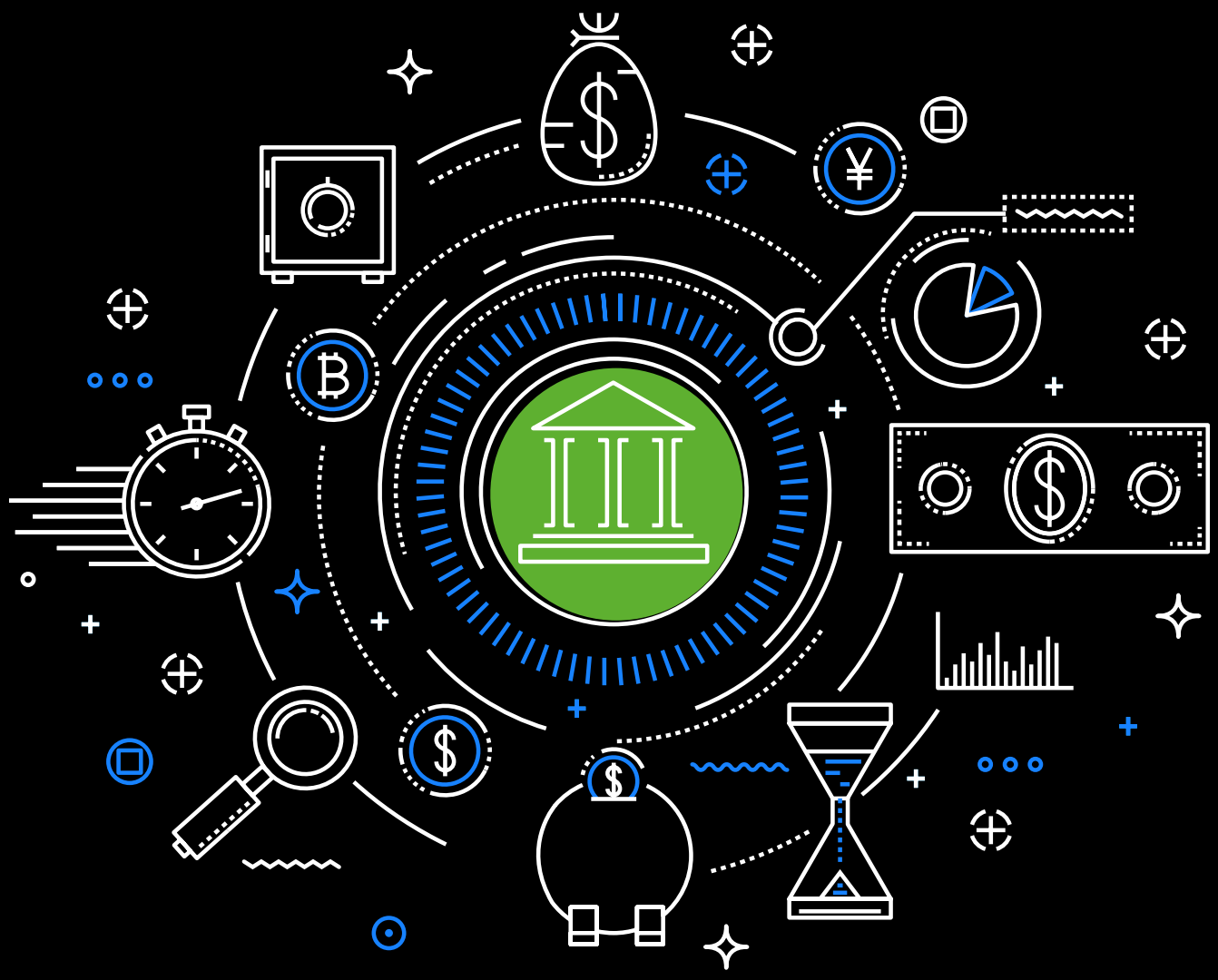
Deloitte.



