

# ICE BENCHMARK ADMNISTRATION STATEMENT OF COMPLIANCE WITH THE EU BENCHMARKS REGULATION AND INDEPENDENT ASSURANCE

#### Introduction

Access to accurate, reliable information is essential to the integrity and everyday functioning of global markets and the economies which they support. Benchmarks form a vital part of this ecosystem, helping market participants to assess the value of assets and make informed business decisions with confidence.

<u>ICE Benchmark Administration Limited (IBA)</u> is one of the world's most experienced administrators of regulated benchmarks, currently administering:

- ICE LIBOR also known as LIBOR, a widely used benchmark for short term interest rates;
- ICE Swap Rate (formerly known as ISDAFIX) the principal global benchmark for swap rates and spreads for interest rate swaps; and
- <u>The LBMA Gold and Silver Prices</u> the global benchmark prices for unallocated gold and silver in London.

IBA also operates the <u>ISDA SIMM Crowdsourcing Facility</u> — a facility to aggregate and publish asset risk data for use in ISDA SIMM (Standard Initial Margin Model) margin calculations.

IBA is leading the way in benchmark administration and reform, operating to the highest standards of data collection, calculation, publication and surveillance whilst evolving benchmarks to ensure they remain robust, relevant and representative. Through comprehensive internal governance and independent benchmark oversight functions, IBA is able to provide market participants with confidence in the information they receive.

This document provides some background to IBA, an overview of the BMR and of LIBOR, ICE Swap Rate and the LBMA Gold and Silver Prices (the Benchmarks) which IBA administers. It also presents a statement of IBA's compliance (a Statement of Compliance) with the applicable requirements of the EU Benchmarks Regulation (EU) 2016/1011 of 8 June 2016) (the BMR). In the Statement of Compliance, IBA describes the relevant control objectives and procedures for the Benchmarks.

IBA has appointed Ernst & Young LLP (EY) to provide independent assurance regarding IBA's Statement of Compliance that the control procedures relating to the applicable requirements of the BMR and the applicable benchmark methodologies have been adhered to in respect of the four Benchmarks. EY have concluded that nothing has come to their attention to indicate the control procedures were not fairly stated or that the calculation of the four Benchmarks had not been in compliance with the benchmark methodologies as at 30 November 2018. Both of EY's independent assurance reports are also presented herein.

#### **Background to IBA**

IBA, a private limited company registered in England, is an independently capitalised subsidiary of Intercontinental Exchange, Inc. (ICE) with a majority independent board comprised of both independent



non-executive and executive directors. IBA has entered into contractual outsourcing arrangements with members of the ICE group for the provision of certain services, such as: technology solutions; finance; legal; and human resources.

IBA is authorised and regulated by the Financial Conduct Authority (FCA) to carry out the Regulated Activity of "administering a benchmark" and has been authorized as an administrator under the the BMR since April 2018. In accordance with applicable law and regulation, IBA has established and maintains oversight committees in respect of its Benchmarks, which include representation from: participants in the relevant market; applicable industry bodies; benchmark contributors; and applicable infrastructure providers.

IBA was established to administer financial benchmarks and provide related services to the highest standards using the most advanced technology. IBA's systems infrastructure has been designed and purpose-built to facilitate: input data collection, benchmark calculation, publication and dissemination, and surveillance and validation. It is highly automated, resilient, user-friendly and secure. IBA's systems are fully auditable, with extensive back-up arrangements to allow for continued operation through disruptive events.

#### Overview of the BMR

The BMR regulates the provision of, contribution to, and use of, a wide variety of benchmarks. It entered into force on 30 June 2016, with most provisions applying from 1 January 2018.

The BMR introduced a common framework and consistent approach to benchmark regulation across the EU. It aims to ensure benchmarks are robust and reliable, and to minimise conflicts of interest in benchmark-setting processes.

Recital (6) of the BMR sets out its overarching purpose in regulating the provision of, contribution to and use of benchmarks:

"[...] in order to ensure the proper functioning of the internal market and improve the conditions of its functioning, in particular with regard to financial markets, and to ensure a high level of consumer and investor protection, it is appropriate to lay down a regulatory framework for benchmarks at Union level."

The BMR groups benchmarks into the following categories depending on certain defined criteria, with the categorisation determining those provisions of the BMR which apply to the administration of, contribution to, and use of, the relevant benchmark: Critical benchmarks; Significant benchmarks; Non-Significant benchmarks; Commodity benchmarks; Interest Rate benchmarks; and Regulated-Data benchmarks.

#### Overview of IBA's Benchmarks

## <u>LIBOR</u>

LIBOR is a widely used benchmark for short-term interest rates, providing an indication of the average rates at which LIBOR panel banks (Contributor Banks) could obtain wholesale, unsecured funding for set periods in particular currencies.



Used globally, LIBOR is often referenced in derivative, bond and loan documentation, and in a range of consumer lending instruments such as mortgages and student loans. It is also used as a gauge of market expectation regarding central bank interest rates, liquidity premiums in the money markets and, during periods of stress, as an indicator of the health of the banking system.

It is produced for five currencies (CHF, EUR, GBP, JPY and USD) and seven tenors (Overnight/Spot Next, 1 Week, 1 Month, 2 Months, 3 Months, 6 Months and 12 Months) based on submissions from a reference panel of between 11 and 16 Contributor Banks for each currency, resulting in the publication of 35 rates every applicable London business day.

Contributor Banks' submissions for each currency and tenor combination are ranked by IBA and the upper and lower submissions are excluded to remove outliers<sup>1</sup>. The relevant rate is then calculated as the trimmed arithmetic mean of the remaining submissions, rounded to five decimal places. Each Contributor Bank's submission carries an equal weight, subject to the trimming.

See IBA's LIBOR website for further details.

The European Commission has designated LIBOR as a Critical Interest Rate benchmark under the BMR.

## **ICE Swap Rate**

ICE Swap Rate is recognised as the principal global benchmark for swap rates and spreads for interest rate swaps. It represents the mid-price for interest rate swaps (the fixed leg), at particular times of the day, in three major currencies (EUR, GBP and USD) and in tenors ranging from 1 year to 30 years. ICE Swap Rate is used as the exercise value for cash-settled swaptions, for close-out payments on early terminations of interest rate swaps, for some floating rate bonds and for valuing portfolios of interest rate swaps.

ICE Swap Rate was the first global benchmark to be transitioned from a submission-based rate, using inputs from a panel of banks to a rate based on tradable quotes sourced from regulated electronic trading venues – requiring no subjective or expert judgment. IBA implemented a new and patented methodology for ICE Swap Rate.

Key features of the calculation are:

• <u>VWAMPs from Synthetic Order Books at Snapshots in Time:</u> the calculation is based on finding the VWAMP from theoretically filling a trade in the Standard Market Size (SMS) on both the bid and offer side at a particular instant in time (a snapshot). At each snapshot, we combine the order books from all the trading venues to create a synthetic order book that represents the best prices (and accompanying volumes) available in the market at that time. We then calculate the volume weighted prices at which you could fill a trade in SMS from this synthetic order book on both the bid and offer side and these effective prices are used to calculate the VWAMP;

<sup>&</sup>lt;sup>1</sup> For USD, GBP and EUR LIBOR, the 4 highest and 4 lowest submissions are excluded from the calculation. For JPY and CHF LIBOR, the 3 highest and 3 lowest submissions are excluded from the calculation.



- <u>Multiple Snapshots:</u> instead of using just one snapshot at a pre-determined time to create the VWAMP, IBA uses multiple, randomised snapshots taken in a short window before the calculation. This makes the benchmark more robust against attempted manipulation and momentary aberrations in the market;
- <u>Liquidity Checks:</u> illiquid snapshots are not included in the calculation any snapshots that can't fill the SMS (on both the bid and offer side) are discarded, so only VWAMPs from reasonably sized trades are included in the calculation. A minimum number of liquid snapshots is required to perform the calculation;
- Outlier Checks: to protect against momentary and unrepresentative spikes in price, outlier snapshots are not included in the calculation. The snapshots that pass the liquidity checks are ranked in order of their VWAMPs and the snapshots higher than the 75th percentile and lower than the 25th percentile are discarded leaving only the most representative snapshots;
- Quality Weighting: IBA combines the remaining VWAMPs into a final price (ICE Swap Rate)
  using a quality weighting. Snapshots with tighter spreads between the VWB and VWO are
  indicative of a better quality market so are given a higher weighting; and
- Movement Interpolation: Where there are not enough liquid snapshots to calculate the rate for a tenor, the day-on-day move in adjacent tenors and the previous day's rate for the tenor are used to interpolate a rate (provided certain conditions are met).

ICE Swap Rate is calculated and published in six benchmark 'runs' covering three currencies – EUR, GBP and USD – with tenors ranging from 1 year to 30 years.

See IBA's ICE Swap Rate website for further details.

#### The LBMA Gold Price and the LBMA Silver Price

The LBMA Gold Price and LBMA Silver Price are the global benchmark prices for unallocated gold and silver delivered in London.

Producers, the investment community, banks and central banks, fabricators, jewelers and other consumers, as well as market participants from around the globe, transact during the IBA Gold and Silver auctions and use the benchmarks as reference prices.

The ability to transact and reference a single transparent price, produced by a regulated benchmark administrator provides significant benefits to the market. The LBMA Gold Price and the LBMA Silver Price facilitate spot, monthly averaging, cash-settlement, location swaps, fixed for floating swaps, options and other derivative transactions important to price risk management.

IBA operates electronic auctions for spot, unallocated loco London gold and silver, providing a market-based platform for buyers and sellers to trade. The auctions are run at 10:30am and 3:00pm London time for gold and at 12:00pm London time for silver. The auction process runs on the ICE trading platform which provides real-time order management, separation of house and client orders, live credit limit controls, a full audit history, compliance monitoring tools and advanced straight through processing using ICE's APIs for trade capture, order entry and surveillance.



The auctions run in rounds of 30 seconds. At the start of each round, IBA publishes a price for that round. Participants then have 30 seconds to enter, change or cancel their orders (how much gold/silver they want to buy or sell at that price). At the end of each round order entry is frozen and the system checks to see if the difference between buying and selling (the imbalance) is within the imbalance threshold (normally 10,000 oz for gold and 500,000 oz for silver). If the imbalance is outside of the threshold at the end of a round, then the auction is not balanced, the price is adjusted and a new round starts. If the imbalance is within the threshold then the auction is finished and the price is set. Any imbalance is shared equally between all direct participants (even if they did not place orders or did not log in) and the net volume for each participant trades at the final price.

The final auction prices are published to the market as the LBMA Gold Price AM, the LBMA Gold Price PM and the LBMA Silver Price benchmarks, respectively.

The price formation for each auction is in US Dollars. The final price is converted into the benchmark in multiple currencies including: Australian Dollars; British Pounds; Canadian Dollars; Euros; Onshore and Offshore Yuan; Indian Rupees; Japanese Yen; Malaysian Ringgit; Russian Rubles; Singapore Dollars; South African Rand; Swiss Francs; New Taiwan Dollars; Thai Baht; and Turkish Lira.

See IBA's <u>LBMA Gold and Silver Prices</u> website for further details.

The LBMA Gold Price and the LBMA Silver Price are both Commodity benchmarks under the BMR.

#### **Further information**

IBA's contact details are:

- by email to: <a href="mailto:IBA@theice.com">IBA@theice.com</a>; and
- by post at: ICE Benchmark Administration Limited, Milton Gate, 60 Chiswell Street, London, EC1Y 4SA.

Further details about IBA and its benchmarks and other services can be found at https://www.theice.com/iba.

#### Disclaimer

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Please read IBA's benchmark and other information notice and disclaimer here.

We are responsible for the identification of the control objectives for our business and the design and operation of ICE Benchmark Administration's control procedures to effectively address the provisions of the EU Benchmarks Regulation ('BMR') and the Benchmark Methodologies for administration of ICE LIBOR (also known as LIBOR), ICE Swap Rate, LBMA Gold Price and LBMA Silver Price.

In our attached BMR Statement of Compliance, we set out a description of the relevant frameworks and control procedures together with the related control objectives and BMR Requirements for the period 1 December 2018 to 30 November 2019 and confirm that:

- The BMR Statement of Compliance describes fairly the control procedures which were in place during the period 1 December 2018 to 30 November 2019; and
- ii. The control procedures are suitably designed such that the specified control objectives, including the provisions of the BMR and the Benchmark Methodologies, can be achieved and to our knowledge and belief the described control procedures were complied with; and
- iii. The control procedures were operating with sufficient effectiveness to achieve related control objectives in the period 1 December 2018 to 30 November 2019.

Sign on behalf of ICE Benchmark Administration Limited,

**Timothy Bowler** 

President, ICE Benchmark Administration

07 April 2020



Ernst & Young LLP 25 Churchill Place Canary Wharf London E14 5EY Tel: + 44 20 7951 2000 Fax: + 44 20 7951 1345 ev.com

Independent practitioner's assurance report to the directors of ICE Benchmark Administration Limited (the 'Company') in respect of the Company's statement of compliance (the 'BMR Compliance Statement') with EU Benchmarks Regulation (2016/1011) for the period 1 December 2018 to 30 November 2019

## Use of report

We have carried out a reasonable assurance engagement in respect of the Company's control procedures that relate to compliance with EU Benchmarks Regulation ('BMR') for the following four benchmarks (collectively the 'applicable BMR requirements') throughout the period 1 December 2018 to 30 November 2019, in accordance with the terms of our engagement letter dated 22 November 2018 (the 'Engagement Letter'):

- i. ICE LIBOR BMR Articles 4, 5.1 to 5.4, 6, 7, 8, 9, 10, 11.1 to 11.4, 12, 13.1 to 13.2, 14, 15.1 to 15.5, 18, 20.1, 21.1, 22, 23.3, 27.1 to 27.2, 28.1 and Annex I Clauses 1 to 4;
- ii. ICE Swap Rate BMR Articles 4, 5.1 to 5.4, 6, 7, 8, 9, 10, 11.1 to 11.4, 12, 13.1 to 13.2, 14, 27.1 to 27.2, 28.1; and
- iii. LBMA Gold Price and LBMA Silver Price BMR Articles 10, 19, 27.1 to 27.2, 28.1 and Annex II.

This report is made solely for the use of the directors, as a body, of the Company, and solely for the purpose of reporting on the Company's BMR Compliance Statement's compliance with the applicable BMR requirements, in accordance with the terms of the Engagement Letter. Our work has been undertaken so that we might report to the directors those matters that we have agreed to state to them in this report and for no other purpose. Our report must not be recited or referred to in whole or in part in any other document nor made available, copied or recited to any other party, in any circumstances, without our express prior written permission. This engagement is separate to, and distinct from, our appointment as the auditors to the Company.

To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's directors as a body, for our work, for this report, or for the conclusions we have formed.

## Respective responsibilities of the Company and Ernst & Young LLP

The Company's directors are responsible for ensuring that the Company designs, implements and monitors compliance with policies and procedures that comply with the applicable BMR requirements and that the BMR Compliance Statement has been compiled in accordance with the applicable BMR requirements. The Company's directors remain solely responsible for preparing the BMR Compliance Statement which includes the control objectives and related control procedures.

Our responsibilities for this engagement are to form an independent conclusion, based on the work carried out in relation to the control procedures related to compliance with the applicable BMR



requirements in respect of the four benchmarks in scope listed above, as described in the Company's BMR Compliance Statement and report this to you as the directors of the Company.

#### Our approach

We conducted our engagement in accordance with International Standard on Assurance Engagement (ISAE) 3000 (Revised) 'Assurance engagements other than audits or reviews of historical financial information' (ISAE 3000 (Revised)) issued by the International Federation of Accountants (IFAC) and with regard to the Institute of Chartered Accountants in England and Wales' Technical Release (Tech 02/14FSF) 'Assurance Reports on Benchmark and Indices'. We performed a reasonable assurance engagement as defined in ISAE3000 (Revised). The criteria against which the control procedures were evaluated are the applicable BMR requirements and the control objectives as set out within TECH 02/14 FSF and identified by the Company's directors as relevant control objectives to fulfil the Company's compliance with the applicable BMR requirements. For the purpose of the engagement we have been provided by the Company's directors with the BMR Compliance Statement showing the control procedures that relate to the control objectives to fulfil the Company's compliance with the applicable BMR requirements in respect of the four benchmarks. The Company's directors remain solely responsible for the BMR Compliance Statement.

We have performed the procedures agreed with you and set out in our Engagement Letter. The nature, timing and extent of the tests we applied and the criteria against which the control procedures were evaluated are detailed in the BMR Compliance Statement.

The objective of a reasonable assurance engagement is to perform such procedures on a sample basis as to obtain information and explanations which we consider necessary in order to provide us with sufficient appropriate evidence to express a positive conclusion on the BMR Compliance Statement.

In performing this engagement, we have applied International Standard on Quality Control (ISQC) 1 and the independence and other ethical requirements of the International Ethics Standards Board for Accountants (IESBA).

#### Inherent limitations

The validity and reliability of the four benchmarks is dependent on both (i) those who submit or provide information to the Company, for which submitters or data providers are responsible, and (ii) the procedures performed by the Company to analyse that information. We performed no procedures on, and express no assurance over, source data submitted by these third parties.

Control procedures designed to address specified control objectives are subject to inherent limitations and, accordingly, errors or irregularities may occur and not be detected. Such control procedures cannot guarantee protection against (among other things) fraudulent collusion especially on the part of those holding positions of authority or trust. Furthermore, our conclusion is based on historical information and the projection of any information or conclusions in the attached report to any future periods would be inappropriate. A reasonable assurance engagement is substantially lower in scope than an audit performed in accordance with International Standards on Auditing (UK) and therefore provides a lower level of assurance than an audit.

#### Conclusion

In our opinion, in all material respects, based on the control objectives described in the Company's BMR Compliance Statement in respect of the four benchmarks in scope listed above, which were designed to fulfil the Company's compliance with the applicable BMR requirements:



- The Company's BMR Compliance Statement describes fairly the Company's control procedures that relate to the control objectives specified above which were in place throughout the period 1 December 2018 to 30 November 2019; and
- b. The control procedures are suitably designed such that there is reasonable, but not absolute, assurance that the related control objectives would have been achieved if the described control procedures had been in place and were complied with satisfactorily throughout the period 1 December 2018 to 30 November 2019; and
- c. The control procedures that were tested, as set out in the Company's BMR Compliance Statement, were operating with sufficient effectiveness for us to obtain reasonable, but not absolute, assurance that the related control objectives were achieved throughout the period 1 December 2018 to 30 November 2019.

Ernst & Young LLP London 7 April 2020



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Independent practitioner's assurance report to the directors of ICE Benchmark Administration Limited (the 'Company') in respect of the Company's compliance with benchmark methodologies for the period 1 December 2018 to 30 November 2019

## Use of report

We have carried out a reasonable assurance engagement in respect of the Company's compliance with benchmark methodologies (the 'Benchmark Methodologies') for the calculation of ICE LIBOR, ICE Swap Rate, LBMA Gold Price and LBMA Silver Price (collectively, 'the four benchmarks') in accordance with the terms of our engagement letter dated 22 November 2018 (the 'Engagement Letter').

This report covers the description and design and operating effectiveness of control procedures, related to the application of the requirements of the Benchmark Methodologies with respect to calculation of the four benchmarks for the period 1 December 2018 to 30 November 2019.

This report is made solely for the use of the directors, as a body, of the Company, and solely for the purpose of reporting on the Company's compliance to the Benchmark Methodologies, in accordance with the terms of the Engagement Letter. Our work has been undertaken so that we might report to the directors those matters we have agreed to state to them in this report and for no other purpose. Our report must not be recited or referred to in whole or in part in any other document nor made available, copied or recited to any other party, in any circumstances, without our express prior written permission. This engagement is separate to, and distinct from, our appointment as the auditors to the Company.

To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's directors, as a body, for our work, for this report or for the conclusion we have formed.

### Respective responsibilities of the Company and Ernst & Young LLP

The Company's directors are responsible for ensuring that the Company design, implements and monitors compliance with policies and procedures that comply with the Company's Benchmark Methodologies for the calculation of the four benchmarks. The Company's directors remain solely responsible for preparing the BMR Compliance Statement which includes control objectives and related control procedures designed to comply with the Company's Benchmark Methodologies for the calculation of the four benchmarks.

Our responsibilities for this engagement are to form an independent conclusion, based on the work carried out in relation to the control procedures related to the application of the Company's Benchmark Methodologies in respect of calculation of the four benchmarks as described in the Company's BMR Compliance Statement and report this to you as the directors of the Company.

## Our approach

We conducted our engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance engagements other than audits and reviews of historical financial information (ISAE 3000 (Revised)), issued by the International Federation of Accountants (IFAC) and with regard to the Institute of Chartered Accountants in England and Wales' Technical Release (Tech 02/14FSF) 'Assurance Reports on Benchmark and Indices. We performed a reasonable assurance engagement as defined in ISAE3000 (Revised). The criteria against which the control procedures were evaluated are the Company's Benchmark Methodologies and the control objectives as set out within TECH 02/14 FSF and identified by the Company's directors as relevant control objectives to fulfil the Company's compliance with the applicable Benchmark Methodologies. For the purpose of the



engagement we have been provided by the Company's directors with the BMR Compliance Statement showing the control procedures that relate to the control objectives to fulfil the Company's compliance with the applicable Benchmark Methodologies in respect of the four benchmarks. The Company's directors remain solely responsible for the BMR Compliance Statement.

We have performed the procedures agreed with you and set out in our Engagement Letter. The nature, timing and extent of the tests we applied and the criteria against which the control procedures were evaluated are detailed in the BMR Compliance Statement.

The objective of a reasonable assurance engagement is to perform such procedures on a sample basis so as to obtain information and explanations which we consider necessary in order to provide us with sufficient appropriate evidence to express a positive conclusion on the BMR Compliance Statement.

In performing this engagement, we have applied International Standard on Quality Control (ISQC) 1 and the independence and other ethical requirements of the International Ethics Standards Board for Accountants (IESBA).

#### **Inherent limitations**

The validity and reliability of the four benchmarks is dependent on both (i) those who submit or provide information to the Company, for which submitters or data providers are responsible, and (ii) the procedures performed by the Company to analyse that information. We performed no procedures on, and express no assurance over source data submitted by these third parties.

Control procedures designed to address specified control objectives are subject to inherent limitations and, accordingly, errors or irregularities may occur and not be detected. Such control procedures cannot guarantee protection against (among other things) fraudulent collusion especially on the part of those holding positions of authority or trust. Furthermore, our conclusion is based on historical information and the projection of any information or conclusions in the attached report to any future periods would be inappropriate. A reasonable assurance engagement is substantially lower in scope than an audit performed in accordance with International Standards on Auditing (UK) and therefore provides a lower level of assurance than an audit.

#### Conclusion

In our opinion, in all material respects, based on the control objectives described in the Company's BMR Compliance Statement in respect of the four benchmarks in scope listed above, which were designed to fulfil the Company's compliance with the applicable Benchmark Methodologies for the calculation of the four benchmarks in scope listed above:

- a. The Company's BMR Compliance Statement describes fairly the Company's control procedures that relate to the control objectives specified above which were in place as at 30 November 2019 and during the period 1 December 2018 to 30 November 2019; and
- b. The control procedures are suitably designed such that there is reasonable, but not absolute, assurance that the related control objectives would have been achieved if the described control procedures had been in place and were complied with satisfactorily throughout the period 1 December 2018 to 30 November 2019; and
- c. The control procedures that were tested, as set out in the Company's BMR Compliance Statement, were operating with sufficient effectiveness for us to obtain reasonable, but not absolute, assurance



that the related control objectives were achieved throughout the period 1 December 2018 to 30 November 2019.

Ernst & Young LLP London 7 April 2020



## **BMR COMPLIANCE STATEMENT 2019**

The tables below show the EU Benchmarks Regulation<sup>1</sup> (BMR) requirements together with their applicability to the benchmarks administered by ICE Benchmark Administration (IBA) and a commentary on how IBA complies with the requirement.

| ADTIOLE    | ARTIOLE RECORDED IN  | А     | APPLICABLE IBA BENCHMARKS |      |        |  |  |
|------------|--|-------|---------------------------|------|--------|--|--|
| ARTICLE    | ARTICLE DESCRIPTION  | LIBOR | SWAP RATE                 | GOLD | SILVER |  |  |
| Article 4  | Governance and conflict of interest requirements   | ✓     | ✓                         | *    | *      |  |  |
| Article 5  | Oversight function requirements  | ✓     | ✓                         | *    | *      |  |  |
| Article 6  | Control framework requirements   | ✓     | ✓                         | *    | *      |  |  |
| Article 7  | Accountability framework requirements  | ✓     | ✓                         | *    | *      |  |  |
| Article 8  | Record-keeping requirements  | ✓     | ✓                         | *    | *      |  |  |
| Article 9  | Complaints-handling mechanism  | ✓     | ✓                         | *    | *      |  |  |
| Article 10 | Outsourcing  | ✓     | ✓                         | ✓    | ✓      |  |  |
| Article 11 | Input data   | ✓     | ✓                         | *    | *      |  |  |
| Article 12 | Methodology  | ✓     | ✓                         | *    | *      |  |  |
| Article 13 | Transparency of methodology  | ✓     | ✓                         | *    | *      |  |  |
| Article 14 | Reporting of infringements   | ✓     | ✓                         | *    | *      |  |  |
| Article 15 | Code of Conduct  | ✓     | *                         | *    | *      |  |  |
| Article 16 | Governance and control requirements for<br>supervised contributors                             | ✓     | *                         | *    | *      |  |  |
| Article 18 | Interest rate benchmarks   | ✓     | ×                         | ×    | ×      |  |  |
| Article 19 | Commodity benchmarks   | ×     | *                         | ✓    | ✓      |  |  |
| Article 20 | Critical benchmarks  | ✓     | *                         | ×    | *      |  |  |
| Article 21 | Mandatory administration of a critical benchmark   | ✓     | *                         | ×    | ×      |  |  |
| Article 22 | Mitigation of market power of critical benchmark administrators                                | ✓     | *                         | ×    | ×      |  |  |
| Article 23 | Mandatory contribution to a critical benchmark (specific paragraphs apply individually across) | ✓     | ×                         | ×    | ×      |  |  |
| Article 27 | Benchmark statement  | ✓     | ✓                         | ✓    | ✓      |  |  |
| Article 28 | Changes to and cessation of a benchmark  | ✓     | ✓                         | ✓    | ✓      |  |  |
| Annex I    | Interest rate benchmarks   | ✓     | ×                         | ×    | ×      |  |  |
| Annex II   | Commodity benchmarks   | ×     | *                         | ✓    | ✓      |  |  |
| REGULATOR  | Y TECHNICAL STANDARDS ('RTS')  | LIBOR | SWAP RATE                 | GOLD | SILVER |  |  |
| 2018/1637  | Oversight Function - Art 5(5)  | *     | ✓                         | *    | *      |  |  |
| 2018/1638  | Input Data - Art 11(5)   | ✓     | ×                         | *    | *      |  |  |
| 2018/1639  | Contributors Code of Conduct – Art 15(6)   | ✓     | ×                         | ×    | ×      |  |  |
| 2018/1641  | Methodology – Art 13(3)  | ✓     | ✓                         | *    | *      |  |  |
| 2018/1643  | Benchmark Statements – 27(3)   | ✓     | ✓                         | ✓    | ✓      |  |  |

## Key:

 ✓
 BMR requirement applicable to the benchmark.

 ×
 BMR requirement not applicable to the benchmark.

 ❖
 Requirements laid down in Annex II apply instead as prescribed in Article 19.

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<sup>&</sup>lt;sup>1</sup> Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds.

