IBOR transition

Frequently asked questions

March 2022

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.

Further information

If you need further information, please refer to the 'Further information' section at the end of this note or please get in touch with your usual Macquarie contact.

Glossary

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

What are (L)IBORs

- IBORs, including BBSW (AUD), EURIBOR (EUR), LIBOR and TIBOR (YEN), 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. LIBOR (the London Interbank Offer Rate) is administered by the Intercontinental Exchange (ICE) and regulated by the UK Financial Conduct Authority (FCA). It had been computed daily in London for five currencies each with seven different maturities ranging from overnight to a year. The five currencies for which LIBOR is computed are Swiss Franc (CHF), Euro (EUR, Pound Sterling (GBP), Japanese Yen (YEN) and US Dollar (USD).
- (L)IBORs are designed to reflect the price of interbank funding markets. Each IBOR had been 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 (L)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 2014 published recommendations to reform major interest rate benchmarks. These recommendations included best practice principles for financial benchmarks, measures to strengthen existing benchmarks and plans to develop alternative reference rates (**ARRs**, also commonly referred to as Risk Free Rates (**RFRs**)).
- 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 Alternative Reference Rates (ARRs).
- The FCA confirmed the cessation or loss of representativeness dates of all 35 LIBOR settings on 5 March 2021. Subsequently, all GBP, EUR, CHF, JPY, and 1-week & 2-month USD LIBOR tenors, ceased publication on 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 and JPY tenors became nonrepresentative after their respective cessation dates, however their publication of these rates continues on a 'synthetic' basis. "Synthetic LIBOR" is described below.
- Regulators expect that all market participants should cease entering into new contracts that use LIBOR (including USD LIBOR) as a reference rate after 31 December 2021.

What are 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 recommended the following alternative reference rates:

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

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

- As the publication of many tenors of LIBOR ceased at the end of 2021, with the remaining USD LIBOR tenors set to cease publication after 30 June 2023, clients, counterparties, investors, and other stakeholders should understand what the transition from LIBOR to an ARR means for them.
- It is important to note that regulators and industry groups have recommended a series of transition guidelines and milestones that vary based on the currencies, products and participants involved (for USD LIBOR see the ARRC webpage here).
- Regulators expect that all market participants should have ceased entering into new contracts that use LIBOR (including USD LIBOR) as a reference rate after 31 December 2021.

How do the alternative reference rates compare to LIBOR?

- There are two key differences between LIBOR and the recommended ARR that have implications for financial markets:
  - LIBOR includes a component of bank credit risk, whereas ARRs are considered akin to risk-free rates (meaning free of bank credit risk).
  - LIBOR is published over various tenors – overnight, 1-month, 3-month, 6-month, 12-months, whereas ARRs are generally overnight rates. Currently, forward looking term ARRs are available in some currencies but each with differing use limitations.

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 ARR.

For more details on how these differences are accounted for in the transition from LIBOR to ARR, see the ARRC's User guide to SOFR here.

What is the timeframe for transition from LIBOR to ARRs?

- Regulators and industry bodies released a series of coordinated statements on 5 March 2021 confirming the ‘end-game’ for all LIBOR currency and tenor pairings, as outlined in the table below:

Currency	Tenor	LIBOR Cessation Date
USD	1-week, 2-month	31 Dec 2021
	Overnight, 1-month, 3-month, 6-month, 12-month	30 Jun 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 will 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.

- Regulators expect that all market participants should have ceased entering into new contracts that use LIBOR (including USD LIBOR) as a reference rate after 31 December 2021.
- Regulators and industry bodies have recommended a series of transition guidelines and milestones that vary based on the currencies, products and participants involved. Markets may transition before the relevant cessation dates, and different currencies and financial products are likely to move at different speeds.
- Reform efforts are well underway and are being globally coordinated, and regulators are becoming increasingly focused on market participants completing transition and preparing themselves as rates transition. There has been an increase in transition activity amongst banks and other market participants that is likely to accelerate the pace of transition.

