



BANK OF ENGLAND

October 2016

The reform of SONIA

A Consultation Paper



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This Consultation Paper includes illustrative calculations, based on the Bank of England's Sterling Money Market data collection, which are intended only to show how the proposed new SONIA methodology would work, and should not be used for any other purpose. The proposed methodology may change before it is finalised, including in response to comments made during the consultation process.

Contents

Executive summary	5
Box 1 The characteristics of reformed SONIA	7
1 Introduction	9
1.1 Structure of this consultation	10
1.2 Process for consultation and next steps	10
2 The methodology for calculating SONIA	11
2.1 Market activity and the scope of deposits	11
2.2 Measuring the average interest rate	12
2.3 Transactions eligible for inclusion in SONIA	13
2.4 Short-term contingency methodology	14
3 The definition of SONIA and its evolution	15
3.1 Definition of the underlying interest	15
3.2 Statement of methodology	16
3.3 Evolution of the methodology	16
Box 2 Proposed definition of SONIA	17
3.4 Definition of SONIA in financial contracts	17
4 The transition to reformed SONIA	18
4.1 Mechanics of the transition	18
4.2 Moving publication of SONIA to the following day	18
4.3 Timetable for the transition	19
5 Publication and licensing issues	20
5.1 Recovering costs of producing SONIA	20
5.2 Plans for the daily publication of SONIA data	20
5.3 Policy for republication of SONIA	21
5.4 Publication of other SMM data	22
Box 3 SMM data collection: measuring the gilt repo market	23
6 Next steps	24
Annex List of questions	25

Executive summary

This consultation paper seeks respondents' views on the Bank of England's proposals for the reform of SONIA, a sterling unsecured overnight interest rate benchmark administered by the Bank.

SONIA is widely used in sterling financial markets, including as the reference rate for the sterling overnight index swap (OIS) market. The notional value of outstanding SONIA-referencing derivative contracts, including OIS, exceeds £7.7 trillion, and in addition, the OIS curve is used to value sterling swap portfolios with an estimated notional outstanding value of £46 trillion.

The Bank's aim in reforming SONIA is to strengthen a benchmark which is considered critical for the sterling financial markets, but which is currently based on a market for brokered deposits which has limited transaction volumes.

The key change to SONIA, set out in an earlier consultation paper in Summer 2015, is that it will in future capture a broader range of unsecured overnight deposits, by including bilaterally negotiated transactions alongside brokered transactions.

This consultation paper sets out the Bank's more detailed proposals for the reform of SONIA, and provides the first indication of the likely characteristics of the reformed benchmark, drawing on data submitted by banks and building societies as part of the Bank's Sterling Money Market data collection.

Box 1 provides an indication of the characteristics of reformed SONIA, based on the reform proposals set out in this consultation. In summary, in the sample of available data:

- The average daily transaction volume underpinning reformed SONIA is £36 billion, around three to four times that for SONIA, with a less concentrated set of counterparties. That should contribute to a significantly more robust benchmark over the long term.
- Reformed SONIA is highly correlated with current SONIA, closely tracking significant movements. Reformed SONIA is on average 1 to 2 basis points lower than current SONIA.

The Bank is seeking feedback on its detailed proposals for reforming SONIA, which fall into four categories: the SONIA

calculation methodology; the definition of SONIA; transition planning; and publication policies.

The Bank has reviewed SONIA's methodology and is proposing one important change: to switch to measuring the average rate using a volume-weighted median, rather than a volume-weighted mean. The Bank is not, however, proposing to make any further changes to the characteristics of SONIA-eligible trades, beyond the inclusion of bilateral trades. They will remain: same-day settled, overnight maturity trades, with a minimum size of £25 million and conducted between midnight and 18:00 each London business day.

The Bank has also reviewed the current definition of SONIA reflecting the reforms outlined in this consultation, and in light of international best practice for benchmark administration. Consistent with the IOSCO Principles for Financial Benchmarks, and the EU Benchmarks Regulation, the Bank proposes to define SONIA in such a way as to facilitate its future evolution, were that to become necessary. We intend to achieve this by separating the definition of SONIA into two parts: (i) a broad and enduring definition of the 'underlying interest' that SONIA is intended to measure; and (ii) a 'statement of methodology', specifying the data inputs and the method of calculation currently used to measure the underlying interest. In addition, a process for amending the methodology used to measure the specified underlying interest is proposed.

The Bank anticipates that the transition to reformed SONIA will be a point-in-time switchover from current SONIA to reformed SONIA: a 'seamless transition'. As noted in the 2015 consultation, the transition will include a change to the publication time and date to be 09:00 the following business day. This consultation outlines how the Bank has been working with market participants to prepare for that change, and sets out the proposals for the timing of the transition. It anticipates that SONIA reforms will be implemented in 2017 Q4, with a more precise date to be communicated in early 2017.

The Bank will publish SONIA every London business day at 09:00, alongside other summary statistics including aggregate volumes. The Bank intends to charge users who wish to receive SONIA data on a timely basis directly from the Bank — consistent with the Wholesale Markets Brokers' Association Ltd's (WMBAs) current approach for publishing SONIA. This will enable the Bank to recover the costs associated with

producing the benchmark. SONIA will remain freely available to the public with a time lag. Bloomberg and Thomson Reuters will continue to publish SONIA, so those who currently access it on a timely basis via those data vendors can continue to do so.

Responses to this consultation are invited by 31 December 2016.

The Bank intends to provide its final view on the methodology for and definition of SONIA, the transition arrangements, and publication and licencing arrangements in early 2017.

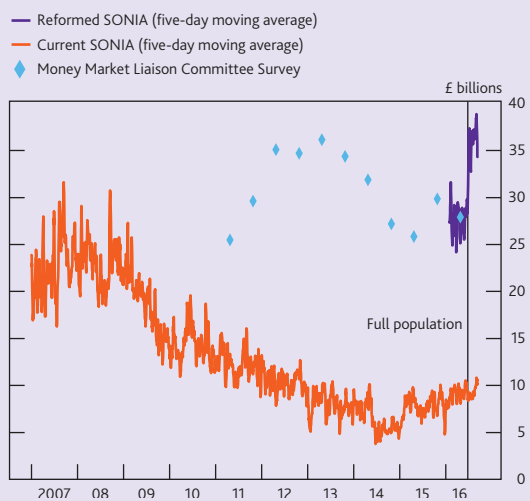
Box 1 The characteristics of reformed SONIA

This box outlines the illustrative statistical characteristics of reformed SONIA, reflecting the proposed methodology set out in this consultation.⁽¹⁾

The data presented have been compiled using contributions to the Bank’s Sterling Money Market (SMM) data collection, up to and including 16 September 2016. For a provisional set of ‘early adopters’, comprising roughly 80% of the full population, data are available from 1 February 2016. The full reporting population has been contributing since 1 July 2016. This full population of reporters is chosen to cover 95% of the volume of activity in the unsecured market, and may be expected to change over time to remain in line with this aim.

The average daily volume of transactions on which reformed SONIA is based has been £36 billion since 1 July 2016 (Chart A). This is three to four times the volumes underpinning current SONIA and is broadly in line with the market size previously indicated by the Bank’s Money Market Liaison Committee Survey. The corresponding number of transactions is around five times higher for reformed SONIA, compared to current SONIA (Chart B).

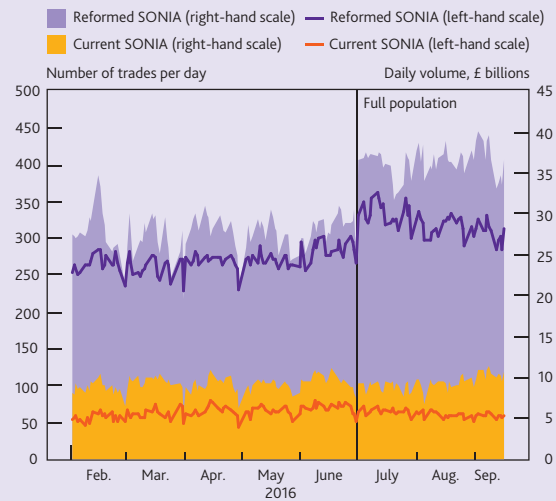
Chart A Historic volumes in the overnight unsecured sterling money market



Sources: Bank of England, Wholesale Markets Brokers’ Association Ltd (WMBA) and Bank calculations.

