



Interim Report

The Working Group on Sterling Risk-Free Reference Rates

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Introduction

1. The Working Group (WG) on sterling risk-free reference rates was initiated by the Bank of England in March 2015, following the Financial Stability Board's (FSB) report on interest rate benchmark reform, published in July 2014.¹

2. The FSB report was commissioned by the G20 in response to well documented cases of manipulation and false reporting of interest rate benchmarks, together with the secular decline in liquidity in interbank unsecured funding markets. It reviewed systemically important benchmark rates, including sterling Libor, and recommended reforms.

3. In particular, the report concluded that certain financial transactions, including many derivative transactions, are better suited to reference rates that are closer to risk-free, rather than to rates including a term bank credit risk component, such as Libor. The WG's primary objective is therefore to identify and promote a nearly risk-free sterling reference rate (RFR) as a robust alternative to Libor, particularly for use in sterling interest rate swaps.

4. The WG is a private sector group comprised of senior representatives from major sterling swap dealers. The International Swaps and Derivatives Association (ISDA) and LCH also participate in a non-voting capacity. ISDA provides guidance on issues related to robust contract design and reference rate transition, and LCH represents the views of the central counterparty (CCP) sector for relevant sterling markets. Representatives from the Bank of England and the Financial Conduct Authority (FCA) participate as *ex-officio* members. The WG is chaired by Francois Jourdain, chief compliance officer (and former head of Treasury Funding and Investments) at Barclays Investment Bank.

5. The key deliverables of the WG are to:

- Identify and promote the development of robust alternative sterling RFRs
- Evaluate candidate RFRs and recommend one for adoption in sterling markets
- Develop a plan to promote broad-based adoption of the recommended RFR, with particular focus on the sterling interest rate swap market
- Agree metrics of success and a timeline for implementation
- Recommend robust contractual fallback procedures in the event of benchmark unavailability

6. These objectives are aligned with wider international work towards the FSB's recommendations on benchmark reform. Market participants and authorities in several key markets are working together closely, either through existing industry bodies or through the establishment of working groups. These international initiatives have made concrete progress in identifying potential RFRs. In particular, detailed data collection exercises have been undertaken, and work is now underway to develop potential RFRs where these do not currently exist.

7. The WG has reached out to industry members of parallel international initiatives in order to share analysis and insights, and facilitate coordination across international efforts. Representatives from the US Alternative Reference Rates Committee (ARRC), the National Working Group for CHF Reference Rates, and the European Money Market Institute (EMMI) have participated in WG meetings.

¹ The FSB Report is available here: http://www.fsb.org/2014/07/r_140722/

8. The WG is publishing this Interim Report to summarise progress since its inaugural meeting in March 2015 and to provide an outline of its work programme going forward. In doing so, the WG aims to begin engaging a broader set of stakeholders in order to inform its deliberations. To continue this process, the WG expects to hold industry roundtable sessions later this year. In addition, a formal market consultation will be completed before implementation of the RFR adoption plan commences.

Progress to date²

Choice of Risk-Free Reference Rate (RFR)

9. In April 2015, the WG agreed initial criteria for the selection of the sterling RFR. The selection criteria set out key properties for a successful sterling RFR. These properties include: the availability of sufficient and reliable underlying market data; robustness to changes in market structure; appropriate controls and governance; and the extent to which the RFR reflects actual market funding rates. The selection criteria also outlined the importance of actual and potential end-user demand for RFR-linked derivatives. Other considerations included the ease of market adoption and the consistency with RFRs being developed in other international markets. Final selection criteria will be agreed in advance of a decision to select the RFR.

10. The WG identified four categories that candidate RFRs might fall into: unsecured rates; secured rates; official Bank Rate; and other alternatives. These four candidate RFR types were assessed against the WG's selection criteria (see Figure 1).