## TITLE II BENCHMARK INTEGRITY AND RELIABILITY

# Article 4 Governance and conflict of interest requirements

| # | BMR         | BMR Requirement   | IBA's Response   | EY Evaluation Procedures  |
|---|-------------|---|--|---|
| 1 | BMR<br>Ref. | An administrator shall have in place robust governance arrangements which include a clear organisational structure with well-defined, transparent and consistent roles and responsibilities for all persons involved in the provision of a benchmark.  Administrators shall take adequate steps to identify and to prevent or manage conflicts of interest between themselves, including their managers, employees or any person directly or indirectly linked to them by control, and contributors or users, and to ensure that, where any judgement or discretion in the benchmark determination process is required, it is independently and honestly exercised. | Control objective  To have in place robust governance arrangements for ICE Benchmark Administration (IBA) for the administration of the benchmarks in compliance with the BMR.  Control procedures  IBA has a clear organisational structure and all IBA employees report directly or indirectly to the President of IBA. The reporting lines are separate from the ICE group.  IBA roles and responsibilities are defined in a consistent manner for all persons involved in the provision of IBA benchmarks.  To protect against conflicts of interest in the benchmark design, calculation, and maintenance, all IBA employees are bound, inter alia, by:  • IBA's Conflict of Interest Policy; | <ul> <li>We obtained and inspected IBA's organisation chart for evidence that the company has a clear and well-defined reporting structure separate from the ICE Group.</li> <li>We obtained a sample of job descriptions and profiles for IBA employees involved in the provisioning of the benchmarks and inspected or evidence that roles and responsibilities are defined in a consistent manner.</li> <li>We obtained the five policies mentioned in IBA's response and inspected for evidence that the policies outline processes to identify and manage conflicts of interest as described in IBA's response.</li> <li>For a sample of IBA employees involved in the provisioning of the benchmarks during the period under review, we obtained and inspected evidence of completion of annual online ethics and conflicts of interest training, which includes attestations to the ICE Group Business Code of Conduct.</li> <li>We obtained management's confirmation that there have been no new joiners to IBA who</li> </ul> |
|   |             |   | <ul> <li>The ICE group's Code of Business<br/>Conduct;</li> <li>The ICE group's Personal Trading Policy;</li> </ul>  | there have been no new joiners to IBA who are involved in the provisioning of the benchmarks, during the period under review.  We obtained and inspected the course material of the annual online ethics and conflicts of interest training for evidence of   |

| # | BMR  | BMR Requirement   | IBA's Response   | EY Evaluation Procedures   |
|---|------|---|--|--|
|   | Ref. |   | ·  |  |
|   |      |   | EU/Global Personal Information     Protection Principles Policy; and   | Conflict of Interest topics included in the module.  |
|   |      |   | ICE Corporate Information Security Policy.   | We obtained a sample the minutes of<br>meetings of the Board of Directors and<br>inspected for evidence that the Conflict of<br>Interest ('COI') Policy was approved by IBA's  |
|   |      |   | IBA employees are trained on these policies on joining the organisation and receive ethics and conflicts of interest training provided online annually by the ICE group.                       | directors during the period under review.  |
|   |      |   | IBA's Conflict of Interest Policy describes the arrangements for the identification, management, disclosure and mitigation of conflicts of interests.  |  |
|   |      |   | The Policy is subject to annual review and sign off by the Board of Directors of IBA.  |  |
|   |      |   | IBA's Conflict of Interest Policy is supported by procedures and conflicts of interest registers which record conflicts identified, corresponding mitigants and owners of conflict management. |  |
| 2 | 2    | The provision of a benchmark shall be operationally separated from any part of an administrator's business that may create an actual or potential conflict of interest. | Control objective  To ensure that IBA's administration of benchmarks is operated so as to avoid actual or potential conflicts of interest.   | <ul> <li>We obtained and inspected the composition of IBA's Board of Directors for independent and executive directors.</li> <li>For a sample of IBA employees involved in the provisioning of the benchmarks we obtained</li> </ul>                                     |
|   |      |   | Control procedures  IBA's sole focus is the administration of benchmarks and market consensus rates.   | their job descriptions and profiles and inspected that roles and responsibilities are defined in a consistent manner for personnel involved in the provision of benchmarks.  We obtained and inspected IBA's organisation chart as well as job descriptions for a sample |

| # | BMR  | BMR Requirement | IBA's Response   | EY Evaluation Procedures  |
|---|------|-----------------|--|---|
|   | Ref. |                 |  |   |
|   |      |                 | IBA is an independent and separately capitalised company with an independent board, comprised of both independent non-executive and executive directors. A majority of directors are Independent Non-Executives.  IBA roles and responsibilities are defined in a consistent manner for all persons involved in the provision of IBA benchmarks.  IBA's offices are segregated from other areas, with key card access so that other ICE employees cannot access the offices.  IT controls restrict access and change to the systems holding data to IBA employees and those directly supporting IBA. | of IBA employees, for evidence that the teams are solely responsible for the administration of benchmarks and market consensus rates.  We observed that IBA is situated in a segregated location from ICE group entities and access is restricted to IBA personnel.  We obtained IBA's IT policies and procedures on change management, user access management, and other IT operations and inspected for evidence of IBA's response.  We obtained a sample of change requests over the IT environment, during the period under review, and inspected the change notice for evidence that the changes were implemented as management intended, by an independent production individual, tested in the relevant environments and monitored |
|   |      |                 |  | <ul> <li>▶ We obtained a sample of new user access requests and change access requests during the period under review and inspected for evidence of the relevant approvals as documented in the request ticket and that user access was provided or not, as appropriate</li> <li>▶ We obtained a sample of user access termination requests during the period under review and inspected whether the user's access to the network, applications, operating systems and databases was disabled or revoked in a timely manner per internal policy.</li> <li>▶ We obtained the annual password review for a access to the network applications.</li> </ul>   |
|   |      |                 |  | sample of technologies within the relevant infrastructure layers and inspected for evidence review of password requirements   |

| # | BMR  | BMR Requirement   | IBA's Response   | EY Evaluation Procedures  |
|---|------|---|--|---|
|   | Ref. |   |  |   |
|   |      |   |  | <ul> <li>being met (unique user IDs, complexity, login controls and lifecycle management).</li> <li>We obtained a sample of user access reviews during the period under review and inspected for evidence that the review was performed at the required frequency, reviewed by appropriate members of management and any required research and resolution was performed in the event of discrepancies.</li> <li>We obtained a sample of user's job titles during the period under review and inspected their user access in relation to their job title to assess the appropriateness of their access.</li> </ul> |
| 3 | 3    | Where a conflict of interest arises within an administrator due to the latter's ownership structure, controlling interests or other activities conducted by any entity owning or controlling the administrator or by an entity that is owned or controlled by the administrator or any of the administrator's affiliates, that cannot be adequately mitigated, the relevant competent authority may require the administrator to establish an independent oversight function which shall include a balanced representation of stakeholders, including users and contributors. | Any conflict of interest that might arise due to IBA's ownership is properly managed, as described in Article 4.2 above. | Please refer to response to Article 4.2 above.  |
| 4 | 4    | If such a conflict of interest cannot be adequately managed, the relevant competent authority may require the administrator to either cease the activities or relationships that create the conflict of interest or cease providing the benchmark.  | Please refer to the response to Article 4.2 and 4.3 above.   | Please refer to the response to Article 4.2 and 4.3 above.  |
| 5 | 5    | An administrator shall publish or disclose all existing or potential conflicts of interest to users of  | Section 2 of IBA's Conflicts of Interest Policy refers to the ownership of IBA.  | We obtained the COI Policy available on IBA's website and inspected for evidence that the policy outlines the process to identify, manage, mitigate   |

| # | BMR<br>Ref. | BMR Requirement  | IBA's Response  | EY Evaluation Procedures   |
|---|-------------|--|---|--|
|   | ite:        | a benchmark, to the relevant competent authority and, where relevant, to contributors, including conflicts of interest arising from the ownership or control of the administrator.   | The Policy is published at       https://www.theice.com/publicdocs/IBA conflicts of interest policy.pdf.  | actual and potential conflicts of interest identified by management, including conflicts of interest arising from the ownership or control of the administrator.   |
| 6 | 6           | An administrator shall establish and operate adequate policies and procedures, as well as effective organisational arrangements, for the identification, disclosure, prevention, management and mitigation of conflicts of interest in order to protect the integrity and independence of benchmark determinations. Such policies and procedures shall be regularly reviewed and updated. The policies and procedures shall take into account and address conflicts of interest, the degree of discretion exercised in the benchmark determination process and the risks that the benchmark poses, and shall:  (a) ensure the confidentiality of information contributed to or produced by the administrator, subject to the disclosure and transparency obligations under this Regulation; and  (b) specifically mitigate conflicts of interest due to the administrator's ownership or control, or due to other interests in the administrator's group or as a result of other persons that may exercise influence or control over the administrator in relation to determining the benchmark. | Control objective  To ensure that IBA maintains adequate arrangements for the identification and management of conflicts of interest. The arrangements should ensure due consideration of IBA's ownership within the ICE group, any discretion exercised by IBA in producing the benchmarks and the attendant risks. Appropriate disclosure and confidentiality measures should be in place. The associated policies and procedures should be regularly reviewed and updated.  Control procedures  IBA's Conflict of Interest Policy describes the arrangements for the identification, management, disclosure and mitigation of conflicts of interests is subject to annual review and sign off by the Board of Directors of IBA.  The Policy is supported by procedures and conflicts of interest registers which record conflicts identified, corresponding mitigants and owners of conflict management.  With respect to (a), all ICE employees are subject to strict confidentiality provisions in their contracts | <ul> <li>We obtained IBA's organisation chart and inspected it for evidence that reporting lines are clearly defined and reporting lines are to the President of IBA.</li> <li>We obtained the LIBOR and ICE Swap Rate methodology documents and inspected for evidence that they are publicly available on IBA's website and outline the methodology of the respective benchmarks.</li> <li>For a sample of dates during the period under review we tested the calculation of rates and prices against the published methodologies and noted no discretion was exercised by management, other than the data integrity validation procedure required under 6.4.</li> <li>We obtained IBA's Governance Manual and inspected for evidence of:         <ul> <li>the risk management framework and the three lines of defence model as described in IBA's response</li> <li>The CRO reporting to the Audit &amp; Risk Committee.</li> </ul> </li> <li>We obtained the relevant minutes of meetings of the IBA Board of Directors and inspected for evidence of the approval of the risk framework, risk appetite statement and risk metrics.</li> <li>We obtained the internal audit reports and inspected for evidence that reviews were</li> </ul> |

| # | BMR  | BMR Requirement | IBA's Response   | EY Evaluation Procedures  |
|---|------|-----------------|--|---|
|   | Ref. |                 |  |   |
|   |      |                 | of employment and in the following ICE group policies:   | conducted over the surveillance procedures over the LIBOR and ICE Swap Rate input data.   |
|   |      |                 | Global Code of Business Conduct;   | <ul> <li>Please also refer to response to Article 4.1 to<br/>4.5 above.</li> </ul>  |
|   |      |                 | EU/Global Personal Information Protection     Principles Policy; and   | <ul> <li>We obtained IBA's IT policies and procedures<br/>on change management, user access</li> </ul>  |
|   |      |                 | Corporate Information Security Policy.   | management, and other IT operations and inspected for evidence of IBA's response.   |
|   |      |                 | IBA employees are trained on the conflicts of interest policies on joining the organisation and receive ethics and conflicts of interest training provided online annually by the ICE group.   | We obtained a sample of change requests<br>over the IT environment, during the period<br>under review, and inspected the change notice<br>for evidence that the changes were<br>implemented as management intended, by an   |
|   |      |                 | Confidentiality of data within IBA is protected through user access restrictions.  | independent production individual, tested in the relevant environments and monitored appropriately.   |
|   |      |                 | IT controls restrict access and change to the systems holding data to IBA employees and those directly supporting IBA.   | We obtained a sample of new user access requests and change access requests during the period under review and inspected for evidence of the relevant approvals as  |
|   |      |                 | Employees within the broader ICE group are logically and physically segregated from the IBA business and employees. IBA's offices are segregated from other areas, with key card access so that other ICE employees cannot access the IBA offices. | documented in the request ticket and that user access was provided or not, as appropriate.  We obtained a sample of user access termination requests during the period under review and inspected whether the user's access to the network, applications, operating systems and databases was disabled or revoked in a timely manner per internal policy. |
|   |      |                 | With respect to (b), IBA is a distinct business for the administration of benchmarks within the ICE group. No decisions made by the ICE group (for example, on product listings) influence IBA's strategy.   | We obtained the annual password review for a<br>sample of technologies within the relevant<br>infrastructure layers and inspected for<br>evidence review of password requirements<br>being met (unique user IDs, complexity, login<br>controls and lifecycle management).   |

| # | BMR  | BMR Requirement | IBA's Response  | EY | Evaluation Procedures  |
|---|------|-----------------|---|----|--|
|   | Ref. |                 |   |    |  |
|   |      |                 | No discretion is exercised by IBA in producing the LIBOR and ICE Swap rate.  All IBA personnel report directly or indirectly to   | •  | We obtained a sample of user access reviews during the period under review and inspected for evidence that the review was performed at the required frequency, reviewed by |
|   |      |                 | IBA's President.  |    | appropriate members of management and any required research and resolution was performed in the event of discrepancies.  |
|   |      |                 | IBA has implemented a risk management framework which provides the  |    | We obtained a sample of user's job titles  |
|   |      |                 | process for identifying, assessing, managing,<br>monitoring and reporting risks. IBA's Chief Risk<br>Officer (CRO) and his Enterprise Risk  |    | during the period under review and inspected their user access in relation to their job title to assess the appropriateness of their access.                               |
|   |      |                 | Management (ERM) team administer the risk management framework. The CRO reports to the  |    |  |
|   |      |                 | IBA Audit & Risk Committee and to the ICE Inc. Corporate Risk Officer.  |    |  |
|   |      |                 | IBA has adopted a three lines of defence model for managing risks. The first line is the business lines and support functions managing day to day risks. Responsibility for the identification, |    |  |
|   |      |                 | notification, self-assessment and mitigation of risk rests with business areas and their support functions.   |    |  |
|   |      |                 | The second line provides oversight of the risk framework. The third line is Audit Services and  |    |  |
|   |      |                 | the company's external auditors providing independent assurance.  |    |  |
|   |      |                 | IBA has a formally documented risk framework, risk appetite statement and risk metrics. The risk  |    |  |
|   |      |                 | framework, risk appetite statement and risk metrics are approved by IBA's Board.  |    |  |

| # | BMR<br>Ref. | BMR Requirement  | IBA's Response   | EY Evaluation Procedures  |
|---|-------------|--|--|---|
|   | Kei.        |  |  |   |
| 7 | 7           | Administrators shall ensure that their employees and any other natural persons whose services are placed at their disposal or under their control and who are directly involved in the provision of a benchmark:  (a) have the necessary skills, knowledge and experience for the duties assigned to them and are subject to effective management and supervision;   | Control objective  To ensure that IBA's production of benchmarks is carried out by competent employees who are adequately supervised, who are subject to conflicts of interest management provisions and who do not have outside interests that could compromise their actions.  Control procedures  | ➤ We enquired with the ICE Human Resources team to understand the completion of probationary period of employment and the formal appraisal process that allows for identification of development opportunities for employees and an appraisal of job performance against key competencies for benchmark responsibilities and as evidence that is as described in IBA's response.  |
|   |             | <ul> <li>(b) are not subject to undue influence or conflicts of interest and that the compensation and performance evaluation of those persons do not create conflicts of interest or otherwise impinge upon the integrity of the benchmark determination process;</li> <li>(c) do not have any interests or business connections that compromise the activities of the administrator concerned;</li> <li>(d) are prohibited from contributing to a benchmark determination by way of</li> </ul> | Regarding each of the points in the Article 4.7:  (a) IBA employees are required to complete a probationary period of employment which includes training on benchmark production.  All employees are subject to annual performance appraisals.  (b) IBA's Conflict of Interest Policy describes the arrangements for the identification, management, disclosure and mitigation | <ul> <li>We obtained management's confirmation that there were no new joiners during the period under review who are involved in the provisioning of any of the benchmarks.</li> <li>We tested an IBA employee, involved in the provisioning of the benchmarks, for evidence that their annual performance appraisal was performed during the period under review.</li> <li>We obtained the ICE Group Remuneration Policy and inspected for evidence that there is no link between the level of any benchmark administered by IBA and the compensation of IBA employees.</li> </ul> |
|   |             | engaging in bids, offers and trades on a personal basis or on behalf of market participants, except where such way of contribution is explicitly required as part of the benchmark methodology and is subject to specific rules therein; and  (e) are subject to effective procedures to control the exchange of information with other  | of conflicts of interests.  The conflicts of interest provisions apply to all IBA employees.  The remuneration of IBA employees is not linked to the level of any benchmark administered by IBA.   | We obtained the ICE Global Code of Conduct and inspected that employees are required to seek approval from their managers and Global Corporate Compliance prior to accepting roles on other boards or part time work outside of IBA. We enquired with management whether there were any instances during the period under review and were informed that there have been no such instances.  |

| # | BMR   | BMR Requirement  | IBA's Response |  | EY Evaluation Procedures |  |  |
|---|-------|--|----------------|--|--------------------------|--|--|
| # | Ref.  | Blik Requirement   | IDAS           | Response   |                          | Evaluation Procedures  |  |
|   | IXEI. | employees involved in activities that may create a risk of conflicts of interest or with third parties, where that information may affect the benchmark. | (c)            | IBA employees are required to seek prior approval from their manager and ICE Global Corporate Compliance for outside activities related to part time work or serving on a board. This requirement is set out in ICE's Global Code of Business Conduct.                               | •                        | For a sample of dates during the period of review we tested the LIBOR publications where IBA input data on behalf of participants as a contingency measure and recalculated the rate for evidence that there was no input error by IBA employees on that day for that LIBOR publication. |  |
|   |       |  | (d)            | IBA employees are prohibited from personal dealing in any instrument that may affect the price of a benchmark administered by IBA or be affected by such a benchmark.  | •                        | We obtained the ICE Global personal trading policy and inspected for evidence that employees are prohibited from dealing in the following:  securities of LIBOR panel banks; short-term interest rate futures and options thereon; and other instruments that may affect a               |  |
|   |       |  |                | IBA employees are permitted to input data on behalf of participants only as a contingency measure for the participants; dual authorisation is required.  | •                        | benchmark administered by IBA or be affected by such a benchmark.  We obtained management's confirmation that none of the IBA employees personally traded in any prohibited instruments, as per the ICE  |  |
|   |       |  | (e)            | IBA employees are subject to effective procedures to control the exchange of information with other employees involved in activities that may create a risk of conflicts of interest or with third parties, where that information may affect the benchmark. (see Article 4.6 above) | •                        | Global personal trading policy, during the period under review.  Please also refer to responses to Article 4.1 – 4.6 above.  |  |
|   |       |  |                | IBA employees are trained on the conflicts of interest policies on joining the organisation and receive ethics and conflicts of interest training provided online annually by the ICE group.   |                          |  |  |

| #   | BMR<br>Ref. | BMR Requirement  | IBA's Response   | EY Evaluation Procedures   |
|-----|-------------|--|--|--|
| 8 8 | 8 Scie 5 Ov | An administrator shall establish specific internal control procedures to ensure the integrity and reliability of the employee or person determining the benchmark, including at least internal sign-off by management before the dissemination of the benchmark. | Control objective  To ensure the integrity and reliability of the benchmark determination process including appropriate management oversight.  Control procedures  IBA's measures to ensure the integrity and reliability of the employee or person determining the benchmark include the following: the robustness of the recruitment process and the preemployment checks; supervision of employees; performance management processes; documented operating procedures; and automation of processes.  IBA conducts extensive interviews of employee applicants. All employees are required to complete a probationary period of employment which includes training on benchmark production. All employees are subject to annual performance appraisals.  IBA has strong operational procedures for the determination of a benchmark, supported as appropriate by automation.  Since many IBA processes are automated as appropriate, by design to minimise the risk of human error, 'circuit breakers' are in place. | <ul> <li>We obtained the operational procedures for LIBOR and ICE Swap Rate and inspected for evidence that publication of the benchmarks is automated and manual publication requires dual authorisation.</li> <li>For a sample of price and rate publications during the period under review for which a circuit breaker was triggered, we tested for evidence that operational procedures were followed.</li> <li>Please also refer to responses to Article 4.7 above.</li> </ul> |
|     |             |  |  |  |

| # | BMR  | BMR Requirement                                     | IBA's Response   | EY Evaluation Procedures  |
|---|------|---|--|---|
|   | Ref. |   |  |   |
| 9 | 1    | Administrators shall establish and maintain a       | Control objective  | ▶ We obtained the Terms of References of the                                      |
|   |      | permanent and effective oversight function to       |  | LIBOR Oversight Committee and ICE Swap  |
|   |      | ensure oversight of all aspects of the provision of | To maintain an effective oversight function to   | Rate Oversight and inspected for evidence   |
|   |      | their benchmarks.                                   | provide oversight of all aspects of the provision of                                     | that the Committees are responsible for   |
|   |      |   | benchmarks administered by IBA.  | oversight and governance of the below mentioned aspects of the respective         |
|   |      |   | Control procedures   | benchmarks and are published on the IBA   |
|   |      |   |  | website:  |
|   |      |   | IBA has Oversight Committees for each  | <ul> <li>Reviewing the definition,</li> </ul>                                     |
|   |      |   | benchmark or family of benchmarks. IBA's LIBOR   | methodology and setting of the<br>benchmarks at least annually;                   |
|   |      |   | Oversight Committee provides oversight and governance of all aspects of the provision of | benominants at least aimaily,   |
|   |      |   | LIBOR. Similarly, IBA's ICE Swap Rate Oversight  | <ul> <li>Assessing the underlying market</li> </ul>                               |
|   |      |   | Committee provides oversight and governance of   | and the usage of benchmarks;  |
|   |      |   | all aspects of the provision of ICE Swap Rate.   | <ul> <li>Overseeing any changes to the<br/>benchmark methodologies and</li> </ul> |
|   |      |   |  | requesting IBA to consult on  |
|   |      |   |  | proposed changes;   |
|   |      |   | The criteria for selection and withdrawal of   |   |
|   |      |   | committee members are published.   | <ul> <li>Overseeing IBA's control<br/>framework insofar as it affects</li> </ul>  |
|   |      |   | The Oversight Committees provide oversight and   | the benchmarks and the  |
|   |      |   | governance for the relevant benchmarks. The  | management and operation  |
|   |      |   | Oversight Committees' Terms of Reference are   | thereof;  |
|   |      |   | published.   |   |
|   |      |   | publication.   | <ul> <li>Overseeing IBA's adherence to</li> </ul>                                 |
|   |      |   | Relevant regulatory policies/procedures are  | its Published Methodologies;  |
|   |      |   | reviewed where appropriate by the relevant   |   |
|   |      |   | Oversight Committee.   | <ul> <li>Assessing internal and external</li> </ul>                               |
|   |      |   |  | audits or reviews insofar as they<br>affect the benchmarks and                    |
|   |      |   | The review of operational incidents is a standing  | monitoring the implementation of  |
|   |      |   | agenda item for each of the Oversight  | identified remedial actions;  |
|   |      |   | Committees.  |   |
|   |      |   |  | <ul> <li>Reviewing and approving</li> </ul>                                       |
|   |      |   |  | procedures for the withdrawal of  |
|   |      |   |  | any rates or prices published in  |
|   |      |   | 12   | currencies or tenors, should such   |

| # | BMR  | BMR Requirement | IBA's Response | EY Evaluation       | n Procedures  |
|---|------|-----------------|----------------|---------------------|---|
|   | Ref. |                 |                |                     |   |
|   |      |                 |                |                     | withdrawal have been appropriately decided upon and approved in accordance with applicable laws and regulation;   |
|   |      |                 |                |                     | <ul> <li>Considering existing or potential<br/>conflicts of interest and<br/>establishing whether they are<br/>material;</li> </ul>   |
|   |      |                 |                |                     | For LIBOR, taking effective measures in respect of any breaches of the LIBOR Code of Conduct and reporting to the FCA any misconduct of which the oversight function becomes aware, including any anomalous or suspicious input data; |
|   |      |                 |                |                     | For ICE Swap Rate and LBMA Precious Metals, notifying the FCA of any suspected misconduct by IBA and of any anomalous or suspicious input data to the benchmark; and  |
|   |      |                 |                |                     | <ul> <li>Keeping the Terms of Reference<br/>of the Oversight Committee<br/>under regular review.</li> </ul>   |
|   |      |                 |                | replacem<br>documen | ned the selection, renewal and<br>ent of oversight committee members<br>it and inspected for evidence of the<br>or selection of the oversight committee<br>is.  |
|   |      |                 |                |                     | ned the relevant minutes of meetings<br>A Board during the period under   |

| #  | BMR  | BMR Requirement  | IBA's Response  | EY Evaluation Procedures  |
|----|------|--|---|---|
|    | Ref. |  |   |   |
|    |      |  |   | review and inspected for evidence of review of the Selection of Committee Members Policy during the period under review.  For new members of Oversight Committees, we inspected the Letter of Appointment and Conflict of Interest disclosure process as defined in the selection, renewal and replacement of Oversight Committee members document. |
|    |      |  |   | We obtained the Terms of References of the<br>LIBOR and ICE Swap Rate Committees and<br>inspected for evidence that the review of<br>regulatory policies and procedures, and<br>operational incidents is the responsibility of the<br>Oversight Committee.  |
|    |      |  |   | We obtained a sample of the minutes of<br>meetings of the LIBOR and ICE Swap Rate<br>Oversight Committees during the period under<br>review and inspected for evidence that<br>responsibilities outlined in the Terms of<br>Reference were executed effectively.  |
| 10 | 2    | Administrators shall develop and maintain robust procedures regarding their oversight function, which shall be made available to the relevant competent authorities. | Control objective  To maintain robust procedures for the effective oversight of the benchmarks administered by IBA.  Control procedures | <ul> <li>We obtained the Governance Manual and inspected for evidence for the oversight roles and responsibilities of each of the following:         <ul> <li>IBA Board of Directors;</li> <li>Audit Risk and Risk Committee;</li> <li>Nominating and Corporate</li> </ul> </li> </ul>  |
|    |      |  | IBA's Governance Manual sets out IBA's procedures regarding the oversight function.   | Governance Committee;  LIBOR Oversight Committee; and ICE Swap Rate Oversight Committee   |
|    |      |  | The Governance Manual is approved by the IBA Board and has been made available to the FCA.  | We obtained the relevant minutes of meetings<br>of the IBA Board of Directors for the period<br>under review and inspected for evidence that<br>the Governance Manual was reviewed during<br>the period of review.  |

| #  | BMR  | BMR Requirement  | IBA's Response   | EY Evaluation Procedures  |
|----|------|--|--|---|
|    | Ref. |  |  |   |
| 11 | 3    | The oversight function shall operate with integrity and shall have the following responsibilities, which shall be adjusted by the administrator based on the complexity, use and vulnerability of the benchmark: | Control objective  To maintain effective oversight of the benchmarks administered by IBA through ensuring that the functioning and terms of reference of the   | We obtained the Terms of References of the<br>LIBOR and ICE Swap Rate Oversight<br>Committees and inspected for evidence that<br>they included the responsibilities listed in IBA's<br>response.  |
|    |      | <ul><li>(a) reviewing the benchmark's definition and methodology at least annually;</li><li>(b) overseeing any changes to the benchmark methodology and being able to request the</li></ul>                      | Oversight Committees are robust and in compliance with the BMR. The Oversight Committees should be constituted so as to provide constructive challenge and guidance in respective of the benchmarks. | We obtained a sample of the minutes of<br>meetings of the LIBOR and ICE Swap Rate<br>Oversight Committees and inspected for<br>evidence that the responsibilities as per each<br>Terms of Reference were performed during<br>the period under review. |
|    |      | administrator to consult on such changes;  | Control procedures   | <ul> <li>Please also refer to the responses to Article</li> <li>5.1 and 5.2.</li> </ul>   |
|    |      | (c) overseeing the administrator's control framework, the management and operation of the benchmark, and, where the  | IBA's Governance Manual sets out IBA's procedures regarding the oversight function.  |   |
|    |      | benchmark is based on input data from contributors, the code of conduct referred to in Article 15;   | The Manual is approved by the IBA Board and has been made available to the FCA.  |   |
|    |      | (d) reviewing and approving procedures for cessation of the benchmark, including any consultation about a cessation;   | The LIBOR Oversight Committee and the ICE Swap Rate Oversight Committee have the responsibilities stipulated in Article 5 of the BMR:  |   |
|    |      | <ul> <li>(e) overseeing any third party involved in the<br/>provision of the benchmark, including<br/>calculation or dissemination agents;</li> </ul>  | Reviewing the definition and methodology of the respective benchmark methodology at least annually;  |   |
|    |      | <ul> <li>(f) assessing internal and external audits or<br/>reviews, and monitoring the implementation<br/>of identified remedial actions;</li> </ul>   | Overseeing any changes to the benchmark methodology and requesting IBA to consult on proposed changes;   |   |
|    |      | (g) where the benchmark is based on input data from contributors, monitoring the input data  |  |   |

| # | BMR  | BMR Requirement  | IBA's Response   | EY Evaluation Procedures |
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|   | Ref. | and contributors and the actions of the administrator in challenging or validating contributions of input data;  (h) where the benchmark is based on input data from contributors, taking effective measures in respect of any breaches of the code of conduct referred to in Article 15; and  (i) reporting to the relevant competent authorities any misconduct by contributors, where the benchmark is based on input data from contributors, or administrators, of which the oversight function becomes aware, and any anomalous or suspicious input data. | <ul> <li>Overseeing IBA's control framework insofar as it affects and the management and operation of the benchmark;</li> <li>Reviewing and approving procedures for cessation of the benchmark, including any consultation about a cessation; and</li> <li>Assessing internal and external audits or reviews insofar as they affect the benchmark and monitoring the implementation of identified remedial actions.</li> <li>Further, the following points in the Article 5.3 are only applicable to the LIBOR Oversight Committee since it is the only benchmark administered by IBA that is based on input data from contributors: Monitoring the input data and contributors and the actions of IBA in challenging or validating contributions of input data; or</li> <li>Taking effective measures in respect of any breaches of the Code of Conduct and reporting any misconduct of which the oversight function becomes aware, including any anomalous or suspicious input data.</li> </ul> |                          |