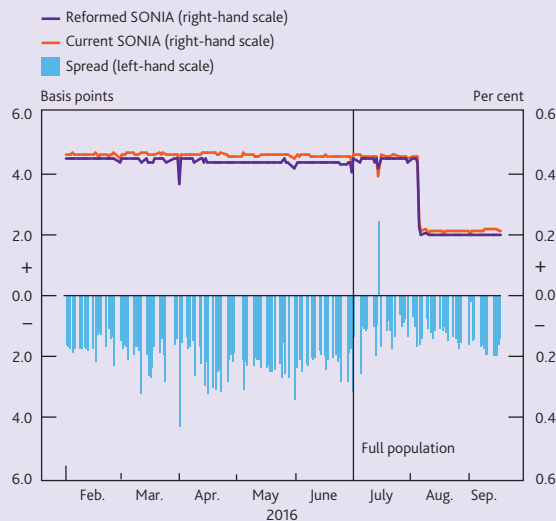
There is a 1 to 2 basis point spread between reformed SONIA and current SONIA (Chart C), reflecting that bilateral transactions in the available sample occur at slightly lower rates than brokered transactions. Daily changes in the proposed rate have tracked changes in current SONIA closely over the sample period, with a high correlation between these two series (Chart D). Transaction rates in the Bank’s SMM data collection are somewhat more dispersed than the rates underlying SONIA, and show a negative skew in their volume-weighted distribution (Charts E and F).

Chart B Daily volumes and number of trades in current and reformed SONIA



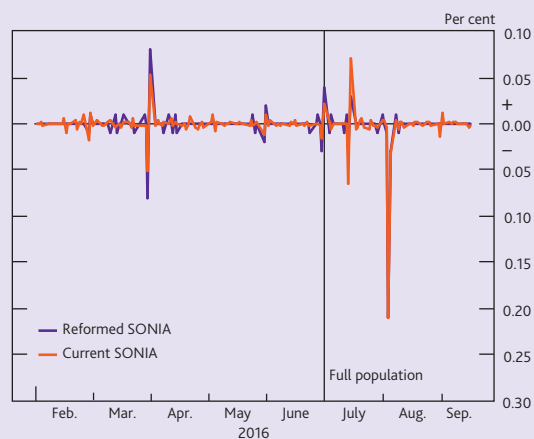
Sources: Bank of England, WMBA and Bank calculations.

Chart C Comparison of current and reformed SONIA rates



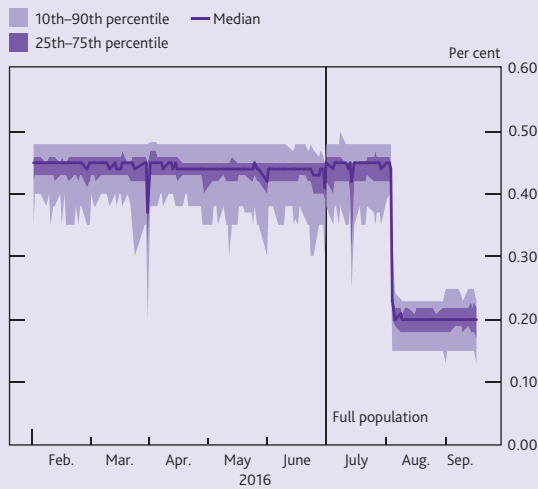
Sources: Bank of England, WMBA and Bank calculations.

Chart D Comparison of daily changes in current and reformed SONIA



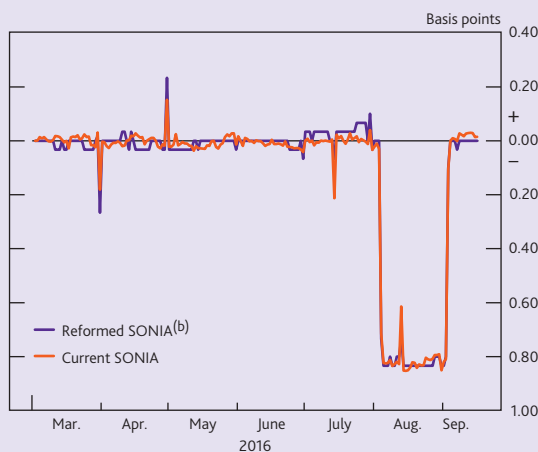
Sources: Bank of England, WMBA and Bank calculations.

(1) All data presented in this box and throughout this consultation are available on the Bank’s website at www.bankofengland.co.uk/markets/Documents/soniareform1016.xlsx.

Chart E Reformed SONIA rate and percentiles

Sources: Bank of England and Bank calculations.

SONIA is widely used as the reference rate in overnight index swap contracts. In this context the behaviour of the compounded rate may be of interest to users. **Chart G** shows that, on a one-month compounded basis, the volatility of reformed SONIA is low and very similar to that of existing SONIA.

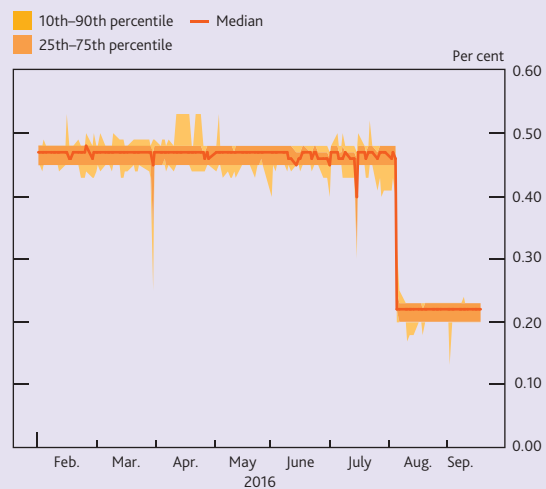
Chart G Comparison of daily changes of one-month compounded rate for current and reformed SONIA^(a)

Sources: Bank of England, WMBA and Bank calculations.

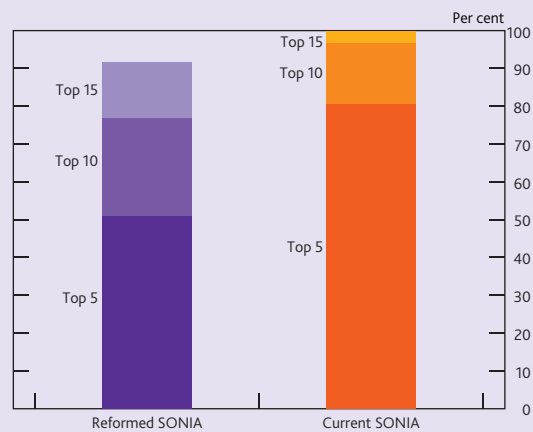
- (a) On 16 February 2017, this chart was updated to correct an error in the calculation of the one-month compounded rates.
 (b) The reformed SONIA series has been calculated using only data from early adopters, in order to remove any impact of the 1 July population change on the compounded rate.

The concentration of data inputs in reformed SONIA is significantly lower than for current SONIA (**Chart H**). The top five deposit-takers according to the Bank's SMM data collection comprise 51% of the total market on average, compared to 80% for current SONIA. This reduction in concentration increases the robustness of reformed SONIA, by reducing the extent to which individual participants' transactions influence the benchmark.

Table 1 presents summary statistics comparing reformed and current SONIA.

Chart F Current SONIA median rate and percentiles

Sources: WMBA and Bank calculations.

Chart H Concentration of borrowers in volumes underlying reformed and current SONIA

Sources: Bank of England, inter-dealer brokers and Bank calculations.

Table 1 Indicative summary statistics of the characteristics of current and reformed SONIA

	Reformed SONIA	Current SONIA
Average spread to SONIA (basis points) ^(a)	-1.3	-
Correlation with SONIA ^(b)	1.0	-
Correlation of daily changes with daily changes in SONIA ^(b)	0.9	-
Standard deviation of daily changes (basis points) ^(b)	2.0	2.0
Standard deviation of daily changes, excluding Bank Rate change (basis points) ^(b)	1.2	1.1
Range between 25th and 75th percentiles (basis points) ^(b)	3.5	3.0
Range between 10th and 90th percentiles (basis points) ^(b)	10.9	4.6
Mean daily volume (£ billions) ^(a)	36.4	9.4
Mean trade size (£ millions) ^(a)	113	151
Median trade size (£ millions) ^(a)	50	75
Mean daily number of trades ^(a)	322	62

Sources: Bank of England, WMBA, Inter-dealer brokers and Bank calculations.