11. Based on this analysis, the WG decided to focus on two candidates for its preferred RFR:

- (i) **An unsecured overnight index.** As of 25 April 2016 the Bank of England has taken on the administration of SONIA and will reform the benchmark to include bilaterally negotiated, as well as brokered, transactions in order to make it more resilient. The WG anticipates that a reformed and strengthened SONIA is likely to be a viable candidate RFR.
- (ii) **A secured overnight index.** The WG determined that RONIA, the existing overnight secured index, is not a suitable Libor alternative. RONIA only represents a small sub-segment of the gilt repo market, and transaction volumes are insufficient to support a robust fixing. The WG therefore published a set of design criteria in December 2015 to encourage the production of a new secured RFR. These criteria include:
 - aspects of the initial selection criteria agreed by the WG;
 - clarification that the relevant secured market is overnight gilt repo;
 - that specific-collateral repo should be included alongside general collateral repo, albeit with proposals to deal with 'specialness';
 - that a time series – historical or synthetic – of transaction volumes and rates would be necessary to facilitate clearing eligibility.

A number of potential administrators have responded by contacting the WG about their interest in developing a secured benchmark, and one (ICAP Information Services / EBS-BrokerTec) has recently launched a new gilt repo index.

² The WG has met 12 times since its inaugural meeting. Meeting agendas and minutes are regularly published, alongside other relevant documents, to a dedicated page on the Bank of England's website. See <http://www.bankofengland.co.uk/markets/Pages/benchmarks/rfr.aspx>

12. The WG anticipates that a decision between these two candidates could be reached once detailed information on the methodologies, rates and volumes for reformed SONIA and candidate secured RFRs are made available. The choice will depend both on the properties of the available secured and unsecured benchmarks, and the viability and likely success of implementation and market transition plans in each case. The key trade-off is between ease of implementation and depth of the market. Implementation of reformed SONIA should be more straightforward; but a secured benchmark potentially captures a greater volume of transactions and could prove more robust over the long term.

Figure 1: Summary assessment of candidate RFRs

Category	Rate	Advantages	Disadvantages
Overnight Unsecured	SONIA	<ul style="list-style-type: none"> Established reference rate in OIS market hence straightforward implementation as Libor alternative Same-day publication of rate 	<ul style="list-style-type: none"> Limited volumes
	Reformed SONIA	<ul style="list-style-type: none"> Broader-based rate with enhanced transaction volumes Straightforward implementation as Libor alternative (if seamlessly replaces SONIA) 	<ul style="list-style-type: none"> Await final characteristics Next-day publication of rate
Overnight Secured	RONIA	<ul style="list-style-type: none"> Same-day publication of rate 	<ul style="list-style-type: none"> Limited volumes Implementation as Libor alternative more complex
	Other secured	<ul style="list-style-type: none"> Potential for broader-based rate with greater transaction volumes 	<ul style="list-style-type: none"> Await development of candidate rates Implementation as Libor alternative more complex
Bank Rate	Bank Rate	<ul style="list-style-type: none"> Transparent Robust against manipulation Frequent use as reference rate in retail lending Existing (albeit small) market for Bank Rate-linked derivatives 	<ul style="list-style-type: none"> Does not represent market transactions Potentially restricts flexibility of monetary policy implementation
Other	T-Bill rate	<ul style="list-style-type: none"> Private market rate 	<ul style="list-style-type: none"> Low secondary market volumes Potential constraint on DMO Volumes affected by overall fiscal position
	Term OIS rate	<ul style="list-style-type: none"> Swap market currently uses term (Libor) fixings Consistent with standard discount curve 	<ul style="list-style-type: none"> Requires a robust overnight rate – needs to be considered in the context of an overnight RFR
	Composite of rates on private money market activity + Bank of England reserves	<ul style="list-style-type: none"> High volumes 	<ul style="list-style-type: none"> Complex Potentially restricts flexibility of monetary policy implementation

13. In June and July of 2015 the WG conducted an initial round of end-user outreach involving discussions with targeted stakeholders to understand their broad requirements and potential constraints over RFR selection, and validate the WG's proposed selection criteria. Targeted stakeholders included: clearing houses and market infrastructures; real money investors and hedge funds; pension funds and insurance companies; building societies, bank treasuries and swap dealers; large corporates; and sovereigns, supnationals and agencies.

