

June 2020



Understanding the transition away from LIBOR

Financial institutions are racing against the clock in one of its most significant changes in decades. The London Interbank Offered Rate (LIBOR) will be phased out at the end of 2021. LIBOR is the benchmark for \$350 trillion in bonds, loans, derivatives, and securitizations worldwide. It will be replaced by a variety of alternative reference rates around the globe – generally by country.

The figure below illustrates the extent to which market participants rely on LIBOR and demonstrates that a sudden and disorderly discontinuation of the rate could give rise to systemic risk. The rate is so embedded in the day-to-day activities of providers and users of financial services, both unregulated and regulated, that even identifying a firm's exposures to it – which is just one element of what is needed to transition from it successfully – is a highly complex task.

Against this backdrop, many market participants have already embarked on transition programmes, but, as some regulators have pointed out, the pace of transition is not yet fast enough. This in part is because of the absence of any formal regulatory or legal mandate. It is vital that Boards take action now to avoid reputational, legal and commercial risk later.



LIBOR is available in five currencies. Each relevant jurisdiction has established an alternative to LIBOR. Authorities have convened industry-led groups in each jurisdiction to take this work forward:

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Selected Alternative Rate	SOFR (Secured Overnight Financing Rate)	SONIA (Reformed Sterling Overnight Index Average)	€STR (Euro Short-Term Rate)
Working Group	Alternative Reference Rates Committee (ARRC)	Working Group on Sterling Risk-Free Rates	Working Group on Euro RFR
Administrator	Federal Reserve Bank of NY	Bank of England	European Central Bank
Key Features	Fully transaction- basedO/NSecured	Fully transaction- based O/N Unsecured	Fully transaction- based O/N Unsecured

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Selected Alternative Rate	SARON (Swiss Average Rate Overnight)	TONA (Tokyo Overnight Average rate)
Working Group	National Working Group on Swiss Franc reference rates (NWG)	Cross-Industry Committee on JPY Interest Rate Benchmarks
Administrator	SIX Swiss Exchange	Bank of Japan
Key Features	Based on transactions and binding quotes O/N Secured	Fully transaction-based O/N Unsecured

LIBOR ends in 2021, but you should act now

Publication of the London Interbank Offered Rate (LIBOR) will cease after 2021. The shift away from the most widely used interest rate benchmark is an immense change to global finance that will have far-reaching impacts.

Alternative reference rates (ARRs) are being developed in key markets to replace current LIBOR currency rates: US dollar, Euro, British pound, Japanese yen, and Swiss franc. In the US, the Alternative Reference Rates Committee selected the Secured Overnight Financing Rate (SOFR) as the preferred alternative reference rate to US dollar LIBOR.

ARRs are structured differently than LIBOR rates, which will mean complexity for impacted financial institutions. For example, US dollar LIBOR is typically a forward-looking rate with a 3-month or 1-month tenor that implicitly includes bank credit risk. SOFR is a backward-looking overnight rate and, as a repo rate, is secured by collateral.

Regulators around the globe have warned of potential market disruptions for those that do not proactively transition away from LIBOR. All companies—regardless of the size of their LIBOR exposure or industry—need to act now. *Here's why*.



Amending contracts is a time-intensive process that requires coordination across departments (e.g., treasury, procurement, legal) and agreement with borrowers and other counterparties.

LIBOR exists as a reference rate in a variety of contracts, and preparing a comprehensive inventory can be challenging. Planning now for how and when to negotiate with borrowers and other counterparties can facilitate an orderly and timely transition.



Differences between ARRs and LIBOR may necessitate business changes.

For example, companies may need to change how interest and cash flow is managed because interest payments on some SOFR debt issuances are not set until the end of the period while most LIBOR interest payments are known at the beginning of the period.



Impacts to IT, data, and models can be significant.

Acting early can help companies understand the requirements to implement vendor/IT solutions and reduce costly, last minute operational problems.



Early communication to stakeholders is critical.

