



Benchmark Reform

CARR stakeholder presentation

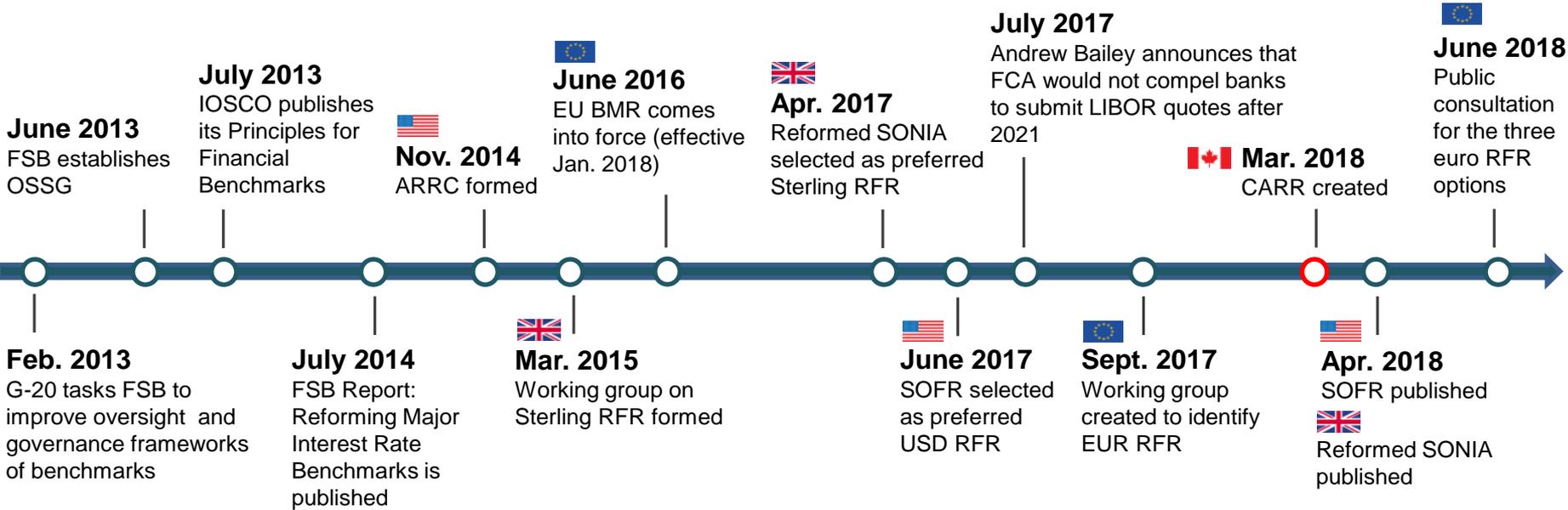
Background

- Confidence in the reliability and robustness of major interest rate benchmarks was undermined by attempted market manipulation, false reporting and declining liquidity in the interbank unsecured market.
- G20 tasked the Financial Stability Board (FSB) to undertake a review of widely used benchmarks globally in February 2013.
- The FSB created the Official Sector Steering Group (OSSG), comprised of senior officials from central banks and regulatory agencies in June 2013 to conduct this review:
 - focus was on the three major interbank offered rate (IBOR) benchmarks (LIBOR, EURIBOR and TIBOR);
 - work was supported by a Market Participants Group of global buy- and sell-side institutions.
- The International Organization of Securities Commissions (IOSCO) published its Principles for Financial Benchmarks in July 2013.

Background

- In 2014, the FSB recommended a series of steps to strengthen the existing key IBOR benchmarks, and to promote the development and adoption of alternative nearly risk-free reference rates (RFRs) where appropriate:
 - reform IBORs by making them more transaction based;
 - develop viable RFRs to potentially replace IBORs for certain types of transactions (e.g., derivatives which constitute the largest segment of products referencing IBORs).
- In July 2017, the Financial Conduct Authority (FCA) announced that they will no longer compel LIBOR panel member banks to contribute to the benchmark after the end of 2021.
- Most of the work globally so far on RFRs has been with respect to developing alternative *overnight* risk-free benchmarks. However, many jurisdictions began assessing their options for developing term RFRs.