| #        | BMR  | BMR Requirement   | IBA's Response   | EY Evaluation Procedures  |
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| 12       | 4    | The oversight function shall be carried out by a separate committee or by means of another appropriate governance arrangement.  | The oversight function is carried out by the LIBOR and ICE Swap Rate Oversight Committees. The ICE Swap Rate Oversight Committee has an independent chair and both Committees have market representatives. | <ul> <li>We obtained the listing of the members of the LIBOR and ICE Swap Rate Committees and inspected for evidence of the independent chair of the ICE Swap Rate Committee and market representatives on both Committees.</li> <li>We obtained a sample of the minutes of meetings of the LIBOR and ICE Swap Rate Oversight Committees and inspected for evidence of a quorum at each meeting.</li> </ul> |
| 13       | 5    | ESMA shall develop draft regulatory technical standards to specify the procedures regarding the oversight function and the characteristics of the oversight function including its composition as well as its positioning within the organisational structure of the administrator, so as to ensure the integrity of the function and the absence of conflicts of interest.  In particular, ESMA shall develop a non-exhaustive list of appropriate governance arrangements as laid down in paragraph 4.  ESMA shall distinguish between the different types of benchmarks and sectors as set out in this Regulation and shall take into consideration the differences in the ownership and control structure of administrators, the nature, scale and complexity of the provision of the benchmark, and the risk and impact of the benchmark, also in light of | Please refer to IBA's response to the Articles within the Commission Delegated Regulation (EU) 2018/1637.  | Please refer to EY's response to the Articles within the Commission Delegated Regulation (EU) 2018/1637.  |
|          |      | international convergence of supervisory practice in relation to governance requirements of benchmarks. However, the ESMA draft regulatory  |  |   |

| #     | BMR      | BMR Requirement   | IBA's Response                                   | EY Evaluation Procedures  |
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|       | Ref.     |   |  |   |
|       |          | technical standards shall not cover or apply to   |  |   |
|       |          | administrators of non-significant benchmarks.   |  |   |
|       |          | ESMA shall submit those draft regulatory technical  |  |   |
|       |          | standards to the Commission by 1 April 2017.  |  |   |
|       |          | Power is delegated to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with the procedure laid down in Articles 10 to 14 of Regulation (EU) No 1095/2010. |  |   |
| 14    | 6        | ESMA may issue guidelines in accordance with  | IBA does not administer any non-significant      | This provision is not applicable to IBA.  |
|       |          | Article 16 of Regulation (EU) No 1095/2010,   | benchmarks.                                      | Time provident to the applicable to 157 ii  |
|       |          | addressed to administrators of non-significant  |  |   |
|       |          | benchmarks to specify the elements referred to in   |  |   |
|       |          | paragraph 5 of this Article.  |  |   |
| Δrti  | cle 6 Co | ntrol framework requirements  |  |   |
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| 15    | 1        | Administrators shall have in place a control  | Control objective                                |   |
|       |          | framework that ensures that their benchmarks are  |  | ▶ We obtained IBA's Control Framework and   |
|       |          | provided and published or made available in   | To maintain a control framework to ensure that   | inspected for evidence of control activities, as  |
|       |          | accordance with this Regulation.  | IBA's benchmarks are provided and published in   | described in IBA's response.  |
|       |          | Ğ   | accordance with the BMR.                         | We obtained a comple of the minutes of  |
|       |          |   |  | <ul> <li>We obtained a sample of the minutes of<br/>meetings of the Audit and Risk Committee and</li> </ul> |
|       |          |   | Control procedures                               | inspected for evidence that the Control   |
|       |          |   |  | Framework was reviewed during the period  |
|       |          |   | IBA has a Control Framework which is reviewed    | under review.   |
|       |          |   | by the Audit and Risk Committee and approved by  |   |
|       |          |   | the Board of IBA.                                | We obtained a sample of the minutes of meetings of the Board of Directors and                               |
|       |          |   | The Control Framework sets out the various       | inspected for evidence that the Control<br>Framework was approved during the period                         |
|       |          |   | control activities together with the associated  | under review.   |
|       |          |   | documentation and/or evidence, the document      | andor roviow.   |
|       |          |   | owner (which is the function responsible for     | ▶ We obtained the LIBOR and ICE Swap Rate   |
|       |          |   | maintaining the documentation), the control type | methodology documents and inspected for   |
|       |          |   | (whether a control is: manual and/or automated;  | evidence that no judgement is exercised as  |
|       |          |   | preventative and/or detective) and the control   | part of the benchmark methodology, other  |

| #  | BMR  | BMR Requirement   | IBA's Response  | EY Evaluation Procedures   |
|----|------|---|---|--|
|    | Ref. |   |   |  |
|    |      |   | owner (which is the function responsible for design and implementation of the control). | than the data integrity validation procedure required under 6.4.   |
|    |      |   | No IBA discretion is exercised in the provision of the benchmarks.                      | <ul> <li>For a sample of each of the four benchmarks,<br/>we performed a recalculation to ensure the<br/>methodology was adhered to throughout the<br/>period under review.</li> </ul>                               |
| 16 | 2    | The control framework shall be proportionate to   | IBA's control framework is proportionate to the   | Please refer to response to Article 6.1.   |
|    |      | the level of conflicts of interest identified, the  | level of conflicts of interest identified and the                                       |  |
|    |      | extent of discretion in the provision of the  | nature of the benchmark input data.   |  |
|    |      | benchmark and the nature of the benchmark input   |   |  |
|    |      | data.   | No IBA discretion is exercised in the provision of the benchmarks.                      |  |
| 17 | 3    | The control framework shall include:  | IBA's control framework incudes the matters   | ➤ We obtained the Control Framework and  |
|    |      | <ul><li>(a) management of operational risk;</li><li>(b) adequate and effective business continuity and disaster recovery plans;</li></ul> | described in Article 6.3.   | inspected for evidence that it covers the requirements of Article 6.3 relating to operational risk, business continuity and disaster recovery plans and contingency arrangements.                                    |
|    |      | and disaster recovery plans,  |   | ➤ We obtained the Business Continuity and  |
|    |      | (c) contingency procedures that are in place in the event of a disruption to the process of the provision of the benchmark.               |   | Disaster Recover policy for the publication of benchmarks process and inspected for evidence that contingency plans are in place in the event of a disruption.   |
|    |      |   |   | We obtained the testing results for the Business Continuity and Disaster Recover testing procedures and inspected for evidence that the contingency plans were operating effectively during the period under review. |
| 18 | 4    | An administrator shall establish measures to:   | Control objective   |  |
|    |      |   |   | <ul> <li>We obtained the operational procedures<br/>document for LIBOR publication and inspected</li> </ul>  |

| # | BMR         | BMR Requirement  | IBA's Response  | EY Evaluation Procedures   |
|---|-------------|--|---|--|
|   | Ref.        |  |   |  |
| # | BMR<br>Ref. | <ul> <li>(a) ensure that contributors adhere to the code of conduct referred to in Article 15 and comply with the applicable standards for input data;</li> <li>(b) monitor input data including, where feasible, monitoring input data before publication of the benchmark and validating input data after publication to identify errors and anomalies.</li> </ul> | To safeguard the integrity of input data by (a) ensuring that contributors comply with the applicable standards and (b) checking input data for errors or anomalies.  Control procedures  IBA would be aware before the calculation of LIBOR on any day if the applicable operational standards for input data are not met.  On adherence with code of conduct referred to in Article 15, IBA requests annual attestations from the LIBOR panel banks.  IBA has a programme of monitoring LIBOR panel banks' adherence with the code.  Data integrity is maintained through validation checks performed on the input data before being accepted by IBA into the benchmark calculation. Where the validation checks identify an anomaly, | for evidence of the daily processes and validation checks applied over the input data.  We observed IBA personnel check that the validation check process was completed by the system over the submission from panel banks before being included in the LIBOR calculation.  We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  Version 5 issued on 18 June 2018 Version 6 issued on 9 February 2019 Version 7 issued on 25 July 2019  and inspected for evidence that LIBOR panel banks are required to provide annual attestations on their compliance with the Code of Conduct.  We obtained the Control Framework and inspected for evidence of monitoring controls over the LIBOR Code of Conduct attestation |
|   |             |  | the contributor bank is sent an automatic electronic alert and must confirm all of its submissions for that LIBOR currency.   | from LIBOR panel banks.  We obtained the relevant of the minutes of meetings of the IBA Board of Directors and inspected for evidence that all panel banks   |
|   |             |  | Data security is managed through SSH keys for evidentiary files submitted through MFT, whitelisted IP addresses and user login credentials issued to each data provider individually. IBA has validation checks that require submitters to confirm their submissions where they are flagged by the checks.  | provided their annual attestation to their compliance with all applicable LIBOR Code of Conduct versions during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  |

| # | BMR  | BMR Requirement | IBA's Response   | EY Evaluation Procedures   |
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|   | Ref. |                 |  |  |
|   | Ker. |                 | IBA's surveillance function validates input data after publication to identify errors and anomalies. Surveillance of the inputs to the benchmark calculation includes comparing the inputs to external market data. All alerts are investigated and resolved.  IBA noted that there had been an incident on 21 March 2019 which led to IBA publishing the LIBOR GBP rates by applying the reduced submission policy as well as an early publication of the LIBOR GBP rates at 11:54.16am.  This incident, reported to the FCA, was discussed at the LIBOR Oversight Committee held on Monday, 13 May 2019 and noted in the publicly available minutes of meetings on the IBA Website. The exclusion of a panel bank's GBP LIBOR submission did not materially impact the published LIBOR GBP rates on that day and did not exceed the 3 bps re-fix threshold as per the LIBOR Error Policy.  Given that IBA did not publish Reported Errors during the transition period to the Waterfall Methodology, IBA included the incident in the ICE LIBOR - Reported Errors report, under the Reduced Submissions section. | <ul> <li>We obtained management's confirmation that no material matters were identified with the panel banks' adherence to the LIBOR Code of Conduct.</li> <li>We obtained the operational procedures over validation checks and inspected for evidence of validation checks as described in IBA's response.</li> <li>We obtained the IBA Surveillance Procedure documents including the alerts for each benchmark and inspected for evidence that these were reviewed and approved by Head of Benchmarks during the period under review.</li> <li>For a sample of dates during the period under review, we obtained the post-publication surveillance alert workbooks and inspected for evidence of alert flagging for review and completed actions for each flagged alert.</li> <li>For a sample of Oversight Committee Meetings during the period under review, we obtained the Dashboards circulated within the Committees and inspected for evidence of the relevant post-publication surveillance information, alerts, investigations, escalating any suspicious input data identified.</li> <li>We obtained a sample of parameter changes to the post-publication surveillance alerts tool during the period under review and inspected for appropriate approval.</li> <li>For a sample of daily and weekly backups of IBA systems/drives during the period under review, we obtained the backup evidence to</li> </ul> |

| #     | BMR<br>Ref. | BMR Requirement  | IBA's Response   | EY Evaluation Procedures   |
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|       | Kei.        |  |  | retained to comply with the BMR record keeping requirements.   |
| 19    | 5           | The control framework shall be documented, reviewed and updated as appropriate and made available to the relevant competent authority and, upon request, to users.   | IBA's control framework is documented and approved by the Board of IBA.  The control framework is subject to annual review and updates as appropriate.  The control framework has been made available to the FCA.  | Please refer to response to Article 6.1.   |
| Artic | cle 7 Ac    | countability framework requirements  |  |  |
| 20    | 1           | An administrator shall have in place an accountability framework, covering record-keeping, auditing and review, and a complaints process, that provides evidence of compliance with the requirements of this Regulation. | Control objective  To maintain an accountability framework, covering record-keeping, auditing and review, and a complaints process to provide evidence of IBA's compliance with the BMR requirements.  Control procedures  IBA has an Accountability Framework which is reviewed by the Audit and Risk Committee and approved by the Board of IBA. | <ul> <li>We obtained the Accountability Framework and inspected for evidence that it covers the key functions performed as part of the Benchmark publication process and that owners have been allocated to each function.</li> <li>We obtained minutes of meetings of the Board of Directors and inspected for evidence that the Accountability Framework was subject to approval during the period under review.</li> <li>We obtained IBA's internal compliance manual and inspected for evidence of processes relating to complaints handling and record keeping.</li> <li>Please also refer to response to Article 9.1.</li> </ul> |
| 21    | 2           | An administrator shall designate an internal function with the necessary capability to review  | The ICE group's Internal Audit function has the capability to review and report on IBA's   | We obtained and inspected the ICE group's<br>internal audit charter to evidence that IBA's<br>benchmark is subject to periodic reviews of the  |

| #  | BMR<br>Ref. | BMR Requirement   | IBA's Response   | EY Evaluation Procedures   |
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|    |             | and report on the administrator's compliance with the benchmark methodology and this Regulation.  | compliance with the benchmark methodology and the BMR.  The function has conducted a review of IBA's compliance with the benchmark methodologies, both under the BMR and previously in connection with the IOSCO Principles for Financial Benchmarks.  IBA has a schedule of internal and external audits which has been agreed by IBA's Audit and Risk Committee.  The Audit and Risk Committee also reviews output from audits and assesses the implementation of any recommendations. | Surveillance Procedures over the four benchmarks for compliance with BMR.  We obtained the relevant minutes of meetings of the Audit and Risk Committee and inspected for evidence that the Committee reviewed results of internal and external audit reports during the period under review.  We obtained the internal audit reports issued by the Group Internal Audit function and inspected the findings reported.  We obtained the relevant minutes of the Audit and Risk Committee meetings and inspected for evidence of review of the Internal and External audit reports. |
| 22 | 3           | For critical benchmarks, an administrator shall appoint an independent external auditor to review and report on the administrator's compliance with the benchmark methodology and this Regulation, at least annually.   | IBA has appointed an independent external auditor to review and report on IBA's compliance with the benchmark methodologies and the BMR, at least annually.  | EY were appointed as the external auditor on 22 November 2018 to provide assurance over IBA's compliance with BMR and adherence with benchmark methodologies for 3 years.  |
| 23 | 4           | Upon the request of the relevant competent authority, an administrator shall provide to the relevant competent authority the details of the reviews and reports provided for in paragraph 2. Upon the request of the relevant competent authority or any user of a benchmark, an administrator shall publish the details of the audits provided for in paragraph 3. | IBA shares internal and external audit reports with the FCA.   | We obtained the Governance Manual and inspected for evidence that meeting packs presented to the LIBOR and ICE Swap Rate Committees, including those with internal and external audit report findings, are shared with the FCA.  |

| #  | BMR  | BMR Requirement   | IBA's Response   | EY Evaluation Procedures  |
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| 24 | 1  | An administrator shall keep records of:   | Control objective  |   |
|    | (b) the methodology used for the determination of a benchmark;  (c) any exercise of judgement or discretion by the administrator and, where applicable, by | ensure that all records of LIBOR and ICE Swap<br>Rate publications are retained for 5 years (and 3<br>years for telephone records) together with the<br>information used in making the publications and<br>an audit trail of relevant information. The record   | <ul> <li>We obtained the internal compliance manual and inspected for evidence of record keeping policy is as described in IBA's commentary.</li> <li>We obtained management's confirmation of the systems/drives where the records as described in IBA's response are retained.</li> <li>We tested the system's/drives' back-up and disaster recovery controls for evidence that</li> </ul> |   |
|    |  | benchmark, including the reasoning for said judgement or discretion;  | request.  Control procedures   | these records are retained and are easily retrievable on request. |
|    |  | <ul> <li>(d) the disregard of any input data, in particular where it conformed to the requirements of the benchmark methodology, and the rationale for such disregard;</li> <li>(e) other changes in or deviations from standard procedures and methodologies, including those made during periods of market stress or disruption;</li> </ul> | With reference to the points in the Article:   |   |
|    |  |   | (a) IBA retains all input data for at least 5 years.   |   |
|    |  |   | (b) IBA retains details of the methodology for at least 5 years.   |   |
|    |  |   | (c) This is not applicable because no expert judgement is used by IBA in the   |   |
|    |  | (f) the identities of the submitters and of the natural persons employed by the administrator for the determination of a  | determination of either LIBOR and ICE<br>Swap Rate   |   |
|    |  | benchmark;  | (d) IBA would record any disregard of input data and the rationale for such disregard.   |   |
|    |  | <ul><li>(g) all documents relating to any complaint,<br/>including those submitted by a complainant;<br/>and</li></ul>  | (e) Changes or deviations from standard procedures and methodologies would be retained for at least 5 years.   |   |
|    |  | (h) telephone conversations or electronic communications between any person   |  |   |

| #  | BMR  | BMR Requirement   | IBA's Response  | EY Evaluation Procedures                 |
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|    |      | employed by the administrator and contributors or submitters in respect of a benchmark.               | The identity of IBA employees involved in producing LIBOR will be retained for at least 5 years.  This provision is not applicable for ICE Swap Rate since the benchmark does not have contributors and therefore does not have submitters. |  |
|    |      |   | (g) All documents relating to any complaint, including those submitted by a complainant, will be retained for at least 5 years.   |  |
|    |      |   | (h) Telephone conversations and electronic communications are recorded between any IBA person and any LIBOR bank or submitter in connection with the production of LIBOR.   |  |
|    |      |   | Telephone records are maintained for at least 3 years.  |  |
|    |      |   | This provision is not applicable to ICE Swap Rate since neither benchmark has contributors or submitters.   |  |
|    |      |   | IBA's records are kept in such a form as to allow replication and full understanding of the determination of a benchmark and to enable an audit or evaluation of input data and calculations.   |  |
| 25 | 2    | An administrator shall keep the records set out in paragraph 1 for at least five years in such a form | IBA keeps historical information in such a way as to ensure that it is easily retrievable upon request.   | Please refer to response to Article 8.1. |

| #      | BMR     | BMR Requirement   | IBA's Response   | EY Evaluation Procedures  |
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|        |         | that it is possible to replicate and fully understand the determination of a benchmark and enable an audit or evaluation of input data, calculations, judgements and discretion. Records of telephone conversation or electronic communications recorded in accordance with point (h) of paragraph 1 shall be provided to the persons involved in the conversation or communication upon request and shall be kept for a period of three years. | Control documentation/measures  Please refer to response to Article 8.1 above.   |   |
| Articl | le 9 Co | mplaints-handling mechanism   | l  | l   |
| 26     | 1       | An administrator shall have in place and publish procedures for receiving, investigating and retaining records concerning complaints made, including about the administrator's benchmark determination process.   | Control objective  To ensure that IBA has effective procedures for handling complaints. The arrangements should conform to the BMR requirements and should cover complaints about the benchmark determination process. Complaints should be handled promptly and fairly. Records of complaints and complaints-handling should be retained for at least 5 years.  Control procedures  IBA has a written Complaints Policy that sets out the procedure according to which a complaint will be dealt with by a senior employee not involved in the matter being complained about.  The Policy is approved by the IBA Board. | <ul> <li>We obtained the Complaints Policy available on the IBA website and inspected for evidence that it includes the guidelines specified within Article 9.1.</li> <li>We obtained the relevant minutes of meetings of the IBA Board of Directors and inspected for evidence that the Complaints Policy was approved during the period under review.</li> <li>We obtained the Record Retention policy within IBA's internal compliance manual and inspected for evidence of required record retentions as per IBA's response.</li> </ul> |

| #  | BMR  | BMR Requirement   | IBA's Response  | EY Evaluation Procedures  |
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|    |      |   | The Policy explicitly covers complaints regarding the underlying interest, methodology and IBA decisions.   |   |
|    |      |   | IBA has a written record retention policy specifying a retention period of 5 years for documentation relating to the benchmarks.  |   |
| 27 | 2    | Such a complaints-handling mechanism shall ensure that:  (a) the administrator makes available the complaints-handling policy through which complaints may be submitted on whether a specific benchmark determination is representative of market value, on a proposed change to the benchmark determination process, on an application of the methodology in relation to a specific benchmark determination, and on other decisions in relation to the benchmark determination process;  (b) complaints are investigated in a timely and fair manner and the outcome of the investigation is communicated to the complainant within a reasonable period of time, unless such communication would be contrary to objectives of public policy or to Regulation (EU) No 596/2014; and | IBA's Complaints Policy sets out the procedure for review of any complaint including, with reference to point (a) of the Article, whether a specific benchmark determination is representative of market value, a complaint on a proposed change to the benchmark determination process, a complaint on an application of the methodology in relation to a specific benchmark determination, or a complaint on other decisions in relation to the benchmark determination process.  With reference to the other points in the Article: (b) IBA's Complaints Policy states that IBA will acknowledge a complaint within two business days of receipt and, if a final response cannot be sent within eight weeks of receiving the complaint, IBA will write to the complainant to explain why and to state when completion of the review is expected.  (c) The Policy sets out the procedure for review of any compliant by senior employee not involved in the matter. | <ul> <li>We obtained IBA's Complaints Policy and inspected for evidence of processes relating to complaints handling as described in IBA's commentary.</li> <li>For any complaints made to IBA during the period under review, we obtained evidence that the complaints handling was per the Complaints Policy.</li> <li>Please also refer to response to Article 9.1.</li> </ul> |

| #    | BMR  | BMR Requirement   | IBA's Response  | EY Evaluation Procedures   |  |
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| Δrti | Ref. | involved in the subject- matter of the complaint.   | IBA's Complaints procedure also explicitly allows complainants to address the IBA Board of Directors.  Please also refer to response to Article 9.1 above.  |  |  |
| 28   | 1    | An administrator shall not outsource functions in the provision of a benchmark in such a way as to impair materially the administrator's control over the provision of the benchmark or the ability of the relevant competent authority to supervise the benchmark.       | IBA retains sole responsibility for all aspects of the determination of the benchmarks.  Note: IBA outsources some activities to other areas within the ICE group such as technology and HR under formal contractual arrangements. These activities, and IBA's governance of them, are reviewed by IBA's Audit and Risk Committee. The outsourcing of these activities to other areas within the ICE group does not impair IBA's control over the provision of the benchmark or the ability of the FCA (as the relevant competent authority) to supervise the benchmarks. | <ul> <li>▶ We obtained IBA's Governance Manual and inspected for evidence that IBA retains sole responsibility for the determination of LIBOR, ICE Swap Rate and the LBMA Gold and Silver Prices during the period under review.</li> <li>▶ We obtained and inspected IBA's Governance Manual for evidence that administrative activities outsourced to ICE group are subject to review by the Audit and Risk Committee as described in IBA's response.</li> </ul> |  |
| 29   | 2    | Where an administrator outsources to a service provider functions or any relevant services and activities in the provision of a benchmark, the administrator shall remain fully responsible for discharging all of the administrator's obligations under this Regulation. | IBA retains full responsibility in respect of all benchmarks for discharging all of the administrator's obligations under the BMR.  | Please refer to response to Article 10.1.  |  |
| 30   | 3    | Where outsourcing takes place, the administrator shall ensure that the following conditions are fulfilled:  (a) the service provider has the ability, capacity, and any authorisation required by law, to   | IBA outsources some activities to other areas within the ICE group such as technology and HR under formal contractual arrangements. These activities, and IBA's governance of them, are reviewed by IBA's Audit and Risk Committee.   | Please refer to response to Article 10.1.  |  |

| # | BMR<br>Ref. | BMR Requirement   | IBA's Response | EY Evaluation Procedures |
|---|-------------|---|----------------|--------------------------|
|   |             | perform the outsourced functions, services or activities reliably and professionally;   |                |                          |
|   |             | <ul> <li>(b) the administrator makes available to the<br/>relevant competent authorities the identity<br/>and the tasks of the service provider that<br/>participates in the benchmark determination<br/>process;</li> </ul>  |                |                          |
|   |             | (c) the administrator takes appropriate action if it appears that the service provider may not be carrying out the outsourced functions effectively and in compliance with applicable law and regulatory requirements;  |                |                          |
|   |             | (d) the administrator retains the necessary expertise to supervise the outsourced functions effectively and to manage the risks associated with the outsourcing;  |                |                          |
|   |             | (e) the service provider discloses to the administrator any development that may have a material impact on its ability to carry out the outsourced functions effectively and in compliance with applicable law and regulatory requirements;   |                |                          |
|   |             | (f) the service provider cooperates with the relevant competent authority regarding the outsourced activities, and the administrator and the relevant competent authority have effective access to data related to the outsourced activities, as well as to the business premises of the service provider, and the relevant competent authority is able to exercise those rights of access; |                |                          |
|   |             | (g) the administrator is able to terminate the outsourcing arrangements where   |                |                          |

| # | BMR  | BMR Requirement   | IBA's Response | EY Evaluation Procedures |
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|   | Ref. |   |                |                          |
|   |      | necessary;(h) the administrator takes reasonable steps, including contingency plans, to avoid undue operational risk related to the participation of the service provider in the benchmark determination process. |                |                          |

## CHAPTER 2 Input data, methodology and reporting of infringements

## Article 11 Input data

| #  | BMR  | BMR Requirement  | IBA's Response  | EY Evaluation Procedures  |
|----|------|--|---|---------------------------|
| ,, | Ref. | Simit Rodding III  | IDA O ROOPONOO  | ET Evaluation i roccuures |
| 31 | 1    | The provision of a benchmark shall be governed by the following requirements in respect of its input data:  (a) the input data shall be sufficient to represent accurately and reliably the market or economic reality that the benchmark is intended to measure. The input data shall be transaction data, if available and appropriate. If transaction data is not sufficient or is not appropriate to represent accurately and reliably the market or economic reality that the benchmark is intended to measure, input data which is not transaction data may be used, including estimated prices, quotes and committed quotes, or other values;  (b) the input data referred to in point (a) shall be verifiable; | Control objective  To use input data that is sufficient to be representative of the market or economic reality that the benchmark is intended to measure.  The input data should be used in a consistent and verifiable manner and IBA should have measures in place to handle occasions on which the input data is not sufficient. In addition, the methodology should be transparent.  Control procedures  With reference to the other points of the Article:  (a) and (b) The input data for the benchmarks is sufficient to represent accurately and reliably the market or economic reality that the benchmark is intended to measure. | LIBOR:                    |

| # | BMR<br>Ref. | BMR Requirement  | IBA's Response   | EY Evaluation Procedures  |
|---|-------------|--|--|---|
|   | Ket.        | (c) the administrator shall draw up and publish clear guidelines regarding the types of input data, the priority of use of the different types of input data and the exercise of expert judgement, to ensure compliance with point (a) and the methodology;  | LIBOR:  The input data for LIBOR is from contributors (i.e. the LIBOR panel banks).  | <ul> <li>We obtained the LIBOR methodology document and all applicable versions of the LIBOR Code of Conduct from IBA's website:</li> <li>Version 5 issued on 18 June 2018</li> <li>Version 6 issued on 9 February 2019</li> <li>Version 7 issued on 25 July 2019</li> <li>and inspected for evidence relating to input as</li> </ul>   |
|   |             | <ul> <li>(d) where a benchmark is based on input data from contributors, the administrator shall obtain, where appropriate, the input data from a reliable and representative panel or sample of contributors so as to ensure that the resulting benchmark is reliable and representative of the market or economic reality that the benchmark is intended to measure;</li> <li>(e) the administrator shall not use input data from a contributor if the administrator has any indication that the contributor does not</li> </ul> | IBA published a Roadmap <sup>2</sup> in March 2016 setting out an evolutionary path for LIBOR, with a uniform Waterfall Methodology that requires submissions to be non-subjective and fully transaction-based wherever feasible.  Before the transition to the Waterfall Methodology (which was completed by 1 April 2019), the LIBOR panel banks established their submissions using the hierarchy of transaction types in the Wheatley Review of LIBOR <sup>3</sup> . | <ul> <li>and inspected for evidence relating to input as described in IBA's response.</li> <li>We obtained all applicable versions of the LIBOR Code of Conduct during the period under review</li> <li>Version 5 issued on 18 June 2018</li> <li>Version 6 issued on 9 February 2019</li> <li>Version 7 issued on 25 July 2019</li> <li>and inspected for evidence that LIBOR panel banks are required to provide annual attestations on their compliance with the Code of Conduct.</li> </ul> |
|   |             | adhere to the code of conduct referred to in Article 15, and in such a case shall obtain representative publicly available data.   | The LIBOR Code of Conduct provides clear guidelines regarding the types of input data and the Waterfall Methodology, the priority of use of the different types of input data and the exercise of expert judgement, to ensure  | <ul> <li>We obtained the LIBOR methodology document and all applicable versions of the LIBOR Code of Conduct from IBA's website:</li> <li>Version 5 issued on 18 June 2018</li> <li>Version 6 issued on 9 February 2019</li> <li>Version 7 issued on 25 July 2019</li> </ul>  |

<sup>&</sup>lt;sup>2</sup> IBA's Roadmap<sup>2</sup> in March 2016 is published at: <a href="https://www.theice.com/publicdocs/futures/Policy\_Composition\_ICE\_LIBOR\_Panels.pdf">https://www.theice.com/publicdocs/futures/Policy\_Composition\_ICE\_LIBOR\_Panels.pdf</a>.