What are the key risks of transitioning from (L)IBOR 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 well progressed in its (L)IBOR transition readiness and our clients, counterparties, investors, and other stakeholders should already be prepared as well. If your firm has (L)IBOR exposures, it is important that you have measures in place, or near finalisation, to manage (L)IBOR cessation.
- As a client or counterparty of Macquarie, it is important that you understand what the change from (L)IBOR 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 (L)IBOR is phased out or (L)IBOR 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 convention differences between the LIBOR benchmarks and the conventions recommended ARR replacement for specific products
  - Industry target dates for the cessation of new transactions for specific (L)IBOR products and Currencies. For instance, while some USD LIBOR tenors will be published until 30 June 2023, new use of these is prohibited.
  - 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 USD LIBOR, many other IBORs are undergoing reforms. You might also seek to understand the potential impacts and risks relating to these reforms.
- **BBSW**, the most 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")[1]
- **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[2]. (see EONIA specific FAQs here)
- 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'?

- Some existing (L)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" contracts.
- Solutions to this vary across jurisdictions and include legislation, and/or the publication of a 'synthetic LIBOR' derived from an alternative methodology rather than panel bank submissions, for use in contracts. Macquarie recommends that clients obtain professional advice to determine how these solutions might apply to their contracts. The information in this FAQ is a high-level summary and should not be relied upon as legal advice.
- For GBP LIBOR and JPY LIBOR, the approach adopted is that of a Synthetic LIBOR (see "What is Synthetic LIBOR?") to be supported with additional legislation which applies to transactions covered by UK law.
- In the US, Federal legislation has been enacted to assist with the smooth transition from USD LIBOR to alternative rates (See "What is Safe Harbour Legislation?")
- In Europe, through amendments to EU benchmarks regulations (Regulation (EU) 2021/168), the European Commission was empowered to designate a statutory successor to LIBOR by implementing acts. The European Commission (EC) has adopted these acts to designate €STR as statutory replacement rate for EONIA. Under this adoption, the replacement rate will be €STR + 8.5 basis points.

[1] https://www.rba.gov.au/mkt-operations/resources/interest-rate-benchmark-reform.html
[2] https://www.emmi-benchmarks.eu/euribor-org/about-euribor.html

What is 'safe harbour' legislation?

- In some jurisdictions (notably the UK and US) legislation has been passed which aims to help with the transition from LIBOR of products which might otherwise be difficult to amend. These include widely held bonds, retail loans and investment accounts.
- If you would like to know whether these laws apply to your LIBOR transactions, you should consult with your professional advisors.

What is Synthetic LIBOR?

- Synthetic LIBOR is a term used to describe a LIBOR reference rate that continues to be published but is no longer based on panel bank submissions, but rather an alternative (or 'synthetic') calculation methodology.
- Following on a statement on 29 September 2021, the FCA authorised the continued publishing of the following benchmark rates (referred to as 'Synthetic LIBORs' or Article 23A LIBORs) on a synthetic basis:
  - 1-month, 3-month, and 6-month sterling LIBOR; and,
  - 1-month, 3-month, and 6-month Japanese yen LIBOR.
- The synthetic LIBOR is calculated using a forward-looking term SONIA for sterling and TONA for yen plus a fixed ISDA spread adjustment (using the ISDA Fallbacks' spread adjustment).
- The FCA has permitted Synthetic LIBOR use in legacy transactions regulated under UK law except in Cleared Derivatives (whether directly or indirectly cleared).
- The publication of synthetic LIBOR will continue "for as short a time as is appropriate – FCA". For GBP, 'synthetic LIBOR' can be published for up to a maximum of ten years, however the FCA will seek views in 2022 on retiring the 1-month and 6-month settings at the end of 2022, and also seek views on the exact time to retire the 3-month setting. For YEN LIBOR, the intention is to cease publication at the end of 2022. The Synthetic LIBOR framework will be effective from 1 January 2022.

  See FCA's Synthetic LIBOR FAQs for more information. Macquarie recommends that clients obtain professional advice to determine how these solutions might apply to their contracts.