Evolution of benchmark reform





Global RFR Initiatives

Global RFR Initiatives: United States

- The Alternative Reference Rate Committee (ARRC) recommended the Secured Overnight Financing Rate (SOFR) in June 2017 as the preferred U.S. dollar overnight RFR:
 - broad based overnight repo rate;
 - ~\$800 billion of transactions underlying the rate.
- ARRC was reconstituted in March 2018 to focus on implementing its transition plan for SOFR, including developing a term rate and addressing fallback language:
 - The Federal Reserve Bank of New York began publishing the SOFR in April 2018;
 - CME launched 1- and 3-month SOFR futures in May 2018;
 - CME and LCH are expected to begin clearing SOFR swaps in Q3 2018. CME is expected to use SOFR for both discounting and calculating the price alignment interest for SOFR swaps, while LCH is expected to use the Effective Fed Funds Rate;
 - creation of term reference rates based on SOFR derivatives by the end of 2021.

Global RFR Initiatives: Europe

- The European Money Markets Institute (EMMI) concluded that the Euro Overnight Index Average (EONIA) may no longer be compliant with EU Benchmark Regulation:
 - EONIA may still be used as a reference rate until the end of 2019;
 - from 2020, new contracts and instruments should not be referenced to EONIA.
- The Working Group on Euro Risk-Free Rates launched its first consultation on the assessment of candidate euro RFRs in June 2018. The working group is expected to make their recommendation in Q3 2018. The three candidates are:
 1. The euro short-term rate (ESTER), which the ECB expects to publish before 2020.
 2. GC Pooling Deferred, a centrally cleared general collateral repo rate produced by STOXX.
 3. RepoFunds Rate, a centrally cleared repo rate including both general and specific collateral produced by NEX Group.
- The term rate subgroup is expected to identify and produce an assessment of potential term structure methodologies by the end of 2018.

Global RFR Initiatives: United Kingdom

- The Working Group on Sterling Risk-Free Reference Rates recommended the reformed Sterling Overnight Index Average (SONIA) in April 2017 as the preferred alternative RFR for GBP:
 - overnight unsecured rate;
 - increased the number of transactions in the calculation of SONIA by including transactions arranged by both via brokers and negotiated bilaterally.
- Established a subgroup in the fall of 2017 to develop a term risk-free rate to potentially replace GBP LIBOR in some cash products:
 - will launch a public consultation on a term RFR later in summer 2018.
- The Bank of England began publishing the reformed SONIA in April 2018:
 - The Intercontinental Exchange (ICE) launched a 1-month SONIA futures contract in December 2017 and CurveGlobal launched a 3-month SONIA futures contract in April 2018.

Global RFR Initiatives: Other major jurisdictions

- Japan – The Study Group on Risk-free Reference Rates recommended the Tokyo Overnight Average Rate (TONA) as the preferred alternative RFR for JPY:
 - uncollateralized overnight rate.
- Switzerland – The National Working Group on Swiss Franc Reference Rates recommended the Swiss Average Rate Overnight (SARON) as the preferred alternative RFR for CHF. SARON replaced the Tomorrow/Next Indexed Swaps (TOIS) benchmark:
 - secured overnight rate;
 - SARON has been in use since Jan 1, 2018.

Global RFR Initiatives: Fallback language

- The International Swaps and Derivatives Association (ISDA) is currently developing amended fallback language for the 2006 ISDA definitions for the three key benchmarks (LIBOR, EURIBOR and TIBOR), as well as for several other currency benchmarks.
 - Fallbacks are provisions in legal documents in the event of a material change to or cessation of the referenced benchmark.
 - The proposed fallback is to the overnight RFR plus a spread adjustment for each specific currency.
- ISDA will be issuing a consultation document on the proposed fallbacks in the near future covering a sub-set of the key currencies/benchmarks.
- RFR working groups, together with various trade associations, are reviewing and developing more robust fallback language for cash products.



Canadian RFR Initiatives

Canadian Alternative Reference Rate Working Group

- Bank of Canada announced the creation of the Canadian Alternative Reference Rate Working Group (CARR), sponsored by the Canadian Fixed-Income Forum (CFIF), in March 2018.
- Main objectives:
 - review and enhance the existing Canadian overnight risk-free rate, the Canadian Overnight Repo Rate Average (CORRA).
 - identify and seek to develop a Canadian term risk-free (or nearly risk-free) rate benchmark that is robust, reliable and resilient to market stress and manipulation.
 - The term risk-free rate would act as a complementary reference rate for the Canadian market and would operate alongside the Canadian Dollar Offered Rate (CDOR).

Canadian Alternative Reference Rate Working Group

- Organization:
 - Membership composition is meant to capture all aspects of benchmark usage:
 - Co-chairs: Bank of Canada and CIBC
 - Members: Big-6 Canadian banks, foreign bank, insurance companies, pension funds and institutional asset managers
 - Observers: CDCC, LCH, TMX (Montreal Exchange)
 - Advisory subgroups will be established to focus/study specific issues and will reach out to, and seek feedback from, a wide range of stakeholders.
 - Bank of Canada provides secretariat functions.
 - Monthly, in-person meetings.