<sup>&</sup>lt;sup>3</sup> The Wheatley Review of LIBOR is published at: <a href="https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/191762/wheatley\_review\_libor\_finalreport\_280912.pdf">https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/191762/wheatley\_review\_libor\_finalreport\_280912.pdf</a>.

| # | BMR  | BMR Requirement | IBA's I | Response  | EY  | Evaluation Procedures  |
|---|------|-----------------|---------|---|-----|--|
|   | Ref. |                 |         | compliance with point (a) and the methodology. The Code is published on IBA's website.  |     | and inspected for evidence that LIBOR panel banks are required to submit transactional data as described in IBA's response.  |
|   |      |                 |         | The LIBOR banks are among the 20 largest banks in the world. The input data is therefore from a reliable and representative panel.  | •   | We obtained and inspected the minutes of meetings of the LIBOR Oversight Committee whereby it was confirmed all LIBOR panel banks had attested to the Code of Conduct on a timely basis. |
|   |      |                 |         | IBA would not use input data from a contributor if there were any indication that the contributor did not materially adhere to the LIBOR Code of Conduct.                   |     |  |
|   |      |                 |         | The input data for LIBOR is supported by evidence provided to IBA by the banks, including details of transactions, to substantiate how banks' submissions were established. |     |  |
|   |      |                 |         | ICE Swap Rate:  |     |  |
|   |      |                 |         | The input data for ICE Swap Rate is tradable quotes sourced from regulated  |     | E Swap Rate:   |
|   |      |                 |         | electronic trading venues and is verifiable.  Both benchmarks:  | •   | We obtained the ICE Swap Rate methodology and inspected for evidence that the input data is obtained from regulated electronic trading venues.   |
|   |      |                 | (5)     |   | Boi | th benchmarks:   |
|   |      |                 | (c)     | IBA publishes the benchmark methodologies on its website.   | •   | We obtained the LIBOR and ICE Swap Rate methodology documents and inspected that they are publicly available on IBA's website  |

| #  | BMR  | BMR Requirement   | IBA's Response   | EY Evaluation Procedures   |
|----|------|---|--|--|
|    | Ref. |   | There is no exercise of expert judgement in the production of LIBOR or ICE Swap Rate  IBA has procedures in case the input data is insufficient. IBA's LIBOR Reduced Submissions Policy and ICE Swap Rate Insufficient Data Policy address occasions on which IBA does not receive sufficient data to be able to produce these benchmarks.  IBA also has operational contingencies, for example making changes to the expected publication timings for the | and outline the methodology of the respective benchmarks.  We obtained the LIBOR Reduced Submissions Policy and ICE Swap Rate Insufficient Data Policy on IBA's website and inspected for evidence of contingency arrangements in instances where IBA does not receive sufficient input data to enable it to provide the benchmarks.  We obtained and inspected the results of the most recent Business Continuity test performed at least on an annual basis. |
|    |      |   | benchmarks.  |  |
| 32 | 2    | <ul> <li>Administrators shall ensure that their controls in respect of input data include:</li> <li>(a) criteria that determine who may contribute input data to the administrator and a process for selecting contributors;</li> <li>(b) a process for evaluating a contributor's input data and for stopping the contributor from providing further input data, or applying other penalties for non-compliance against the contributor, where appropriate; and</li> <li>(c) a process for validating input data, including against other indicators or data, to ensure its integrity and accuracy.</li> </ul> | To ensure that the input data for the benchmarks is provided by appropriate entities and is validated by IBA.  Control procedures  LIBOR:  IBA publishes a document on the composition of LIBOR currency panels and the selection of panel constituents.  The document is reviewed periodically by the LIBOR Oversight Committee.  The objective of the Policy is to have a panel of participants that are active in the unsecured                         | LIBOR:  ➤ We obtained the LIBOR panel bank criteria from IBA's website and inspected for evidence of IBA's response.  Both benchmarks:  ➤ We obtained a sample of the minutes of meetings of the LIBOR and ICE Swap Rate Oversight Committees and inspected for evidence of review of management   |

| # | BMR<br>Ref. | BMR Requirement | IBA's Response   | EY Evaluation Procedures  |
|---|-------------|-----------------|--|---|
|   | Rei.        |                 | interbank deposit and other wholesale unsecured funding markets.   | information on transactional outliers and data anomalies as described in IBA's response.  |
|   |             |                 | IBA carries out pre-publication validation checks to identify anomalies in banks' submissions. Where the checks identify an anomaly, the bank is sent an automatic electronic alert and must confirm all of its submissions for that LIBOR currency. If a bank did not confirm all of its submissions for that LIBOR currency. | We obtained a sample of the minutes of<br>meetings of the LIBOR and ICE Swap<br>Oversight Committees and inspected for<br>evidence of the management information<br>presented with surveillance analysis of input<br>data as described in IBA's response.     |
|   |             |                 | The LIBOR Oversight Committee reviews trends and outliers through a dashboard summary at each of its regular meetings.   | We obtained the IBA Surveillance Procedure<br>documents including the alerts for each<br>benchmark and inspected for evidence that<br>these were reviewed and approved by Head<br>of Benchmarks during the period under<br>review.                            |
|   |             |                 | ICE Swap Rate:  IBA obtains data from regulated trading venues that can provide data that is consistent with the definition of the benchmark. The ICE Swap Rate  | <ul> <li>For a sample of dates during the period under<br/>review, we obtained the post-publication<br/>surveillance alert workbooks and inspected for<br/>evidence of alert flagging for review and<br/>completed actions for each flagged alert.</li> </ul> |
|   |             |                 | Oversight Committee keeps under review whether there may be other venues that could also provide data.  IBA carries out pre-publication validation checks to identify anomalies in the data provided to IBA  | For a sample of Oversight Committee Meetings during the period under review, we obtained the Dashboards circulated within the Committees and inspected for evidence of the relevant post-publication surveillance   |
|   |             |                 | by the regulated trading venues.   | information, alerts, investigations, escalating any suspicious input data identified.   |
|   |             |                 | The ICE Swap Rate Oversight Committee reviews trends and outliers through a dashboard summary at each of its regular meetings.   | <ul> <li>We obtained a sample of parameter changes<br/>to the post-publication surveillance alerts tool<br/>during the period under review and inspected</li> </ul>   |
|   |             |                 | IBA carries out post-publication surveillance of all benchmarks.   | for appropriate approval.  For a sample of daily and weekly backups of IBA systems/drives during the period under review, we obtained the backup evidence to determine that data had been appropriately   |

| #  | BMR<br>Ref. | BMR Requirement  | IBA's Response  | EY Evaluation Procedures   |
|----|-------------|--|---|--|
|    | 11011       |  |   | retained to comply with the BMR record keeping requirements.   |
| 33 | 3           | Where the input data of a benchmark is contributed from a front office function, meaning any department, division, group, or personnel of contributors or any of its affiliates that performs any pricing, trading, sales, marketing, advertising, solicitation, structuring, or brokerage activities, the administrator shall:  (a) obtain data from other sources that corroborate that input data; and  (b) ensure that contributors have in place adequate internal oversight and verification procedures. | Please refer to response to Article 11.2 above.  Control documentation/measures  LIBOR Code of Conduct, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf  | Please refer to response to Article 11.2.  |
| 34 | 4           | Where an administrator considers that the input data does not represent the market or economic reality that a benchmark is intended to measure, that administrator shall, within a reasonable time period, either change the input data, the contributors or the methodology in order to ensure that the input data does represent such market or economic reality, or else cease to provide that benchmark.   | This does not apply. However, the LIBOR Changes and Cessation Procedure would be invoked if IBA ceased to publish any LIBOR rates.  Control documentation/measures  LIBOR Changes and Cessation Procedure published at:  https://www.theice.com/publicdocs/BMR _LIBOR_Change_Cessation_Procedure. pdf | We obtained and inspected the LIBOR Changes and Cessation procedure policy to evidence the process if IBA's ceased to publish LIBOR. |
| 35 | 5           | ESMA shall develop draft regulatory technical standards to specify further how to ensure that input data is appropriate and verifiable, as required under points (a) and (b) of paragraph 1,   | Please refer to IBA's response to the Articles within the Commission Delegated Regulation (EU) 2018/1638.   | Please refer to EY's response to the Articles within the Commission Delegated Regulation (EU) 2018/1638.                             |

| #  | BMR  | BMR Requirement  | IBA's Response  | EY Evaluation Procedures                 |
|----|------|--|---|--|
|    | Ref. |  |   |  |
|    |      | as well as the internal oversight and verification procedures of a contributor that the administrator has to ensure are in place, in compliance with point (b) of paragraph 3, in order to ensure the integrity and accuracy of input data. However, the ESMA draft regulatory technical standards shall not cover or apply to administrators of non-significant benchmarks.               |   |  |
|    |      | ESMA shall take into account the different types of benchmarks and sectors as set out in this Regulation, the nature of input data, the characteristics of the underlying market or economic reality and the principle of proportionality, the vulnerability of the benchmarks to manipulation as well as the international convergence of supervisory practice in relation to benchmarks. |   |  |
|    |      | ESMA shall submit those draft regulatory technical standards to the Commission by 1 April 2017.  |   |  |
|    |      | Power is delegated to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with the procedure laid down in Articles 10 to 14 of Regulation (EU) No 1095/2010.  |   |  |
| 36 | 6    | ESMA may issue guidelines in accordance with Article 16 of Regulation (EU) No 1095/2010, addressed to administrators of non-significant benchmarks to specify the elements referred to in paragraph 5 of this Article.   | IBA does not administer any non-significant benchmarks. | This provision is not applicable to IBA. |

| #    | BMR<br>Ref. | BMR Requirement   | IBA's Response  | EY Evaluation Procedures  |
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|      | Nei.        |   |   |   |
|      |             |   |   |   |
| Arti | cle 12 M    | ethodology  |   |   |
| 37   | 1           | An administrator shall use a methodology for determining a benchmark that:  (a) is robust and reliable;  (b) has clear rules identifying how and when discretion may be exercised in the determination of that benchmark;  (c) is rigorous, continuous and capable of validation including, where appropriate, back-testing against available transaction data;  (d) is resilient and ensures that the benchmark can be calculated in the widest set of possible circumstances, without compromising its integrity;  (e) is traceable and verifiable. | Control objective  To use a robust and reliable benchmark methodology so that the benchmark can be calculated in the widest possible set of circumstances without compromising its integrity. The methodology should therefore include measures to address occasions when the expected data is not available. In addition, the methodology should be clear and transparent, and the data should be traceable and verifiable.  Control procedures  LIBOR:  The pre-Roadmap methodology for LIBOR is based on the submission guidelines in the Wheatley Review of LIBOR.  The Roadmap methodology uses LIBOR panel banks' unsecured wholesale transactions to the greatest extent possible, with a waterfall to enable a rate to be published in all market circumstances.  By 1 April 2019, all LIBOR Panel banks had transitioned to the Waterfall Methodology. | LIBOR:  ➤ We obtained the LIBOR Submission Methodology available on the website of IBA and inspected it for evidence of the pre- Roadmap and the Roadmap methodology as described by IBA in the response.  ICE Swap Rate:  ➤ We obtained the ICE Swap Rate Methodology available of the website of IBA and inspected it for evidence of the benchmark methodology as described in IBA's response.  Both benchmarks: |

| # | BMR  | BMR Requirement | IBA's Response  | EY Evaluation Procedures   |
|---|------|-----------------|---|--|
|   | Ref. |                 |   |  |
|   |      |                 | Neither methodology involves the exercise of discretion or the exercise of expert judgement by IBA.   | For a sample of rates during the period under<br>review, we performed recalculation testing and<br>validated that the published rates were in line<br>with the published methodology.  |
|   |      |                 | Data integrity is maintained through validation checks performed on the input data before being accepted into the benchmark calculation. Where the validation checks identify an anomaly, the bank is sent an automatic electronic alert and must confirm all of its submissions for that LIBOR | We obtained the IBA Surveillance Procedure<br>documents including the alerts for each<br>benchmark and inspected for evidence that<br>these were reviewed and approved by Head<br>of Benchmarks during the period under<br>review. |
|   |      |                 | currency.  LIBOR banks send evidence to IBA to support their submissions and, using purpose-built tools, IBA conducts post-publication surveillance on submissions to validate LIBOR rates.   | For a sample of dates during the period under review, we obtained the post-publication surveillance alert workbooks and inspected for evidence of alert flagging for review and completed actions for each flagged alert.          |
|   |      |                 | Submissions to validate LIBOR rates.  ICE Swap Rate:  | For a sample of Oversight Committee Meetings during the period under review, we obtained the Dashboards circulated within the Committees and inspected for evidence of the   |
|   |      |                 | The methodology for ICE Swap Rate uses tradable quotes from regulated electronic venues. It does not involve the exercise of discretion or the  | relevant post-publication surveillance information, alerts, investigations, escalating any suspicious input data identified.   |
|   |      |                 | exercise of expert judgement by IBA.  Both benchmarks:  | We obtained a sample of parameter changes<br>to the post-publication surveillance alerts tool<br>during the period under review and inspected<br>for appropriate approval.   |
|   |      |                 | The methodology is designed to ensure that the benchmark can be calculated a wide set of  | ► For a sample of daily and weekly backups of IBA systems/drives during the period under   |
|   |      |                 | possible circumstances, without compromising its integrity.   | review, we obtained the backup evidence to determine that data had been appropriately  |
|   |      |                 | Data integrity is maintained through validation checks performed on the input data before being accepted into the benchmark calculation. If there   | retained to comply with the BMR record keeping requirements.   |

| # | BMR  | BMR Requirement | IBA's Response  | EY E        | Evaluation Procedures   |
|---|------|-----------------|---|-------------|---|
|   | Ref. |                 |   |             |   |
|   |      |                 | is insufficient data, the insufficient data policies will be invoked.  Data security is managed through SSH keys for  |             | We obtained IBA's IT policies and procedures on change management, user access management, and other IT operations and inspected for evidence of IBA's response.  |
|   |      |                 | evidentiary files submitted through MFT, whitelisted IP addresses and user login credentials issued to each data provider individually.  Using purpose-built tools, IBA conducts post-publication surveillance to identify trends and possible anomalies in the data used to calculate the benchmark. |             | We obtained a sample of change requests over the IT environment, during the period under review, and inspected the change notice for evidence that the changes were implemented as management intended, by an independent production individual, tested in the relevant environments and monitored appropriately. |
|   |      |                 |   | 1<br>1<br>( | We obtained a sample of new user access requests and change access requests during the period under review and inspected for evidence of the relevant approvals as documented in the request ticket and that user access was provided or not, as appropriate.   |
|   |      |                 |   |             | We obtained a sample of user access termination requests during the period under review and inspected whether the user's access to the network, applications, operating systems and databases was disabled or revoked in a timely manner per internal policy.   |
|   |      |                 |   |             | We obtained the annual password review for a sample of technologies within the relevant infrastructure layers and inspected for evidence review of password requirements being met (unique user IDs, complexity, login controls and lifecycle management).  |
|   |      |                 |   |             | We obtained a sample of user access reviews during the period under review and inspected for evidence that the review was performed at the required frequency, reviewed by appropriate members of management and any required research and resolution was performed in the event of discrepancies.                |

| #  | BMR  | BMR Requirement   | IBA's Response  | EY Evaluation Procedures   |
|----|------|---|---|--|
| 38 | Ref. | When developing a benchmark methodology, a benchmark administrator shall:   | Control objective  To use robust methodologies that take into   | ➤ We obtained a sample of users' job titles during the period under review and inspected their user access in relation to their job title to assess the appropriateness of their access.   |
|    |      | <ul> <li>(a) take into account factors including the size<br/>and normal liquidity of the market, the<br/>transparency of trading and the positions of<br/>market participants, market concentration,<br/>market dynamics, and the adequacy of any</li> </ul> | account relevant market factors and utilise data in a defined hierarchy. An active market for the underlying market should be defined.  Control procedures  |  |
|    |      | sample to represent the market or economic reality that the benchmark is intended to measure;  (b) determine what constitutes an active market for the purposes of that benchmark; and  (c) establish the priority given to different types of input data.    | LIBOR:  (a) In developing the Roadmap methodology, IBA has taken into account factors including:  • The size and normal liquidity of the market: IBA has expanded the range of eligible counterparties and set minimum trade size thresholds;  • The transparency of trading and the positions of market participants, market concentration, market | <ul> <li>∠IBOR:</li> <li>We obtained the LIBOR Roadmap         Methodology and inspected for evidence of the         factors taken into consideration at the time         development are as described in IBA's         response as well as the defined active market         and priority given to different types of data         sets.</li> <li>We obtained the Terms of Reference of the         LIBOR Oversight Committee and inspected for         evidence of the Committee conducting regular         review of the underlying market and use of         LIBOR.</li> <li>We obtained a sample of the minutes of         meetings of the LIBOR Oversight Committee         and inspected for evidence of the Committee</li> </ul> |
|    |      |   | dynamics: LIBOR was initially created to be a gauge of unsecured funding for banks which was, to a very great   | conducting a regular review of the underlying market and use of LIBOR.  ICE Swap Rate:   |

| l |      | BMR Requirement | IBA's Response  | EY Evaluation Procedures  |
|---|------|-----------------|---|---|
|   | Ref. |                 |   |   |
|   | Ker. |                 | extent, driven by interbank activity prior to the financial crisis. The activity in that market has decreased markedly and wholesale deposits negotiated with other counterparties are playing an increasingly important role in bank funding. This change of behaviour is reflected in the Roadmap methodology; and  • The adequacy of any sample to represent the market or economic reality that the benchmark is intended to measure: panel sizes vary for the 5 LIBOR currencies; panel sizes range from 16 in USD to 11 in CHF. LIBOR banks submit rates every UK business day, even during periods of market turmoil and inactivity. LIBOR panel banks are large international institutions that are active in the wholesale markets.  (b) Through the LIBOR Oversight Committee, IBA has defined what constitutes an active market for the purposes of LIBOR. | <ul> <li>We obtained the ICE Swap Rate Methodology available of the website of IBA and inspected for evidence of the benchmark methodology as described in IBA's commentary.</li> <li>For the dates in which crossed order books occurred within the ISR calculation, we obtained management's operating procedures and concluded that the correct procedure was followed in addressing the crossed order book.</li> <li>Both benchmarks:</li> <li>For a sample of dates within the period under review, we reperformed the benchmark calculations for LIBOR and ICE Swap Rate for evidence of adherence to the published methodologies.</li> </ul> |

| # | BMR  | BMR Requirement | IBA's Response  | EY Evaluation Procedures |
|---|------|-----------------|---|--------------------------|
|   | Ref. |                 | 12/10 Hoopened  |                          |
|   |      |                 | (c) In accordance with the Wheatley Review, submissions before the transition to the Waterfall Methodology were based on a range of relevant transaction types. Greatest emphasis was placed on transactions undertaken by the panel bank itself. |                          |
|   |      |                 | The range of transaction types was:   |                          |
|   |      |                 | The contributing bank's transactions in:  |                          |
|   |      |                 | (a) The unsecured inter-<br>bank deposit market;  |                          |
|   |      |                 | <ul> <li>Other unsecured<br/>deposit markets, such<br/>as certificates of<br/>deposit and<br/>commercial paper;</li> </ul>  |                          |
|   |      |                 | Other related markets, such as overnight index swaps, repurchase agreements, foreign exchange forwards, interest rate futures and options and central bank operations; and  |                          |
|   |      |                 | The contributing bank's observations of third party   |                          |

| # | BMR  | BMR Requirement | IBA's Response  | EY Evaluation Procedures |
|---|------|-----------------|---|--------------------------|
|   | Ref. |                 |   |                          |
|   |      |                 | transactions in the same<br>markets and using the same<br>range of transactions; and  |                          |
|   |      |                 | <ul> <li>Indicative quotes by third<br/>parties offered to contributing<br/>banks in the same markets.</li> </ul>                           |                          |
|   |      |                 | The Wheatley Review submission methodology also framed the use of expert judgement in the process.  |                          |
|   |      |                 | IBA's Waterfall Methodology now bases LIBOR in transactions to the greatest extent possible, with three levels of submission methodologies: |                          |
|   |      |                 | Level 1: Transactions (using the time-weighted Volume Weighted Average Price (VWAP) of the contributor bank's eligible transactions);       |                          |
|   |      |                 | Level 2: Transaction-derived data (where submissions are based on the VWAP of adjusted historical transactions and interpolation); and      |                          |
|   |      |                 | Level 3: Market-data based Expert Judgment using a documented methodology for basing  |                          |

| # | BMR         | BMR Requirement | IBA's Response  | EY Evaluation Procedures |
|---|-------------|-----------------|---|--------------------------|
|   | Ref.        |                 |   |                          |
| # | BMR<br>Ref. | BMR Requirement | submissions on transactions in related markets, committed quotes, indicative quotes and other market observations.  ICE Swap Rate:  (a) In developing the methodology for ICE Swap Rate, IBA built in a number of safeguards to make the benchmark robust.  The calculation is based on finding the volume weighted average mid-price to fill a trade at a particular instant in time (a snapshot) in a minimum size. At each snapshot, IBA creates a synthetic order book that represents the best firm, committed prices (and | EY Evaluation Procedures |
|   |             |                 | accompanying volumes) available in the market at the time.  IBA uses multiple, randomised snapshots taken in a short window to protect against attempted manipulation and momentary aberrations in the market. Illiquid snapshots are excluded in the calculation and a minimum number of liquid snapshots is required to perform the calculation.  |                          |

| #  | BMR  | BMR Requirement   | IBA's Response  | EY Evaluation Procedures   |
|----|------|---|---|--|
|    | Ref. |   |   |  |
|    |      |   | In addition, IBA uses outlier checks and quality weighting so that only the most representative snapshots are used in the benchmark calculation.  |  |
|    |      |   | If there are not enough liquid snapshots to calculate the rate for a tenor, and providing that certain conditions are met, the day-on-day move in adjacent tenors and the previous day's rate for the tenor are used to interpolate a rate. |  |
|    |      |   | (b) An active market for the purposes of ICE Swap Rate is where there are enough liquid snapshots to calculate the rate for a tenor.  |  |
|    |      |   | (c) The ICE Swap Rate calculation uses tradable quotes sourced from regulated electronic trading venues.  |  |
| 39 | 3    | An administrator shall have in place clear published arrangements that identify the circumstances in which the quantity or quality of input data falls below the standards necessary for the methodology to determine the benchmark accurately and reliably, and that describe whether and how the benchmark is to be calculated in such circumstances. | Control objective  To have clear and transparent arrangements to address occasions on which there may be insufficient data in order to produce a benchmark using the usual procedures.  Control procedures                                  |  |
|    |      |   | <u>LIBOR:</u>   | LIBOR:  We obtained the LIBOR Reduced Submission policy on IBA's website and inspected for |

| BMR Requirement | IBA's Response  | EY Evaluation Procedures  |
|-----------------|---|---|
|                 | IBA has a Reduced Submissions Policy for LIBOR which sets out the minimum number of submissions required to perform the LIBOR calculation.  | evidence of contingency arrangements in instances where IBA does not receive sufficient input data to enable it to provide a benchmark are as described in IBA's response.  |
|                 | In the event that IBA receives fewer than 5 submissions for a currency (for example in a period of market stress or disruption), IBA would be likely to re-publish the previous day's published rate for all tenors in that particular currency.  | We tested the 21 March 2019 LIBOR published rate and noted that the published rate was in line with the LIBOR reduced Submission policy on IBA's website. ICE Swap Rate:  |
|                 | IBA noted that there had been an incident on 21 March 2019 which led to IBA publishing the LIBOR GBP rates by applying the reduced submission policy as well as an early publication of the LIBOR GBP rates at 11:54.16am.  This incident, reported to the FCA, was discussed at the LIBOR Oversight Committee of IBA held on Monday, 13 May 2019 and noted in the publicly available minutes of meetings on the IBA Website The exclusion of a panel bank's GBP LIBOR submission did not materially impact the published LIBOR GBP rates on that day and did not exceed the 3 bps re-fix threshold as per the LIBOR Error Policy.  Given that IBA did not publish Reported Errors during the transition period to the Waterfall Methodology, IBA included the incident in the ICE LIBOR - Reported Errors report, under the Reduced Submissions section. | We obtained the ICE Swap Rate Insufficient Data Policy on IBA's website and inspected for evidence of contingency arrangements in instances where IBA does not receive sufficient input data to enable it to provide a benchmark, as described in IBA's response. |

| #     | BMR<br>Ref. | BMR Requirement   | IBA's Response  | EY Evaluation Procedures   |
|-------|-------------|---|---|--|
|       |             |   | IBA has a Reduced Submissions Policy for ICE Swap Rate. The Policy provides that, if a tenor does not have sufficient volume during the data collection window, IBA will seek to publish a rate using movement interpolation.   |  |
|       |             |   | If movement interpolation cannot be applied (because the conditions for its use are not met and, for example, there is no liquidity in adjacent tenors), IBA publishes a 'No Publication' for that tenor. All other tenors that have enough volume are published as normal.   |  |
| Artic | cle 13 Tr   | ransparency of methodology  |   |  |
| 40    | 1           | An administrator shall develop, operate and administer the benchmark and methodology transparently. To that end, the administrator shall publish or make available the following information:  (a) the key elements of the methodology that the administrator uses for each benchmark provided and published or, when applicable, for each family of benchmarks provided and published;  (b) details of the internal review and the approval of a given methodology, as well as the frequency of such review; | Control objective  To ensure that the benchmark methodology is transparent to allow stakeholders to understand how the benchmark is derived and to assess its representativeness, relevance and appropriateness for their intended use.  Control procedures  LIBOR:  (a) The LIBOR methodology is designed to produce an average rate that is representative of the rates at which large, leading internationally active banks with access to the wholesale, unsecured funding market could fund themselves in such | LIBOR:  We obtained and inspected the LIBOR methodology available on the IBA website for evidence that it contains the definition of LIBOR as described in IBA's response.  We obtained the LIBOR Oversight Committee Terms of Reference and inspected for |

| # | BMR  | BMR Requirement   | IBA's | Response  | EY | Evaluation Procedures   |
|---|------|---|-------|---|----|---|
|   | Ref. |   |       |   |    |   |
|   |      | definition of what constitutes a material change and the circumstances in which the administrator is to notify users of any such changes. | (b)   | The LIBOR Oversight Committee reviews all aspects of the determination of the benchmark: the methodology; the definition of the benchmark; the suitability of inputs; the scope of the benchmark; and the setting of the benchmark.         | ١  | ICE Swap Rate:  We obtained and inspected the ICE Swap rate methodology available on IBA's website for evidence that it contains the definition of ICE Swap Rate methodology as described in IBA's  |
|   |      |   |       | At each meeting, the Committee reviews the underlying interest of the benchmark via a Dashboard of metrics and considers if there are any structural changes in the market.   | •  | response.  We obtained the ICE Swap Rate Oversight Committee Terms of Reference and inspected for evidence of responsibilities of the Committee as described in IBA's response.   |
|   |      |   | ICE S | wap Rate:   |    | Both benchmarks:  |
|   |      |   | (a)   | ICE Swap Rate represents the mid-price for interest rate swaps (the fixed leg), in various currencies and tenors and at particular times of the day.  | •  | We obtained a sample of the minutes of meetings of the LIBOR and ICE Swap Rate Oversight Committees and inspected for evidence of the management information presented with surveillance analysis of input data as described in IBA's response.   |
|   |      |   | (b)   | The ICE Swap Rate Oversight Committee reviews all aspects of the determination of the benchmark: the methodology; the definition of the benchmark; the suitability of inputs; the scope of the benchmark; and the setting of the benchmark. | •  | We obtained a sample of Dashboards presented to the Oversight Committees over the period under review and inspected for evidence of management information as described in IBA's response.  We obtained the relevant minutes of meetings of the IBA Board of Directors and inspected for evidence that consultation policies were |
|   |      |   |       | At each meeting, the Committee reviews the underlying interest of the benchmark via a Dashboard of metrics and considers if there are any structural changes in the market.   | •  | approved by the Board during the period under review.  For a sample of the methodology consultations during the period under review, we obtained evidence of adherence to the consultation policy.  |