- (a) Based on data since 1 July 2016.
 (b) Based on data since 1 February 2016.

1 Introduction

1 SONIA (the Sterling Overnight Index Average) is an interest rate benchmark that measures the interest rate on unsecured sterling overnight deposits brokered in London.⁽¹⁾

2 SONIA is widely used in sterling financial markets, including as the reference rate for the sterling overnight index swap (OIS) market. The notional value of outstanding SONIA-referencing derivatives contracts exceeds £7.7 trillion, and in addition, the OIS curve is used to value sterling interest rate swap portfolios with an estimated notional outstanding value of £46 trillion.⁽²⁾

3 In a consultation, in July 2015 (the '2015 consultation'), the Bank of England set out a high-level plan to reform SONIA in view of its role as a critical benchmark in sterling markets, and the limited size of the market for brokered deposits on which SONIA is based.⁽³⁾

4 The Bank's aim in reforming SONIA is to strengthen the benchmark by broadening its market coverage to ensure it is as robust and representative as possible. The Bank's involvement in the reform of SONIA reflects that the necessary data on the broader market for unsecured deposits can only be obtained directly from deposit-taking institutions. The Bank is able to obtain these data under the Bank of England Act 1998.

5 A further impetus for the reform of SONIA is provided by the July 2014 Financial Stability Board Report 'Reforming Major Interest Rate Benchmarks'.⁽⁴⁾ Following the recommendations of this report, a market-led Working Group has been tasked, by the Bank and Financial Conduct Authority (FCA), with identifying and encouraging the use of a sterling nearly risk-free reference rate (RFR) as an alternative to sterling Libor, where appropriate.⁽⁵⁾ The Working Group has considered a number of candidate RFRs for use in sterling markets, and views a reformed and strengthened SONIA as likely to be a viable candidate RFR, alongside a suitable overnight gilt repo benchmark.⁽⁶⁾

6 Following feedback received from the 2015 consultation, in November 2015⁽⁷⁾ the Bank confirmed four main elements of its plan for SONIA reform:

- (i) the Bank would take on the administration of the SONIA benchmark;
- (ii) the coverage of SONIA would be broadened to include overnight unsecured transactions negotiated bilaterally as well as those arranged via brokers;

- (iii) the Bank would review other aspects of the SONIA methodology, in light of these changes; and
- (iv) reflecting the change in data source and the need to process the greater volume of eligible transactions, the publication of SONIA would be moved to 09:00 on the following London business day.

7 The first part of this plan now has been implemented: the Bank took on the administration of SONIA on 25 April 2016. For the time being, the Wholesale Markets Brokers' Association Ltd (WMBA) continues to act as the calculation and publication agent, on behalf of the Bank, using the existing data inputs from contributing WMBA member firms. This arrangement will continue until the Bank is ready to produce SONIA using the broader inputs, as discussed in this document.

8 The groundwork for the second change has now been laid. In February 2016 the Bank began collecting transaction data on a daily basis from the institutions most active in the sterling money markets: the Bank's Sterling Money Market (SMM) data collection. The scope of the SMM is all transactions conducted, from overnight to one year, in the unsecured and secured sterling money markets. A subset of these data will be used as the inputs to reformed SONIA.

9 The purpose of this document is to set out in more detail and seek feedback on the Bank's proposals for the reform of SONIA, and how they will be implemented. It covers the SONIA calculation methodology and definition, arrangements for transition, and issues related to the publication and licensing of SONIA.

10 In formulating these proposals, the Bank has sought to follow the intent of regulatory best practice, outlined in the IOSCO Principles for Financial Benchmarks⁽⁸⁾ (hereafter 'IOSCO Principles'), as well as the EU Benchmarks Regulation (hereafter the 'EU BMR').⁽⁹⁾

(1) SONIA is the trademark of the Bank of England.

(2) Based on data from the Depository Trust and Clearing Corporation and the UnaVista trade repositories.

(3) See www.bankofengland.co.uk/markets/Documents/cpsonia0715.pdf.

(4) See www.fsb.org/wp-content/uploads/r_140722.pdf?page_moved=1.

(5) See www.bankofengland.co.uk/markets/Pages/benchmarks/rfr.aspx.

(6) See www.bankofengland.co.uk/markets/Documents/sterlingoperations/rfr/2016/rfrwgintrep16.pdf.

(7) See www.bankofengland.co.uk/markets/Documents/sonia1115.pdf.

(8) See www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf.

(9) Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments; see eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1011&from=EN. By virtue of Article 2, paragraph (2), the EU BMR does not apply to a central bank. The standards set nonetheless represent a useful guide to regulatory best practice.

1.1 Structure of this consultation

11 Section 2 presents the Bank's review and resultant proposals for amending the methodology for calculating SONIA, covering the method for calculating the average, as well as the characteristics of eligible transactions for SONIA.

12 Section 3 details the Bank's proposals for amending the definition of SONIA and presents a process by which the Bank may review this detailed methodology from time to time.

13 Section 4 proposes options for the smooth and effective transition to the new arrangements and seeks feedback on the approach which best avoids market disruption and minimises operational risk for market participants.

14 Section 5 outlines the Bank's proposed policies in relation to the publication of SONIA data, as well as plans for cost recovery and licensing the usage of SONIA.

1.2 Process for consultation and next steps

15 The questions the Bank would like specific feedback on are highlighted throughout the relevant sections of this consultation paper. Respondents should provide answers to any questions by visiting the online survey page.⁽¹⁾ Space is provided at the end of the survey to provide any additional views not covered in the preceding questions. Responses and feedback are requested by 31 December 2016.

16 If you have any general queries relating to this consultation, please email the Bank at:

benchmarkadministration@bankofengland.co.uk

17 Following receipt of responses, the Bank intends to provide its final view on the design of SONIA, and the transition and publication arrangements in early 2017, with transition to reformed SONIA anticipated during 2017 Q4.

(1) See app.keysurvey.co.uk/f/1073409/2699/.

2 The methodology for calculating SONIA

1 The 2015 consultation and subsequent response set out that SONIA will be broadened to include bilaterally negotiated as well as brokered unsecured deposit transactions. In order to broaden the scope of inputs, the data source for SONIA will become the Bank's SMM data collection, whereas currently the data source is sterling deposits brokered by contributing WMBA member firms.

2 The 2015 consultation response noted that the Bank would review whether other changes to the methodology for calculating SONIA were warranted, consistent with the objective of IOSCO Principle 10 (Periodic Review). Throughout this review the Bank has sought to minimise any changes, in order to maintain continuity with current SONIA wherever possible, while achieving the aim of strengthening SONIA.

3 One important change has resulted from this review. Reformed SONIA will be calculated as the volume-weighted median rate of eligible transactions, rather than the volume-weighted mean. The volume-weighted median is simple, robust to outliers, and sufficiently insensitive to erroneous or potentially manipulative trades.

4 The Bank has also reviewed the eligibility requirements for transactions to be included in SONIA and concluded that no change is necessary at this time.

5 Sections 2.1 to 2.3 provide more detail on these methodological issues, while **Table A** provides a summary of the characteristics of current and reformed SONIA.

Section 2.4 sets out proposed contingency arrangements in the event of short-term disruption to the production of SONIA, in line with international best practice.

2.1 Market activity and the scope of deposits

6 The market activity captured by SONIA will remain unsecured overnight deposits in the wholesale sterling money markets.

7 But, consistent with the Bank's 2015 consultation, this will be expanded to include bilaterally agreed, as well as brokered unsecured deposits. The source for these transaction data will be the Bank's SMM data collection, which is completed by the most active participants in the sterling money market.⁽¹⁾

8 Contributors to the Bank's SMM data collection are required to provide, on a daily basis, transaction data for all negotiated cash deposit transactions (borrowing only) denominated in sterling, with an original maturity of up to and including one year, accepted from participants classified as wholesale, or any counterparty not classified as retail or SME according to the Basel III Liquidity Coverage Ratio framework.