Current CARR subgroups

Three subgroups created thus far lay the groundwork for future work:

1. Alternative rates subgroup:

- identify and evaluate viable options for an alternative Canadian risk-free or nearly-risk free overnight reference rate.

2. Scope of work subgroup:

- scope and estimate the size of financial instruments that currently reference CDOR and CORRA.

3. Fallback language subgroup:

- develop robust fallback language for non-derivatives products or contracts (i.e., floating rate notes, hybrid capital notes and bank loans).

Future work

- Develop a methodology and specifications for the alternative Canadian overnight risk-free rate benchmark.
- Develop a methodology and specifications for the Canadian term risk-free, including which maturities should be published.
- Propose possible steps to ensure that the new term and alternative overnight reference rates are consistent with other global risk-free benchmarks, including that they are based on sufficient transaction volumes, as well as consistent with the IOSCO Principles for Financial Benchmarks and compliant with any applicable regulations.
- Develop an implementation plan and timeline for both the new term rate and alternative overnight rate based on stakeholder input.

Current Timelines*

| OBJECTIVE | 2018 | | | | 2019 | | | |
|---|------|----|----|----|------|----|----|----|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Scope of CDOR/CORRA | | | | | | | | |
| Identification and recommendation for the alternative Canadian risk-free overnight rate | | | | | | | | |
| White paper / consultation for alternative Canadian overnight risk-free rate | | | | | | | | |
| Develop proposed fallback language for cash products | | | | | | | | |
| Develop transition plan for the alternative Canadian overnight risk-free rate | | | | | | | | |
| Develop Canadian term risk-free rate | | | | | | | | |

* These timelines reflect the current workplan and are subject to change.

Stakeholder Engagement

- Broad outreach across the range of stakeholders, including through:
 - participation in CARR subgroups;
 - CARR roundtables;
 - industry input/feedback on CARR white papers.
- Information on CARR's activities including the terms of reference, membership, meeting dates, agendas and summaries will be available on the [CARR website](#).
- Market participants interested in contributing to these efforts are invited to email CARR-WG@bankofcanada.ca with their contact details.



Appendices

Summary of global RFRs

| Jurisdiction | RFR | Description |
|---|---|---|
| US  | Secured overnight financing rate (SOFR) | Secured overnight repo rate Calculated by FRBNY |
| Europe  | Consultation launched June 2018 | TBD |
| UK  | Reformed Sterling overnight Index Average (SONIA) | Unsecured overnight rate Calculated by Bank of England |
| Japan  | Tokyo overnight average rate (TONA) | Uncollateralized call rate Calculated by Bank of Japan |
| Switzerland  | Swiss Average Rate Overnight (SARON) | Secured overnight rate Published by SIX Swiss Exchange |
| Australia  | Interbank overnight cash rate (Cash Rate) | Unsecured overnight rate Calculated by the Reserve Bank of Australia |

Committees working on interest rate benchmark reform

| Jurisdiction | Committees | Link |
|---|---|---|
| US  | Alternative Reference Rate Committee (ARRC) | https://www.newyorkfed.org/arrc |
| Europe  | Working group on euro risk-free rates | https://www.ecb.europa.eu/paym/initiatives/interest_rate_benchmarks/WG_euro_risk-free_rates/html/index.en.html |
| UK  | The Working Group on Sterling Risk-Free Reference Rates | https://www.bankofengland.co.uk/markets/transition-to-sterling-risk-free-rates-from-libor |
| Japan  | Study Group on Risk-Free Reference Rates | https://www.boj.or.jp/en/paym/market/sg/index.htm/ |
| Switzerland  | National Working Group on Swiss Franc Reference Rates | https://www.snb.ch/en/ifor/finmkt/finmkt_benchm/id/finmkt_reformrates |

Other useful links

| Organization | Description | Link |
|---|--|---|
| International Swaps and Derivatives Association, Inc. (ISDA) | <ul style="list-style-type: none">• ISDA is working to develop robust fallback language for derivatives contracts that reference certain key IBORs• Detailed presentation on issues around benchmark reform: ISDA roadmap document and Global Benchmark Transition Report | https://www.isda.org/category/legal/benchmarks/ |
| Financial Stability Board - Official Sector Steering Group (OSSG) | <ul style="list-style-type: none">• International policy developments on benchmark reform• Background reports on benchmark reform | http://www.fsb.org/policy_area/financial-benchmarks/ |