LIBOR Transition: Global Interest Rate Benchmark Reform

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Risk Advisory

LIBOR Transition: Global Interest Rate Benchmark Reform

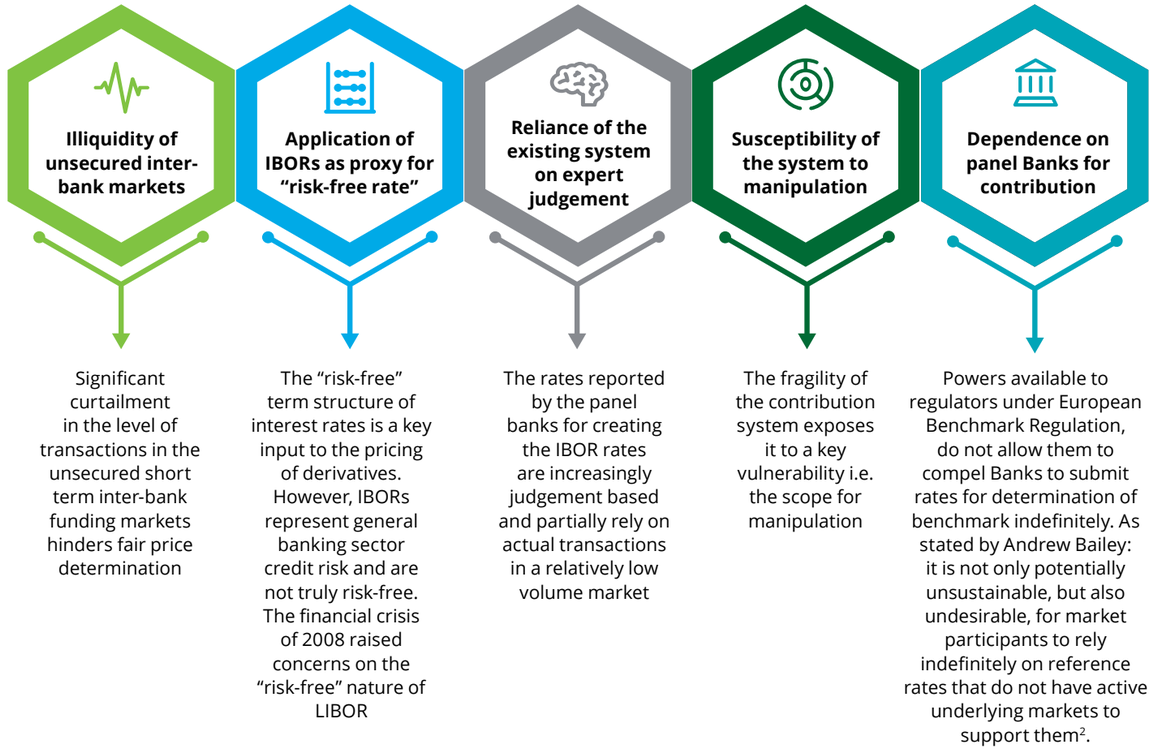
With over three hundred trillion dollars[1] in bonds, derivatives, securitisations and deposits referenced to Interbank Offered Rates (IBORs), the global transition to alternative benchmark rates is one of the most challenging reforms to be undertaken in the next three years.

The dependence of financial markets on IBORs is a well-known reality. Market participants across the spectrum consider them to be a reflection of the general level of interest rates in the economy and have contracts ranging from simple loans to exotic derivatives referenced to IBORs.

Need for a transition

In July 2017, the Financial Conduct Authority (FCA), UK outlined the case to replace LIBOR and declared that after 2021 it would no longer induce panel banks to submit the rates required to calculate it. Thus, by 2021 firms would have to diminish their reliance on LIBOR.

The major motives for a transition presented by the FCA and the other diverse set of stakeholders are:



[1] Source: Market Participants Group on Reforming Interest Rate Benchmarks Report, March 2014
[2] Source: Speech by Andrew Bailey, Chief Executive of the FCA, at Bloomberg London - July 27, 2017.

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The alternative benchmark

As time is inching closer towards year 2021, the dilemma of "Libor switch" continues to push regulators in search of reliable alternatives. Focus continues to be the search for Alternative Reference Rate (ARR) that is compliant to the International Organization of Securities Commissions (IOSCO) standards. ARRs available have focused on risk free rate or near risk free rates based on transactions of overnight funding (See Figure 2).