14. End-users surveyed did not express clear and consistent preferences between the two candidate types of RFR under consideration. Most indicated that, in their use of interest rate swaps, there was no need for the reference rate to reflect credit or term risk premia, and that alignment of the reference rate with the contractual discount curve used for swap valuation would be a desirable feature. Feedback from pension and insurance companies indicated that, where the chosen RFR matched the Risk-Free Rate mandated by the European Insurance and Occupational Pensions Authority (EIOPA), this would help catalyse market adoption.

Term rates vs overnight rates

The WG is focussing on suitable overnight rates because money market transactions are predominantly concentrated in the overnight tenor, and because these rates include little, or no, credit risk. The WG also believes that there is potential demand amongst a broad set of counterparties to transition swap market activity to greater use of Overnight Index Swaps (OIS). OIS are already well accepted amongst users looking to hedge the general level of interest rates without a bank credit spread component, and these users may be best placed to initiate the RFR adoption process.

However, recognising that Libor is available at various tenors and that some participants may prefer a term benchmark, the WG has concluded that there could be interest in the later development of term alternatives which could be derived from the RFR yield curve.

Market adoption of RFR as an alternative to Libor

High-level RFR adoption strategy

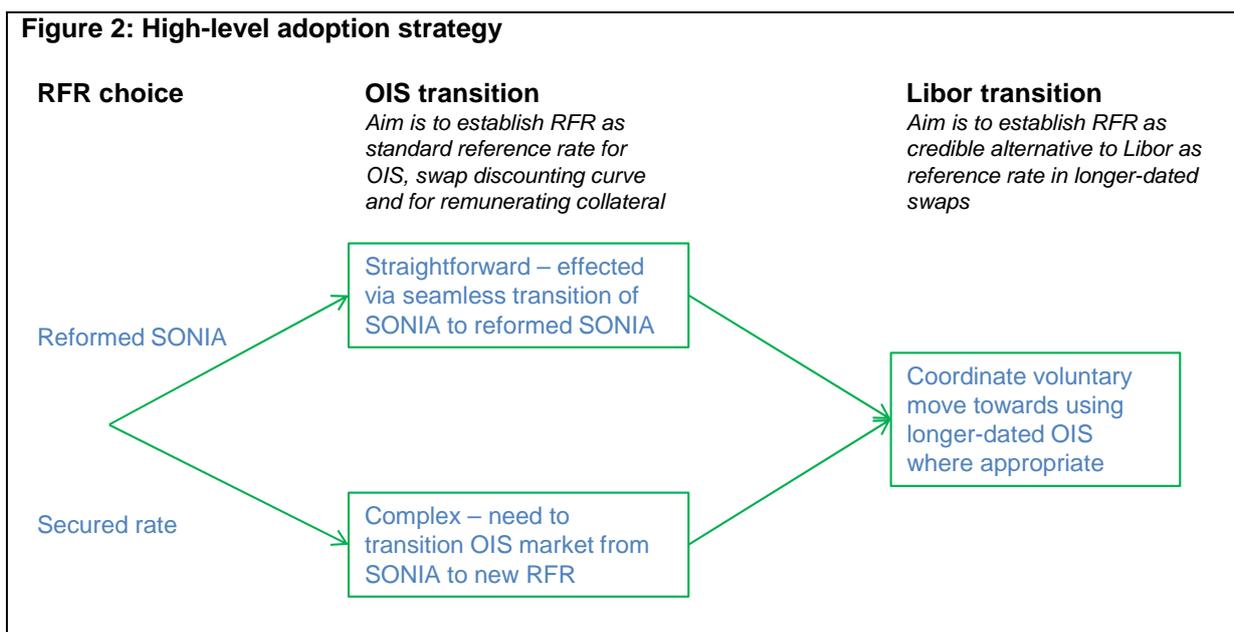
15. Once a preferred RFR has been selected, the WG will identify measures to develop liquidity in sterling interest rate swaps (IRS) referencing the RFR, and encourage users to adopt the RFR for new contracts where appropriate.