Proactive communication to internal and external stakeholders will provide transparency. Early communication with lenders and investors will give companies a sense of their concerns and how best to interact with them to modify contracts.



Managing LIBOR transition risks

A comprehensive transition roadmap needs to consider all risks.







Contract risk

LIBOR may be referenced in a wide variety of contracts, including lending arrangements, leases, procurement contracts, or in a late payment penalty provision in virtually any contract.

Developing a comprehensive list may be challenging as contracts may not be homogeneous or centrally stored.

Once a list is developed, a financial institution can begin the intensive task of negotiating amendments to contracts. These amendments will likely need to be tailored across different contract types.

Adding to the complexity is that some instruments, such as public debt and securitization issuances, may have numerous and/or unknown counterparties that require additional outreach and consideration of counterparty rights to remediate. For example, some instruments may require unanimous agreement of amendments by counterparties.

In addition, counterparties may seek to use LIBOR transition as an opportunity to negotiate additional amendments to the agreements.

Liquidity risk

As 2021 draws closer, the trading volume of products linked to LIBOR is expected to decrease. The decrease in market activity will reduce liquidity and may make it harder or more costly to exit these positions.

Further, the gradual decrease in liquidity will mean various changes to risks in company portfolios between now and the end of 2021. Developing a new financing and investment strategy will be an evolution, and development of these strategies should begin now.

Basis risk and Value transfer

Financial institutions are likely to experience some degree of value transfer as a result of amendments to replace LIBOR. For example, the parties to a LIBOR-indexed contract may agree to apply SOFR plus or minus a fixed spread. Although amendments may have been made with the objective of the transition being value-neutral, by the time of transition, the contract's value will likely change because:

- there may be timing differences between when negotiations are complete and the change to SOFR occurs,
- practical expedients may be necessary given the potential complexity with calculation; for example, the specified spread may be based on a historical average rather than the actual spread between LIBOR and the ARR, and
- the term structures of LIBOR and the SOFR are different.

Basis risk arises if two contracts that had similar payment terms no longer match. This could occur when debt and a derivative used to hedge the debt migrate from LIBOR to SOFR at different times or with different terms.

Strategies to mitigate these risks may include executing additional derivatives to hedge the difference between the rates.

Managing LIBOR transition risks (cont)

A comprehensive transition roadmap needs to consider all risks.







Reputational and business risk

Financial institutions need to develop LIBOR transition plans and proactively communicate with regulators, investors, lenders, customers, and other counterparties.

- Regulators have made it clear they expect thoughtful transition plans and disclosures to address the risks of LIBOR transition.
- Communication of a clear understanding of exposure and a plan for transition is important for investor confidence.

Lending and markets business may be disrupted due to LIBOR cessation and new products referencing ARRs or other rates and may not have not be developed and issued in advance. The risk of significant adverse impact to client relationships when their financial institution is not there to help them transition their loans, bonds issued and derivatives away from LIBOR can create business disruption for both financial institutions and their clients. Developing new products referencing ARRs or other rates are critical to avoiding disruption.

 Financial institutions will need to develop a plan to manage their business conduct with customers impacted by the change. The plan should include oversight and controls of those business units that interact and negotiate with customers.

Operational and technology risk

The introduction of ARRs may necessitate large-scale and potentially costly changes to models, data, and technology. Financial institutions will need to:

- inventory models across all departments that rely on LIBOR for updates and obtain appropriate approvals of any model changes,
- assess new ARR data needs and determine how and where to source those data elements, considering evolving capabilities of third-party vendors, and
- enhance current systems, whether internal or external, that may not be equipped to support contracts referencing ARRs.

Many of these potentially large scale changes could require a long runway to implement, especially when considering requisite process and controls changes.

Financial reporting and tax risk

Contract amendments typically require a financial institution to determine whether the change results in a taxable event or has a financial reporting impact, such as hedge dedesignation or debt extinguishment. Regulators and standard setters have proposed targeted relief from certain financial reporting and tax impacts for transactions that fall within stated parameters. Financial institutions need to assess how the guidance will apply to their facts and circumstances, and should not assume blanket relief. In addition, financial institutions or counterparties may use this as an opportunity to make other contract changes. These additional amendments may impact whether the transaction qualifies for relief.