Transition challenges

The Market Participants Group (MPG) Report on Reforming Interest Rate Benchmarks (March 2014) highlights four key transition considerations. Respondents of the MPG Survey emphasized on the importance of an orderly transition that does not disrupt the existing markets. The key considerations are:

- Renegotiation of the existing contractual agreements
- Impact on legacy positions including hedges
- Lack of deep and liquid markets for alternative benchmark rates
- Operational costs, particularly IT and back office costs

LIBOR fixing mechanism

Before 1100 hours GMT every London business day, the Intercontinental Exchange (ICE), i.e., the administrator of LIBOR asks a panel of contributing Banks to answer the following question: "At what rate could you borrow funds, were you to do so by asking for and then accepting interbank offers, in a reasonablemarket size just prior to 11 a.m.?"

The LIBOR rate is then computed using a 'trimmed arithmetic mean' approach (simple average of submitted rates after removing outliers) for five currencies (USD, EUR, GBP, CHF and JPY) across seven maturities (overnight, one-week, one month, two months, three months, six months, and twelve month) resulting in a total of thirty five rates each business day.

Further, it is important to note that the ARRs may not be economically consistent with the corresponding IBORs due to two reasons:

- In all cases the ARRs are overnight rates; whereas IBORs represent tenor basis and are most commonly applied for terms of 1 month, 3 month and 6 month. To address this challenge for USD based LIBOR, the Alternate Reference Rate Committee has announced that its paced transition plan includes the creation of a term reference rate based on SOFR derivatives once sufficient liquidity has been established.
- IBORs reflect the credit risk that Banks charge for unsecured short term loans which may not be considered by the ARR (e.g. Secured Overnight Funding Rate based transactions involve Treasury securities as collateral whereas USD LIBOR represents unsecured borrowing costs).

BMR: European Benchmarks Regulation

The purpose of BMR is to mitigate the susceptibility of "benchmark" rates for manipulation. A benchmark may be designated "critical" when the value of contracts underlying the benchmark is at least €500 billion or when a benchmark has been recognised as "critical" in a Member State (EURIBOR and LIBOR have been recognised as critical benchmarks). The regulation emphasises that, **the maximum period of mandatory contributions from supervised entities shall not exceed 24 months for critical benchmarks.**

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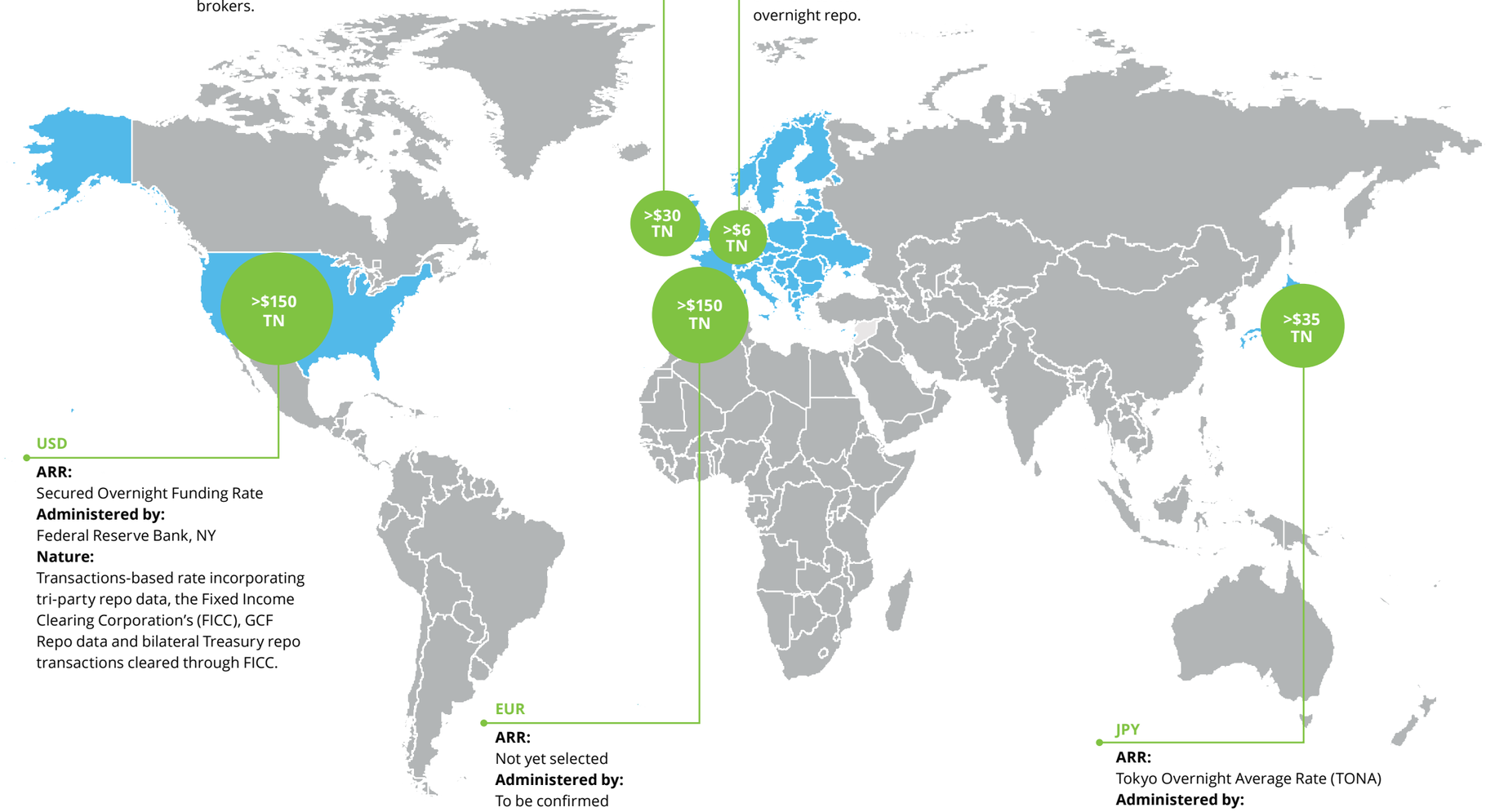
Overview of the IBOR market footprint and ARR