| #  | BMR  | BMR Requirement  | IBA's Response   | EY Evaluation Procedures  |
|----|------|--|--|---|
|    | Ref. |  | The Oversight Committee will review all aspects of the determination of the benchmark: the methodology; the definition of the benchmark; the suitability of inputs; the scope of the benchmark; and the setting of the benchmark.  At each meeting the Committee reviews the underlying interest of the benchmark via a Dashboard of metrics and considers if there are any structural changes in the market.  Both benchmarks:  (d) IBA's published Consultation Policy, approved by the IBA Board, defines the process by which changes are made to the benchmark.  In accordance with the Consultation Policy, any material revisions are subject to consultation. IBA publishes a consultation paper on proposed changes; this includes a summary of the proposal and the rationale for the changes. |   |
| 41 | 2    | The procedures required under point (c) of paragraph 1 shall provide for:  (a) advance notice, with a clear time frame, that gives the opportunity to analyse and comment upon the impact of such proposed material changes; and | (a) IBA publishes consultation papers and invites interested parties to comment on the proposals by a specified date.  Factors to be taken into account in considering a change to the methodology include:  | <ul> <li>We obtained the Terms of Reference of the IBA Board of Directors and inspected that the consultation process is reviewed by IBA Board at least on an annual basis.</li> <li>For a sample of the methodology consultations during the period under review, we obtained evidence of adherence to the consultation policy.</li> </ul> |

| # | BMR  | BMR Requirement  | IBA's Response  | EY Evaluation Procedures |
|---|------|--|---|--------------------------|
|   | Ref. |  |   |                          |
|   |      | (b) the comments referred to in point (a) of this paragraph, and the administrator's response to those comments, to be made accessible | Feedback from the relevant Oversight Committee;   |                          |
|   |      | after any consultation, except where confidentiality has been requested by the   | Consultation feedback;  |                          |
|   |      | originator of the comments.  | The likely impact for existing and potential users of the benchmark;  |                          |
|   |      |  | Any regulatory implications;  |                          |
|   |      |  | Any operational or other risks which may arise as a consequence of the change;  |                          |
|   |      |  | The implementation timing of the change and its proximity to expected happenings (such as the introduction of new regulatory initiatives affecting the market); and |                          |
|   |      |  | <ul> <li>Any other factors of relevance to<br/>the particular change or desired<br/>outcome.</li> </ul>   |                          |
|   |      |  | IBA's Consultation Policy is approved by the IBA Board.   |                          |
|   |      |  | (b) IBA publishes a feedback statement summarising responses and excluding points made by a commenter who has requested confidentiality. IBA will publish           |                          |

| #  | BMR  | BMR Requirement   | IBA's Response  | EY Evaluation Procedures   |
|----|------|---|---|--|
|    | Ref. |   |   |  |
|    |      |   | actual responses unless a commenter has requested confidentiality.  |  |
|    |      |   | Please also refer to the response to Article 13.2 above.  |  |
| 42 | 3    | ESMA shall develop draft regulatory technical standards to specify further the information to be provided by an administrator in compliance with the requirements laid down in paragraphs 1 and 2, distinguishing for different types of benchmarks and sectors as set out in this Regulation. ESMA shall take into account the need to disclose those elements of the methodology that provide for sufficient detail to allow users to understand how a benchmark is provided and to assess its representativeness, its relevance to particular users and its appropriateness as a reference for financial instruments and contracts and the principle of proportionality. However, the ESMA draft regulatory technical standards shall not cover or apply to administrators of non-significant benchmarks.  ESMA shall submit those draft regulatory technical standards to the Commission by 1 April 2017.  Power is delegated to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with Articles 10 to 14 of Regulation (EU) No 1095/2010. | Please refer to IBA's response to the Articles within the Commission Delegated Regulation (EU) 2018/1641. | Please refer to EY's response to the Articles within the Commission Delegated Regulation (EU) 2018/1641. |
| 43 | 4    | ESMA may issue guidelines in accordance with Article 16 of Regulation (EU) No 1095/2010, addressed to administrators of non-significant   | IBA does not administer non-significant benchmarks.   | This provision is not applicable to IBA.   |

| #    | BMR<br>Ref. | BMR Requirement   | IBA's Response  | EY Evaluation Procedures   |
|------|-------------|---|---|--|
|      | Kei.        | benchmarks to specify further the elements referred to in paragraph 3 of this Article.  |   |  |
| Arti | cle 14 R    | eporting of infringements   |   |  |
| 44   | 1           | An administrator shall establish adequate systems and effective controls to ensure the integrity of input data in order to be able to identify and report to the competent authority any conduct that may involve manipulation or attempted manipulation of a benchmark, under Regulation (EU) No 596/2014. | Applicable benchmarks LIBOR and ICE Swap Rate.  Control objective  To ensure the integrity of input data through the use of pre-publication checks to detect manifest errors and post-publication surveillance designed to identify anomalies in input data which may involve manipulation or attempted manipulation of the benchmarks. Suspicious conduct should be reported to the FCA.  Control procedures  IBA carries out pre-publication validation checks to identify anomalies in the data provided to IBA for LIBOR and ICE Swap Rate. IBA carries out post-publication surveillance for LIBOR and ICE Swap Rate.  IBA's surveillance function validates input data after publication to identify errors and anomalies. The surveillance over the inputs to the benchmark calculation includes comparing the inputs to external market data. All alerts are investigated and resolved. | <ul> <li>We obtained the IBA Surveillance Procedure documents including the alerts for each benchmark and inspected for evidence that these were reviewed and approved by Head of Benchmarks during the period under review.</li> <li>For a sample of dates during the period under review, we obtained the post-publication surveillance alert workbooks and inspected for evidence of alert flagging for review and completed actions for each flagged alert.</li> <li>For a sample of Oversight Committee Meetings during the period under review, we obtained the Dashboards circulated within the Committees and inspected for evidence of the relevant post-publication surveillance information, alerts, investigations, escalating any suspicious input data identified.</li> <li>We obtained a sample of parameter changes to the post-publication surveillance alerts tool during the period under review and inspected for appropriate approval.</li> <li>For a sample of daily and weekly backups of IBA systems/drives during the period under</li> </ul> |

| #  | BMR  | BMR Requirement   | IBA's Response   | EY Evaluation Procedures  |
|----|------|---|--|---|
|    | Ref. |   | Conduct which may involve manipulation or attempted manipulation of the benchmarks is reported to the FCA. | review, we obtained the backup evidence to determine that data had been appropriately retained to comply with the BMR record keeping requirements.  We obtained the Terms of Reference of the LIBOR and ICE Swap Rate Oversight Committees and inspected for evidence of review of management information on transactional outliers and data anomalies as described in IBA's commentary.  We obtained a sample of Dashboards presented to the Oversight Committees over the period under review and inspected for evidence of management information as described in IBA's response.  We obtained IBA's internal compliance manual and inspected for evidence of escalation procedures for reporting infringements to the FCA.  We obtained and inspected the 2020 Compliance Plan reviewed and approved by the IBA Board on 21 November 2019 which includes a list of infringements reported to the FCA during the year. |
| 45 | 2    | An administrator shall monitor input data and contributors in order to be able to notify the competent authority and provide all relevant information where the administrator suspects that, in relation to a benchmark, any conduct has taken place that may involve manipulation or attempted manipulation of the benchmark, under Regulation (EU) No 596/2014, including collusion to do so. | Please refer to IBA's response to Article 14.1 above.  | Please refer to response to Article 14.1 above.   |

| #  | BMR  | BMR Requirement  | IBA's Response   | EY Evaluation Procedures   |
|----|------|--|--|--|
|    | Ref. |  |  |  |
|    |      | The competent authority of the administrator shall, where applicable, transmit such information to the relevant authority under Regulation (EU) No |  |  |
|    |      | 596/2014.  |  |  |
| 46 | 3    | Administrators shall have procedures in place for their managers, employees and any other natural persons whose services are placed at their       | Control objective  | <ul> <li>We obtained the IBA whistleblowing<br/>procedure available on the IBA website</li> </ul>  |
|    |      | disposal or under their control to report internally infringements of this Regulation.   | To provide a means for any person to alert IBA of any conduct that may relate to manipulation of a benchmark administered by IBA.  | and inspected for evidence that the whistle blowing procedures are as described in IBA's response.   |
|    |      |  | The arrangements also enable IBA employees to report a suspected infringement of the BMR.  | <ul> <li>We obtained the ICE Group's Global<br/>Code of Business Conduct and inspected<br/>for evidence that employees could raise<br/>concerns regarding ICE group's Global</li> </ul>  |
|    |      |  | Control procedures   | Code of Business Conduct violations via email, online or by telephone.   |
|    |      |  | IBA has a formal whistle-blowing procedure that provides a mechanism for any person to alert IBA of any conduct that may relate to manipulation of a benchmark administered by IBA.                  | <ul> <li>We obtained management's confirmation<br/>that there was no whistleblowing relating<br/>to infringements of the regulation during<br/>the period under review.</li> </ul>   |
|    |      |  | The procedure can be used by IBA managers, employees and any other natural persons whose services are placed at IBA's disposal or under IBA's control to report internally infringements of the BMR. | We obtained the relevant minutes of<br>meetings of the IBA Board where the<br>whistleblowing report is circulated and<br>inspected for evidence that there have<br>been no cases of whistleblowing relating<br>to infringements of the regulation in the<br>period under review. |
|    |      |  | An annual Whistleblowing report is made to the IBA Board.  |  |
|    |      |  | IBA employees and contractors are subject to the ICE group's Global Code of Business Conduct and to the ICE group's Global Reporting and Anti-Fraud Policy.  |  |

| # | BMR<br>Ref. | BMR Requirement | IBA's Response   | EY Evaluation Procedures |
|---|-------------|-----------------|--|--------------------------|
|   |             |                 | Employees are obliged to report a belief that someone is violating the Global Code of Business Conduct or policies, or otherwise acting in an illegal or unethical manner. |                          |

## **CHAPTER 3 Code of conduct and requirements for contributors**

## Article 15 Code of conduct

| #  | BMR  | BMR Requirement  | IBA's Response   | EY Evaluation Procedures   |
|----|------|--|--|--|
| ,, | Ref. | Sint Rodanoment  | is a response  | Z. Zvaldalion i roccuares  |
| 47 | 1    | Where a benchmark is based on input data from contributors, its administrator shall develop a code of conduct for each benchmark clearly specifying contributors' responsibilities with respect to the contribution of input data and shall ensure that such code of conduct complies with this Regulation. The administrator shall be satisfied that contributors adhere to the code of conduct on a continuous basis and at least annually and in case of changes to it. | Applicable benchmark LIBOR  Control objective  To specify in a code of conduct the responsibilities of the LIBOR panel banks concerning the provision to IBA of input data for LIBOR, and to ensure that the code is in compliance with the applicable BMR requirements.  The LIBOR Code of Conduct should therefore contain all of the elements required under the BMR and IBA should be satisfied that the LIBOR panel banks adhere to the Code.  Control procedures | <ul> <li>We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:         <ul> <li>Version 5 issued on 18 June 2018</li> <li>Version 6 issued on 9 February 2019</li> <li>Version 7 issued on 25 July 2019</li> </ul> </li> <li>and inspected for evidence that LIBOR panel banks are required to provide annual attestations on their compliance with the Code of Conduct and specified that the responsibilities of the LIBOR Panel Banks concerning the provision to IBA and input data for LIBOR.</li> <li>We obtained the Control Framework and inspected for evidence of monitoring controls over the LIBOR Code of Conduct attestation from LIBOR panel banks.</li> </ul> |

| #  | BMR  | BMR Requirement  | IBA's Response   | EY Evaluation Procedures  |
|----|------|--|--|---|
|    | Ref. |  |  |   |
|    |      |  | All versions of the LIBOR Code of Conduct are reviewed and approved by the Head of Compliance prior to issue, ensuring that the Code is complied with.   | We obtained the relevant minutes of meeting<br>of the IBA Board of Directors and inspected for<br>evidence that all LIBOR panel banks provided<br>their annual attestation to their compliance<br>with the LIBOR Code of Conduct.   |
|    |      |  | IBA published three versions of the LIBOR Code of Conduct during the period under review, which includes the code of conduct elements required by BMR Article 15(2).  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  The BMR Article 16 governance and control requirements for supervised contributors are also included in relevant Issues of the LIBOR Code of Conduct.  LIBOR panel banks adhere to the LIBOR Code of Conduct. Such adherence is checked by IBA and/or panel banks' external audits, site visits and annual attestations, as appropriate.  LIBOR panel banks are required to make annual | <ul> <li>We obtained management's confirmation that no material matters were identified by their review of the annual attestations and site visits of LIBOR panel Banks.</li> <li>We inspected the IBA Board minutes of meetings for evidence that all LIBOR panel banks submitted the required attestations in a timely manner.</li> </ul> |
|    |      |  | attestations to IBA.   |   |
| 48 | 2    | The code of conduct shall include at least the following elements:   | Please refer to IBA's response to Article 15.1 above.  | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  |
|    |      | (a) a clear description of the input data to be provided and the requirements necessary to ensure that input data is provided in accordance with Articles 11 and 14; |  | <ul> <li>Version 5 issued on 18 June 2018</li> <li>Version 6 issued on 9 February 2019</li> <li>Version 7 issued on 25 July 2019</li> </ul> and inspected for evidence that the requirements of Article 15.2 are covered in the code of conduct.  |

| #  | BMR   | BMR Requirement  | IBA's Response | EY Evaluation Procedures   |
|----|-------|--|----------------|--|
| #  | Ref.  | Dimit itequirement   | a iveshouse    | LI LValuation Flocedules   |
|    | 1101. | (b) identification of the persons that may contribute input data to the administrator and procedures to verify the identity of a contributor and any submitters, as well as authorisation of any submitters that contribute input data on behalf of a contributor; |                |  |
|    |       | (c) policies to ensure that a contributor provides all relevant input data;  |                |  |
|    |       | (d) the systems and controls that a contributor is required to establish, including:   |                |  |
|    |       | <ul> <li>(i) procedures for contributing input data, including requirements for the contributor to specify whether input data is transaction data and whether input data conforms to the administrator's requirements;</li> </ul>                                  |                |  |
|    |       | <ul> <li>(ii) policies on the use of discretion in contributing input data;</li> <li>(iii) any requirement for the validation of input data before it is provided to the</li> </ul>  |                |  |
|    |       | administrator; (iv) record-keeping policies; (v) reporting requirements concerning suspicious input data;  |                |  |
|    |       | <ul><li>(vi) requirements concerning the<br/>management of conflicts of interest.</li></ul>  |                |  |
| 49 | 3     | Administrators may develop a single code of conduct for each family of benchmarks they provide.  | Noted.         | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review: |
|    |       | provide.   |                | <ul><li>Version 5 issued on 18 June 2018</li><li>Version 6 issued on 9 February 2019</li></ul>   |

| #  | BMR  | BMR Requirement  | IBA's Response  | EY Evaluation Procedures   |
|----|------|--|---|--|
|    | Ref. |  |   | Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of Article 15.3 are covered in the code of conduct.       |
| 50 | 4    | In the event that a relevant competent authority, in the use of its powers referred to in Article 41, finds that there are elements of a code of conduct which do not comply with this Regulation, it shall notify the administrator concerned. The administrator shall adjust the code of conduct to ensure that it complies with this Regulation within 30 days of such a notification.  | Noted.  | No matters to report on.   |
| 51 | 5    | Within 15 working days from the date of application of the decision to include a critical benchmark in the list referred to in Article 20(1), the administrator of that critical benchmark shall notify the code of conduct to the relevant competent authority. The relevant competent authority shall verify within 30 days whether the content of the code of conduct complies with this Regulation. In the event that the relevant competent authority finds elements which do not comply with this Regulation, paragraph 4 of this Article shall apply. | Noted   | Not applicable to IBA as no additional IBA benchmarks were included in the list referred to in Article 20(1) during the period under review. |
| 52 | 6    | ESMA shall develop draft regulatory technical standards to specify further the elements of the code of conduct referred to in paragraph 2 for different types of benchmarks, and in order to take account of developments in benchmarks and financial markets.   | Please refer to IBA's response to the Articles within the Commission Delegated Regulation (EU) 2018/1639. | Please refer to EY's response to the Articles within the Commission Delegated Regulation (EU) 2018/1639.                                     |

| #  | BMR  | BMR Requirement  | IBA's Response   | EY Evaluation Procedures   |  |  |
|--|------|--|--|--|--|--|
|  | Ref. |  |  |  |  |  |
|  |      | ESMA shall take into account the different characteristics of benchmarks and contributors, in particular in terms of differences in input data and methodologies, the risks of input data of being manipulated and international convergence of supervisory practices in relation to benchmarks.  ESMA shall submit those draft regulatory technical standards to the Commission by 1 April 2017.  Power is delegated to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with the procedure laid down in Articles 10 to 14 of Regulation (EU) No 1095/2010. |  |  |  |  |
|  |      |  |  |  |  |  |
| Article 16 Governance and control requirements for supervised contributors |      |  |  |  |  |  |
| 53   | 1    | The following governance and control requirements shall apply to a supervised contributor:  (a) the supervised contributor shall ensure that the provision of input data is not affected by any existing or potential conflict of interest and that, where any discretion is required, it is independently and honestly exercised based on relevant information in accordance with the code of conduct referred to in Article 15;  (b) the supervised contributor shall have in place a control framework that ensures the   | Section 3.5 of the LIBOR Code of Conduct addresses these points. | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of Article 16.1 are covered in Section 3.5 of the LIBOR Code of Conduct. |  |  |
|  |      | integrity, accuracy and reliability of input   |  |  |  |  |

| #  | BMR  | BMR Requirement   | IBA's Response   | EY Evaluation Procedures  |
|----|------|---|--|---|
|    | Ref. |   |  |   |
|    |      | data and that input data is provided in   |  |   |
|    |      | accordance with this Regulation and the   |  |   |
|    |      | code of conduct referred to in Article 15.  |  |   |
|    |      |   |  |   |
| 54 | 2    | A supervised contributor shall have in place effective systems and controls to ensure the integrity and reliability of all contributions of input data to the administrator, including:   | Section 5.4 of the LIBOR Code of Conduct addresses these points. | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019 |
|    |      | <ul> <li>(a) controls regarding who may submit input<br/>data to an administrator including, where<br/>proportionate, a process for sign-off by a<br/>natural person holding a position senior to<br/>that of the submitter;</li> </ul>   |  | and inspected for evidence that the requirements of Article 16.2 are covered in Section 5.4 of the LIBOR Code of Conduct.   |
|    |      | <ul><li>(b) appropriate training for submitters, covering<br/>at least this Regulation and Regulation (EU)<br/>No 596/2014;</li></ul>   |  |   |
|    |      | (c) measures for the management of conflicts of interest, including organisational separation of employees where appropriate and consideration of how to remove incentives, created by remuneration polices, to manipulate a benchmark;   |  |   |
|    |      | (d) record-keeping, for an appropriate period of time, of communications in relation to provision of input data, of all information used to enable the contributor to make each submission, and of all existing or potential conflicts of interest including, but not limited to, the contributor's exposure to financial |  |   |

| #  | BMR  | BMR Requirement  | IBA's Response  | EY Evaluation Procedures   |
|----|------|--|---|--|
|    | Ref. |  |   |  |
|    |      | instruments which use a benchmark as a reference;  |   |  |
|    |      | <ul><li>(e) record-keeping of internal and external audits.</li></ul>  |   |  |
| 55 | 3    | Where input data relies on expert judgement, supervised contributors shall establish, in addition to the systems and controls referred to in paragraph 2, policies guiding any use of judgement or exercise of discretion and shall retain records of the rationale for any such judgement or discretion. Where proportionate, supervised contributors shall take into account the nature of the benchmark and its input data. | Sections 4.10 and 5.2 – 5.4 of the LIBOR Code of Conduct address these points.                            | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  inspected 4 for evidence that the requirements of Article 16.3 are covered in Section 4.10 and 5.2 – 5.4, of the LIBOR Code of Conduct. |
| 56 | 4    | A supervised contributor shall fully cooperate with the administrator and the relevant competent authority in the auditing and supervision of the provision of a benchmark and make available the information and records kept in accordance with paragraphs 2 and 3.  | Section 7 of the LIBOR Code of Conduct addresses this.  | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of Article 16.4 are covered in Section 7 of the LIBOR Code of Conduct.                 |
| 57 | 5    | ESMA shall develop draft regulatory technical standards to specify further the requirements concerning governance, systems and controls, and policies set out in paragraphs 1, 2 and 3.  ESMA shall take into account the different characteristics of benchmarks and supervised contributors, in particular in terms of differences in input data provided and methodologies used, the  | Please refer to IBA's response to the Articles within the Commission Delegated Regulation (EU) 2018/1639. | Please refer to EY's response to the Articles within the Commission Delegated Regulation (EU) 2018/1639.   |

| #  | BMR  | BMR Requirement                                      | IBA's Response                          | EY Evaluation Procedures                 |
|----|------|--|---|--|
|    | Ref. |  |   |  |
|    |      | risks of manipulation of the input data and the      |   |  |
|    |      | nature of the activities carried out by the          |   |  |
|    |      | supervised contributors, and the developments in     |   |  |
|    |      | benchmarks and financial markets in light of         |   |  |
|    |      | international convergence of supervisory practices   |   |  |
|    |      | in relation to benchmarks. However, the ESMA         |   |  |
|    |      | draft regulatory technical standards shall not cover |   |  |
|    |      | or apply to supervised contributors of non-          |   |  |
|    |      | significant benchmarks.                              |   |  |
|    |      | ESMA shall submit those draft regulatory technical   |   |  |
|    |      | standards to the Commission by 1 April 2017.         |   |  |
|    |      | otalidado to tilo commission by 17tpm 2017.          |   |  |
|    |      | Power is delegated to the Commission to adopt        |   |  |
|    |      | the regulatory technical standards referred to in    |   |  |
|    |      | the first subparagraph in accordance with the        |   |  |
|    |      | procedure laid down in Articles 10 to 14 of          |   |  |
|    |      | Regulation (EU) No 1095/2010.                        |   |  |
| 58 | 6    | ESMA may issue guidelines in accordance with         | IBA does not administer non-significant | This provision is not applicable to IBA. |
|    |      | Article 16 of Regulation (EU) No 1095/2010,          | benchmarks.                             |  |
|    |      | addressed to supervised contributors to non-         |   |  |
|    |      | significant benchmarks to specify the elements       |   |  |
|    |      | referred to in paragraph 5 of this Article.          |   |  |

### TITLE III REQUIREMENTS FOR DIFFERENT TYPES OF BENCHMARKS

### Article 18 Interest rate benchmarks

| #      | BMR<br>Ref.                    | BMR Requirement   | IBA's Response   | EY Evaluation Procedures   |  |  |
|--------|--------------------------------|---|--|--|--|--|
| 59     | -                              | The specific requirements laid down in Annex I shall apply to the provision of, and contribution to, interest rate benchmarks in addition to, or as a substitute for, the requirements of Title II.  Articles 24, 25 and 26 shall not apply to the provision of, and contribution to, interest rate benchmarks.   | The specific requirements of Annex I have been applied to LIBOR.   | Please refer to responses to Annex I Clause 1 to 4 for the specific requirements applied by IBA with respect to administration of LIBOR.               |  |  |
| Articl | e 19 Co                        | mmodity benchmarks  |  |  |  |  |
| 60     | 1                              | The specific requirements laid down in Annex II shall apply instead of the requirements of Title II, with the exception of Article 10, to the provision of, and contribution to, commodity benchmarks, unless the benchmark in question is a regulated-data benchmark or is based on submissions by contributors the majority of which are supervised entities.  Articles 24, 25 and 26 shall not apply to the provision of, and contribution to, commodity benchmarks. | Annex II of the BMR generally applies to Commodity Benchmarks instead of the general requirements in Title II (Benchmark integrity and reliability). Specific requirements of Annex II have been to LBMA Gold Price and LBMA Silver Price.  Article 10 in Title II refers to outsourcing, which is not applicable to Commodity benchmarks. | Please refer to responses to Annex II for the specific requirements applied by IBA with respect to administration of LBMA Gold Price and Silver Price. |  |  |
| 61     | 2                              | Where a commodity benchmark is a critical benchmark and the underlying asset is gold, silver or platinum, the requirements of Title II shall apply instead of Annex II.   | The LBMA Gold Price or the LBMA Silver Price are not critical benchmarks. Annex II of the BMR therefore applies to them instead of the general requirements in Title II.   | Please refer to responses to Annex II for the specific requirements applied by IBA with respect to administration of LBMA Gold Price and Silver Price. |  |  |
| Articl | Article 20 Critical benchmarks |   |  |  |  |  |

| #  | BMR  | BMR Requirement  | IBA's Response  | EY Evaluation Procedures  |
|----|------|--|---|---|
|    | Ref. |  |   |   |
| 62 | 1    | The Commission shall adopt implementing acts in accordance with the examination procedure referred to in Article 50(2) to establish and review at least every two years a list of benchmarks provided by administrators located within the Union which are critical benchmarks, provided that one of the following conditions is fulfilled:          | (No administrator actions)  LIBOR is a benchmark used directly as a reference for financial instruments or financial contracts or for measuring the performance of investment funds, having a total value of at least EUR 500 billion on the basis of all the range of maturities or tenors of the benchmark. | This provision is not applicable to the Benchmark Administrator and hence no procedures have been performed by EY for Article 20.1. |
|    |      | (a) the benchmark is used directly or indirectly within a combination of benchmarks as a reference for financial instruments or financial contracts or for measuring the performance of investment funds, having a total value of at least EUR 500 billion on the basis of all the range of maturities or tenors of the benchmark, where applicable; |   |   |
|    |      | (b) the benchmark is based on submissions by contributors the majority of which are located in one Member State and is recognised as being critical in that Member State in accordance with the procedure laid down in paragraphs 2, 3, 4 and 5 of this Article;   |   |   |
|    |      | (c) the benchmark fulfils all of the following criteria:         (i) the benchmark is used directly or indirectly within a combination of benchmarks as a reference for financial instruments or financial contracts or for measuring the  |   |   |

| # | BMR  | BMR Requirement                                  | IBA's Response | EY Evaluation Procedures |
|---|------|--|----------------|--------------------------|
|   | Ref. |  |                |                          |
|   |      | performance of investment funds                  |                |                          |
|   |      | having a total value of at least EUR             |                |                          |
|   |      | 400 billion on the basis of all the              |                |                          |
|   |      | range of maturities or tenors of the             |                |                          |
|   |      | benchmark, where applicable, but                 |                |                          |
|   |      | not exceeding the value provided                 |                |                          |
|   |      | for in point (a);                                |                |                          |
|   |      | (ii) the benchmark has no, or very few,          |                |                          |
|   |      | appropriate market-led substitutes;              |                |                          |
|   |      | (iii) in the event that the benchmark            |                |                          |
|   |      | ceases to be provided, or is                     |                |                          |
|   |      | provided on the basis of input data              |                |                          |
|   |      | no longer fully representative of the            |                |                          |
|   |      | underlying market or economic                    |                |                          |
|   |      | reality or on the basis of unreliable            |                |                          |
|   |      | input data, there would be                       |                |                          |
|   |      | significant and adverse impacts on               |                |                          |
|   |      | market integrity, financial stability,           |                |                          |
|   |      | consumers, the real economy, or                  |                |                          |
|   |      | the financing of households and                  |                |                          |
|   |      | businesses in one or more Member                 |                |                          |
|   |      | States.  |                |                          |
|   |      | If a benchmark meets the criteria set out in     |                |                          |
|   |      | point (c)(ii) and (iii) but does not meet the    |                |                          |
|   |      | criterion set out in point (c)(i), the competent |                |                          |
|   |      | authorities of the Member States concerned       |                |                          |
|   |      | together with the competent authority of the     |                |                          |
|   |      | Member State where the administrator is          |                |                          |
|   |      | established may agree that such benchmark        |                |                          |
|   |      | should be recognised as critical under this      |                |                          |
|   |      | subparagraph. In any case, the competent         |                |                          |
|   |      | authority of the administrator shall consult the |                |                          |
|   |      | competent authorities of the Member States       |                |                          |