Further, regulators continue to remind financial institutions to include relevant disclosures related to the expected discontinuation of LIBOR as appropriate within risk factors, management's discussion and analysis, board risk oversight, and the financial statements.

Key components of a comprehensive LIBOR transition plan for your organisation

Financial institutions can mitigate the risks of, as well as explore opportunities from, LIBOR replacement with a comprehensive transition plan:



Program structure & governance

- Establish a program governance structure with appropriate executive leadership and board oversight, including stakeholders from all impacted businesses and functions across the company (domestically and internationally).
- · Manage and monitor transition progress.
- Periodically revalidate the exposure population to ensure all remediation will be complete before the end of 2021.



Impact assessment

- Conduct a comprehensive impact assessment to identify exposure to LIBOR, identify where LIBOR exists within end-to-end processes and LIBOR references within contracts
- Develop a transition strategy and a remediation plan informed by the impact assessment



New benchmark markets & strategy

- Monitor and assess ARR market developments.
- Develop a plan for entering into and managing new ARR contracts.



Contract remediation

- Remediate contracts with counterparties that reference LIBOR.
- Establish clear protocols on the type and nature of amendments that will be made.



Outreach & communication

- Develop a communication strategy for regulators, investors, and company
 personnel that outlines the company's transition plan and status.
- For companies that offer LIBOR-linked financing to customers, develop a plan to manage customer outreach and contract remediation so customers are treated equitably.
- For companies that use LIBOR-linked funding (for example, issued debt or preferred securities), develop a plan to manage lender and investor outreach for contract remediation.



Data, systems, and process changes

- Develop a plan to address operational, data, and technological readiness.
- Communicate with internal and external stakeholders who are responsible for affected systems, models, and processes.



Risk and valuation models:

- · Remediate pricing and risk management models that reference LIBOR.
- · Validate and approve changes to models.



Accounting and tax

- Understand and assess the impact of transition under the current guidance, as well as relief provided by standard setters and tax authorities
- Formulate an integrated LIBOR transition strategy informed by business and customer needs, operational constraints and accounting, tax and disclosure considerations.



Development Banks are engaged

Update October 2020 - PwC is advising five development banks on LIBOR transition, including completion of impact assessments, development of transition plans, advising on new product strategy, remediation of vendor IT systems, establishing and operationalizing conventions and client communication. We see a number of challenges faced by development banks transitioning away from LIBOR, including inconsistent and, in some cases, lagging programs at key IT vendors, lack of awareness of LIBOR reform by the counterparties and lack of standardisation among financial instruments referencing ARRs.

Impact transition project set up



The challenge

Our client, a European development bank, which we had supported in LIBOR pre-study, was moving towards implementation phase.

Prior kicking-off the actual implementation phase the client needed support in preparing more detailed project plan and work and budget estimates in setting-up the project taking the project through project approval process



PwC approach

Building on the outcomes of an impact assessment phase we managed the project planning and set-up process.

Key elements of the planning approach:

- Definition of project governance and responsibilities for the planning & set-up phase and for the implementation phase
- Preparation of an understanding based on the impact assessment to a form suitable for project planning, facilitating project planning process by client's responsible people, conducting summary and validation workshop with client's people.
- 3. Preparation of project plan and timeline
- 4. Finalising project planning deliverables into project decision documents and presenting the project proposal in client's project approval forums in order to the project and its budget approved.