The map below exhibits the division of outstanding notional for IBOR-linked contracts with respect to currency and the attributes of the alternative interest rate benchmarks.



GBP

ARR:
Reformed Sterling Overnight Index Average (SONIA)
Administered by:
Bank of England
Nature:
Transactions-based rate incorporating overnight unsecured transactions, negotiated by those arranged bilaterally and with brokers.

CHF

ARR:
Swiss Average Rate Overnight (SARON)
Administered by:
SIX Swiss Exchange
Nature:
Secured rate that reflects interest paid on the interbank overnight repo.

USD

ARR:
Secured Overnight Funding Rate
Administered by:
Federal Reserve Bank, NY
Nature:
Transactions-based rate incorporating tri-party repo data, the Fixed Income Clearing Corporation's (FICC), GCF Repo data and bilateral Treasury repo transactions cleared through FICC.

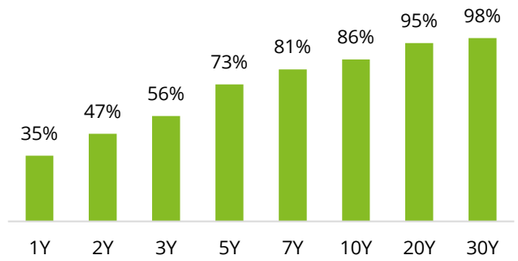
EUR

ARR:
Not yet selected
Administered by:
To be confirmed
Nature:
The Working Group on Risk-Free Reference Rates for the Euro Area has not selected an alternative RFR. EONIA, the new repo benchmark, and a new unsecured overnight interest rate could be among the possible alternatives.

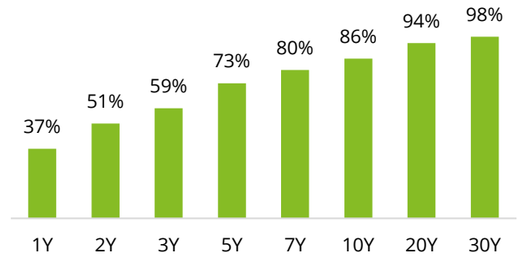
JPY

ARR:
Tokyo Overnight Average Rate (TONA)
Administered by:
Bank of Japan
Nature:
Transactions-based rate incorporating uncollateralised overnight call rates and rates provided by money market brokers.