9 As a consequence of this change in the scope of transactions and data source, the geographical scope of SONIA-eligible trades will change slightly. Currently, SONIA includes all deposits brokered in London by contributing WMBA member firms. This can include transactions between counterparties who are outside of the United Kingdom or

Table A Summary of changes made in the reform of SONIA

Benchmark characteristic	Current SONIA	Reformed SONIA
Market activity captured	Unsecured wholesale sterling deposits	Unsecured wholesale sterling deposits
Scope of inputs and data source	Deposits brokered by contributing WMBA member firms in London, as reported to the WMBA	Deposits accepted by the most active banks in the sterling money markets, as reported to the Bank's SMM data collection
Geographical scope	Worldwide, but brokered in London	Transactions booked in EEA branches of SMM reporting institutions
Calculation of the average	Volume-weighted mean, rounded to 4 decimal places	Volume-weighted median, published to 4 decimal places
Minimum transaction size	£25 million	£25 million
Maturity and settlement arrangements	Overnight trades, settled same-day only	Overnight trades, settled same-day only
Transaction window	Midnight to 18:00 hours every London business day	Midnight to 18:00 hours every London business day

(1) The Bank has designed the SMM to capture 95% of total activity in the sterling money markets. For more information on the scope of and process for reporting, see www.bankofengland.co.uk/statistics/Documents/reporters/defs/instructions_smm.pdf.

Europe. Since the new data source will be the SMM data collection, the geographical scope of transactions will change to be all transactions booked in any European Economic Area (EEA) branches of those institutions which report the SMM. This change should have a negligible impact, since the Bank's analysis shows very few eligible transactions in current SONIA are booked outside of the EEA.

2.2 Measuring the average interest rate

10 The Bank has reviewed the appropriate method for measuring the average interest rate of transactions eligible for inclusion in reformed SONIA. We focused on three methods: volume-weighted mean; volume-weighted median;⁽¹⁾ and iterative methods of eliminating outliers from average rates (such as an iteratively trimmed volume-weighted mean).⁽²⁾

11 Three main considerations were used to assess these options: transparency; consistency with the current measure of SONIA; and sensitivity to erroneous or manipulative trades.

2.2.1 Transparency

12 Consistent with IOSCO Principle 9 (Transparency of Benchmark Determination), the Bank considers stakeholder understanding of the calculation methodology to be core to the transparency of benchmark determination. On these grounds the volume-weighted mean and median were preferred to iterative methods of eliminating outliers.

13 Both the volume-weighted mean and median have existing precedents for unsecured interest rate benchmarks: the volume-weighted mean is presently used in the SONIA methodology; and the volume-weighted median has recently been adopted by the Federal Reserve Bank of New York for the calculation of the Effective Federal Funds Rate and the Overnight Bank Funding Rate.⁽³⁾

2.2.2 Consistency with current SONIA

14 One key difference between these two measures of the average is that the volume-weighted mean is affected to a greater extent by transactions at outlying rates. As a result the measures may diverge somewhat when the underlying volume-weighted distribution of rates is skewed. In practice the skew of the distribution underlying SONIA has generally been small (currently negative, at times positive) over the past decade. However, over the sample available to date, the distribution underlying the SMM data has exhibited a somewhat larger negative skew than the equivalent distribution for SONIA.

15 The significant influence that transactions at outlying rates have on the volume-weighted mean may be undesirable if those transactions reflect factors that are not the intended focus of the benchmark. For example, the Bank's market intelligence suggests that the negative skew in the SMM data may reflect that some bilateral deposits are accepted at

relatively low rates as part of a broader bank-client relationship, rather than solely reflecting conditions in the market for overnight deposits. Similarly, on occasion banks may need to access the money market to manage unexpected (frictional) payment shocks — which may arise due to technical problems in their own systems or in the market-wide payments infrastructure — and these trades may also not reflect conditions in the broader money market.

16 In circumstances where it is considered undesirable for outliers to influence the rate appreciably, a volume-weighted median is preferred. That is particularly the case in the context of reformed SONIA, because — in view of the current skew in the SMM distribution — the volume-weighted median produces results which are more consistent with the existing measure of SONIA.

2.2.3 Sensitivity to erroneous or manipulative trades

17 The calculation methodology should be insensitive to erroneous or manipulative transactions. The Bank's analysis has confirmed that both the volume-weighted median and the volume-weighted mean are generally robust to being influenced by individual transactions of plausible size.

18 On a typical day in the sample period between February and September 2016, an erroneous trade over 100 times the size of the median trade size would have been required to impact the volume-weighted median rate by a whole basis point; an even larger trade would have been required to impact the volume-weighted mean by a whole basis point. Such trades would be highlighted through the Bank's plausibility analysis prior to publication and likely to be excluded if suspected to be erroneous.

19 As administrator of SONIA, the Bank monitors for manipulation through surveillance of the underlying transactions. The Bank has confidence that under either average measure, the types of transactions which would be required to materially impact the rate would be highlighted in this surveillance.

20 While both methodologies are sufficiently insensitive to marginal trades at plausible volumes and rates, the volume-weighted median is more robust to erroneous or unrepresentative trades at outlying rates.

2.2.4 Conclusion on measuring the average

21 In conclusion, the Bank's view is that a volume-weighted median is the appropriate measure of average rates for reformed SONIA. It is preferred because: it is simple to

(1) The volume-weighted median is calculated by sorting all the eligible transactions in rate order, lowest to highest; the rate is then taken on the transaction associated with the middle (50th percentile) of the cumulative volume.

(2) Volume-weighted averages were preferred to unweighted averages as they are more representative of deposit rates on the average or typical pound invested.

(3) See www.newyorkfed.org/markets/opolicy/operating_policy_150708.html.

understand; produces a rate more consistent with the existing measure of SONIA; is robust to outliers and unrepresentative trades; and is sufficiently insensitive to erroneous or potentially manipulative trades.

Question 1

Do you agree with the Bank's analysis, that a volume-weighted median is the preferred measure of SONIA?

22 Since the SMM data collection began in February 2016, the rates on the vast majority of transactions have been reported as a whole number of basis points. Since the volume-weighted median reflects the rate on the transaction at the centre of the (volume-weighted) distribution of transacted rates, it will also usually be a whole number of basis points.

23 Nevertheless the Bank will publish reformed SONIA to four decimal places, in line with current practice, so that on rare occasions where the median transaction is not at a whole number of basis points, the published rate can reflect that.

24 More broadly, it follows that the day-to-day behaviour of reformed SONIA will differ slightly from that of SONIA. Daily changes in reformed SONIA will usually be in whole basis point increments, with the rate unchanged on a significant number of days, whereas current SONIA is a more 'continuous' variable (notwithstanding that it is rounded to four decimal places). The Bank does not anticipate that this will pose problems for market participants, given that the overall properties of the reformed benchmark are similar to SONIA (Table 1 in Box 1). Moreover, the distribution of daily changes in (the expectation of) compounded term rates — which in most instances will be the variable of interest — is likely to be somewhat smoother.

25 An alternative approach would be to interpolate between the two transaction rates lying either side of the rate at the 50th percentile of the volume-weighted distribution, in order to generate a more continuous interpolated median. At this stage, such an approach is not preferred, since it would depart from the more broadly understood calculation and definition of a median.

Question 2

Do you anticipate any insurmountable problems arising as a result of reformed SONIA having more of the character of a discrete variable?

2.3 Transactions eligible for inclusion in SONIA

26 The Bank has reviewed the eligibility criteria for transactions to be included in the calculation of reformed SONIA, under three headings.

2.3.1 Settlement arrangements

27 SONIA currently includes transactions which are settled on the same day as their execution and mature the following business day — known as overnight trades. The Bank reviewed whether the scope of SONIA-eligible transactions should be expanded to include forward-starting transactions, which nevertheless have a one business day maturity (for example, trades that were agreed yesterday, settled today and mature tomorrow, known as tom/next trades, could be included in today's SONIA).

28 The Bank believes that, where they may occur, forward-starting trades might attract different rates to SONIA-eligible overnight trades, since they are affected by a different information set and reflect different market conditions. Moreover, within the unsecured SMM data, the occurrence of forward-starting trades is a negligible proportion of the total one-day maturity trades. The eligibility criteria for SONIA transactions will therefore remain overnight trades; that is, trades which are executed and settled on the same day, with maturity the following business day.

2.3.2 Minimum transaction size

29 SONIA currently includes transactions of £25 million or above. In reviewing the minimum trade size, the Bank has considered how best to strike a balance between maintaining consistency with current SONIA, ensuring aggregate input volumes remain high and robust, and ensuring that the transactions included are representative of conditions in overnight markets.

30 The Bank's analysis has shown that smaller trades tend to have lower rates that may be less representative of general conditions in the overnight deposit market. Setting a higher minimum size threshold tends to reduce the impact of these smaller deposits on the calculated average rate. But raising the minimum threshold also reduces the aggregate volumes underlying the rate. On balance, the Bank does not believe there is a strong case for changing the minimum transaction size for SONIA-eligible transactions and proposes it remain at £25 million.