Client's outcome

- Definition of project governance model including project steering, PMO, stream leads and implementation teams.
- Detailed work plans for all workflows including content and scope, required resources and budget, timing and dependencies
- Project plan and timeline following the milestone and workflow structure
- · Comprehensive resource plan and project budget
- Preparation of required decision making material and driving the internal project approval process.
- IBOR transition project was approved and it moved from planning to implementation

Key challenges

- Assessing valid effort and budget estimates under the existing uncertainties in the market developments, business transition timing and approach, and system change needs
- Project resourcing in a situation where several projects that should be progressing simultaneously require the same personnel

Development Banks are engaged (cont)

LIBOR Transition assessment



The challenge

Our client, a European development bank, was in the early stages of initiating a program to address LIBOR transition in the Eurozone. The program covered four main business cases and two interdisciplinary workstreams, based on three different market scenarios for the Euro benchmarks EONIA and EURIBOR.

The client engaged PwC from November 2018 to February 2019 to conduct the impact assessment to derive necessary business and IT changes for the LIBOR transition on the internal systems, processes and methodologies.

Our client was seeking support and coordination on the following areas:

- 1. Planning of the NPP for a €STR Forward Rate Note (FRN)
- 2. Planning of the NPP for a floating rate loan
- 3. Adjustments in CSAs
- 4. Adjustments in loan collateral agreements
- 5. Impact on hedge accounting
- 6. Impacts on market data and related risk valuations

The client expectations was to develop a concept for the required adjustments to systems, processes and methodologies as well as the determination of a business and IT effort estimation.



Client's outcome

- Utilisation of proven tools and accelerators to quickly mobilise the impact assessment, making PwC's expertise and experience available to the client in a rapid fashion
- Leveraging product and industry expertise, mobilise a crossfunctional team of SMEs who can accelerate prioritisation efforts and support business SMEs in their impact evaluation
- Benchmarking the results of the impact assessment with other clients based on PwC's expertise and engagements



PwC approach

Leveraging our industry insight, functional and institutional expertise, and LIBOR accelerators, PwC was assisting across all six workstreams:

1. Planning of the NPP for a €STR Forward Rate Note (FRN)

 Together with the client project team, we derived the changes needed to issue a floating rate note with €STR as reference yield

2. Planning of the NPP for a floating rate loan

 Together with the client project team, we derived the changes needed to issue a floating rate loan (on Hybrid-EURIBOR)

3. Adjustments in CSAs

 The reference to EONIA needed to be changed to €STR in the CSAs. This will change the discounting and PAI and have an impact on collateral management

4. Adjustments in loan collateral agreements

 The interest paid on loan collateral needed to change to €STR. The impact on IT and contracts were assessed

5. Impact on hedge accounting

 The Impact on hedge accounting were being analysed (e.g. re-designation of hedge relations) and mitigation actions were defined

6. Impacts on market data and related risk valuations

 Definition of necessary changes to receive new market data, including the processing in risk valuations (e.g. VaR, PruVal)

Key challenges

- Varying levels of understanding and awareness of LIBOR transition across the bank, requiring additional education efforts as part of standing up governance and conducting the impact assessment
- The whole bank is impacted by the change and in multiple ways which needed to be covered in the impact assessment

Development Banks are engaged (cont)

LIBOR transition project management



The challenge

Our client, a Nordic development bank, which we had supported in LIBOR pre-study and project planning & set-up was moving into implementation phase.

The client needed a project manager to run the project.



PwC approach

Building on PwC's expertise in LIBOR transition projects and our prior experience in running projects with this client, we assumed the project manager role.

The first phase of the client's LIBOR transition focused on Capital markets impacts. In particular, in the first phase the project

- Prepares the system readiness for new reference rate products (primarily SONIA, €STR and SOFR)
- 2. Undergoes CCP discounting switches for €STR and SOFR
- 3. Negotiates new CSA agreements with the counterparties
- Prepares for the second phase of the project that focuses on the legacy portfolio and customer finance business.



Client's outcome

Key outcomes by June 2020 (project ongoing)

- · Key tasks of the project collected and monitoring work progress
- €STR discounting switch executed
- · Preparation for CSA negotiations conducted
- System readiness raised
- Coordinated communication between the departments and throughout organisation

Key challenges

- Running the project under the existing uncertainties in the market developments
- · Managing dependencies within the project
- Running the project from the distance as the whole project is working from home due to covid-19 situation

COVID-19 impact on the LIBOR transition timeline

What's new?