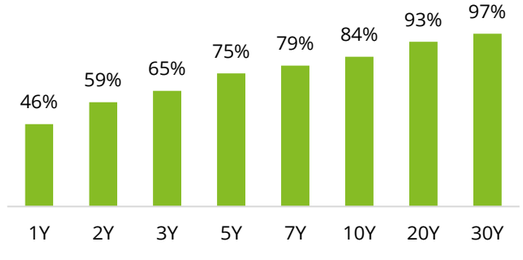
Contractual roll-off of outstanding USD OTC Derivatives



Contractual roll-off of outstanding EUR OTC Derivatives



Contractual roll-off of outstanding GBP OTC Derivatives



Source: Market Participants Group on Reforming Interest Rate Benchmarks Report, March 2014

Key transition aspects

The interest rate benchmark transition is expected to have a significant effect on numerous enterprise functions and will augment the existing market structures.

The key transitional aspects to be considered are:

- **Valuation and Risk Management**
- **Liquidity and Market Adoption of ARR**
- **Legal and Operational Aspects**
- **Accounting aspects**

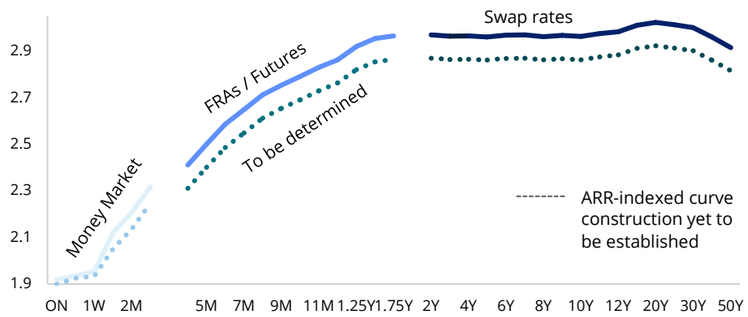
Valuation and Risk Management

The projection / discount interest rate curve would transition from IBOR-based curves to interest rate curves indexed to the alternative rates. Construction of interest rate curves is dependent on existence of liquid underlying instruments. The curve construction practices for ARR curves will have to be established as enhancement in liquidity and depth of alternative rates and financial instruments referenced to them occurs. (Figure 3 depicts the general IBOR-indexed curve construction practice)

For legacy trades, the transition mechanism would have to be structured in a manner to minimise any economic P&L that may occur on benchmark rate curve migration.

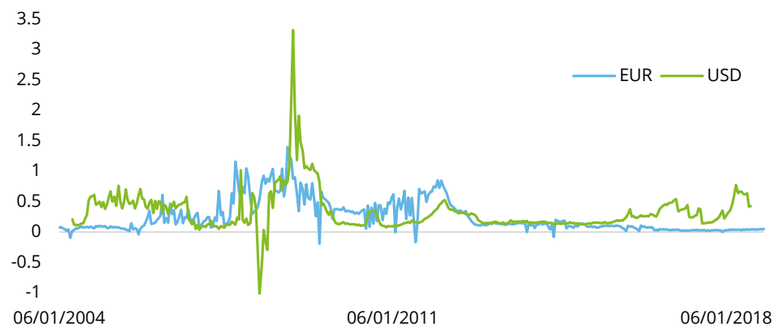
For interest rate derivatives with optionality (or volatility input) the transition mechanism would have to consider not only the term structure but also the change in variability of the benchmark rate. Historically, overnight rates have exhibited greater stability (i.e., lower volatility) as compared to term rates. One such indicator is the LIBOR – Overnight Fed Funds spread (for USD) and EURIBOR – EONIA spread (for EUR). (See Figure 4) It is clear that during crisis period the spread increases significantly, showcasing higher variability of term rates (such as LIBOR).

Figure 3: Illustration of IBOR-indexed curve construction



Source: Deloitte Analysis

Figure 4: IBOR vs. Overnight Rate Spread



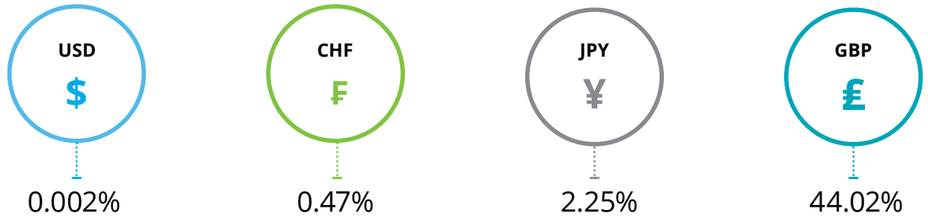
Source: Bloomberg Data Feed, Deloitte Analysis

Liquidity and Market Adoption of ARR

For a successful transition, it is essential that a term reference rate be made available. To that end, there must be deep liquidity in new traded products (derivatives and cash) that reference the alternative RFR in order to build the curve. Many market participants believe that a term rate is required for certain products to transition from IBORs.

