MACQUARIE

IBOR transition

Frequently asked questions

MARCH 2021

Some of the most important numbers in global financial markets are changing. For Macquarie, it's important that our clients, counterparties, investors and other stakeholders understand what financial benchmark rate reform is and what it means for them, Macquarie and financial markets more broadly.

About this note

This note provides an overview of:

- What are IBORs?
- Why are IBOR reforms taking place?
- What are the new alternative rates?
- The timeframe for transition
- How the transition is likely to happen
- The key risks and operational challenges
- How Macquarie is approaching the transition
- What you can do to prepare for transition

Further information

If you need further information, please refer to the "Further information" section at the end of this note.

Glossary

A glossary of key terms is provided at the end of this note.

What are IBORs?

- IBORs, including BBSW, EURIBOR, LIBOR and TIBOR, are interest rate benchmarks that have been used in a wide variety of financial instruments for decades.
- LIBOR is the most widely used interest rate benchmark in financial markets, estimated to be referenced in over $US200 trillion of financial products, including bonds, derivatives and loans.
- IBORs are designed to reflect the price of interbank funding markets. Each IBOR is published daily across a variety of currencies and tenors (e.g. overnight, one-week, three-month, six-month), and predominantly based on submissions by a panel of banks.

Why are IBOR reforms taking place?

- Over time, changes in interbank funding markets have meant that IBOR panel bank submissions were based less on observable transactions, and more on expert judgment.
- Financial markets regulatory authorities reviewed what these changes meant for financial stability, and in 2013 published recommendations to reform major interest rate benchmarks.[i] These recommendations included best practice principles for financial benchmarks, measures to strengthen existing benchmarks and plans to develop alternative reference rates (ARRs).
- As a result of these recommendations, many IBORs around the world are undergoing reforms and some, including LIBOR, are being replaced with ARRs. These FAQs are primarily concerned with the replacement of LIBOR.

What does the replacement of LIBOR entail?

- The replacement of LIBOR is a significant undertaking for financial markets participants. LIBOR is being phased out and replaced by ARRs.
- The UK's Financial Conduct Authority, the regulator of LIBOR, confirmed the cessation or loss of representativeness dates of all 35 LIBOR settings on 5 March 2021. All GBP, EUR, CHF, JPY, and some lesser used USD LIBOR tenors, will cease publication after 31 December 2021. The remaining USD LIBOR tenors will cease publication after 30 June 2023. Please see the FCA announcement on 5 March for further details on the cessation of each LIBOR setting.
- Some GBP, JPY, and USD tenors will be non-representative after their respective cessation dates, allowing the FCA to potentially extend publication of these rates on a 'synthetic' basis for use in 'tough legacy' contracts only. 'Tough legacy' is described further below.

The alternative reference rates replacing LIBOR

- National working groups for each of the five LIBOR currencies have identified alternative, transaction-based, and robust benchmarks. Regulators have endorsed the following alternative reference rates:

LIBOR	ARR
CHF	SARON - Swiss Average Rate Overnight
EUR	€STR - Euro Short-Term Rate
GBP	SONIA - Reformed Sterling Overnight Index Average
USD	SOFR - Secured Overnight Financing Rate
YEN	TONA - Tokyo Overnight Average Rate

Why is the LIBOR replacement important for clients, counterparties, investors and other stakeholders?

- While the publication of most tenors of LIBOR will cease at the end of 2021, it is important for clients, counterparties, investors and other stakeholders to develop an understanding of what the transition from LIBOR to an ARR means now.
- As the industry considers how and when it will transfer to ARRs, it is important to note that the timing of changes may vary based on the currencies, products and participants involved. As a result, regulators and industry groups recommend that financial markets participants take measures to understand their exposures to LIBOR and prepare for its cessation.

How do the alternative reference rates compare to LIBOR?

- There are two key differences between LIBOR and the nominated ARR that have implications for financial markets:
  1. LIBOR includes a component of bank credit risk, whereas ARRs are largely risk-free rates.
  2. LIBOR today is published over various tenors – overnight, 1 month, 3-month, 6-month etc, whereas ARRs are currently overnight rates only. At this time, while efforts are underway to develop term ARRs it is unclear whether term-ARR could be derived that would have a similar tenor to existing LIBOR.
- Because of these differences, there is a potential economic impact for parties to LIBOR-related contracts when they transition from using LIBOR to using an ARRs.