2.3.3 Transaction window

31 The relevant transaction window for inclusion in SONIA is currently midnight to 18:00 each London business day.

32 The Bank has reviewed whether this transaction window remains appropriate for reformed SONIA, and concluded that it does. Beginning the window at midnight ensures that eligible trades reflect information available on one particular day; and it is natural for the window to be bounded by the closing time of the Real-Time Gross Settlement system at 18:00, after which no further sterling payments can be made. Therefore, the transaction window for SONIA-eligible trades will remain midnight to 18:00 each London business day.

Question 3

Do you agree that the set of transactions eligible for inclusion in SONIA should remain same-day settled, overnight maturity transactions, with a minimum size of £25 million, conducted between midnight and 18:00 each London business day?

2.4 Short-term contingency methodology

33 In line with Principle 1 of the IOSCO Principles (Overall Responsibility of the Administrator), the Bank is implementing robust and resilient systems and processes for the calculation of SONIA, with appropriate contingency procedures in place.

Nevertheless, as an ultimate backstop in the event of a disruption to the normal production of SONIA, a rate would be published, using a contingency methodology based on historical published data.

34 The Bank is currently reviewing different options for the contingency calculation methodology, which would need to take account of the potential for changes in Bank Rate and their likely effect on SONIA. The Bank's initial thinking has focused on a methodology based on Bank Rate with the addition of an average of the spread to SONIA over some recent period.

35 For transparency, the Bank will confirm these arrangements for short-term contingency scenarios, as well as arrangements in the case of insufficient data availability, in early 2017. These policies will be reviewed periodically in order to account for any changes in market conditions.

Question 4

Do you have any views on how the contingency methodology should be constructed?

3 The definition of SONIA and its evolution

1 The Bank has reviewed the current definition of SONIA reflecting the reforms outlined in the preceding section, and in light of international best practice for benchmark administration.

2 International regulatory best practice places a duty on benchmark administrators to have in place procedures for the future evolution of benchmarks. In particular, Article 11 (input data) and Article 28 (changes to and cessation of a benchmark) of the EU BMR require that benchmark administrators maintain a procedure for actions to be taken in the event of changes to a benchmark. In addition, IOSCO Principle 10 (Periodic Review) recommends that benchmark administrators review conditions in the underlying market to determine whether changes to the design of the methodology may be warranted.

3 Accordingly, the Bank's approach is to define SONIA in such a way as to facilitate evolution of the benchmark in future, if that were to become necessary, without disruption to contracts referencing it. In particular, we find it useful to consider the definition of SONIA in two distinct parts:

- a **definition of the underlying interest of SONIA**, intended to be an enduring statement of the economic concept that SONIA seeks to measure;⁽¹⁾ and
- a **statement of the methodology of SONIA**, which describes how the specified underlying interest is currently to be measured, outlining the relevant data inputs and the relevant method of calculation.

4 The role of the 'underlying interest' element of the definition is to act as a conceptual anchor for SONIA, providing users with some certainty over the nature of their economic exposure when using SONIA, while allowing for any future process of benchmark evolution. In contrast, the methodology used to measure the specified underlying interest may be subject to change, under certain specified conditions.

5 The WMBA currently defines SONIA as follows:⁽²⁾

SONIA is the Sterling Overnight Index Average (SONIA). This index tracks actual market overnight funding rates.

SONIA is the weighted average rate to four decimal places of all unsecured sterling overnight cash transactions brokered in

London by contributing WMBA member firms between 00:00 hours and 18:00 hours UK time with all counterparties in a minimum deal size of £25 million.

The index is a weighted average overnight deposit rate for each business day. Each rate in the average is weighted by the principal amount of deposits which were taken on that day.

6 The following subsections introduce and seek views on the Bank's proposed revision to the SONIA definition by detailing: the proposed definition of underlying interest; the proposed statement of methodology; and the proposed process which would govern the evolution of the methodology. The final subsection notes that changes to the arrangements for the administration of SONIA necessitate a change to the definitions of SONIA in standard form financial contracts.

Question 5

Do you agree with the Bank's proposed structure for the definition of SONIA, which separates the definition of the underlying interest from the statement of the methodology?

3.1 Definition of the underlying interest

7 The WMBA provides a high-level description of SONIA:

SONIA is the Sterling Overnight Index Average (SONIA). This index tracks actual market overnight funding rates.

8 We propose to replace this with a more explicit definition of the underlying interest. In doing so the Bank has had regard to the main uses of SONIA, specifically: as a reference rate in interest rate derivatives contracts; as a rate for the remuneration of cash collateral; and as a reference point for the standard sterling discount curve. In all of these applications, SONIA is used as a proxy for near risk-free interest rates. In this context 'near risk-free' refers to interest rates where the influence of liquidity, credit and other risk premia are minimal.

(1) The definition of underlying interest is analogous to the concept of a 'market or economic reality that a benchmark is intended to measure', as used throughout the EU BMR.

(2) See www.wmba.org.uk/pages/index.cfm?page_id=31&title=sonia.

9 As such, the Bank's proposed definition of the underlying interest of SONIA is:

SONIA is a measure of the rate at which interest is paid on sterling overnight wholesale funds in circumstances where credit, liquidity and other risks are minimal.

Question 6

Do you agree with the Bank's proposed definition of the underlying interest of SONIA?

3.2 Statement of methodology

10 Section 2 described in detail the Bank's proposed reforms to the methodology for calculating SONIA. These changes necessitate a revision to the part of the current SONIA definition that describes the methodology.

11 Accordingly, the Bank proposes that the underlying interest of SONIA be measured according to the following statement of methodology:

SONIA is measured as the volume-weighted median of the interest rates on unsecured wholesale one business day maturity deposit transactions in sterling, settled same-day, as reported to the Bank's Sterling Money Market data collection, executed between 00:00 hours and 18:00 hours UK time, with a minimum transaction size of £25 million.

Question 7

Do you agree that the Bank's proposed description of the methodology for calculating SONIA appropriately reflects the methodology proposed in Section 2?

3.3 Evolution of the methodology

12 Developments in the structure of the market from which input data are collected — in the case of SONIA, the market in unsecured overnight wholesale deposits — cannot be predicted with certainty. In turn, the very long-term integrity of a benchmark methodology which relies on that input data cannot be assured.

13 For instance, the overnight unsecured sterling deposit market is currently functioning well. Activity as measured by the Bank's SMM data collection shows robust volumes, more than sufficient to support a robust benchmark. However, unforeseen changes in market structure or functioning in the future may mean that this is not always the case.

14 One example of a benchmark evolving in response to developments in market structure is the ISDAFix benchmark —

now known as the ICE Swap Rate. This was previously measured using quotes on interest rate swaps taken from contributing banks at a point in time. Over recent years, the interest swap rate market has developed to be traded on electronic trading venues. As a result, the new ICE Swap Rate benchmark has been evolved to be calculated based on executable quotes sourced from a number of regulated electronic trading venues.

15 This process of evolution is consistent with Article 11 (input data), Article 28 (changes to and cessation of a benchmark) of the EU BMR and Principle 12 of the IOSCO Principles (Changes to the Methodology).

16 Therefore, to allow for evolution in the SONIA methodology, the Bank is proposing the following process by which such changes would be made, and the trigger for this process.

17 The Bank, as administrator of SONIA, will periodically review conditions in the unsecured wholesale deposit market in order to determine whether it has undergone structural change that may warrant changes to the methodology for measuring the benchmark.

18 In reviewing the market, the Bank will seek to determine whether the current methodology continues to adequately measure the underlying interest, and whether the unsecured deposit market continues, and is expected to continue, to function well enough to form the basis for a robust and credible benchmark. The Bank may also take into account comments or representations from users of SONIA, contributors to the SMM data collection, or other information gleaned through the Bank's broader market intelligence gathering, as to the possible need for changes in the SONIA methodology.

19 Should the Bank determine that: the current methodology no longer accurately measures the underlying interest of SONIA; or declining volumes in the underlying market on which the methodology relies means there is likely to be insufficient data upon which to reliably calculate a robust benchmark, the Bank may make any changes to the methodology it considers necessary in order to address any issues that it has identified. This may include having reference to interest rates on other actively traded money market instruments, such as UK-gilt collateralised repurchase agreements, or indeed policy rates implemented by the Bank, so long as they are deemed to provide an appropriate measure of the specified underlying interest.