Presently, the overall liquidity of ARR based instruments is low for most currencies except GBP. (Figure 5 depicts the percentage of outstanding interest rate derivative notional represented by the alternate benchmark rate for each currency).

Figure 5: Percent of total outstanding interest rate derivative notional represented by alternative benchmark rate



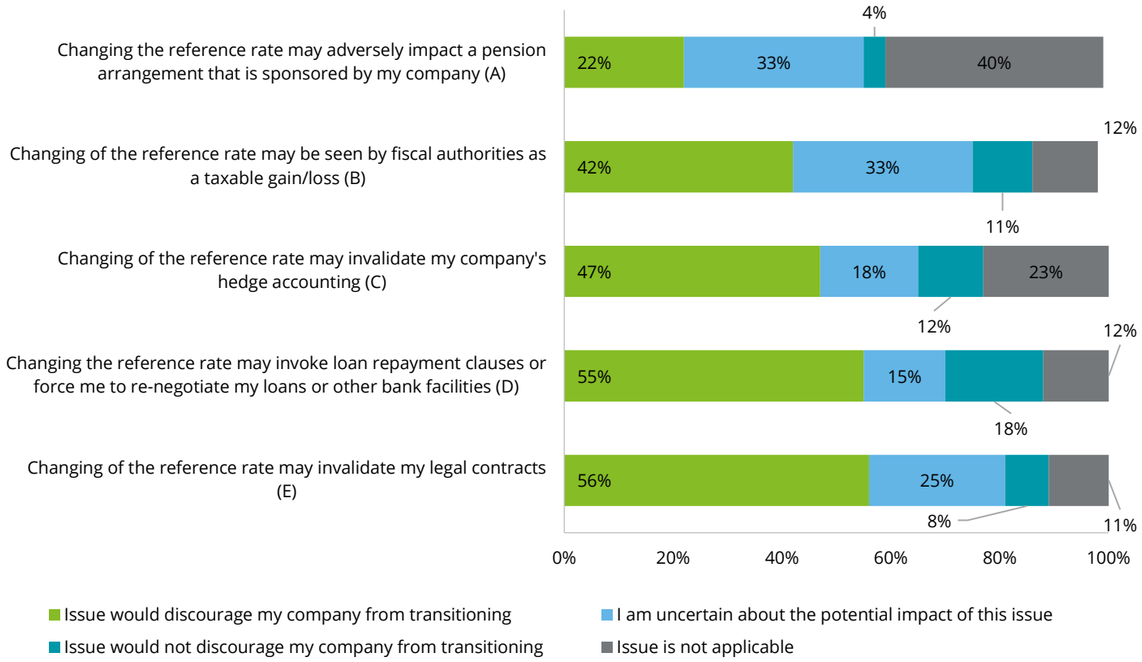
Legal and Operational Aspects

The survey findings of the MPG Report of 2014 highlighted the significant issues that market participants would be concerned about with respect to a transition program. Figure 6 depicts the results of the survey where participants were asked to rank the issues that would most discourage their possible transition (in the event that the transition is not mandatory). Issues D and E, pertaining largely to legal risk, would discourage more than 50% of the participants from transitioning.

Modification of the benchmark rate would impact the contractual terms of legacy contracts. The transition would require the legal parties to reach an agreement on the amendments with respect to both: the applicable ARR and the credit spread element. The MPG survey results depict that 68.90% of the legacy contracts would run-off or be renegotiated within five years if the new reference rates and existing IBOR rates are parallel run (Figure 7).