| #  | BMR<br>Ref. | BMR Requirement   | IBA's Response             | EY Evaluation Procedures   |
|----|-------------|---|----------------------------|--|
|    |             | concerned. In the event of disagreement between the competent authorities, the competent authorities, the competent authority of the administrator shall decide whether the benchmark should be recognised as critical under this subparagraph, taking into account the reasons for the disagreement. The competent authorities or, in the event of disagreement, the competent authority of the administrator, shall transmit the assessment to the Commission. After receiving the assessment, the Commission shall adopt an implementing act in accordance with this paragraph. In addition, in the event of disagreement, the competent authority of the administrator shall transmit its assessment to ESMA, which may publish an opinion. |                            |  |
| 63 | 2           | Where the competent authority of a Member State referred to in point (b) of paragraph 1 considers that an administrator under its supervision provides a benchmark that should be recognised as critical, it shall notify ESMA and transmit to ESMA a documented assessment.  | (No administrator actions) | This provision is not applicable to Benchmark Administrators; therefore, no procedures were performed by EY over this provision. |
| 64 | 3           | For the purposes of paragraph 2, the competent authority shall assess whether the cessation of the benchmark or its provision on the basis of input data or of a panel of contributors no longer representative of the underlying market or economic reality would have an adverse impact on market integrity, financial stability, consumers, the real economy, or the financing of households and   | (No administrator actions) | This provision is not applicable to Benchmark Administrators; therefore, no procedures were performed by EY over this provision. |

| # | BMR  | BMR Requirement   | IBA's Response | EY Evaluation Procedures |
|---|------|---|----------------|--------------------------|
|   | Ref. |   |                |                          |
|   |      | businesses in its Member State. The competent authority shall take into consideration in its assessment:  |                |                          |
|   |      | (a) the value of financial instruments and financial contracts that reference the benchmark and the value of investment funds referencing the benchmark for measuring their performance within the Member State and their relevance in terms of the total value of financial instruments and of financial contracts outstanding, and of the total value of investment funds, in the Member State; |                |                          |
|   |      | (b) the value of financial instruments and financial contracts that reference the benchmark and the value of investment funds referencing the benchmark for measuring their performance within the Member State and their relevance in terms of the gross national product of the Member State;   |                |                          |
|   |      | (c) any other figure to assess on objective grounds the potential impact of the discontinuity or unreliability of the benchmark on market integrity, financial stability, consumers, the real economy, or the financing of households and businesses in the Member State. The competent authority shall review its assessment of the criticality of the benchmark at least every two years, and   |                |                          |

| #  | BMR  | BMR Requirement  | IBA's Response             | EY Evaluation Procedures  |
|----|------|--|----------------------------|---|
|    | Ref. | 1 11 27 14 371   |                            |   |
|    |      | shall notify and transmit the new assessment to ESMA.                                      |                            |   |
|    |      | assessment to ESIVIA.  |                            |   |
| 65 | 4    | Within six weeks of receipt of the notification  | (No administrator actions) | This provision is not applicable to Benchmark   |
|    |      | referred to in paragraph 2, ESMA shall issue   |                            | Administrators; therefore, no procedures were   |
|    |      | an opinion on whether the assessment of the  |                            | performed by EY over this provision.  |
|    |      | competent authority complies with the  |                            |   |
|    |      | requirements of paragraph 3 and shall transmit   |                            |   |
|    |      | such opinion to the Commission, together with the competent authority's assessment.        |                            |   |
| 66 | 5    | The Commission, after receiving the opinion  | (No administrator actions) | This provision is not applicable to Benchmark   |
|    |      | referred to in paragraph 4, shall adopt  | ,                          | Administrators; therefore, no procedures were   |
|    |      | implementing acts in accordance with   |                            | performed by EY over this provision.  |
|    |      | paragraph 1.   |                            |   |
| 67 | 6    | The Commission shall be empayored to adopt   | (No administrator actions) | This provision is not applicable to Department  |
| 67 | 6    | The Commission shall be empowered to adopt delegated acts in accordance with Article 49 in | (No administrator actions) | This provision is not applicable to Benchmark Administrators; therefore, no procedures were |
|    |      | order to:  |                            | performed by EY over this provision.  |
|    |      | 0.00.00  |                            |   |
|    |      | (a) specify how the nominal amount of  |                            |   |
|    |      | financial instruments other than   |                            |   |
|    |      | derivatives, the notional amount of  |                            |   |
|    |      | derivatives and the net asset value of   |                            |   |
|    |      | investment funds are to be assessed, including in the event of an indirect                 |                            |   |
|    |      | reference to a benchmark within a  |                            |   |
|    |      | combination of benchmarks, in order to   |                            |   |
|    |      | be compared with the thresholds referred   |                            |   |
|    |      | to in paragraph 1 of this Article and in   |                            |   |
|    |      | point (a) of Article 24(1);  |                            |   |
|    |      | (b) review the calculation method used to  |                            |   |
|    |      | determine the thresholds referred to in  |                            |   |
|    |      | paragraph 1 of this Article in the light of  |                            |   |

| #     | BMR      | BMR Requirement  | IBA's Response   | EY Evaluation Procedures  |
|-------|----------|--|--|---|
|       | Ref.     |  |  |   |
|       |          | market, price and regulatory developments as well as the appropriateness of the classification of benchmarks with a total value of financial instruments, financial contracts, or investment funds referencing them that is close to the thresholds; such review shall take place at least every two years as from 1 January 2018;   |  |   |
|       |          | (c) specify how the criteria referred to in point (c)(iii) of paragraph 1 of this Article are to be applied, taking into consideration any data which helps assess on objective grounds the potential impact of the discontinuity or unreliability of the benchmark on market integrity, financial stability, consumers, the real economy, or the financing of households and businesses in one or more Member States. |  |   |
|       |          | Where applicable, the Commission shall take into account relevant market or technological developments.  |  |   |
| Artic | le 21 Ma | ndatory administration of a critical benchmark   |  |   |
| 68    | 1        | If an administrator of a critical benchmark intends to cease providing such benchmark, the administrator shall:  (a) immediately notify its competent authority; and   | Control objective  To ensure that, if IBA intended to cease providing LIBOR, IBA would follow the procedures required under the BMR. | <ul> <li>We obtained and inspected the LIBOR         Changes and Cessation procedure to         evidence the process if IBA ceased to publish         LIBOR is as described in IBA's response.</li> <li>We obtained management's confirmation that         no notification of intention to cease the</li> </ul> |

| #  | BMR  | BMR Requirement  | IBA's Response   | EY Evaluation Procedures   |
|----|------|--|--|--|
|    | Ref. | •  | ·  |  |
|    |      | (b) within four weeks of such notification submit an assessment of how the benchmark:  (i) is to be transitioned to a new administrator; or  (ii) is to be ceased to be provided, taking into account the procedure established in Article 28(1).  During the period referred to in point (b) of the first subparagraph, the administrator shall not cease provision of the benchmark. | Control procedures  If IBA intended to cease providing LIBOR, IBA would immediately notify the FCA.  Within 4 weeks of such notification, IBA would submit an assessment of how LIBOR would be:  • Transitioned to a new administrator; or  • Ceased to be provided, taking into account the LIBOR Changes and Cessation Procedure.  During that period, IBA would not cease provision of the benchmark.  Control documentation/measures  • The LIBOR Changes and Cessation Procedure, published at:  https://www.theice.com/publicdocs/BMR_LI | publication of LIBOR was made to the FCA during the period under review. |
|    |      |  | BOR Change Cessation Procedure.pdf.  |  |
| 69 | 2    | Upon receipt of the assessment of the administrator referred to in paragraph 1, the competent authority shall:  (a) inform ESMA and, where applicable, the college established under Article 46; and  (b) within four weeks, make its own assessment of how the benchmark is to be transitioned to a new administrator or  | Noted.   | Please refer to response to Article 21.1.                                |

| #  | BMR  | BMR Requirement                                    | IBA's Response | EY Evaluation Procedures                          |
|----|------|--|----------------|---|
|    | Ref. |  |                |   |
|    |      | be ceased to be provided, taking into              |                |   |
|    |      | account the procedure established in               |                |   |
|    |      | accordance with Article 28(1).                     |                |   |
|    |      | During the period of time referred to in point (b) |                |   |
|    |      | of the first subparagraph of this paragraph, the   |                |   |
|    |      | administrator shall not cease the provision of     |                |   |
|    |      | the benchmark without the written consent of       |                |   |
|    |      | the competent authority.                           |                |   |
| 70 | 3    | Following completion of the assessment             | Noted.         | No matters to report on. Please refer to response |
|    |      | referred to in point (b) of paragraph 2, the       |                | to Article 21.2.                                  |
|    |      | competent authority shall have the power to        |                |   |
|    |      | compel the administrator to continue publishing    |                |   |
|    |      | the benchmark until such time as:                  |                |   |
|    |      | (a) the provision of the benchmark has been        |                |   |
|    |      | transitioned to a new administrator;               |                |   |
|    |      | transitioned to a new administrator,               |                |   |
|    |      | (b) the benchmark can be ceased to be              |                |   |
|    |      | provided in an orderly fashion; or                 |                |   |
|    |      | (c) the benchmark is no longer critical.           |                |   |
|    |      | For the purposes of the first subparagraph, the    |                |   |
|    |      | period for which the competent authority may       |                |   |
|    |      | compel the administrator to continue to publish    |                |   |
|    |      | the benchmark shall not exceed 12 months.          |                |   |
|    |      | By the end of that period, the competent           |                |   |
|    |      | authority shall review its decision to compel the  |                |   |
|    |      | administrator to continue to publish the           |                |   |
|    |      | benchmark and may, where necessary, extend         |                |   |
|    |      | the time period by an appropriate period not       |                |   |

| #  | BMR<br>Ref. | BMR Requirement   | IBA's Response  | EY Evaluation Procedures  |
|----|-------------|---|---|---|
|    |             | exceeding a further 12 months. The maximum period of mandatory administration shall not exceed 24 months in total.  |   |   |
| 71 | 4           | Without prejudice to paragraph 1, in the event that the administrator of a critical benchmark is to be wound down due to insolvency proceedings, the competent authority shall make an assessment of whether and how the critical benchmark can be transitioned to a new administrator or can cease to be provided in an orderly fashion, taking into account the procedure established in accordance with Article 28(1). | (No administrator actions)  | This provision is not applicable to Benchmark Administrators; therefore, no procedures were performed by EY.  |
|    | e 22 Mit    | igation of market power of critical benchmark a   | administrators  |   |
| 72 | -           | Without prejudice to the application of Union competition law, when providing a critical benchmark, the administrator shall take adequate steps to ensure that licences of, and information relating to, the benchmark are provided to all users on a fair, reasonable, transparent and non-discriminatory basis.   | Control objective  To ensure that IBA provides licences and information relating to LIBOR to all users on a fair, reasonable, transparent and non-discriminatory basis.  Control procedures  Measures taken by IBA include:  • Assessing the licences charged by other data providers to ensure that IBA's licences are fair, reasonable and in line with other data providers; | <ul> <li>We inspected that the ICE LIBOR licensing fee structure is available on the IBA website offering transparency interested parties, to evidence that the IBA fee structure is available to all users.</li> <li>We inspected the licensing arrangements available on the IBA website.</li> <li>We obtained management's confirmation that there was only one complaint made to IBA during the period under review, which we have tested as part of our procedures for Article 9, and this complaint did not relate to fee structure.</li> </ul> |

| #      | BMR<br>Ref. | BMR Requirement   | IBA's Response  | EY Evaluation Procedures                |
|--------|-------------|---|---|---|
| Articl |             | ndatory contribution to a critical benchmark  | Publishing IBA's fee structure on IBA's website to give transparency; and     Being non-discriminatory in IBA's licensing arrangements.  LIBOR data is made available to LIBOR licence holders on a real-time, intraday or delayed basis. Intraday LIBOR data is made available 4 hours after original publication time and delayed data is available 24 hours after original publication time.  Additionally, delayed benchmark data is available free of charge on IBA's website. |   |
| Artici | ie 23 Ma    | ndatory contribution to a critical benchmark  |   |   |
| 73     | 1           | This Article shall apply to critical benchmarks based on submissions by contributors the majority of which are supervised entities.   | Article 23 (Mandatory contribution to a critical benchmark) is applicable in respect of LIBOR.  | No matters to report on.                |
| 74     | 2           | Administrators of one or more critical benchmarks shall, every two years, submit to their competent authority an assessment of the capability of each critical benchmark they provide to measure the underlying market or economic reality.   | IBA has submitted to the FCA an assessment of the capability of LIBOR to measure its underlying market or economic reality.   | No matters to report on.                |
| 75     | 3           | If a supervised contributor to a critical benchmark intends to cease contributing input data, it shall promptly notify in writing the benchmark administrator, which shall inform without delay its competent authority. Where the supervised contributor is located in another Member State, the competent | If a LIBOR bank intended to cease contributing input data, IBA would submit to the FCA an assessment of the implications of such cessation on the capability of the benchmark to continue to measure the underlying market or economic reality. IBA would submit the assessment as soon as possible but no  | Please refer to response to Article 22. |

| #  | BMR  | BMR Requirement   | IBA's Response  | EY Evaluation Procedures  |
|----|------|---|---|---|
|    | Ref. |   | ·   |   |
|    |      | authority of the administrator shall inform, without delay, the competent authority of that contributor. The benchmark administrator shall submit to its competent authority an assessment of the implications on the capability of the benchmark to measure the underlying market or economic reality as soon as possible but no later than 14 days after the notification made by the supervised contributor.   | later than 14 days after the notification by the LIBOR bank intending to cease contributing input data. |   |
| 76 | 4    | Upon receipt of an assessment of the benchmark administrator referred to in paragraphs 2 and 3 of this Article and on the basis of such assessment, the competent authority of the administrator shall promptly inform ESMA and, where applicable, the college established under Article 46, and make its own assessment on the capability of the benchmark to measure the underlying market and economic reality, taking into account the administrator's procedure for cessation of the benchmark established in accordance with Article 28(1). | (No administrator actions)  | This provision is not applicable to Benchmark Administrators; therefore, no work was performed by EY over this provision. |
| 77 | 5    | From the date on which the competent authority of the administrator is notified of the intention of a contributor to cease contributing input data and until such time as the assessment referred to in paragraph 4 is complete, it shall have the power to require the contributors which made the notification in accordance with paragraph 3 to continue contributing input data, in any event for a period of no more than four weeks, without  | (No administrator actions)  | This provision is not applicable to Benchmark Administrators; therefore, no work was performed by EY over this provision. |

| #  | BMR<br>Ref. | BMR Requirement                                  | IBA's Response             | EY Evaluation Procedures  |
|----|-------------|--|----------------------------|---|
|    | Ref.        | [  |                            |   |
|    |             | imposing an obligation on supervised entities    |                            |   |
|    |             | to either trade or commit to trade.              |                            |   |
| 78 | 6           | In the event that the competent authority, after | (No administrator actions) | This provision is not applicable to Benchmark                               |
|    |             | the period specified in paragraph 5 and on the   |                            | Administrators; therefore, no work was performed by EY over this provision. |
|    |             | basis of its own assessment referred to in       |                            | by ET over this provision.  |
|    |             | paragraph 4, considers that the                  |                            |   |
|    |             | representativeness of a critical benchmark is    |                            |   |
|    |             | put at risk, it shall have the power to:         |                            |   |
|    |             | (a) require supervised entities selected in      |                            |   |
|    |             | accordance with paragraph 7 of this              |                            |   |
|    |             | Article, including entities that are not yet     |                            |   |
|    |             | contributors to the relevant critical            |                            |   |
|    |             | benchmark, to contribute input data to           |                            |   |
|    |             | the administrator in accordance with the         |                            |   |
|    |             | administrator's methodology, the code            |                            |   |
|    |             | of conduct referred to in Article 15 and         |                            |   |
|    |             | other rules. Such requirement shall be           |                            |   |
|    |             | in place for an appropriate period of            |                            |   |
|    |             | time not exceeding 12 months from the            |                            |   |
|    |             | date on which the initial decision               |                            |   |
|    |             | requiring mandatory contribution was             |                            |   |
|    |             | taken pursuant to paragraph 5 or, for            |                            |   |
|    |             | those entities that are not yet                  |                            |   |
|    |             | contributors, from the date on which the         |                            |   |
|    |             | decision requiring mandatory                     |                            |   |
|    |             | contribution is taken under this point;          |                            |   |
|    |             |  |                            |   |
|    |             | (b) extend the period of mandatory               |                            |   |
|    |             | contribution by an appropriate period of         |                            |   |
|    |             | time not exceeding 12 months, following          |                            |   |
|    |             | a review under paragraph 9 of any                |                            |   |
|    |             | measures adopted pursuant to point (a)           |                            |   |
|    |             | of this paragraph;                               |                            |   |
|    |             |  |                            |   |

| #  | BMR<br>Ref. | BMR Requirement  | IBA's Response             | EY Evaluation Procedures  |
|----|-------------|--|----------------------------|---|
|    |             | (c) determine the form in which, and the time by which, any input data is to be contributed without imposing an obligation on supervised entities to either trade or commit to trade;  |                            |   |
|    |             | (d) require the administrator to change the methodology, the code of conduct referred to in Article 15 or other rules of the critical benchmark.   |                            |   |
|    |             | The maximum period of mandatory contribution under points (a) and (b) of the first subparagraph shall not exceed 24 months in total.   |                            |   |
| 79 | 7           | For the purposes of paragraph 6, supervised entities that are to be required to contribute input data shall be selected by the competent authority of the administrator, with the close cooperation of the competent authorities of the supervised entities, on the basis of the size of the supervised entity's actual and potential participation in the market that the benchmark intends to measure. | (No administrator actions) | This provision is not applicable to Benchmark Administrators; therefore, no work was performed by EY over this provision. |
| 80 | 8           | The competent authority of a supervised contributor that has been required to contribute to a benchmark through measures taken in accordance with point (a), (b) or (c) of paragraph 6 shall cooperate with the competent authority of the administrator in the enforcement of such measures.  | (No administrator actions) | This provision is not applicable to Benchmark Administrators; therefore, no work was performed by EY over this provision. |

| #  | BMR<br>Ref. | BMR Requirement  | IBA's Response             | EY Evaluation Procedures  |
|----|-------------|--|----------------------------|---|
| 81 | 9           | By the end of the period referred to in point (a) of the first subparagraph of paragraph 6, the competent authority of the administrator shall review the measures adopted under paragraph 6. It shall revoke any of them if it considers that:  (a) the contributors are likely to continue   | (No administrator actions) | This provision is not applicable to Benchmark Administrators; therefore, no work was performed by EY over this provision. |
|    |             | contributing input data for at least one year if the measure were revoked, which shall be evidenced by at least: (i) a written commitment by the contributors to the administrator and the competent authority to continue contributing input data to the critical benchmark for at least one year if the measure were revoked; (ii) a written report by the administrator to the competent authority providing evidence for its assessment that the critical benchmark's continued viability can be assured once mandatory contribution has been revoked; |                            |   |
|    |             | (b) the provision of the benchmark is able to continue once the contributors mandated to contribute input data have ceased contributing;   |                            |   |
|    |             | (c) an acceptable substitute benchmark is available and users of the critical benchmark can switch to this substitute at minimal costs which shall be evidenced by at least a written report by  |                            |   |

| #  | BMR  | BMR Requirement  | IBA's Response   | EY Evaluation Procedures  |
|----|------|--|--|---|
|    | Ref. | •  | ·  |   |
|    |      | the administrator detailing the means of<br>transition to a substitute benchmark and<br>the ability and costs to users of<br>transitioning to this benchmark; or   |  |   |
|    |      | (d) no appropriate alternative contributors can be identified and the cessation of contributions from the relevant supervised entities would weaken the benchmark to such an extent to require the cessation of the benchmark.   |  |   |
| 82 | 10   | In the event that a critical benchmark is to be ceased to be provided, each supervised contributor to that benchmark shall continue to contribute input data for a period of time determined by the competent authority, but not exceeding the maximum 24-month period laid down in the second subparagraph of paragraph 6.  | (No administrator actions)   | This provision is not applicable to Benchmark Administrators; therefore, no work was performed by EY over this provision.         |
| 83 | 11   | The administrator shall notify the relevant competent authority in the event that any contributors breach the requirements set out in paragraph 6 as soon as reasonably possible.  | IBA would notify the FCA promptly if a LIBOR bank were in breach of a compulsion order and did not provide input data. | We obtained management's confirmation that no breaches of paragraph 6 of this article were noted by any of the LIBOR panel banks. |
| 84 | 12   | In the event that a benchmark is recognised as critical in accordance with the procedure laid down in Article 20 (2), (3), (4) and (5), the competent authority of the administrator shall have the power to require input data in accordance with paragraph 5, and points (a), (b) and (c) of paragraph 6, of this Article only from supervised contributors located in its Member State. | (No administrator actions)   | This provision is not applicable to Benchmark Administrators; therefore, no work was performed by EY over this provision.         |

### TITLE IV TRANSPARENCY AND CONSUMER PROTECTION

### Article 27 Benchmark statement

| #  | BMR | BMR Requirement   | IBA's Response  | EY Evaluation Procedures  |
|----|-----|---|---|---|
| #  |     | DININ NEQUITERIN  | ing a veahouse  | ET Evaluation Frocedures  |
| 85 | 1 1 | Within two weeks of the inclusion of an administrator in the register referred to in Article 36, the administrator shall publish, by means that ensure fair and easy access, a benchmark statement for each benchmark or, where applicable, for each family of benchmarks, that may be used in the Union in accordance with Article 29. Where that administrator begins providing a new benchmark or family of benchmarks that may be used in the Union in accordance with Article 29, the administrator shall publish, within two weeks and by means that ensure a fair and easy access, a benchmark statement for each new benchmark or, where applicable, family of benchmarks. The administrator shall review and, where necessary, update the benchmark statement for each benchmark or family of benchmarks in the event of any changes to the information to be provided under this Article and at least every two years. The benchmark statement shall:  (a) clearly and unambiguously define the market or economic reality measured by the benchmark and the circumstances in which such measurement may become unreliable; | Control objective  That IBA publishes Benchmark Statements in accordance with BMR Article 27 for all IBA benchmarks.  Control procedures  IBA publishes Benchmark Statements for LIBOR, ICE Swap Rate, the LBMA Gold Price and the LBMA Silver Price.  Each Benchmark Statement is circulated to the relevant Oversight Committee before publication. | <ul> <li>▶ We inspected the IBA website for the published Benchmark Statements for LIBOR, ICE Swap Rate, the LBMA Gold Price and the LBMA Silver Price to confirm that these statements include the BMR requirements Refer to Article 27.1 and Article 27.2.</li> <li>▶ We obtained the relevant minutes of each relevant Oversight Committee meetings and inspected for evidence of reviews of the Benchmark Statements during the period under review.</li> </ul> |

| #  | BMR  | BMR Requirement   | IBA's Response   | EY Evaluation Procedures                  |
|----|------|---|--|---|
|    | Ref. |   |  |   |
|    |      | (b) lay down technical specifications that clearly and unambiguously identify the |  |   |
|    |      | elements of the calculation of the  |  |   |
|    |      | benchmark in relation to which discretion   |  |   |
|    |      | may be exercised, the criteria applicable to                                      |  |   |
|    |      | the exercise of such discretion and the position of the persons that can exercise |  |   |
|    |      | discretion, and how such discretion may   |  |   |
|    |      | be subsequently evaluated;  |  |   |
|    |      | (c) provide notice of the possibility that factors,                               |  |   |
|    |      | including external factors beyond the   |  |   |
|    |      | control of the administrator, may   |  |   |
|    |      | necessitate changes to, or the cessation  |  |   |
|    |      | of, the benchmark; and  |  |   |
|    |      | (d) advise users that changes to, or the  |  |   |
|    |      | cessation of, the benchmark may have an   |  |   |
|    |      | impact upon the financial contracts and financial instruments that reference the  |  |   |
|    |      | benchmark or the measurement of the   |  |   |
|    |      | performance of investment funds.  |  |   |
|    |      | ponomianos en invocament rando.   |  |   |
| 86 | 2    | A benchmark statement shall contain at least:                                     | Please refer to IBA's response to Article 27.1 above and associated links. | Please refer to response to Article 27.1. |
|    |      | (a) the definitions for all key terms relating to                                 | and associated links.  |   |
|    |      | the benchmark;  |  |   |
|    |      | and bononmand,  |  |   |
|    |      | (b) the rationale for adopting the benchmark                                      |  |   |
|    |      | methodology and procedures for the  |  |   |
|    |      | review and approval of the methodology;   |  |   |
|    |      | (c) the criteria and procedures used to   |  |   |
|    |      | determine the benchmark, including a  |  |   |

| # | BMR<br>Ref. | BMR Requirement  | IBA's Response | EY Evaluation Procedures |
|---|-------------|--|----------------|--------------------------|
|   |             | description of the input data, the priority given to different types of input data, the minimum data needed to determine a benchmark, the use of any models or methods of extrapolation and any procedure for rebalancing the constituents of a benchmark's index; |                |                          |
|   |             | (d) the controls and rules that govern any exercise of judgement or discretion by the administrator or any contributors, to ensure consistency in the use of such judgement or discretion;   |                |                          |
|   |             | (e) the procedures which govern the determination of the benchmark in periods of stress or periods where transaction data sources may be insufficient, inaccurate or unreliable and the potential limitations of the benchmark in such periods;                    |                |                          |
|   |             | (f) the procedures for dealing with errors in input data or in the determination of the benchmark, including when a redetermination of the benchmark is required; and  |                |                          |
|   |             | (g) the identification of potential limitations of the benchmark, including its operation in illiquid or fragmented markets and the possible concentration of inputs.  |                |                          |

| #      | BMR      | BMR Requirement   | IBA's Response  | EY Evaluation Procedures   |
|--------|----------|---|---|--|
| #      | Ref.     | Bill Requirement  | IDA 5 Response  | ET Evaluation Frocedules   |
| 87     | 3        | ESMA shall develop draft regulatory technical standards to specify further the contents of a benchmark statement and the cases in which an update of such statement is required. ESMA shall distinguish between the different types of benchmarks and sectors as set out in this Regulation and shall take into account the principle of proportionality.   | Please refer to IBA's response to the Articles within the Commission Delegated Regulation (EU) 2018/1643.   | Please refer to EY's response to the Articles within the Commission Delegated Regulation (EU) 2018/1643.   |
|        |          | ESMA shall submit those draft regulatory technical standards to the Commission by 1 April 2017.   |   |  |
|        |          | Power is delegated to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with the procedure laid down in Articles 10 to 14 of Regulation (EU) No 1095/2010.   |   |  |
| Articl | le 28 Ch | anges to and cessation of a benchmark   |   |  |
| 88     | 1        | An administrator shall publish, together with the benchmark statement referred to in Article 27, a procedure concerning the actions to be taken by the administrator in the event of changes to or the cessation of a benchmark which may be used in the Union in accordance with Article 29(1). The procedure may be drafted, where applicable, for families of benchmarks and shall be updated and published whenever a material change occurs. | Control objective  To ensure that users are aware of the factors that would be taken into account by IBA in changing or ceasing to produce a benchmark.  Control procedures  IBA publishes the procedures that would be taken into account if IBA decided to change or cease to produce a benchmark, including: | <ul> <li>We inspected the IBA website for the published procedures to be taken into account if IBA decides to change or cease to produce a benchmark.</li> <li>We obtained and inspected the Oversight Committee minutes of meetings for evidence that details of any proposed changes or cessation of ICE LIBOR, ICE Swap Rate or one or both of the LBMA Precious Metals would be reviewed and agreed with the LIBOR Oversight Committee, the ICE Swap Rate Oversight Committee and the Precious Metals Oversight Committee respectively which have</li> </ul> |

| #  | BMR  | BMR Requirement   | IBA's Response   | EY Evaluation Procedures  |
|----|------|---|--|---|
|    | Ref. |   |  |   |
|    |      |   | <ul> <li>The role of the relevant Oversight Committee;</li> <li>Timing of the change or cessation, including how much notice should or could be given;</li> <li>Any transitional measures; and</li> <li>Stakeholder engagement.</li> </ul> | an important role in monitoring the execution of the plan.  We obtained and inspected the Oversight Committee minutes of meetings of the relevant Committees for evidence that each Committee reviews the respective Changes and Cessation Procedure. |
|    |      |   | • Stakeholder engagement.  |   |
| 89 | 2    | Supervised entities other than an administrator as referred to in paragraph 1 that use a benchmark shall produce and maintain robust written plans setting out the actions that they would take in the event that a benchmark materially changes or ceases to be provided. Where feasible and appropriate, such plans shall nominate one or several alternative benchmarks that could be referenced to substitute the benchmarks no longer provided, indicating why such benchmarks would be suitable alternatives. The supervised entities shall, upon request, provide the relevant competent authority with those plans and any updates and shall reflect them in the contractual relationship with clients. | (No administrator actions)   | This provision is not applicable to Administrators of Benchmarks; therefore, no work was performed by EY over this provision.   |