20 The Bank would consult with users of the benchmark before making any material change to the detailed methodology, to the extent possible or practical.

Box 2

Proposed definition of SONIA

Definition of underlying interest

SONIA is a measure of the rate at which interest is paid on sterling overnight wholesale funds in circumstances where credit, liquidity and other risks are minimal.

Statement of methodology

SONIA is measured as the volume-weighted median of interest rates on unsecured wholesale one business day maturity deposit transactions in sterling, settled same-day, as reported to the Bank's Sterling Money Market data collection, executed between 00:00 hours and 18:00 hours UK time, with a minimum transaction size of £25 million.

It should be understood that this statement of methodology may change in accordance with the 'Process for evolution of methodology' below.

Short-term contingency arrangements

In the event that the administrator is not able to publish SONIA using the above methodology, for example due to a business continuity event, the administrator will publish SONIA [in accordance with the final policy to be set out in the response to this consultation, as noted in Section 2.4].

Process for evolution of methodology

The administrator will periodically review conditions in the relevant market in order to assess whether that market has

undergone or is undergoing structural change that may warrant changes to the benchmark methodology. In doing so, the administrator will seek to determine whether the current methodology continues to adequately measure the underlying interest, and whether the relevant market continues, and is expected to continue, to function sufficiently well and have sufficient volumes to form the basis for a robust and credible benchmark. The administrator may take account of representations from users of SONIA as to the possible need for changes in the methodology.

If the administrator determines, on the basis of its review, that changes to the benchmark methodology are warranted, it may make such changes as it reasonably considers necessary in order to address any issues that it has identified. If the administrator reasonably considers it necessary, such changes may include introducing a methodology which has reference to other actively-traded money market instruments, for example UK-gilt collateralised repurchase agreements, or the Bank of England Bank Rate, so long as the administrator considers that they provide an appropriate measure of the underlying interest.

To the extent possible or practicable, before making any material change the administrator will consult with persons affected by the change.

21 The Bank anticipates that this mechanism for evolution would be incorporated into the definition of SONIA, alongside the statements of underlying interest and methodology. For the full proposed definition of SONIA, see Box 2.

Question 8

Do you agree with the Bank's proposed approach to facilitating the evolution of SONIA, and that this should be specifically incorporated into the definition of SONIA?

3.4 Definition of SONIA in financial contracts

22 The above section set out how the Bank, as administrator, intends to define reformed SONIA. But we note that SONIA is separately defined as part of the (standard) terms of many financial contracts, in particular for interest rate derivatives, including in the OIS market. It is also defined for the purpose of paying interest on cash collateral or margin balances for many derivatives, as detailed in Credit Support Annexes.

23 As a result of the Bank taking on the administration of SONIA, it may be that some definitions in financial contracts need to be amended. In particular, the current definition of SONIA contained in the ISDA Definitions 2006 ('GBP-WMBA-SONIA-COMPOUND') refers to the WMBA as the administrator.

24 The Bank is working with ISDA to ensure that current ISDA Definitions are amended to reflect the change of administrator. At this point, subject to ongoing review, ISDA does not anticipate any other changes being required to its standard documentation as a result of the broader reform of SONIA and they will publish guidance to users of derivatives through their usual channels in due course. ISDA notes that users should continue to review documentation in light of any amendments made.

Question 9

Are there any other standard form contractual definitions of SONIA which may need to be amended in light of the Bank's reforms?

4 The transition to reformed SONIA

1 This section presents the Bank's proposed approach to transitioning from existing SONIA to reformed SONIA, and seeks feedback from users. The transition involves both the changes in methodology described in previous sections, and a change in the timing of the publication of SONIA to the following day.

2 As noted in the 2015 consultation response, a consequence of the Bank using its new SMM data collection is that it will not be possible to continue to publish SONIA shortly after the close of the sterling money markets as is currently the case. Instead the Bank will publish SONIA at 09:00 on the London business day following that to which the rate pertains.

3 The following subsections set out the overall mechanics of the proposed transition; the Bank's proposals regarding the management of any operational risks related to the change in publication to the following day; and the proposed timetable for the transition process.

4.1 Mechanics of the transition

4 The Bank's proposed approach to the transition from current SONIA to reformed SONIA is for a simple point-in-time switchover at a pre-specified date; T_S . The Bank believes that this mechanism for transition is the cleanest and simplest.

5 On the day before the switchover day ($T_S - 1$), SONIA will be published using the current set of inputs and calculation methodology; on the switchover day T_S , SONIA will move to a next-day publication basis, so no index is published on T_S . On the following day, $T_S + 1$, the SONIA index relating to T_S is published, using the broader inputs and new calculation methodology. This approach is summarised in **Table B**.

Table B Proposed mechanics of the transition to reformed SONIA

Day before switch ($T_S - 1$)	Day of switch (T_S)	Day after switch ($T_S + 1$)
SONIA produced and published for day $T_S - 1$ by the WMBA using current inputs and methodology.	Data collected by the Bank for calculation of reformed SONIA. No SONIA rate is published.	Reformed SONIA is published for day T_S by the Bank.

Question 10

Do you agree with the proposed approach to transition?

Question 11

What alternatives to a point-in-time transition could be considered?

4.2 Moving publication of SONIA to the following day

6 The Bank is working closely with the users of SONIA to ensure the transition to next-day publication proceeds smoothly. The 2015 consultation response identified a number of potential impacts of this change, and an update is provided below.

7 The deferral of SONIA publication to the next day has some implications for central counterparties (CCPs) and their processes for payment of interest on margin balances (eg Price Alignment Interest (PAI)). Specifically, it will no longer be possible to use a given day's SONIA as an input at the current point of the calculation of the PAI to be exchanged in respect of that day. LCH.Clearnet Ltd, the largest CCP in sterling fixed-income markets, has indicated to the Bank that this situation is not without precedent, and there are a number of potential solutions. They are in the process of considering the implications for their internal processes, along with a possible need to consult with their members, but are confident of their ability to have solutions in place which conform to the planned timetable.

8 ISDA's Rates Market Infrastructure Group has been considering the impact on the calculation of the floating-leg payment of sterling OIS. In particular it is examining whether settlement can still occur on T+1, as is current practice, or whether firms would prefer to defer settlement to T+2. Feedback to date has been split between these two positions. ISDA anticipates its members will reach a consensus on an approach to adopt prior to the implementation of the change. Any such consensus will be communicated via a guidance note published on the ISDA website — subject to agreement from ISDA member firms.

9 The Bank recognises that SONIA is also used for firms' internal pricing and accounting and is working with data vendors and users to ensure they are aware of the change in publication time, so that operational processes can be amended as appropriate.

Question 12

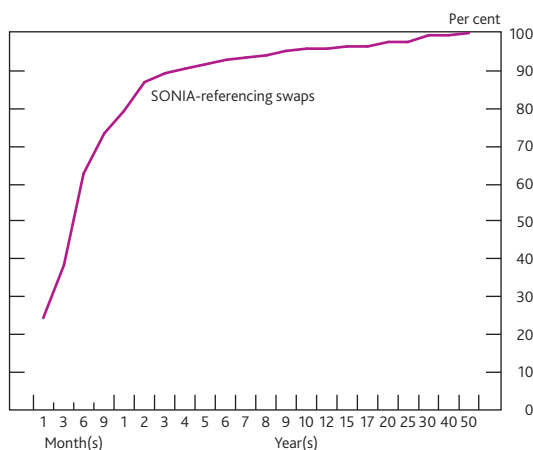
Are there any further operational or other issues which the Bank needs to consider prior to the implementation of the change to publication day?

4.3 Timetable for the transition

10 In setting a proposed timetable for transition to reformed SONIA, the Bank has considered how the impact on existing contracts of the proposed methodological changes can be appropriately managed.

11 Two key uses of SONIA are as the standard reference rate for the sterling OIS market, and as a reference rate in Libor-OIS and Bank Rate-OIS basis swaps. **Chart 1** shows the notional amounts of existing SONIA OIS and basis swap transactions outstanding for different maturities. Nearly 70% of the total £7.7 trillion notional outstanding amounts of SONIA-referencing derivatives contracts will mature within nine months, and 75% will mature within twelve months.

Chart 1 Residual maturity of outstanding SONIA-referencing swap contracts



Sources: The Depository Trust & Clearing Corporation, UnaVista Trade Repository and Bank calculations.