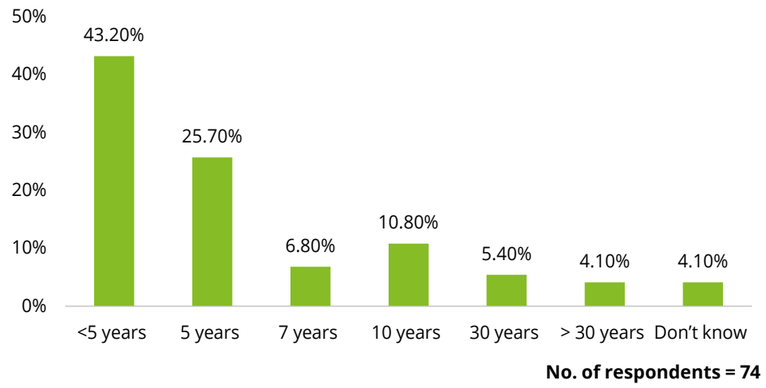
Certain contracts may have contractual triggers with respect to fallback rates in the event of discontinuance of the IBOR. The fallback rates may not represent the most suitable alternative or the benchmark that is determined by the regulator to be the appropriate replacement. The MPG survey noted that most participants either did not have a contractual fallback rate or were not sure whether such a contractual trigger existed. (Figure 8).

Figure 6



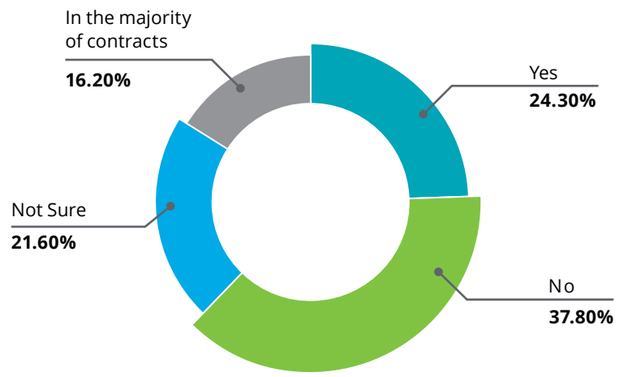
No. of respondents = 74

Figure 7: If new reference rates and existing IBOR rates are parallel-run, what would be sufficient time for legacy IBOR contracts to run off or be renegotiated before termination of IBOR?



No. of respondents = 74

Figure 8: Does your company have a standard fallback reference rate within its contracts for a case where an IBOR rate becomes unavailable?



No. of respondents = 74

Source: Market Participants Group on Reforming Interest Rate Benchmarks Report, March 2014

Accounting aspects

The transition from IBOR-indexed derivatives would have a bearing on the effectiveness of any interest rate risk hedge. The hedge accounting framework of the organisation would have to be evaluated to determine the possible impact.

The transition to ARRs may result in alteration of lease agreements that include variable payments based on IBORs, potentially requiring reassessment of their classification.

If IBOR is not replaced by a commensurate ARR, there would be a day one profit and loss impact. The fair value measurement of financial instruments would have to be accounted for appropriately as a part of the transition program.

Initial priority tasks

The practical next steps for a successful interest rate benchmark transition to be considered have been detailed below:

LIBOR Transition Steering Committee and Working Group
Establish and document the LIBOR Transition Steering Committee and Working Group role and responsibilities with respect to terms of reference, functional participation across the firm, objectives and key activities, and reporting mechanism.

Impact Analysis
Design and execute an impact analysis by assessing and understanding current exposure to LIBOR through engagement with Market Risk Team, and build an inventory based on risk reporting that identifies Current LIBOR exposure (notional values); List the existing products referencing LIBOR; Maturity profile.

Action Plan
Define a detailed action plan for LIBOR transition in light of the impact analysis results which would focus on determining the potential impact on clients and other stakeholders and liaise with them to obtain feedback; monitoring emerging market best practices; assessing the impacts on systems, processes and control infrastructure.

Transitional Project Plan
Define the Transitional Project Plan focusing on summary of key actions and deliverables in the next 2/3 quarters, plus long term objectives.