16. The WG's preferred adoption strategy has, at a high level, two stages. As noted in the previous section, both candidate RFRs under consideration are overnight rates. The first stage of the WG's adoption strategy is to establish the RFR as the standard reference rate in the sterling OIS market, in place of the existing overnight reference rate, SONIA. Once the RFR is established in the OIS market – which is already actively traded and liquid at the short end of the yield curve – the second stage would be to encourage trading in OIS across the entire yield curve so that RFR-referenced swaps are available as a liquid alternative to Libor.

17. This two-stage adoption strategy is motivated by the WG's view that an RFR could only be a credible Libor alternative if is first established as the primary reference rate for the OIS discounting curve used to value swap positions, and the standard rate used to remunerate collateral balances. That is because swaps that reference Libor generate a basis between Libor and the discount curve. Many market participants have indicated that they would, at least in principle, welcome the alignment of the swap reference rate and the discount rate in order to eliminate this basis. A rate that is

established as the OIS reference rate, and is used as the standard discount curve, can take advantage of this latent demand to help kick-start the adoption process.

18. The ultimate goal is to encourage widespread use of longer-dated RFR-referenced OIS. But the transition path will depend on the choice of RFR. If reformed SONIA is chosen, the first stage (OIS transition) should be straightforward as SONIA is already the established reference rate for sterling OIS, and the Bank of England reform process anticipates a seamless transition from SONIA to reformed SONIA. However, choosing a secured RFR would require the transition of existing SONIA-referenced OIS onto the new RFR, which is a more complex proposition. These contrasting transition paths are depicted in Figure 2. The following sub-section explores transition issues in more detail.



OIS transition

19. As noted above, if reformed SONIA is selected as the RFR then establishing it in the OIS market will be straightforward if – as the Bank of England expects – reformed SONIA seamlessly replaces SONIA. The WG has therefore focused its attention on the more complex question of how the OIS market could transition from referencing SONIA to referencing a secured RFR.

20. Two broad approaches to transition the OIS market onto a secured overnight rate have been considered: a gradual transition over an extended time frame; or a wholesale transition of all new and legacy contracts on a pre-determined future date (referred to as a ‘big bang’ approach).

21. The WG believes that a gradual transition approach has a number of significant – although perhaps not insurmountable – impediments to success. First, the new OIS product will not be clearing eligible (without punitive margin) until un-cleared market liquidity is established; but market makers will not be willing to provide liquidity until the product is clearable. Second, there would be a risk of fragmented liquidity between a SONIA OIS and a secured RFR OIS, which could be detrimental for both markets – potentially increasing use of Libor swaps. And third, there would be insufficient incentives for any market participant to be a first mover.

22. An alternative method for transitioning the OIS market is the ‘big bang’ approach. This would involve a one-time switchover from SONIA to the secured RFR, for both new and legacy contracts, following an appropriate notice period (two years has been suggested). Under this proposal, on the

day of the changeover there would be an orderly, planned discontinuation of SONIA with the aim that all contracts referencing it would convert to reference the RFR.³ The RFR would simultaneously be adopted as the standard rate used to remunerate collateral balances, and as the primary reference rate for the OIS discount curve used to value swap positions.⁴

23. The WG agreed that a big bang approach to adopting a secured RFR could be workable, although further detailed analysis would be required to gain comfort regarding market impact. This is an issue on which further consultation and outreach would be necessary in order to elicit views from all relevant stakeholder groups. Subject to this further work confirming the feasibility of the transition approach, the WG's initial view is that the decision between a secured or an unsecured RFR can be taken based on the innate properties of the benchmarks, rather than solely on the basis of the feasibility of OIS transition.

Libor transition

24. The final phase of market adoption will commence after the RFR has been established as the reference rate for the OIS market. It involves encouraging the use of the RFR as a market standard reference rate for sterling IRS across the entire term structure.