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 robust IBOR fallbacks in existing transactions as defined in the 'Supplement to the 2006 ISDA Definitions'. Authorities and industry working groups have encouraged 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 15,250 market participants have adhered to the Protocol, and it remains open for parties to adhere to at any time.
- Any new rates transactions entered into after 25 January 2021 automatically include the new fallback provisions via the IBOR Fallbacks Supplement to the 2006 ISDA Definitions.
- Macquarie Bank Limited and other Macquarie Group companies have adhered to the Protocol.

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 5 March 2021, by virtue of the announcement by the FCA.
- For additional information refer to ISDA's Future Cessation and Non-Representativeness Guidance.

What is the ISDA (credit) spread adjustment?

- The ISDA Fallbacks Protocol and IBOR Fallbacks Supplement provide for the replacement rate of LIBOR in derivative contracts, with an in arrears ARR ('adjusted ARR') plus a spread adjustment.
- The spread adjustment is added to the adjusted ARR to account for the inherent difference between LIBOR and overnight-rates, related to the bank credit element. (refer above – 'How do the alternative reference rates compare to LIBOR?')
- The cessation announcements on 5 March 2021 had the effect of 'locking-in' or 'fixing' this spread adjustment to be used upon the applicable cessation dates and enforcement of the fallbacks.

- The spread adjustment is calculated as the historical median of the difference between LIBOR and the identified ARRs over the 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- Spread Fixing Event for LIBOR.

Tenor	USD	GBP	EUR	CHF	JPY
ON	0.644	-0.24	0.2	-5.5	-1.8
1W	3.839	1.68	2.43	-7.05	-1.1981
1M	11.448	3.26	4.56	-5.71	-2.923
2M	18.456	6.33	7.53	-2.31	-0.449
3M	26.161	11.93	9.62	0.31	0.835
6M	42.826	27.66	15.37	7.41	5.809
12M	71.513	46.44	29.93	20.48	16.600

How is Macquarie assisting its clients?

- Macquarie is ready to transact with clients and counterparties across a growing range of ARR currencies and products.
- Macquarie can provide various alternatives and solutions to transition, hedge or unwind legacy USD LIBOR exposures; however, this will vary by product and currency so please contact your Macquarie representative to discuss details.

What is the guidance on USD LIBOR transition?

- One of the best ways to follow USD LIBOR transition developments is via the Alternative Reference Rate Committee (ARRC), including signing up to receive email alerts from the ARRC. The ARRC has published a series of guidance notes, recommended conventions across a range of products and industry commentary. Recent updates include:
  - Recommended Best Practices for Completing the Transition from LIBOR;
  - A User's Guide to SOFR;
  - Formal Recommendation of Term SOFR;
  - Loan Conventions and Best Practices for Use of Forward-Looking SOFR Term Rate.
  - ARRC 2022 objectives
- Credit Sensitive Rates: various providers have developed alternative reference rates that, unlike SOFR, include a bank credit risk component. Collectively these alternatives are referred to as credit sensitive rates (CSR).
  - At this time is unclear to what extent CSRs will be used along with overnight ARR and forward-looking term ARR alternatives. Regulators' preference is for CSRs and forward-looking term rates to be use for limited use cases only, and for overnight ARRs to underpin financial markets
  - Links to further information about the USD CSRs in use or under development include: BSBY; AMERIBOR; ICE Bank Yield Index; CRITR/CRITS; AXI.

What is the guidance on GBP LIBOR transition?

- One of the best ways to follow Sterling developments is via The UK Working Group on Sterling Risk-Free Reference Rates (SRFRWG) which has published a series of guidance notes, recommended conventions across a range of products and industry commentary.
- Term SONIA Reference Rate are published by ICE and Refinitiv. UK authorities and working group have made clear they expect the use of forward-looking benchmarks (Term SONIA) to be limited to specific use cases. See also The FICC Markets Standards Board's ("FMSB") finalised 'Standard on use of Term SONIA reference rates'.