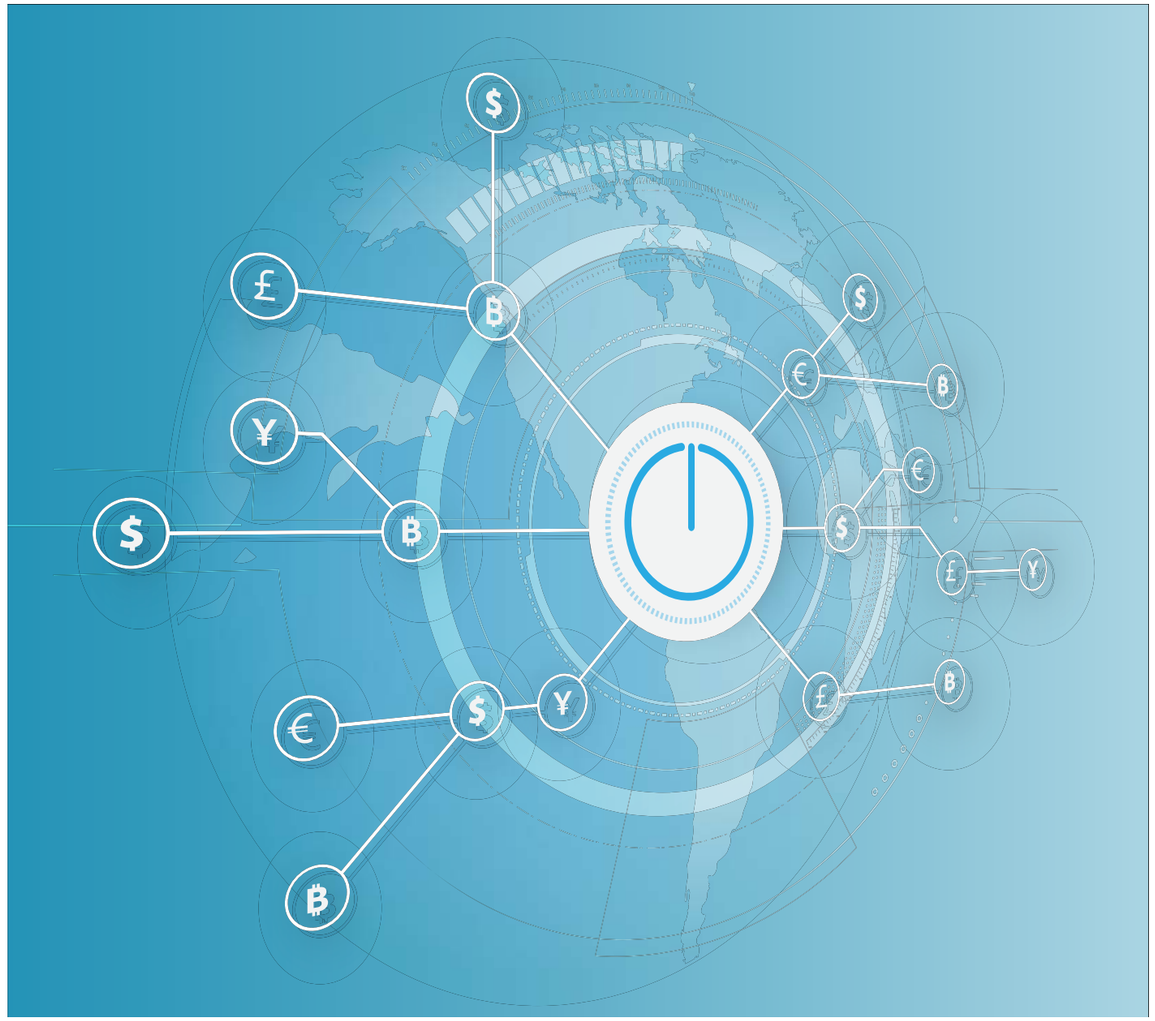
Raising awareness internally
Raise awareness internally through key communications within the firm (via company alerts, training, senior management communications) to help ensure awareness of the firm's response is known.

Raising awareness externally
The working group should monitor initiatives outside the firm that focuses on LIBOR transition (e.g. review the Alternate Risk-Free Reference Rates Group working documents, customer outreach, seminars, other working group –e.g. ISDA WG)

For your consideration

Transition from IBOR to ARR is a multi-dimensional issue involving stakeholders across a broad spectrum: government /regulators, management teams, investors, finance, risk, technology teams and others. There remains immense uncertainty with respect to the development of alternate benchmarks and the financial instruments indexed to it. This includes the genesis of a term structure that reflects both the tenor basis and the credit risk embodied in the existing IBOR framework. The only definite feature in the larger schema is the regulatory commitment towards the transition– whether it is the FCA or FSB.

The journey from panel-based "expert judgement" quotes to transaction-based benchmarks is one that requires careful planning and detailed assessment to ameliorate the probability of economic adversity and undesirable volatility. The transformation requires extensive support not only from the regulators, but also from market structures to enhance the liquidity and the depth of alternate rates.



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