What is the timeframe for transition from LIBOR to ARRs?

- Regulators and industry bodies released a series of co-ordinated statements on 5 March 2021 confirming the 'end-game' for all LIBOR currency and tenor pairings. The below table outlines the cessation timeline for each currency and tenor:

Currency	Tenor	LIBOR cessation date
USD	1-week, 2-month	31 Dec 2021
	Overnight, 12-month	30 June 2023
	1-month, 3-month, 6-month	30 June 2023*
GBP	Overnight, 1-week, 2-month, 12-month	31 Dec 2021
	1-month, 3-month, 6-month	31 Dec 2021*
JPY	Overnight, 1-week, 2-month, 12-month	31 Dec 2021
	1-month, 3-month, 6-month	31 Dec 2021*
CHF	All tenors	31 Dec 2021
EUR	All tenors	31 Dec 2021

* These rates may continue to be published after cessation date as a so-called "synthetic LIBOR" for use in a limited range of legacy contracts (see further information on 'synthetic' LIBOR further below). For full details of the cessation announcement on 5 March 2021, please refer to the FCA announcement.

- The pace of transition from LIBOR to ARR depends upon many variables including the readiness of market infrastructure, systems and documentation, and the rate that market participants start using financial instruments referencing ARR instead of LIBOR.
- Markets may transition before the relevant cessation dates, and different currencies and financial products are likely to move at different speeds.
- Reform efforts are being globally coordinated, and regulators are becoming increasingly focused on market participants preparing themselves for transition. There has been an increase in transition activity amongst banks and other market participants that is likely to accelerate the pace of transition.

How is the transition likely to happen?

- National working groups, industry associations (such as ISDA) and regulators (such as a central banks) are working together to drive the necessary market changes. Examples include standardising terms for documentation and clearing house readiness to settle derivatives referencing ARRs. It is estimated that over 80% of global LIBOR notional exposures are derivatives,[iii] and therefore ISDA is playing a leading role.
- After developing new industry-wide conventions and market protocols, these groups are consulting broadly with market participants as a high degree of market consensus is likely to improve the rate of ARR adoption and reduce transition risks and challenges.
- There are three main categories of transactions impacted by the transition:
    1. **New transactions referencing ARRs:** the volume of these transactions is expected to increase as market infrastructure becomes ready and their usage increases.
    2. **Existing transactions referencing LIBOR with a legal maturity beyond the relevant cessation dates:** Most existing transactions include provisions that deal with LIBOR not being available (commonly referred to as “fallback” language). However, these provisions were typically designed to address a temporary disruption to LIBOR rather than a permanent cessation. Therefore, these transactions are expected to be amended to improve fallback provisions, or ideally migrate to new ARRs before the relevant cessation dates. These contract amendments are also likely to include changes in interest rate terms and credit spreads to account for the key differences between ARRs and LIBOR outlined previously in the section “How do the alternative reference rates compare to LIBOR?”
    3. **New transactions referencing LIBOR with a legal maturity beyond the relevant cessation dates:** As liquidity in some ARRs has yet to fully develop, parties will continue to enter into new transactions that reference LIBOR. The volume of these transactions is expected to decrease as the usage of ARRs increases. Parties to these transactions should understand the risks of transition and incorporate appropriate contractual terms (such as fallback language to deal with LIBOR cessation). Various industry working groups, such as the Sterling RFRWG and the ARRC, have provided product level milestone dates for the cessation of LIBOR. Macquarie intends to meet these milestones where feasible given client and market readiness.

What are the key risks of transitioning from LIBOR to ARR?

- The transition is more than a regulatory driven change, it involves fundamental changes in market behaviours and conventions led by market participants. Because LIBOR has been the most widely used interest rate benchmark in the world for decades, transition to ARR is complex, both for Macquarie and many of our clients and counterparties.
- The key risks related to the transition may include:
    - risks from terms in existing contracts that reference LIBOR beyond the relevant cessation dates not functioning as the parties intended.
    - the potential economic impact from the repricing of contracts for the differences between LIBOR and ARRs (i.e. credit spread and tenor adjustments).
    - potential differences in hedge accounting treatment if cash products and derivatives become misaligned.
    - operational risks arising from the transition.

What are the main operational challenges of transitioning from LIBOR to ARR?