What does 'LIBOR cannot be used in new contracts after the end of 2021' mean?

- Regulators expect that all market participants should cease entering into new contracts that use LIBOR (including USD LIBOR*) as a reference rate after 31 December 2021.
- While publication of most USD LIBOR tenors** has been extended to 30 June 2023, this is intended only to allow legacy (existing) USD LIBOR contracts to mature, as opposed to supporting new USD LIBOR activity
- From January 2022, except the extended USD LIBOR rates and Synthetic LIBOR, LIBOR rates will no longer be compiled and published and new, rate-referencing, transactions will be concluded referencing alternative rates.
- On 20 October, Several US regulators – Including the Fed, FDIC, and the OCC – issued a joint statement providing further guidance around specific LIBOR transition topics. Included in this was clarification on the meaning of new LIBOR contracts: "a new contract includes an agreement that;

  i. creates additional LIBOR exposure (no matter the tenor or maturity) or,

  ii. extends the term of an existing LIBOR contract.

  A draw on an existing agreement that is legally enforceable (e.g. a committed credit facility) would not be viewed as a new contract"

* In USD there are some risk management exceptions to support the run-down of legacy contracts

** Cessation dates for USD LIBOR – 30 June 2023 (except 1-week and 2-month, which cease – 31 December 2021)

When will my USD legacy contracts/transactions transition?

- While most USD LIBOR tenor rates are set to continue until 30 June 2023, this does not prevent clients and counterparties from transitioning these to alternative rates prior to the June 2023 cessation date.
- Macquarie encourages clients and counterparties to contact us at any time to transition contracts referencing USD LIBOR ahead of 30 June 2023.
- During 2022, Macquarie's teams will be reaching out to clients with long-term USD LIBOR transactions to discuss transition options and understand how they can assist in that transition.

Can I use one of the 'term rates' (that are forward looking, like LIBOR)?

- While term rates have been endorsed in various jurisdictions (so far, USD, GBP, YEN), there are differences in their allowable use across products and markets.
- **GBP:** The IBA began publishing (forward looking) SONIA term risk-free rates in January 2021. The published Term SONIA is available for one, three, six, and twelve-month tenors. However, the Working Group on Sterling Risk-Free Reference Rates has outlined a limited usage of the Term SONIA based on the authorities' preference for the market to adopt SONIA compounded in arrears.
- **YEN:** The Tokyo Term Risk Free Rate (TORF) is published by Quick Corp (QBS) and is available for one, three, six-month tenors. Based on uncollateralised overnight call rate which calculates the interest rate from derivative transaction data for a period of one or three months. (There does not appear to be any limitation on its use)
- **USD:** The ARRC formally recommended the use of CME's forward-looking SOFR rates on 29 July 21 for the use of Term SOFR rates in ARRC-aligned contract fallback language.

  (Forward-looking) Term SOFR is available as one, three, and six-month tenors.

  While the ARRC continues to encourage the use of SOFR overnight rates and SOFR averages in Floating Rate Notes and in most securitised products, it acknowledges that there is a compelling need for a forward-looking term rate. To this end the ARRC has produced the 'Best Practice Recommendations Related to Scope of Use of the Term Rate' outlining the recommended uses of Term SOFR in new contracts.

  For more information on appropriate usage of Term SOFR, please refer to CME's FAQs.
- **EUR:** The Working Group on Euro Risk Free Rates (ECB / ESMA) has recommended a forward looking term rate for €STR, having announced an RFP process in July 2019. The Working Group has not released a target date for the publishing of this term rate.
- **CHF:** The National Working Group on Swiss Franc Reference Rates (SNB) considers it unlikely that a robust term rate based on SARON derivatives will be feasible and recommends using compounded SARON wherever possible as a term rate alternative.

Further information

- For more information, please get in touch with your usual Macquarie contact.
- Links to various industry resources are provided here

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
SRFRWG	Working Group on Sterling Risk-Free Reference Rates

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.

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