## ANNEX I INTEREST RATE BENCHMARKS

### Accurate and sufficient data

| #  |                | BMR text  | IBA's Response  | EY Evaluation Procedure  |
|----|----------------|---|---|--|
| 90 | <b>BMR</b> # 1 | For the purposes of points (a) and (c) of Article 11(1), in general the priority of use of input data shall be as follows:  (a) a contributor's transactions in the underlying market that a benchmark intends to measure or, if not sufficient, its transactions in related markets, such as:  — the unsecured inter-bank deposit market, — other unsecured deposit markets, including certificates of deposit and commercial paper, and — other markets such as overnight index swaps, repurchase agreements, foreign exchange forwards, interest rate futures and options, provided that those | IBA's Response  Control objective  To ensure that LIBOR is anchored in transaction data where possible.  Control procedures  IBA's Waterfall Methodology for submitting rates to calculate LIBOR is as follows:  Level 1: The Volume Weighted Average Price ('VWAP') of eligible borrowing transactions;  Level 2: Submissions derived from historical transactions adjusted for market | We obtained the LIBOR Submission     Methodology available on the website of IBA     and inspected it for evidence of the LIBOR     Roadmap as described in IBA's commentary.      We inspected the IBA Website for     confirmation of the transition of all panel banks     to waterfall methodology by the end of March     2019. |
|    |                | transactions comply with the input data requirements in the code of conduct;  (b) a contributor's observations of third party transactions in the markets described in point (a);   | movements; and  Level 3: Market based Expert Judgement driven by the contributor bank's own internally approved procedures that are agreed  |  |
|    |                | <ul><li>(c) committed quotes;</li><li>(d) indicative quotes or expert judgements.</li></ul>   | upon by IBA.  The Waterfall Methodology, which is set out in the ICE LIBOR Output Statement <sup>4</sup> , anchors LIBOR in transaction data to the greatest extent possible  |  |

<sup>&</sup>lt;sup>4</sup> The ICE LIBOR Output Statement, published at: <a href="https://www.theice.com/publicdocs/ICE\_LIBOR\_Output\_Statement.pdf">https://www.theice.com/publicdocs/ICE\_LIBOR\_Output\_Statement.pdf</a>.

| # | BMR<br># | BMR text | IBA's Response  | EY Evaluation Procedure |
|---|----------|----------|---|-------------------------|
| # | BMR<br># | BMR text | whilst allowing for Expert Judgement at Level 3 to ensure that contributor banks can make a submission even if liquidity and transaction data is very sparse on a particular day or in particular tenors.  IBA completed the transition of LIBOR panel banks to the Waterfall Methodology in March 2019.  Before a bank had transitioned to the Waterfall Methodology, the submission guidelines set out in Box 4.B of Wheatley Review on LIBOR applied. Those guidelines state that LIBOR banks should make explicit and clear use of transaction data to corroborate their submissions.  The hierarchy of submissions in the Wheatley Review was as follows:  1. Contributing banks' transactions in the unsecured inter-bank deposit market; other unsecured deposit markets, including but not limited to, certificates of deposit and commercial paper; and other related markets, including but not limited | EY Evaluation Procedure |
|   |          |          | to, overnight index swaps, repurchase agreements, foreign exchange forwards, interest rate futures and options and central bank operations.  2 Contributing banks' observations of third party transactions in the same markets.  |                         |

| #  | BMR | BMR text  | IBA's Response  | EY Evaluation Procedure  |
|----|-----|---|---|--|
|    | #   |   | 3 Quotes by third parties offered to contributing banks in the same markets. 4 In the absence of transaction data relating to a specific LIBOR benchmark, expert judgement should be used to determine a submission.  |  |
| 91 | 2   | For the purposes of point (a) of Article 11(1) and Article 11(4), input data may be adjusted. In particular, input data may be adjusted by application of the following criteria:  (a) proximity of transactions to the time of provision of the input data and the impact of any market events between the time of the transactions and the time of provision of the input data;  (b) interpolation or extrapolation from transactions data;  (c) adjustments to reflect changes in the credit standing of the contributors and other market participants. | For LIBOR banks before their transition to IBA's Waterfall Methodology, the Wheatley Review's hierarchy of submissions allowed submissions to be adjusted for:  • the proximity of transactions to the time of the submission and the impact of market events between transactions and submission time;  • Techniques for interpolation or extrapolation from available data;  • Changes relative credit standing of the contributor banks and other market participants; and  • Non-representative transactions.  For LIBOR banks after their transition to the Waterfall Methodology, Level 2 submissions use transaction-derived data, including time-weighted historical transactions adjusted for market movements and linear interpolation. | <ul> <li>We obtained the LIBOR Submission         Methodology and inspected for evidence that         pre-Roadmap section covers the Box 4 of the         Wheatley as described in IBA's response.</li> <li>We obtained the LIBOR Submission         Methodology and inspected for evidence that         Roadmap methodology is as described in         IBA's response for Level 2 Submissions.</li> </ul> |

| #      | BMR<br>#  | BMR text  | IBA's Response  | EY Evaluation Procedure   |
|--------|-----------|---|---|---|
|        | , ,       |   | The proximity of transactions to the time of provision of the input data is therefore taken into account and interpolation is used.   |   |
| Oversi | ght funct | tion  |   |   |
| 92     | 3         | The following requirements shall apply in substitution for the requirements of Article 5(4) and (5):  (a) the administrator of an interest rate benchmark shall have in place an independent oversight committee. Details of the membership of that committee shall be made public, along with any declarations of any conflict of interest and the processes for election or nomination of its members;  (b) the oversight committee shall hold no less than one meeting every four months and shall keep minutes of each such meeting;  (c) the oversight committee shall operate with integrity and shall have all of the responsibilities provided for in Article 5(3). | Control objective  To ensure that there is robust and independent oversight for LIBOR.  The composition of the Oversight Committee should ensure that a balance of interests is represented; that Committee members collectively exhibit an appropriate breadth of knowledge, experience and expertise; and that the Committee is able to represent a suitable diversity of views.  Control procedures  (a) The LIBOR Oversight Committee provides independent oversight for LIBOR.  The composition of the Committee includes LIBOR panel banks, representatives of benchmark users, market infrastructure providers, independent non-executive directors of IBA and other relevant experts.  Representatives from the Board of Governors of the Federal Reserve System, the Swiss National Bank and the Bank of England also sit on the | <ul> <li>We obtained the Terms of Reference of the LIBOR Oversight Committee and inspected for evidence that it is responsible for oversight of LIBOR benchmark.</li> <li>We obtained a sample of the minutes of meetings of the LIBOR Oversight Committee and inspected for evidence that it provided the necessary oversight as per the Terms of Reference.</li> <li>We obtained the listing of the members of the LIBOR Oversight Committee and inspected for evidence of the composition of the Committee as described in IBA's response.</li> <li>We obtained the IBA Committee Member Letter of Appointment template and inspected for evidence of the requirement for declaration of any other appointments or arrangements that conflict or may conflict with their position as a Committee member.</li> <li>We obtained a sample of the minutes of meetings of the LIBOR Oversight Committee from the IBA Website and inspected for evidence that committee member conflict of interest declaration is a standing agenda point.</li> <li>We inspected the Terms of Reference of the LIBOR Oversight Committees the terms.</li> </ul> |
|        |           |   | Committee as Observers.   | LIBOR Oversight Committee for evidence that it meets 6 times a year and the public meeting  |

| #       | BMR  | BMR text  | IBA's Response   | EY Evaluation Procedure   |
|---------|------|---|--|---|
|         | #    |   |  |   |
|         |      |   | Before a Committee member is appointed, IBA holds a conference call with the potential Committee member to discuss any potential conflicts of interest he or she may have.  Declaration of any new conflicts of interest is a standing agenda item for each Oversight Committee meeting.  (b) The LIBOR Oversight Committee currently meets at least four times a year.  Minutes are produced for each meeting. Full minutes of the Committee's meetings are shared with the FCA. Public minutes are published on IBA's website.  (c) The LIBOR Oversight Committee operates with integrity and its Terms of Reference cover all of the responsibilities provided for in Article 5(3). | minutes of the Committee are available on IBA's website.  We obtained the relevant minutes of meetings of the LIBOR Oversight Committee from the IBA Website and inspected for evidence that the LIBOR Oversight Committee met at least 6 times a year.  We obtained a sample of the minutes of meetings of the LIBOR Oversight Committee and inspected evidence that it performed the duties and responsibilities as per the published Terms of Reference. |
| Auditir | na - |   |  |   |
| Additil | שׁי  |   |  |   |
| 93      | 4    | The administrator of an interest rate benchmark shall appoint an independent external auditor to review and report on the administrator's compliance with the benchmark methodology and this Regulation. The external audit of the administrator shall be carried out for the first time six months after the introduction of the code of conduct and | IBA has appointed an independent external auditor with appropriate experience and capability to review and report on IBA's adherence to its stated methodology criteria and with the requirements of the BMR.  | EY were appointed as the Auditor of IBA on 22<br>November 2018 to provide assurance over IBA's<br>compliance with BMR and adherence with<br>benchmark methodology for the period 1<br>December 2018 to 30 November 2019.  |

| #      | BMR<br>#  | BMR text   | IBA's Response   | EY Evaluation Procedure   |
|--------|-----------|--|--|---|
|        | "         | subsequently every two years. The oversight committee may require an external audit of a contributor to an interest rate benchmark if dissatisfied with any aspects of its conduct.  |  |   |
| Contri | butor sys | stems and controls   |  |   |
| 94     | 5         | The following requirements shall apply to contributors to interest rate benchmarks, in addition to the requirements set out in Article 16. Article 16(5) shall not apply.  | This provision is included within the LIBOR Code of Conduct, version 5 of which was verified by the FCA as being in conformance with the BMR requirements. | We obtained and inspected the FCA's review of the LIBOR Code of Conduct version 5.  |
| 95     | 6         | Each contributor's submitter and the direct managers of that submitter shall acknowledge in writing that they have read the code of conduct and that they will comply with it.   | Section 8 of the LIBOR Code of Conduct refers.   | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of Annex 1.6 are included in Section 8 of the LIBOR Code of Conduct.          |
| 96     | 7         | A contributor's systems and controls shall include:  (a) an outline of responsibilities within each firm, including internal reporting lines and accountability, including the location of submitters and managers and the names of relevant individuals and alternates;  (b) internal procedures for sign-off of contributions of input data; | Sections 5.1 and 5.2 of the LIBOR Code of Conduct refer.   | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019 and inspected for evidence that the requirements of Annex1.7 are included in Sections 5.1 and 5.2 of the LIBOR Code of Conduct. |

| # | BMR | BMR text  | IBA's Response | EY Evaluation Procedure   |
|---|-----|---|----------------|---------------------------|
| " | #   | Sint toxt   | ISA O Responde | ET ETAIMARION T TOOCHAITO |
|   |     | (c) disciplinary procedures, actual or attempted manipulation by parties external to the contribution process;  |                |                           |
|   |     | (d) effective conflicts of interest management procedures and communication controls, both within contributors and between contributors and other third parties, to avoid any inappropriate external influence over those responsible for submitting rates. Submitters shall work in locations physically separated from interest rate derivatives traders; |                |                           |
|   |     | (e) effective procedures to prevent or control the exchange of information between persons engaged in activities involving a risk of conflict of interest where the exchange of that information may affect the benchmark data contributed;   |                |                           |
|   |     | (f) rules to avoid collusion among contributors, and between contributors and the benchmark administrators;   |                |                           |
|   |     | (g) measures to prevent, or limit, any person from exercising inappropriate influence over the way in which persons involved in the provision of input data carries out those activities;   |                |                           |
|   |     | (h) the removal of any direct link between the remuneration of employees involved in the provision of input data and the  |                |                           |

| #  | BMR<br># | BMR text  | IBA's Response                                 | EY Evaluation Procedure  |
|----|----------|---|--|--|
|    | #        | remuneration of, or revenues generated by, persons engaged in another activity, where a conflict of interest may arise in relation to those activities;  (i) controls to identify any reverse transaction subsequent to the provision of input data.  |  |  |
| 97 | 8        | A contributor to an interest rate benchmark shall keep detailed records of:  (a) all relevant aspects of contributions of input data;  (b) the process governing input data determination and the sign-off of input data;  (c) the names of submitters and their responsibilities;  (d) any communications between the submitters and other persons, including internal and external traders and brokers, in relation to the determination or contribution of input data;  (e) any interaction of submitters with the administrator or any calculation agent;  (f) any queries regarding the input data and their outcome of those queries; | Section 7 of the LIBOR Code of Conduct refers. | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of Annex 1.8 are included in Section 7 of the LIBOR Code of Conduct. |

| #   | BMR<br># | BMR text  | IBA's Response                                    | EY Evaluation Procedure   |
|-----|----------|---|---|---|
|     | #        | (g) sensitivity reports for interest rate swap trading books and any other derivative trading book with a significant exposure to interest rate fixings in respect of input data. |   |   |
| 98  | 9        | Records shall be kept on a medium that allows the storage of information to be accessible for future reference with a documented audit trail.                                     | Section 7 of the LIBOR Code of Conduct refers.    | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of Annex 1.8 are included in Section 7 of the LIBOR Code of Conduct.  |
| 99  | 10       | The compliance function of the contributor to an interest rate benchmark shall report any findings, including reverse transactions, to management on a regular basis.             | Section 6 of the LIBOR Code of Conduct refers.    | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of Annex 1.10 are included in Section 6 of the LIBOR Code of Conduct. |
| 100 | 11       | Input data and procedures shall be subject to regular internal reviews.   | Section 4.10 of the LIBOR Code of Conduct refers. | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  Version 5 issued on 18 June 2018 Version 6 issued on 9 February 2019 Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of Annex 1.11 are included in Section 4.10 of the                           |

| #   | BMR | BMR text  | IBA's Response                                 | EY Evaluation Procedure   |
|-----|-----|---|--|---|
|     | #   |   |  |   |
|     |     |   |  | LIBOR Code of Conduct and are subject to regular internal reviews.  |
| 101 | 12  | An external audit of the input data of a contributor to an interest rate benchmark, compliance with the code of conduct and the provisions of this Regulation shall be carried out for the first time six months after the introduction of the code of conduct, and subsequently every two years. | Section 6 of the LIBOR Code of Conduct refers. | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of Annex 1.12 are included in Section 6.4 of the LIBOR Code of Conduct. |

## BMR ANNEX II COMMODITY BENCHMARKS

# Methodology

| #   | BMR | BMR text   | IBA's Response  | EY Evaluation Procedure   |
|-----|-----|--|---|---|
|     | #   |  |   |   |
| 102 |     | The administrator of a commodity benchmark shall formalise, document, and make public any methodology that the administrator uses for a benchmark calculation. At a minimum, such methodology shall contain and describe the following:  (a) all criteria and procedures that are used to develop the benchmark, including how the administrator uses input data including the specific volume, concluded and reported transactions, bids, offers and any other market information in its assessment or assessment time periods or windows, why a specific reference unit is used, how the administrator collects such input data, the guidelines that control the exercise of judgement by assessors and any other information, such as assumptions, models or extrapolation from collected data that are considered in making an assessment; | Control objective  To make public the methodology for IBA's production of the LBMA Gold Price and the LBMA Silver Price.  Control procedures  IBA operates an auction process for gold and silver. The auction process uses the ICE group's WebICE trading platform.  Auction Participants (Participants) have 30 minutes directly before the auction starts to queue up their orders. The auctions are then conducted in 'rounds' of 30 seconds. The prices during the auction are determined by an algorithm that takes into account current market conditions and the activity in the auction.  At the start of each round, IBA publishes a price for that round. Participants then have 30 seconds to enter, change or cancel their buying/ selling orders. | <ul> <li>▶ We obtained the LBMA Gold and Silver Price calculation methodology from IBA's website and inspected for evidence that the auction process is as described in IBA's response.</li> <li>▶ We obtained the LBMA Gold and Silver Price minimum auction participation document from IBA's website and inspected for evidence of minimum numbers of participants as described in IBA's response.</li> <li>▶ For a sample of dates during the period under review, we tested IBA's gold and silver auctions operating effectiveness to obtain evidence that the auction process is as described in IBA's response.</li> <li>▶ We obtained the Precious Metals Oversight Committee meeting minutes for the period under review, and inspected for evidence that any changes to the internal policy referred to in IBA's response to Annex II (f) are reviewed and approved by the Committee.</li> <li>▶ On a sample basis, we recalculated all non-USD prices using the applicable FX rate per IBA's response as evidence of adherence to</li> </ul> |
|     |     | (b) procedures and practices that are designed to ensure consistency between its assessors in exercising their   | At the end of each round, order entry is frozen and the system checks to see if the difference between  | internal operating procedures.  ▶ We obtained management confirmation that  |
|     |     | judgement;  (c) the relative importance that shall be assigned to each criterion used in   | buying and selling (the 'imbalance') is within the imbalance threshold (normally 10,000 oz for gold and 500,000 oz for silver).   | there were no instances, during the period under review, where the FX data feed provider was unable to provide real-time FX rates to IBA for the purpose of publishing non-USD benchmark prices and therefore, IBA did not  |

| # | BMR<br>" | BMR text  | IBA's Response  | EY Evaluation Procedure                            |
|---|----------|---|---|--|
|   | #        |   |   |  |
|   |          | benchmark calculation, in particular the        | If the imbalance is outside of the threshold at the   | utilise an alternative external source of real-    |
|   |          | type of input data used and the type of         | end of a round, the auction is not balanced; the      | time mid-price FX rates to convert the USD         |
|   |          | criterion used to guide judgement so as         | price is then adjusted and a new round starts.        | price into the relevant benchmark currency prices. |
|   |          | to ensure the quality and integrity of the      |   | prices.  |
|   |          | benchmark calculation;                          | If the imbalance is within the threshold, the auction |  |
|   |          |   | is finished and the price is set. The net volume for  |  |
|   |          | (d) criteria that identify the minimum amount   | each Participant trades at the final price and the    |  |
|   |          | of transaction data required for a              | imbalance (if any) is shared equally between all      |  |
|   |          | particular benchmark calculation. If no         | Direct Participants.                                  |  |
|   |          | such threshold is provided for, the             |   |  |
|   |          | reasons why a minimum threshold is not          | The final price is then published by IBA as the       |  |
|   |          | established shall be explained, including       | LBMA Gold Price or LBMA Silver Price in US            |  |
|   |          | setting out the procedures to be used           | Dollars.  |  |
|   |          | where no transaction data exist;                |   |  |
|   |          |   | For the non-USD prices, the final auction price is    |  |
|   |          | (e) criteria that address the assessment        | converted into the other benchmark currencies         |  |
|   |          | periods where the submitted data fall           | (Australian Dollars, British Pounds, Canadian         |  |
|   |          | below the methodology's recommended             | Dollars, Euros, Onshore and Offshore Yuan, Indian     |  |
|   |          | transaction data threshold or the               | Rupees, Japanese Yen, Malaysian Ringgit,              |  |
|   |          | requisite administrator's quality               | Russian Rubles, Singapore Dollars, South African      |  |
|   |          | standards, including any alternative            | Rand, Swiss Francs, New Taiwan Dollars, Thai          |  |
|   |          | methods of assessment including                 | Baht and Turkish Lira) from USD using a real-time     |  |
|   |          | theoretical estimation models. Those            | mid-price FX rate at the end of the auction from an   |  |
|   |          | criteria shall explain the procedures to be     | third-party data provider. This third-party provider  |  |
|   |          | used where no transaction data exist;           | uses data sources to generate their mid-price FX      |  |
|   |          |   | rates which IBA collects via its data feed engine.    |  |
|   |          | (f) criteria for timeliness of contributions of | Should the provider be unable to produce real-time    |  |
|   |          | input data and the means for such               | FX rates, IBA would utilise an alternative external   |  |
|   |          | contributions of input data whether             | source of real-time mid-price FX rates to convert     |  |
|   |          | electronically, by telephone or otherwise;      | the USD price into the relevant benchmark             |  |
|   |          |   | currency prices.                                      |  |
|   |          | (g) criteria and procedures that address        |   |  |
|   |          | assessment periods where one or more            | The auctions are centrally cleared. At the end of an  |  |
|   |          | contributors submit input data that             | auction the volumes are matched and a firm            |  |

| # | BMR      | BMR text   | IBA's Response   | EY Evaluation Procedure |
|---|----------|--|--|-------------------------|
| # | BMR<br># | constitute a significant proportion of the total input data for that benchmark. The administrator shall also define in those criteria and procedures what constitutes a significant proportion for each benchmark calculation;  (h) criteria according to which transaction data may be excluded from a benchmark calculation. | receives a bilateral match if they and the Direct Participant against which they are matched have both set their preference to each other as bilateral, and sufficient volume can be matched between the two firms.  Volume that is not matched and settled bilaterally is converted into centrally cleared, daily futures contracts for loco London gold or silver (as the case may be). The futures trades are submitted by ICE Metals Broking to ICE Futures US at the benchmark price via exchange for physical (EFP) trades.  When taken to delivery, the cleared futures contract settles according to the spot convention. The metal is settled as unallocated metal via London Precious Metals Clearing (LPMCL) accounts and the cash component settles at ICE Clear US.  With reference to the specific points in paragraph 1 of Annex II:  (a) IBA's methodology is transparent and is published on the website. No judgement, assumptions, models or extrapolation are used by IBA in the | EY Evaluation Procedure |
|   |          |  | judgement, assumptions, models or  |                         |

| # | BMR | BMR text   | IBA's Response   | EY Evaluation Procedure |
|---|-----|------------|--|-------------------------|
| π | #   | DIVIN LGAL | IDA 3 Nesponse   | Li Lvaidadoli Fiocedule |
|   | #   |            | <ul> <li>(c) The prices during an auction are determined by an algorithm that takes into account current market conditions and the activity in the auction.</li> <li>(d) and (e) If fewer than three Participants, of which two must be Direct Participants, are logged on at the commencement of an auction, IBA will either delay the start of the auction for up to 60 minutes or not conduct the auction and declare it closed at the Opening Price.</li> <li>(f) Participants have 30 minutes directly before an auction starts in which to enter their orders into the WebICE trading platform. The auctions are then conducted in rounds of 30 seconds. At the start of each round, IBA publishes a price for that round. Participants then have 30 seconds to enter, change or cancel their buying/ selling orders.</li> </ul> |                         |
|   |     |            | (g) This is not applicable since the methodology does not involve the use of contributors of input data.   |                         |
|   |     |            | (h) IBA has an internal policy, reviewed by the Precious Metals Oversight Committee and shared with the FCA, setting out possible IBA actions in the event of a concern in respect of action(s) in an IBA auction.   |                         |

| #   | BMR<br># | BMR text   | IBA's Response  | EY Evaluation Procedure   |
|-----|----------|--|---|---|
| 103 | 2        | The administrator of a commodity benchmark shall publish or make available the key elements of the methodology that the administrator uses for each commodity benchmark provided and published or, when applicable, for each family of benchmarks provided and published.  | The methodology for the production of the LBMA Gold Prices and the Silver Price is published by IBA at:  https://www.theice.com/iba/lbma-gold-silver-price.   | We inspected that the LBMA Gold Price and LBMA Silver Price methodologies are available on the IBA website.   |
| 104 | 3        | Along with the methodology referred to in paragraph 2, the administrator of a commodity benchmark shall also describe and publish all of the following:  (a) the rationale for adopting a particular methodology, including any price adjustment techniques and a justification of why the time period or window within which input data is accepted is a reliable indicator of physical market values;  (b) the procedure for internal review and approval of a given methodology, as well as the frequency of such review;  (c) the procedure for external review of a given methodology, including the procedures to gain market acceptance of the methodology through consultation with users on important changes to their benchmark calculation processes. | Control objective  To ensure that IBA uses a robust and transparent methodology for the production of the LBMA Gold Price and LBMA Silver Price benchmarks. The methodology should be kept under regular internal and external review. Procedures to gain market acceptance of the methodology should be used, including consultation with users on important changes.  Control procedures  (a) IBA operates electronic auctions for spot, unallocated loco London gold and silver, providing a market-based platform for buyers and sellers to trade. IBA's auction process is a facility for trading physical spot gold and silver at prices at which balance can be found between buying and selling interests.  IBA operates auctions to bring pools of liquidity together in a fair and transparent price discovery process. Operating the | <ul> <li>We obtained the Terms of Reference of the Precious Metals Oversight Committee and inspected that the responsibilities of the Committee include:         <ul> <li>Reviewing the definition and methodology of the LBMA Precious Metals Prices;</li> <li>Overseeing any changes to the methodology for the LBMA Precious Metals Prices; and</li> </ul> </li> <li>Overseeing IBA's control framework insofar as it affects the LBMA Precious Metals Prices and IBA's adherence to its Published Methodologies.</li> <li>We obtained and inspected the dashboard presented to the Precious Metals Oversight Committee in order to evidence that the oversight Committee is presented with Management information to enable it to oversee the benchmark.</li> <li>We inspected the composition of the Precious Metals Oversight Committee for evidence that it includes market representatives, industry</li> </ul> |

| # | BMR<br># | BMR text | IBA's Response   | EY Evaluation Procedure   |
|---|----------|----------|--|---|
|   | #        |          | silver maximises access to the pools of liquidity available globally.  The methodology uses no price adjustment techniques.  (b) IBA keeps the benchmark methodology under review and proposes any changes to the Precious Metals Oversight Committee for consideration.  IBA defines a material change as any change requiring an update to the published methodology; changes which do not require an update to the published methodology are considered non-material.  Material changes are subject to approval by IBA's President after consulting with the relevant Oversight Committee and are documented accordingly. Non-material changes are subject to approval by IBA's management and documented accordingly.  (c) The Precious Metals Oversight Committee reviews trends and outliers through a dashboard summary at each of its regular meetings. The Committee is comprised of market representatives and industry bodies, Independent Non-Executive Directors of IBA, and IBA representatives. | ► For the consultation policy, please refer to our response to Article 13.1 and 13.2. |

| #   | BMR | BMR text  | IBA's Response  | EY Evaluation Procedure   |
|-----|-----|---|---|---|
|     | #   |   | The Committee provides an external review of the benchmark methodology and is instrumental in the procedures to gain market acceptance of the material changes to the methodology.  IBA's published Consultation Policy, approved by the IBA Board, defines the process by which changes are made to the benchmark.  In accordance with the Consultation Policy, any material revisions are subject to consultation and include a summary of the review and the rationale for the changes.  |   |
| 105 | 4   | The administrator of a commodity benchmark shall adopt and make public to users explicit procedures and the rationale of any proposed material change in its methodology. Those procedures shall be consistent with the overriding objective that an administrator must ensure the continued integrity of its benchmark calculations and implement changes for good order of the particular market to which such changes relate.  Such procedures shall provide:  (a) advance notice in a clear time frame that gives users sufficient opportunity to analyse and comment on the impact of such proposed changes, having regard | Control objective  To ensure that users have the opportunity to provide feedback to IBA on proposed changes to the benchmark methodology. The arrangements should make the feedback accessible to all users unless a commenter has requested that their feedback be treated as confidential.  Control procedures  IBA keeps the benchmark methodology under review and proposes any changes to the Precious Metals Oversight Committee for consideration.  Material changes are subject to approval by IBA's President after consulting with the relevant | <ul> <li>We obtained the Changes and Cessation Policy from IBA's website and inspected for the requirement of a public consultation on material changes to the benchmark methodologies.</li> <li>We obtained the Consultation Policy from the IBA website and inspected for evidence of the considerations in IBA's response.</li> <li>We obtained the Terms of Reference of the IBA Board of Directors and inspected that the consultation process is reviewed by IBA Board at least on an annual basis.</li> <li>The LBMA Gold and Silver price usage consultation survey was issued in September 2019 to ascertain whether the prices should continue to be published in currencies other than US Dollar ('USD'). We tested the</li> </ul> |

| # | BMR | BMR text   | IBA's Response  | EY Evaluation Procedure   |
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|   | #   |  |   |   |
|   |     | to the administrator's calculation of the overall circumstances;                 | Oversight Committee, and are documented accordingly. Non-material changes are subject to approval by IBA's Management and are   | consultation for evidence of compliance with the consultation policy. |
|   |     | (b) for users' comments, and the administrator's response to those               | documented accordingly.   |   |
|   |     | comments, to be made accessible to all market users after any given consultation | IBA defines a material change as any change requiring an update to the published methodology;   |   |
|   |     | period, except where the commenter has requested confidentiality.                | changes which do not require an update to the published methodology are considered non-material.  |   |
|   |     |  | IBA's published Consultation Policy, approved by the IBA Board, defines the process by which changes are made to the benchmark.                                       |   |
|   |     |  | In accordance with the Consultation Policy, any material revisions are subject to consultation and include a summary of the review and the rationale for the changes. |   |
|   |     |  | Factors to be taken into account in considering a change to the methodology include:  |   |
|   |     |  | Feedback from the relevant Oversight Committee;   |   |
|   |     |  | Consultation feedback;  |   |
|   |     |  | The likely impact for existing and potential users of the benchmark;  |   |
|   |     |  | Any regulatory implications;  |   |
|   |     |  | Any operational or other risks which may arise as a consequence of the change;  |   |