- LIBOR is deeply embedded in many systems and processes across financial markets. As such, operational challenges for transition in those markets may include:
    - many contracts will need to be amended. The complexity of that process will depend on the nature of the contracts which need to be revised.
    - pricing, valuation, and risk management models that currently use LIBOR, will need to be updated, tested, and validated.
    - operational systems, may need to be updated to support ARR products (and will likely need to accommodate both LIBOR and ARR products during transition).
    - processes and policies may need to be updated for ARRs e.g. transfer pricing, interest rate hedging, hedge accounting policy.

What can you do to prepare?

- Macquarie is preparing for the LIBOR transition and many of our clients, counterparties, investors and other stakeholders are doing so as well. If your firm has LIBOR exposures, it is important that you are now prioritising measures to prepare for LIBOR cessation.

- As a client or counterparty of Macquarie, it is important that you are aware of what the change from LIBOR to an ARR might mean for you, including whether you require guidance or support from professional advisers.
- Preparation may include, understanding:
  - your exposures to LIBOR and how existing transactions may behave when reliance on LIBOR is phased out or LIBOR publication ceases, including the risks involved in continuing to use LIBOR in new transactions
  - actions required to ensure your readiness and limit any impacts and risks of the LIBOR transition
  - the differences between LIBOR references and the proposed ARR replacement
  - Industry target dates for the cessation of new transactions for specific LIBOR products and currencies.
  - Consider the implications of 'linked products' with LIBOR exposure, for example a derivative hedging a loan. Please discuss these implications with your Macquarie representative.
  - other impacts that the transition from LIBOR to an ARR may have on your business
- Please visit macquarie.com/ibor for other information, including links to external sources to find further information on market developments.

What other IBOR reforms are taking place?

- Beyond LIBOR, many other IBOR are undergoing reforms. You might also seek to understand the potential impacts and risks relating to these reforms.
- BBSW, the most commonly used IBOR for AUD, is administered by the ASX and regulated by ASIC. BBSW has been reformed and is expected to continue alongside the nominated ARR for AUD being the RBA Cash Rate (also known as "AONIA").[iv]
- EURIBOR is administered by EMMI and regulated by the ECB. The calculation methodology for EURIBOR has been reformed such that EURIBOR is expected to continue alongside the nominated ARR for EUR being €STR.[v]
- Notwithstanding that BBSW and EURIBOR are likely to continue, they are potentially subject to the same type of discontinuation risk as other global IBORs. Therefore, the fallback language in contracts that reference these IBOR should be reviewed and amended if necessary.

What is 'Tough Legacy' & 'Synthetic' LIBOR?

- It is expected that some existing IBOR referencing contracts may practically be unable to be amended to include robust fallbacks or transition directly to ARRs. These contracts are referred to as "tough legacy". Proposals on how to mitigate IBOR cessation risks in 'tough legacy' contracts are being assessed by authorities. The options being considered include: legislation, and/or the publication of a 'synthetic IBOR', derived from an alternative methodology rather than panel bank submissions, for use in such contracts.
- Under proposed legislation in the UK, the FCA will have the powers to amend the methodology of LIBOR (i.e. creating 'synthetic' LIBOR) for use in 'tough legacy' contracts. The FCA plans to consult on this process throughout 2021. You can read more about the FCA's proposed approach here.

What is the ISDA IBOR Fallbacks Supplement and Protocol?

- ISDA launched the ISDA 2020 IBOR Fallbacks Protocol on 23 October 2020, which enables parties to adopt more robust IBOR fallbacks in existing transactions as defined in the Supplement to the 2006 ISDA Definitions. Authorities and industry working groups are encouraging widespread adherence to the Protocol by both financial and non-financial firms as a key priority for mitigating IBOR transition risks arising from legacy contracts. The protocol became effective on 25 January 2021. To date, over 13,500 market participants have adhered to the Protocol and it remains open for Parties adhere to at any time.
- Any new transactions entered into after 25 January 2021 automatically include the new fallbacks via the IBOR Fallbacks Supplement to the 2006 ISDA Definitions.
- Macquarie Bank Limited adhered to the Protocol on 27 November 2020.

What are 'pre-cessation' and 'cessation' triggers?

- For the purposes of both the IBOR Fallbacks Protocol and IBOR Fallbacks Supplement, an Index Cessation Event (or "pre-cessation trigger") with respect to all thirty-five LIBOR settings occurred on March 5, 2021 by virtue of the announcement by the FCA.
- For additional information refer to ISDA's Future Cessation and Non-Representativeness Guidance

What is a spread adjustment?