On 29 April 2020, the UK Risk Free Rate Working Group (RFRWG) working with the Bank of England and the Hong Kong Financial Conduct Authority (FCA) released a <u>statement</u> acknowledging COVID-19 will cause delays for the LIBOR transition in loan markets.

Institutions are now expected to stop issuing GBP LIBOR based loans from the end of Q1 2021. The RFRWG initially targeted the end of Q3 2020.

What does this mean?

- In January 2020, the RFRWG released a <u>roadmap</u> for the LIBOR transition. It aimed for the issuance of GBP LIBOR-linked loans maturing post 2021 to stop by the end of Q3 2020.
- That milestone was deemed ambitious by the industry, due to the lack of readiness of key infrastructure and third party vendors, as well as limited client awareness.
 COVID-19 added further concerns about the timeline.
- This statement acknowledges that the industry will need more time to make a full transition to new rates, hence the Q1 2021 date.
- The statement still calls for firms to offer loans linked to alternative rates by the end of Q3 2020, stressing the importance of offering choice for customers.
- The commitment to LIBOR ceasing by the end of 2021 has not changed. Regulators will not take COVID-19 as a reason to delay the LIBOR transition.

What do institutions need to do?

- Supervisors are granting lenders some near-term relief, but still expect the transition to remain on top of the agenda. Expectations that firms actively develop new products and engage with their clients have not changed.
- To do this, firms will need a clear view on when and how they will be ready to offer new products and do so at scale.
- Engagement with clients may be temporarily disrupted, but firms should still be prepared to gear up communications as business as usual patterns stabilise.
- Work on loan infrastructure and treasury management systems should continue at full pace to use the extra time wisely.
- The statement also insists on firms having robust fallbacks. This implies having a clear view of the risk of value transfer, how it is managed and how it is explained to clients.

Next steps

- Moving the Q3 2020 milestone may have implications for other transition objectives, such as the significant reduction of legacy exposure to LIBOR.
- Regulators are closely monitoring developments, via ongoing data submissions and supervisory engagement, and are likely to communicate further updates as the situation changes.



Update October 2020 - The regulators have since clarified that there is still a Q3 2020 deadline for GBP LIBOR and banks must be offering SONIA (ARR identified as the rate to replace LIBOR) loans to clients effective October 1, 2020. In addition, the regulators are mandating that any new LIBOR loans after September 30, 2020 must include "active transition clauses" that describe how the instrument will migrate to a new rate away from LIBOR **in advance** of LIBOR cessation after the end of 2021.

Leading PwC's LIBOR transition efforts

Update October 2020 – PwC is involved in over 75 global engagements in various aspects of LIBOR transition including, among other things, impact assessment, governance structure, new products strategy, contract analysis and amendments, performing client outreach, and IT remediation. We are also actively engaged with key central bank committees and subcommittees, in North America, Europe and Asia.



John Garvey Global Financial Services Lead Partner, US john.garvey@pwc.com +1 (917) 476 3760



Sergey Volkov
APAC LIBOR Transition Lead
Partner, Japan
sergey.volkov@pwc.com
+81 (0)90 9850 6016



Nassim Daneshzadeh UK LIBOR Transition Lead Partner, UK nassim.daneshzadeh@pwc.com +44 (0) 785 051 5679



John Oliver
Americas LIBOR Transition Lead
Partner, US
john.m.oliver@pwc.com
+1 (202) 262 1132



Dirk Stemmer
EMEA LIBOR Transition Lead
Partner, Germany
dirk.stemmer@pwc.com
+49 (0)160 9340 3524



Amy Yeung HK LIBOR Transition Co-Lead Partner, HK SAR amy.yk.yeung@hk.pwc.com +852 2289 1245



Ilka Vazquez
HK LIBOR Transition Co-Lead
Partner, HK SAR
ilka.t.vazquez@hk.pwc.com
+852 2289 6565

Visit us online at: www.pwc.com/LIBOR



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