25. It is important to note that this process will be gradual, voluntary and market-led. Users can continue to transact Libor contracts where desired, and legacy contracts will not be affected unless users elect to convert positions to the new reference rate at an arm's length market rate bilaterally agreed between the counterparties in question.

26. The objective is to promote the RFR for use in those financial transactions where such a rate may be better suited than Libor. For example, most users of cleared sterling IRS are seeking to hedge the general level of interest rates, not bank credit risk. Nevertheless the WG recognises that encouraging wider use of the RFR – for example as a reference rate for some floating rate notes – would support its use in derivatives markets, and might therefore form part of the WG's adoption plan.

27. The WG expects that the RFR will be available to the market, alongside sterling Libor, on a fair, reasonable and non-discriminatory basis.

Contract Robustness

28. A further key deliverable of the WG is to recommend robust fallbacks to ensure that contracts are resilient to the possible cessation or material alteration of the RFR.

29. The WG distinguishes two scenarios:

- Where a benchmark becomes unavailable, or unviable, due to a reduction in underlying transaction volumes. In this case contracts should allow flexibility for the benchmark to evolve under the direction of the administrator.
- Where a benchmark is no longer available because the administrator has, for whatever reason, failed to produce a rate. In this event the WG considered a possible solution in which two contractual elements would be required. First, a short-term mechanical fallback would initially apply to contracts to ensure continuity. An example suggested was a temporary rate

³ The 'big bang' approach is explained in more detail in the minutes of the WG's November meeting (available here <http://www.bankofengland.co.uk/markets/Pages/benchmarks/rfr.aspx>). As noted in those minutes, the Bank of England's current policy is to reform the existing SONIA through the collection of transaction data from banks. To contemplate the discontinuation of SONIA, the Bank would require compelling analysis that such an approach was acceptable to the vast majority of market participants and that any risks to market functioning were negligible.

⁴ It is worth noting that most of the risk exposure of market participants to OIS rates arises from discounting risk, not projection risk (the sensitivity to changes in the overnight reference rate).

based on a historical spread to Bank Rate. Second, a decision making body would be convened with the responsibility for selecting a permanent successor rate for contracts. The decision making body would need a process for identifying membership – which would need to include a broad array of relevant parties, whilst closely managing potential or perceived conflicts of interest – as well as a process for determining a permanent successor rate against objective criteria.

30. The WG is continuing to work towards a set of recommendations on contract robustness.

Future work programme

31. The WG continues to make progress on identifying the appropriate RFR for sterling markets and on plans to encourage adoption of the selected rate for new IRS contracts where appropriate. The WG's work programme for 2016 has five elements:

- (i) Finalise the process to be followed for the RFR decision, including final selection criteria. *Targeted for completion in Q3 2016.*
- (ii) Assess the merits of reformed SONIA against these criteria. *This will begin once the Bank of England publishes details of reformed SONIA in late summer 2016.*
- (iii) Assess the merits of candidate secured RFRs that have been recently launched, or are currently under development. *This will proceed in parallel with the assessment of reformed SONIA.*
- (iv) Further analysis of the feasibility of transitioning the OIS market to a secured RFR. *Under way, targeted for completion in Q4 2016.*
- (v) Develop plans to encourage broad based adoption of the RFR in new contracts. *Under way, will continue into 2017.*

32. In order to inform elements (i) to (iii) above, the WG is considering the prospects for the evolution of the sterling financial markets with the aim of forming a view of the likely future robustness of secured and unsecured candidate RFRs. Factors which could impact future robustness include regulatory, economic, and business model variables.

33. On the basis of (i) to (iv) above, the WG anticipates that it will be in a position to recommend a preferred RFR by the end of 2016.

34. In 2017 the WG will focus on its remaining deliverables: making recommendations on contract robustness, producing a final OIS transition plan if required, and producing an adoption plan with observable metrics that reflect the successful adoption of the preferred RFR as an alternative to Libor. It will also provide an indicative timeline for the implementation of its adoption plan.

35. Whilst it is viewed that the WG is appropriately constituted to select an RFR and develop a blueprint for adoption, implementation will only commence once a public consultation has been completed.