- The fallbacks under the ISDA Fallbacks Protocol provide for the replacement rate of LIBOR to be the nominated term adjusted ARR plus a spread adjustment.
- The spread adjustment is added to the ARR to adjust for the inherent difference between LIBOR and overnight-rates, primarily related to the bank credit element.
- The cessation announcements on 5 March 2021 had the effect of 'locking-in' or 'fixing' this spread adjustment to be used upon the application of the fallbacks. The spread adjustment is calculated as the historical median of the difference between LIBOR and ARR over the past five years (ending on 5 March 2021)
- ISDA has appointed Bloomberg Index Services Limited ("BISL") to calculate and publish these spreads, which as of the fixing date on 5 March are provided below in basis points (rounded to one decimal place– for exact values please refer to BISL's Technical Notice – Spread Fixing Event for LIBOR):

Tenor	USD	GBP	EUR	CHF	JPY
ON	0.6	-0.2	0.2	-5.5	-1.8
1W	3.8	1.7	2.4	-7.1	-2.0
1M	11.4	3.3	4.6	-5.7	-2.9
2M	18.5	6.3	7.5	-2.3	-0.4
3M	26.2	11.9	9.6	0.3	0.8
6M	42.8	27.7	15.4	7.4	5.8
12M	71.5	46.4	29.9	20.5	16.6

What is Macquarie doing for its clients?

- Macquarie is transacting with clients and counterparties across a growing range of ARR currencies and products.
- Macquarie will continue to update clients on the progress of LIBOR transition at Macquarie and across markets.
- Macquarie can provide various alternatives and solutions to transition legacy LIBOR exposures; however, this will vary by product and currency so please contact your Macquarie representative to discuss details.

What does the change mean for Macquarie?

- As a diversified financial group, with a variety of global products and services, the transition from LIBOR to ARR and other IBOR reforms are important changes for us.
- To ensure we are well prepared, we have conducted a detailed analysis of our use of LIBOR rates. This included a review of LIBOR references within legal agreements, systems, models and processes. We have developed plans to manage the related impacts and risks of transition, including how we meet the needs of our clients as ARR usage increases and where direct engagement on existing transactions, agreements and arrangements might be required.

How has COVID-19 impacted Macquarie's IBOR transition readiness?

- The FCA, BoE and UK working group have released a statement on the impact of COVID-19 to firms' transition plans (25/03/2020). Firms should cease using LIBOR in new transactions as soon as practicable, and no later than the end of 2021.
- Macquarie continues to monitor the markets closely, and is continuing to progress its internal IBOR Transition Programme in line with markets and regulatory expectations. Should you have any questions about what this may mean for you specifically, please reach out to your usual Macquarie contact, and continue to monitor official websites for further updates.

Further information

- For more information, please get in touch with your usual Macquarie contact.
- As further details of the transition arrangements emerge, we will update stakeholder-facing staff with guidance.
- Please visit macquarie.com/ibor for other information, including links to external sources to find further information on market developments.
- For enquiries at the Macquarie Group or Macquarie Bank level, or for regulatory or sectoral input, please contact our Global IBOR Transition team: IBOR@macquarie.com

Glossary

ARR:	Alternative Reference Rates
ARRC	The Alternative Reference Rate Committee
ASX:	Australian Stock Exchange
ASIC:	Australian Securities and Investment Commission
BOE:	Bank of England
BOJ:	Bank of Japan
ECB:	European Central Bank
EMMI:	European Money Markets Institute
EURIBOR:	Euro Interbank Offered Rate
FCA:	Financial Conduct Authority (UK)
IBOR:	Interbank Offered Rate
ISDA:	International Swaps and Derivatives Association
LIBOR:	London Interbank Offered Rate
RBA:	Reserve Bank of Australia
Sterling RFRWG	Working Group on Sterling Risk-Free Reference Rates

Endnotes

i. https://www.fsb.org/work-of-the-fsb/policy-development/additional-policy-areas/financial-benchmarks/

ii. https://www.fca.org.uk/news/speeches/the-future-of-libor

iii. https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2018/ARRC-Second-report

iv. https://www.rba.gov.au/mkt-operations/resources/interest-rate-benchmark-reform.html

v. https://www.emmi-benchmarks.eu/euribor-org/about-euribor.html

IMPORTANT NOTICE