporate into models. Multinational corporates with cross-currency exposures will have a tougher challenge because each alternative rate and transition timeline is different; a higher level of basis difference across currencies could prove to be unavoidable. Updated risk management processes and approaches will be needed.

Cash and Working Capital Management

Corporate Treasurers should assess if term-based rates are necessary to support cash management activities. This will include consideration of how such processes may

have to evolve should proposed term rates be structurally different from LIBOR term rates, or if term-based rates are unavailable. Anticipated cashflows may also be impacted; for instance, LIBOR could be used in cash pooling agreements or to compute late-payment penalties on accounts receivable and payable.

Treasury Infrastructure

Along with adopting new products and changing processes, corporates also will have to update the associated technology and operations infrastructure to ensure readiness for the transition. While LIBOR was published every day at the same time across all currencies, different publication times for multiple alternative rates could present challenges for existing IT systems. Corporates likely will also need to consider a multi-rate scenario in which LIBOR and alternative rate-based products and processes co-exist for some period of time. In addition, the degree of difficulty in integrating systems and vendor-support models will help determine the level of impact and the effort needed for transition.

Getting Started On Mobilization

Much still has to be ironed out – particularly with transitioning the existing portfolio of LIBOR-based products. The structure and availability of new term reference rates, as well as the timing of transition, remains unclear for some LIBOR currencies. However, corporates must not use this uncertainty or the fact that the end of compelled rate submission is still more than three years away, as a pretext for inactivity. The time is now for corporates to mobilize.

Take inventory

Understand where LIBOR exists within the organization – not just in financial arrangements but also in processes and infrastructure.

Assess impact

Understand risks and impact of transition scenarios. For instance, financial risks from triggering of fallbacks or increased basis differential; legal risks from contracts without fallbacks; and/or operational risks from changes to processes and systems to support new reference rates and term structure.

Advocate and get involved

Reach out to your bank partners or even the ARRC directly. Responding to live consultations should be a near term priority (for example, ARRC recently published a consultation on fallback language for floating rate notes and syndicated business loans and are planning consultations on fallback language for securitizations and bilateral loans later this year).

Consider disclosures

If you are planning on issuing bonds or new financial contracts with suppliers that may expire past 2021, consider how to disclose the risks arising from a possible discontinuation of LIBOR.

Negotiate fallback language

Once you identify existing fallback language for financial contracts that mature past end of 2021 and have assessed what it would mean to rely on those fallback provisions, consider including new fallback language in new issuances and refinanced facilities, and assess if existing facilities can and should be amended.

Consider appropriateness of non-LIBOR based products

Determine the key factors that will drive new product adoption, and be ready to transition to non-LIBOR products when timing is ripe.

Plan to engage key transition partners

Consider optimal timing to engage with other key stakeholders, in addition to bank partners, as transition is not going to be an independent effort.



Conclusion

Three years isn't long to undertake a project that could cover a multitude of contracts and deeply impact every aspect of treasury management. The current areas of uncertainty in key elements of the transition journey (for example, specifics of term rate methodology and availability across most currencies, and the development of new products based on alternative benchmark rates) is also an opportunity for corporates to ensure their perspectives are incorporated. The quicker corporates mobilize, the greater their influence will be in the transition process.



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