12 By providing advance notice of the final changes that will be made to SONIA, the Bank can ensure that the majority of existing contracts at the point of switchover will have been agreed with knowledge of the forthcoming reforms. The Bank judges that a minimum nine-month notice period best balances the objective of minimising any possible impact on existing contracts, against the imperative to proceed with the reform process.

Question 13

Do you agree that the notice period for transition should be at least nine months?

13 The response to this consultation, confirming the methodological changes to SONIA, will be published in early 2017. The Bank therefore intends to make the switch to reformed SONIA in 2017 Q4, following a nine month notice period.

14 The Bank's intention is to confirm the relevant month for transition in its consultation response. We propose to announce the specific date for the switch to reformed SONIA with at least six months' notice.

Question 14

Do you agree with the Bank's approach of specifying the relevant month in its response to this document, and subsequently confirming the precise date at least six months in advance?

15 We are also seeking feedback on whether there are particular dates which should be avoided or indeed targeted. For example, it may be appropriate for International Money Market (IMM) dates, Monetary Policy Committee decision dates, or end-of-month dates, to be avoided. By contrast, it may be helpful for the switchover to be made over a weekend; ie T₅ would be a Monday.

Question 15

Are there any specific dates, or market events, which the Bank should seek to avoid, or target, in choosing the specific date for the implementation of these reforms?

5 Publication and licensing issues

1 This section outlines the Bank's plans to issue licenses in order to recover the costs of producing SONIA. It also sets out the information to be published on a daily basis alongside the SONIA rate, and presents proposals for the republication policy. It briefly sets out the Bank's plans for publishing data collected under the broader SMM data collection.

5.1 Recovering costs of producing SONIA

2 The daily production of a benchmark using the SMM data introduces costs for the Bank. At the same time, SONIA provides a broad benefit to many market participants, as well as a specific benefit to some users; for example, market infrastructure firms and market data providers.

3 The Bank charges for the provision of other services where clearly defined end-users and the beneficiaries of those services can be identified. Examples of this include charging for access to the Real-Time Gross Settlement (RTGS) system and for gold custodial services. This approach to charging prevents discrete services, which benefit a narrow group, being subsidised by wider Bank funding mechanisms or the taxpayer.

4 The Bank will therefore charge users who wish to receive SONIA data on a timely basis directly from the Bank — consistent with the WMBA's current approach for publishing SONIA — in order to recover its costs in producing the benchmark.

5 However, SONIA will remain freely available to the public, via the Bank of England's Interactive Statistical Database, with an appropriate time lag.⁽¹⁾

6 Bloomberg and Thomson Reuters will continue to publish SONIA under license, so those who currently access it on a timely basis via those data vendors will retain access. For other users requiring timely access to SONIA, the Bank will issue licenses depending on the type of usage. Provision of licenses will be consistent with the principles of Fair, Reasonable and Non-Discriminatory Access (FRAND) set out by the FCA, in respect of regulated benchmarks.⁽²⁾

7 This means that the type of license — and therefore the cost of that license — will vary depending on the intended usage. The structure of the licensing is yet to be finalised, but we expect licenses will distinguish between the following types of usage:

- for enterprise-wide distribution;
- for the purpose of valuation and/or price alignment for financial contracts;
- the creation of indices or financial products; and
- internal and private use only.

Question 16

Are there any other types of SONIA usage which the Bank should consider in its approach to licensing?

8 Any users of SONIA who believe they will need a license are encouraged to contact the Bank as soon as possible. This includes users who currently have licenses provided by the WMBA for the use of current SONIA.

Contact should be made to **benchmarkadministration@bankofengland.co.uk**, separately to any response provided to this consultation.

5.2 Plans for the daily publication of SONIA data

9 The Bank will publish SONIA to licensed users each London business day at 09:00 on the business day following that to which the rate refers.

10 Separately, the rate will continue to be freely available on the Bank's interactive database from 09:30 two London business days after the day to which the rate refers.

11 As an example, Friday's rate will be made available to licensees at 09:00 on Monday and on the Bank's interactive database at 09:30 on Tuesday, assuming no public holidays. In the case of Monday being a Bank Holiday, Friday's rate would be made available to licensees on Tuesday at 09:00 and on the Bank's interactive database on Wednesday at 09:30.

12 Alongside the headline daily SONIA rate, the Bank intends to publish summary statistics of the distribution of transacted rates. In considering the appropriate statistics to publish, the Bank must balance the importance of transparency of data inputs to the benchmark calculation against the concern that

(1) See www.bankofengland.co.uk/boeapps/iadb/newintermed.asp.

(2) See www.fca.org.uk/publication/policy/ps16-04.pdf.

the full data set could otherwise inform prospective manipulators of the benchmark, as well as allow the potential disclosure of individual institutions' contributed data.

13 As such, the Bank will not publish aggregate volumes for each transacted rate as is currently the case. Instead, the Bank proposes to publish the 10th, 25th, 75th and 90th percentile rates alongside the headline rate each day, as an indication of the overall distribution of rates.

14 In addition, the Bank will publish the daily total volume of transactions used in that day's calculation. An example of the Bank's proposed daily publication is available in **Table C**.

Table C Example publication for SONIA^(a)

Date	10 October 2016
SONIA	0.2500%
Aggregate volumes	£35,000 million
10th percentile	0.2000%
25th percentile	0.2400%
75th percentile	0.2600%
90th percentile	0.3000%

(a) All data contained are illustrative.

Question 17

Are you content with the data proposed to be published daily alongside the SONIA rate?

5.3 Policy for republication of SONIA

15 The daily production of SONIA will involve data validation and plausibility checking of SONIA-eligible transactions from 07:00 each morning in preparation for publication of the benchmark at 09:00. During this time, the Bank will raise queries with reporting institutions where appropriate. This provides the Bank an opportunity to confirm any trades suspected to be erroneous ahead of publication.

16 By 2017 Q4, the SMM data collection will have been running for at least fifteen months. The Bank therefore has a high level of confidence that the inputs to the SONIA benchmark will be accurate. However, the Bank recognises that reporting errors cannot be avoided entirely. Therefore we intend to publish a clear policy regarding the procedure for any republication of SONIA, in the event that data errors are discovered.

17 In designing the policy for republication, the Bank recognises that there is a trade-off between accuracy and timeliness of SONIA. Specifically, once SONIA has been published, we anticipate that payments will be made based on

the rate, so any subsequent changes to the published SONIA would in turn affect those payments. As such, the Bank expects that it may be unhelpful to publish an updated benchmark for every occasion that an error is found, or an amendment to previously reported data is made.

18 As with current SONIA, the Bank proposes a threshold for republication of the benchmark, based on the impact of the error on the published rate. Currently, the WMBA republishes SONIA if the correction of an error results in a change to the published rate of at least 1 basis point.

19 In the Bank's view, the change to a volume-weighted median methodology for calculating SONIA, combined with the fact that most transacted rates are at whole basis points, warrants a revision to this threshold. That is because, on a minority of days, a relatively small change in the underlying distribution could cause a move of 1 basis point. Because a 1 basis point revision would be relatively more likely, the Bank is proposing that SONIA would not be republished unless the correction of an error resulted in a change of two or more basis points in the headline rate.

Question 18

Do you agree that it is appropriate to set the republication threshold at two or more basis points?

20 As well as a threshold for republication, the current SONIA republication policy also includes a deadline: amendments are only republished where an error has been identified at least two hours prior to the subsequent publication on the following London business day.

21 The Bank believes that for reformed SONIA, having a republication deadline later in the same day as the original publication provides the greatest certainty for users of the benchmark.

22 Such a deadline should allow users to make any necessary adjustments to payments related to SONIA-referencing contracts, ahead of the scheduled closure of the RTGS system. Therefore, the Bank is proposing a republication deadline two hours before the scheduled closure of RTGS on the same day as publication; ie 16:00.

Question 19

Is it helpful to place a deadline on potential republications and is 16:00 appropriate?

23 In addition, for further clarity, the Bank is proposing that any necessary republication would only be made at a specific time each day, rather than at the earliest opportunity.

Question 20

Would you prefer that any republications are published at the earliest opportunity or at a set point in time (ie 16:00)?

24 The SONIA republication policy will be confirmed in early 2017, alongside confirmation of the reformed SONIA methodology. It will be reviewed periodically thereafter.

5.4 Publication of other SMM data

25 The data used for reformed SONIA are only part of the Bank's SMM data collection. The SMM data collection captures, via a suite of forms, all activity in the sterling secured and unsecured money markets, from overnight to one-year maturity.

26 An annual return collects high-level activity metrics from all UK banks, building societies and major investment firms. This provides a comprehensive overview of the markets, and is used to identify the most active participants in key money market segments, and thus which participants are required to report daily transactions data.

27 The daily return captures transaction-level information from the most active participants, covering the most significant segments of the sterling money markets. Further, these most active participants provide turnover data for

segments of the sterling money markets which are not captured in their daily data.

28 The 2015 consultation outlined the primary uses of these data: helping the Bank to meet its monetary policy and financial stability objectives. As well as improving the information available to the Bank, these data will also be used to inform public understanding of conditions in the sterling money markets.

29 The Bank will regularly publish summary statistics compiled from the SMM data collection on its website. This will include, for example, volumes of: unsecured transaction flows, broken down by maturity bands; and secured transaction flows, broken down by maturity bands, transaction type and collateral type.

30 Box 3 provides a brief overview of the data from the secured money markets, as reported to the SMM.

Question 21

If you envisage being a user of the SMM data, are there particular market segments you would find of special interest?

Question 22

If you are a user of currently published data on the sterling money markets — such as the MMLC Survey Report⁽¹⁾ or Bankstats table D3.1⁽²⁾ — please describe your usage of the data.

(1) See www.bankofengland.co.uk/publications/Pages/other/mmlg/default.aspx.

(2) See www.bankofengland.co.uk/statistics/Documents/bankstats/2016/aug/tabd3.1.xls.

Box 3

SMM data collection: measuring the gilt repo market⁽¹⁾

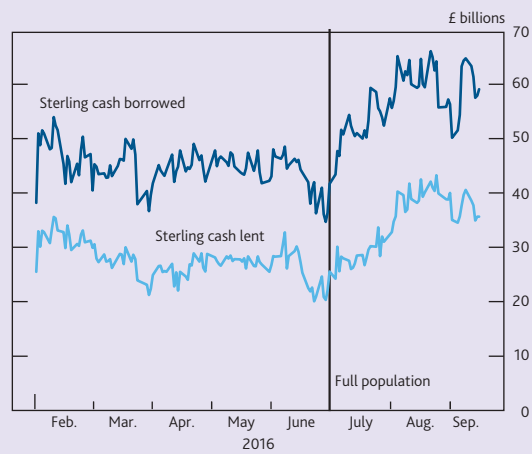
The SMM data set includes transaction-level data on participants' activity in the secured money markets, alongside that for the unsecured money markets. In particular, the scope of transactions captured includes repurchase and reverse repurchase agreements secured against British Government-issued collateral; known as gilt repo.

In the 2015 consultation, the Bank noted that it did not intend to produce an interest rate benchmark based on the secured money markets, but would continue to monitor developments in this area. The SMM data collection shows that the Bank is collecting significant volume of daily activity in the gilt repo market (Chart A).

The Bank continues to believe that there is scope for a secured benchmark with broad market coverage to be produced in the private sector since data on secured transactions are, in principle, available from trading, clearing and settlement systems.

Indeed, since the publication of that consultation, one additional secured money market benchmark has begun to be produced: the ICAP Repo Index Rate.⁽²⁾ Other index providers have expressed to the Bank-initiated Working Group for Sterling Risk-Free Reference Rates their interest in producing a secured money market benchmark.⁽³⁾

Chart A Daily volumes of overnight borrowing and lending sterling cash, secured against UK-government securities^(a)



Sources: Bank of England and Bank calculations.

(a) The Bank estimates that daily volumes are, as a minimum, represented by total sterling cash borrowed: around £60 billion. Total sterling cash lent will include some double counting caused by transactions conducted between SMM reporting institutions, which the Bank intends to disentangle in due course. As such, the series as presented may sum to more than total market size.

- (1) See Chapter 1 of the SMM Reporting Instructions: www.bankofengland.co.uk/statistics/Documents/reporters/defs/instructions_smm.pdf.
- (2) See www.icapindices.com/icap-indices/money-markets/sterling-repo-index-rate-rii/.
- (3) See www.bankofengland.co.uk/markets/Documents/sterlingoperations/rfr/2016/minutes30june16.pdf.

6 Next steps

1 The questions on which the Bank would like specific feedback are highlighted throughout the relevant sections of this consultation document and summarised in the annex. Respondents should provide answers by visiting the online survey page.⁽¹⁾ Space is provided to allow for any additional views not covered in specific questions. Responses and feedback are invited by 31 December 2016.

2 If you have any general queries relating to this consultation, please email the Bank at:

benchmarkadministration@bankofengland.co.uk

3 Responses to this document are intended to be published on the Bank's website. If respondents would like their comments to be treated as anonymous or confidential (and hence to not be published) they should contact the Bank using the above email address, to discuss in what form to provide their response.

4 Where respondents provide a response — either via the online survey or direct to the Bank by arrangement — which includes information to be treated as confidential, they should clearly indicate the information provided which should be treated as such. If a request for disclosure is subsequently received, in accordance with access to information regimes under the Freedom of Information Act 2000 or the Data

Protection Act 1998, respondents' indications will be taken into account, but no assurance can be given that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by a respondent's IT system on emails will not, of itself, be treated as constituting notice that such respondent regards any information supplied as confidential.

5 The Bank intends to provide its summary and response to feedback received during this consultation in early 2017. This response will include:

- publication of individual responses to this consultation and a summary of these;
- confirmation of the reformed SONIA methodology and definition;
- an update of the indicative reformed SONIA data; and
- an update on the transition date and the intended mechanics of transition.

6 Prior to the transition to reformed SONIA, the Bank will publish additional information, in line with international regulatory best practice for benchmark administration, including: the design of its SONIA governance arrangements and, incorporating any feedback from this consultation, the SONIA publication and contingency policies.

(1) See app.keysurvey.co.uk/f/1073409/2699/.

Annex List of questions⁽¹⁾

Question 1

Do you agree with the Bank's analysis, that a volume-weighted median is the preferred measure of SONIA?

Question 2

Do you anticipate any insurmountable problems arising as a result of reformed SONIA having more of the character of a discrete variable?

Question 3

Do you agree that the set of transactions eligible for inclusion in SONIA should remain same-day settled, overnight maturity transactions, with a minimum size of £25 million, conducted between midnight and 18:00 each London business day?

Question 4

Do you have any views on how the contingency methodology should be constructed?

Question 5

Do you agree with the Bank's proposed structure for the definition of SONIA, which separates the definition of the underlying interest from the statement of the methodology?

Question 6

Do you agree with the Bank's proposed definition of the underlying interest of SONIA?

Question 7

Do you agree that the Bank's proposed description of the methodology for calculating SONIA appropriately reflects the methodology proposed in Section 2?

Question 8

Do you agree with the Bank's proposed approach to facilitating the evolution of SONIA, and that this should be specifically incorporated into the definition of SONIA?

Question 9

Are there any other standard form contractual definitions of SONIA which may need to be amended in light of the Bank's reforms?

Question 10

Do you agree with the proposed approach to transition?

Question 11

What alternatives to a point-in-time transition could be considered?

Question 12

Are there any further operational or other issues which the Bank needs to consider prior to the implementation of the change to publication day?

Question 13

Do you agree that the notice period for transition should be at least nine months?

Question 14

Do you agree with the Bank's approach of specifying the relevant month in its response to this document, and subsequently confirming the precise date at least six months in advance?

Question 15

Are there any specific dates, or market events, which the Bank should seek to avoid, or target, in choosing the specific date for the implementation of these reforms?

Question 16

Are there any other types of SONIA usage which the Bank should consider in its approach to licensing?

Question 17

Are you content with the data proposed to be published daily alongside the SONIA rate?

Question 18

Do you agree that it is appropriate to set the republication threshold at two or more basis points?

Question 19

Is it helpful to place a deadline on potential republications and is 16:00 appropriate?

Question 20

Would you prefer that any republications are published at the earliest opportunity or at a set point in time (ie 16:00)?

Question 21

If you envisage being a user of the SMM data, are there particular market segments you would find of special interest?

Question 22

If you are a user of currently published data on the sterling money markets — such as the MMLC Survey Report or Bankstats table D3.1 — please describe your usage of the data.

(1) Responses should be provided by visiting the online survey page; app.keysurvey.co.uk/f/1073409/2699/.