| #   | BMR<br># | BMR text  | IBA's Response  | EY Evaluation Procedure  |
|-----|----------|---|---|--|
|     |          |   | The implementation timing of the change and its proximity to expected happenings (such as the introduction of new regulatory initiatives affecting the market); and  Any other factors of relevance to the particular change or desired outcome.  In consultation papers, IBA sets out a clear time frame in which interested parties can provide feedback to IBA on proposed changes. The consultation period gives users sufficient opportunity to analyse and comment on the impact of the proposed changes.  After a consultation, IBA will make users' comments and IBA's response to those comments accessible to all market users, except where a commenter has requested confidentiality. |  |
| 106 | 5        | The administrator of a commodity benchmark shall regularly examine its methodologies for the purpose of ensuring that they reliably reflect the physical market under assessment and shall include a process for taking into account the views of relevant users. | Control objective  To ensure that IBA's benchmark methodology for the LBMA Gold Price and the LBMA Silver Price is kept under review and that the views of relevant users are taken into account when changes to the methodology are proposed.  Control procedures  The Precious Metals Oversight Committee provides oversight of the LBMA Gold Price and the LBMA Silver Price benchmarks.   | <ul> <li>We obtained the Terms of Reference of the Precious Metals Oversight Committee and inspected for evidence that the Committee is required to review the benchmark methodology at least on an annual basis.</li> <li>We obtained the publicly available minutes of the Precious Metals Oversight Committee and inspected for evidence that the methodology was reviewed at least annually</li> <li>Please refer to response to Annex II clause 4.</li> </ul> |

| # | BMR<br># | BMR text | IBA's Response   | EY Evaluation Procedure |
|---|----------|----------|--|-------------------------|
| # | BMR<br># | BMR text | The Terms of Reference of the Oversight Committee include reviewing the definition, methodology and setting of the LBMA Gold Price and the LBMA Silver Price at least annually, overseeing any changes to the benchmark methodology, and requesting IBA to consult on proposed changes.  The Oversight Committee reviews trends and outliers through a dashboard summary at each of its regular meetings.  IBA's published Consultation Policy, approved by the IBA Board, defines the process by which changes are made to the benchmark.  In accordance with the Consultation Policy, any material revisions are subject to consultation and include a summary of the review and the rationale for the changes.  Factors to be taken into account in considering a change to the methodology include:  • Feedback from the relevant Oversight Committee;  • Consultation feedback;  • The likely impact for existing and potential | EY Evaluation Procedure |
|   |          |          | users of the benchmark;  |                         |

| #   | BMR | BMR text   | IBA's Response   | EY Evaluation Procedure   |
|-----|-----|--|--|---|
|     | #   |  | <ul> <li>Any operational or other risks which may arise as a consequence of the change;</li> <li>The implementation timing of the change and its proximity to expected happenings (such as the introduction of new regulatory initiatives affecting the market); and</li> <li>Any other factors of relevance to the particular change or desired outcome.</li> </ul> |   |
| 107 | 6   | The administrator of a commodity benchmark shall:  (a) specify the criteria that define the physical commodity that is the subject of a particular methodology;  | Control objective  To ensure the quality and integrity of benchmark calculations for the LBMA Gold Price and the LBMA Silver Price.  Control procedures  | We obtained the IBA Surveillance Procedure<br>documents including the alerts for each<br>benchmark and inspected for evidence that<br>these were reviewed and approved by Head<br>of Benchmarks during the period under<br>review.                                  |
|     |     | <ul> <li>(b) give priority to input data in the following order, where consistent with its methodologies:</li> <li>(i) concluded and reported transactions;</li> <li>(ii) bids and offers;</li> <li>(iii) other information. If concluded and</li> </ul> | (a) IBA publishes the criteria that define the physical commodities underlying the LBMA Gold Price and the LBMA Silver Price benchmarks, being spot, unallocated loco London gold and silver.  | For a sample of dates during the period under review, we obtained the post-publication surveillance alert workbooks and inspected for evidence of alert flagging for review and completed actions for each flagged alert.  For a sample of Oversight Committee      |
|     |     | reported transactions are not given priority, the reasons should be explained, as required in point 7(b).  (c) employ sufficient measures designed to  | (b) All valid active orders are included in IBA's gold and silver auctions. All such orders are given equal priority.  | Meetings during the period under review, we obtained the Dashboards circulated within the Committees and inspected for evidence of the relevant post-publication surveillance information, alerts, investigations, escalating any suspicious input data identified. |
|     |     | use input data submitted and considered in a benchmark calculation which are bona fide, meaning that the parties   | (c) IBA offers a market for unallocated loco London spot gold/silver. Participants use   | <ul> <li>We obtained a sample of parameter changes<br/>to the post-publication surveillance alerts tool</li> </ul>  |

| #   | BMR<br># | BMR text   | IBA's Response  | EY Evaluation Procedure   |
|-----|----------|--|---|---|
| #   | BMR<br># | submitting the input data have executed, or are prepared to execute, transactions generating such input data and the concluded transactions were executed at arms-length from each other and particular attention shall be paid to interaffiliate transactions;  (d) establish and employ procedures to identify anomalous or suspicious transaction data and keep records of decisions to exclude transaction data from the administrator's benchmark calculation process;  (e) encourage contributors to submit all of their input data that falls within the administrator's criteria for that calculation. Administrators shall seek, so far as they are able and is reasonable, to ensure that input data submitted is representative of the contributors' actual concluded transactions; and  (f) employ a system of appropriate measures to ensure that contributors comply with the administrator's applicable quality and integrity standards for input data. | the auctions because they want to trade gold and/or silver.  The LBMA Gold Price and the LBMA Silver Price benchmarks are the prices at which all of the volume in the final Round of the auction trades. The prices are therefore formed by the competitive forces of supply and demand.  (d) IBA has a documented internal policy for handling any suspicious auction inputs.  The policy has been reviewed by the Precious Metals Oversight Committee and has been shared with the FCA.  (e) and (f) These provisions are not applicable since the methodology does not involve the use of contributors of input data. However, IBA has auction rules and a Code of Conduct which are designed to ensure that the appropriate standards of conduct are met in IBA auctions.  IBA's auctions use the WebICE trading platform which includes a number of input controls. | during the period under review and inspected for appropriate approval.  For a sample of daily and weekly backups of IBA systems/drives during the period under review, we obtained the backup evidence to determine that data had been appropriately retained to comply with the BMR record keeping requirements.  We obtained the Terms of Reference of the Precious Metal Oversight Committee and inspected for evidence for review of the internal policy for suspicious auction data.  We obtained the publicly available minutes of the Precious Metals Oversight Committee and inspected for evidence that the internal policy for suspicious auction data was reviewed at least annually  We obtained the Code of Conduct for the IBA Precious Metals Auctions and LBMA Gold and Silver Price Benchmarks to inspect for evidence for provisions designed to ensure that the appropriate standards of conduct are met in IBA auctions.  We obtained the LBMA Gold and LBMA Silver Auction specification documents from IBA's website and inspected them for evidence they are in line with the testing performed on the |
| 108 | 7        | The administrator of a commodity benchmark   | Control objective   | auction.  ➤ Please also refer to response to Annex II clause 4.  ➤ We obtained the LBMA Gold and Silver Price   |
| 100 | ,        | shall describe and publish for each  | <u> </u>  | Methodology documents and inspected that  |

| # | BMR | BMR text   | IBA's Response  | EY Evaluation Procedure  |
|---|-----|--|---|--|
|   | #   | calculation, to the extent reasonable without prejudicing due publication of the benchmark:  (a) a concise explanation, sufficient to facilitate a benchmark subscriber's or competent authority's ability to understand how the calculation was developed including, at a minimum, the size and liquidity of the physical market being assessed (such as the number and volume of transactions submitted), the range and average volume and range and average of price, and indicative percentages of each type of input data that have been considered in a calculation; terms referring to the pricing methodology shall be included such as transaction-based, spread-based or interpolated or extrapolated; | To ensure that IBA publishes information about each gold and silver auction to enable users to understand how the LBMA Gold Price and LBMA Silver Price benchmarks are produced.  Control procedures  (a) IBA publishes with each LBMA Gold Price and LBMA Silver Price benchmark determination the information needed in order to understand how the calculation was developed. IBA publishes the aggregated volume of transactions resulting from the auctions and the process for each auction Round; all of the input data is auction orders.  IBA also publishes monthly volume reports. | they are publicly available on IBA's website and outlines the methodology of the respective benchmarks.  We obtained the monthly aggregated volume of transactions published and inspected it for the transactional volumes published.  We obtained the published Gold and Silver Error Policy and Report documents and inspected for evidence that the policy and procedures are as described in IBA's response.  For a sample of dates during the period under review we tested the gold and silver auctions operating effectiveness to obtain evidence that the auction process is as described in IBA's response |
|   |     | (b) a concise explanation of the extent to which, and the basis upon which, any judgement including the exclusions of data which otherwise conformed to the requirements of the relevant methodology for that calculation, basing prices on spreads or interpolation, extrapolation, or weighting bids or offers higher than concluded transactions, if any, was used in any calculation.  | (b) The input data for the USD prices is exclusively the auction orders. No valid orders are excluded.  For the non-USD prices, the final auction price is converted into the other benchmark currencies (Australian Dollars, British Pounds, Canadian Dollars, Euros, Onshore and Offshore Yuan, Indian Rupees, Japanese Yen, Malaysian Ringgit, Russian Rubles, Singapore Dollars, South African Rand, Swiss Francs, New Taiwan Dollars, Thai Baht and Turkish Lira) from USD.  |  |

| #   | BMR<br># | BMR text  | IBA's Response  | EY Evaluation Procedure   |
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|     |          |   | No expert judgement is exercised by IBA in the production of the LBMA Gold Price or the LBMA Silver Price.  For transparency, IBA publishes when an error has occurred together with the impact, if any, on the published rate; this information is updated at the end of each quarter.  IBA's Precious Metals Error Policies would apply in the case of certain errors discovered within a 30 minute cut-off time after publication. An example of such an error would be if IBA published incorrect non-USD prices. |   |
| 109 | 8        | The administrator of a commodity benchmark shall:  (a) specify the criteria that define who may submit input data to the administrator;  (b) have in place quality control procedures to evaluate the identity of a contributor and any submitter who reports input data and the authorisation of such submitter to report input data on behalf of a contributor;  (c) specify the criteria applied to employees of a contributor who are permitted to submit input data to an administrator on | Control objective  To ensure that criteria are used by IBA to determine who may participate in IBA gold and/or silver auctions and to ensure that IBA is aware of participation in the auctions.  Control procedures  (a) There are two categories of participants in the IBA gold and silver auctions: Direct Participants, which share the imbalance, and Indirect Participants which do not share the imbalance.   | <ul> <li>We were informed by Management that the Code of Conduct for the IBA Precious Metals auctions and the LBMA Gold and Silver Price Benchmarks is designed to ensure that the appropriate standards of conduct are met in IBA auctions. We were also informed by Management that the Code of Conduct requirements specified in BMR Article 15 do not apply as the LBMA Gold and Silver Prices are not benchmarks with contributors of input data as defined in the BMR.</li> <li>We obtained the Code of Conduct for the IBA Precious Metals auctions and the LBMA Gold and Silver Price Benchmarks and inspected for evidence of the attributes as per IBA's response.</li> </ul> |

| # | BMR | BMR text   | IBA's Respon | 60   | EY Evaluation Procedure |
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| # | #   | DIMIT LEAL   | IDA S Nespon | 36   | LI LValuation Flocedule |
|   | #   | behalf of a contributor; encourage contributors to submit transaction data   |              | gibility criteria for becoming and ning a Direct Participant are:  |                         |
|   |     | from back office functions and seek  | Temai        | ning a Direct Fanticipant are.   |                         |
|   |     | corroborating data from other sources where transaction data is received   | (i)          | being fit and proper;  |                         |
|   |     | directly from a trader; and  | (ii)         | having sufficient individuals with appropriate experience, skill and   |                         |
|   |     | (d) implement internal controls and written procedures to identify communications between contributors and assessors that  |              | training to perform the required roles relating to the auction;  |                         |
|   |     | attempt to influence a calculation for the<br>benefit of any trading position (whether<br>of the contributor, its employees or any<br>third party), attempt to cause an                                  | (iii)        | being a Member of the LBMA or, at IBA's discretion, an Associate of the LBMA;  |                         |
|   |     | assessor to violate the administrator's rules or guidelines or identify contributors that engage in a pattern of submitting anomalous or suspicious transaction data. Those procedures shall include, to | (iv)         | having sufficient organisational and governance arrangements for its anticipated participation in the auction;             |                         |
|   |     | the extent possible, provision for escalation of the inquiry by the administrator within the contributor's company. Controls shall include cross-  | (v)          | having sufficient resources for its anticipated business in the Auction, including financial resources;                    |                         |
|   |     | checking market indicators to validate submitted information.  | (vi)         | having appropriate clearing and<br>settlement arrangements in place,<br>including with ICE Futures US and<br>ICE Clear US; |                         |
|   |     |  | (vii)        | signing such contractual arrangements as IBA may require from time to time in relation to Direct Participation; and        |                         |

| # | BMR<br>" | BMR text | IBA's Response | e   | EY Evaluation Procedure |
|---|----------|----------|----------------|---|-------------------------|
|   | #        |          | (viii)         | undertaking to comply with the auction rules and Code of Conduct <sup>5</sup> in force and as updated from time to time.  |                         |
|   |          |          |                | igibility criteria for becoming and ing an Indirect Participant are:  |                         |
|   |          |          | (i)            | being fit and proper;   |                         |
|   |          |          | (ii)           | having sufficient individuals with<br>appropriate experience, skill and<br>training to perform the required<br>roles relating to the auction;                           |                         |
|   |          |          | (iii)          | having sufficient organisational<br>and governance arrangements<br>for its anticipated participation in<br>the auction;   |                         |
|   |          |          | (iv)           | having sufficient resources for its anticipated business in the Auction, including financial resources;   |                         |
|   |          |          | (v)            | having appropriate credit lines, or<br>equivalent arrangements, with<br>one or more Direct Participants<br>for the purpose of settling spot<br>Loco London Gold or Loco |                         |

<sup>&</sup>lt;sup>5</sup> The Code of Conduct for the IBA Precious Metals Auctions and the LBMA Gold and Silver Price Benchmarks.

| # | BMR | BMR text   | IBA's Response   | EY Evaluation Procedure |
|---|-----|------------|--|-------------------------|
| # | #   | DIVIN TEXT | IDA 3 Veshouse   | ET Evaluation Flocedule |
|   | π   |            | London Silver, as the case may   |                         |
|   |     |            | be;  |                         |
|   |     |            |  |                         |
|   |     |            | (vi) having appropriate clearing and                                   |                         |
|   |     |            | settlement arrangements in place                                       |                         |
|   |     |            | with one or more Direct  |                         |
|   |     |            | Participants for the purpose of  |                         |
|   |     |            | trading unallocated spot Loco  |                         |
|   |     |            | London Gold or unallocated spot  |                         |
|   |     |            | Loco London Silver, as the case  |                         |
|   |     |            | may be;  |                         |
|   |     |            | (vii) signing such contractual   |                         |
|   |     |            | arrangements as IBA may require  |                         |
|   |     |            | from time to time in relation to                                       |                         |
|   |     |            | Indirect Participation; and  |                         |
|   |     |            | manost rantopanot, and   |                         |
|   |     |            | (viii) undertaking to comply with the                                  |                         |
|   |     |            | Rules in force and as updated  |                         |
|   |     |            | from time to time.   |                         |
|   |     |            |  |                         |
|   |     |            | (b) IBA knows the identity of all Participants'                        |                         |
|   |     |            | employees participating in the auction                                 |                         |
|   |     |            | and their actions to enter, modify or delete orders in an IBA auction. |                         |
|   |     |            | delete orders in an IDA auction.                                       |                         |
|   |     |            | (c) This is not applicable since the                                   |                         |
|   |     |            | methodology does not involve the use                                   |                         |
|   |     |            | of contributors of input data. However,                                |                         |
|   |     |            | IBA has auction rules and a Code of                                    |                         |
|   |     |            | Conduct which are designed to ensure                                   |                         |
|   |     |            | that the appropriate standards of                                      |                         |
|   |     |            | conduct are met in IBA auctions.                                       |                         |
|   |     |            |  |                         |

|   | BMR text   | IBA's Response   | EY Evaluation Procedure   |
|---|--|--|---|
| # |  | (d) This is not applicable since the methodology does not involve the use of contributors of input data or assessors.  |   |
|   | administrator of a commodity benchmark shall:  (a) adopt and have in place explicit internal rules and guidelines for selecting assessors, including their minimum level of training, experience and skills, as well as the process for periodic review of their competence;  (b) have in place arrangements to ensure that calculations can be made on a consistent and regular basis;  (c) maintain continuity and succession planning in respect of its assessors in order to ensure that calculations are made consistently and by employees who possess the relevant levels of expertise; and  (d) establish internal control procedures to ensure the integrity and reliability of calculations. At a minimum, such internal controls and procedures shall require the ongoing supervision of assessors to ensure that the methodology was | Not applicable since the construct of the benchmarks does not incorporate assessors.   | No matters to report on.  |
|   |  | 9 In relation to the role of an assessor, the administrator of a commodity benchmark shall:  (a) adopt and have in place explicit internal rules and guidelines for selecting assessors, including their minimum level of training, experience and skills, as well as the process for periodic review of their competence;  (b) have in place arrangements to ensure that calculations can be made on a consistent and regular basis;  (c) maintain continuity and succession planning in respect of its assessors in order to ensure that calculations are made consistently and by employees who possess the relevant levels of expertise; and  (d) establish internal control procedures to ensure the integrity and reliability of calculations. At a minimum, such internal controls and procedures shall require the ongoing supervision of assessors to | (d) This is not applicable since the methodology does not involve the use of contributors of input data or assessors.    In relation to the role of an assessor, the administrator of a commodity benchmark shall:    (a) adopt and have in place explicit internal rules and guidelines for selecting assessors, including their minimum level of training, experience and skills, as well as the process for periodic review of their competence;    (b) have in place arrangements to ensure that calculations can be made on a consistent and regular basis;    (c) maintain continuity and succession planning in respect of its assessors in order to ensure that calculations are made consistently and by employees who possess the relevant levels of expertise; and    (d) establish internal control procedures to ensure the integrity and reliability of calculations. At a minimum, such internal controls and procedures shall require the ongoing supervision of assessors to ensure that the methodology was |

| #   | BMR | BMR text  | IBA's Response   | EY Evaluation Procedure   |
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|     | #   |   |  |   |
|     |     | internal sign-off by a supervisor prior to<br>releasing prices for dissemination to the |  |   |
|     |     | market.   |  |   |
| 111 | 10  | The administrator of a commodity benchmark  | Control objective  | NA/ basis - data indomedia  |
|     |     | shall have rules and procedures in place to   |  | <ul> <li>We obtained the internal compliance manual<br/>and inspected for evidence of record keeping</li> </ul> |
|     |     | document contemporaneously relevant   | To have documented procedures to ensure that                                     | policy is as described in IBA's response.   |
|     |     | information, including:   | IBA maintains an audit trail of benchmark  | ▶ We obtained the LBMA Gold and Silver Price  |
|     |     | (a) all input data;   | information for at least 5 years.  | methodology documents and inspected that  |
|     |     |   | Control procedures   | they are publicly available on IBA's website and outline the methodology of the respective                      |
|     |     | (b) the judgements that are made by   |  | benchmarks.   |
|     |     | assessors in reaching each benchmark  | IBA has a documented Record retention policy                                     | ► EY tested a sample of back up and disaster  |
|     |     | calculation;  | setting out the relevant retention requirements.                                 | recovery procedures during the period under   |
|     |     | (c) whether a calculation excluded a  |  | review, which back up the folders and systems   |
|     |     | particular transaction which otherwise  | IBA maintains a full audit trail for at least 5 years of                         | in which the relevant information in IBA's response is stored. Back-ups are stored for a                        |
|     |     | conformed to the requirements of the relevant methodology for that calculation,         | relevant information, including:   | minimum of 7 years.   |
|     |     |   | The condition data which includes the  |   |
|     |     | and the rationale for doing so;   | The auction data, which includes the following: the identity of auction          |   |
|     |     | (d) the identity of each assessor and of any  | Participants logged in for an auction; the                                       |   |
|     |     | other person who submitted or otherwise   | entry, amendment; deletion orders;   |   |
|     |     | generated any of the information in   | changes in order states (i.e. activation or                                      |   |
|     |     | points (a), (b) or (c).   | deactivation of orders); the identity of the                                     |   |
|     |     |   | individuals adding, changing or deleting orders; the timing for all data changes |   |
|     |     |   | orders, the tirring for all data changes   |   |
|     |     |   | The published benchmark rates  |   |
|     |     |   | Any changes or deviations from standard  |   |
|     |     |   | procedures   |   |
|     |     |   | The identity of each operator involved in  |   |
|     |     |   | producing a Benchmark determination  |   |

| #   | BMR<br># | BMR text   | IBA's Response  | EY Evaluation Procedure  |
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| 112 | 11       | The administrator of a commodity benchmark shall have rules and procedures in place to ensure that an audit trail of relevant information is retained for at least five years in order to document the construction of its   | Evidence of queries raised by IBA itself or by Participants related to the gold or silver auctions.      IBA's records are kept in such a form as to allow replication and full understanding of the determination of a benchmark.  The provisions in (c) and (d) in Annex II(10) do not apply to the benchmark methodology for the LBMA Gold or Silver Prices.  The methodology does not involve the use of contributors of input data or assessors.  IBA maintains an audit trail of benchmark information for at least 5 years.  Please refer to Annex II clause 10 above. | Please refer to response to clause 10.   |
|     |          | calculations.  |   |  |
| 113 | 12       | The administrator of a commodity benchmark shall establish adequate policies and procedures for the identification, disclosure, management or mitigation and avoidance of any conflict of interest and the protection of integrity and independence of calculations. | Control objective  To have in place robust measures for managing conflicts of interest and in particular any actual or perceived conflict arising from IBA's place in the ICE group.  | We obtained the five policies detailed in<br>IBA's response and inspected for<br>evidence that the policies outline<br>processes to identify and manage<br>conflicts of interest as described in IBA's<br>response.                              |
|     |          | Those policies and procedures shall be reviewed and updated regularly and shall:  (a) ensure that benchmark calculations are not influenced by the existence of, or  | Control procedures  IBA's Conflict of Interest Policy describes the arrangements for the identification, management,  | For a sample of IBA employees involved<br>in the provisioning of the benchmarks<br>during the period under review, we<br>obtained and inspected evidence of<br>completion of annual online ethics and<br>conflicts of interest training by IBA's |

| # | BMR<br># | BMR text  | IBA's Response  | EY Evaluation Procedure  |
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|   | T T      | potential for, a commercial or personal business relationship or interest between the administrator or its affiliates, its personnel, clients, any market participant or persons connected with them; | disclosure and mitigation of conflicts of interests. The policy is subject to annual review and sign off by the Board of Directors of IBA.  The Policy is supported by procedures and | employees, which includes attestations to the ICE Group Business Code of Conduct.  • We obtained management's confirmation   |
|   |          | (b) ensure that personal interests and business connections of the administrator's personnel are not  | conflicts of interest registers which record conflicts identified, corresponding mitigants and owners of conflict management.   | that there have been no new joiners to IBA who are involved in the provisioning of the benchmarks, during the period under review.   |
|   |          | permitted to compromise the administrator's functions, including outside employment, travel, and acceptance of entertainment, gifts and hospitality provided by the                                   | IBA employees are subject to strict confidentiality provisions in their contracts of employment and in the following ICE group policies:  Global Code of Business Conduct;            | We obtained and inspected the course<br>material of the annual online ethics and<br>conflicts of interest training for evidence<br>of Conflict of Interest topics included in<br>the module. |
|   |          | administrator's clients or other commodity market participants;  (c) ensure, in respect of identified conflicts,  | Personal Information Protection Principles     Policy; and  | <ul> <li>We obtained the relevant minutes of<br/>meetings of IBA's Board of Directors and<br/>inspected for evidence that the COI Policy<br/>was subject to annual review and</li> </ul>     |
|   |          | appropriate segregation of functions within the administrator by way of   | Corporate Information Security Policy.  | approval by IBA's directors during the period under review.  |
|   |          | supervision, compensation, systems access and information flows;  | Employees are required to seek prior approval from their manager and ICE Global Corporate Compliance for outside activities related to part   | <ul> <li>We obtained the ICE Global Code of<br/>Conduct and inspected that employees<br/>are required to seek approval from their</li> </ul>   |
|   |          | (d) protect the confidentiality of information submitted to or produced by the administrator, subject to the disclosure obligations of the administrator;   | time work or serving on a board. This requirement is set out in ICE's Global Code of Business Conduct.  | managers and Global Corporate Compliance prior to accepting roles on other boards or part time work outside of IBA. We enquired with management whether there were any instances during      |
|   |          | (e) prohibit managers, assessors and other employees of the administrator from  | IBA employees are trained on the conflicts of interest policies on joining the organisation and receive ethics and conflicts of interest training                                     | the period under review and were informed that there have been no such instances.  |
|   |          | contributing to a benchmark calculation<br>by way of engaging in bids, offers and<br>trades on either a personal basis or on<br>behalf of market participants; and                                    | provided online annually by the ICE group.  Confidentiality of data within IBA is protected through user access restrictions.   | <ul> <li>We obtained and inspected the<br/>composition of IBA's Board of Directors<br/>for the independent and executive<br/>directors.</li> </ul>   |

| # | BMR<br># | BMR text  | IBA's Response  | EY Evaluation Procedure   |
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|   |          | (f) effectively address any identified conflict of interest which may exist between the administrator's provision of a benchmark (including all employees who perform or otherwise participate in benchmark calculation responsibilities), and any other business of the administrator. | IBA is a distinct business for the administration of benchmarks within the ICE group.  Employees within the broader ICE group are logically and physically segregated from the IBA business and employees. IBA's offices are segregated from other areas, with key card access so that other ICE employees cannot access the offices.  IT controls restrict access and change to the systems holding data to IBA employees and those directly supporting IBA.  IBA has implemented a risk management framework which provides the process for identifying, assessing, managing, monitoring and reporting risks. IBA's Chief Risk Officer (CRO) along with his respective Enterprise Risk Management (ERM) team administers the risk management framework.  IBA has a three lines of defence model for managing risks. The first line is the business lines and support functions managing day to day risks. Responsibility for the identification, notification, self-assessment and mitigation of risk rests with business areas and their support functions.  The second line provides oversight of the risk framework. The third line is Audit Services and the company's external auditors providing independent assurance. | <ul> <li>We observed that IBA is situated in a segregated location from ICE group entities and access is restricted to IBA personnel.</li> <li>We obtained IBA's IT policies and procedures on change management, user access management, and other IT operations and inspected for evidence of IBA's response.</li> <li>We obtained a sample of change requests over the IT environment, during the period under review, and inspected the change notice for evidence that the changes were implemented as management intended, by an independent production individual, tested in the relevant environments and monitored appropriately.</li> <li>We obtained a sample of new user access requests during the period under review and inspected for evidence of the relevant approvals as documented in the request ticket and that user access was provided or not, as appropriate.</li> <li>We obtained a sample of user access termination requests during the period under review and inspected whether the user's access to the network, applications, operating systems and databases was disabled or revoked in a timely manner per internal policy.</li> <li>We obtained the annual password review for a sample of technologies within the relevant infrastructure layers and</li> </ul> |
|   |          |   | 116   | ,   |

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|   | #        |          | IBA has a formally documented risk framework, risk appetite statement and risk metrics. The risk framework, risk appetite statement and risk metrics are approved by IBA's Board. | inspected for evidence review of password requirements being met (unique user IDs, complexity, login controls and lifecycle management).  We obtained a sample of user access reviews during the period under review and inspected for evidence that the review was performed at the required frequency, reviewed by appropriate members of management and any required research and resolution was performed in the event of discrepancies.  We obtained a sample of users' job titles during the period under review and inspected their user access in relation to their job title to assess the appropriateness of their access.  We obtained the ICE Global personal trading policy and inspected for evidence that employees are prohibited from dealing in the following:  securities of LIBOR panel banks; short-term interest rate futures and options thereon; and other instruments that may affect a benchmark administered by IBA or be affected by such a benchmark.  We obtained management's confirmation that none of the IBA employees personally traded in any prohibited instruments, as per the ICE Global personal trading policy, during the period under review. |

| #   | BMR<br>#       | BMR text  | IBA's Response  | EY Evaluation Procedure  |
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|     | m and a second |   |   | We obtained IBA's Governance Manual<br>and inspected for evidence of the risk<br>management framework and the three<br>lines of defence model are as described<br>in IBA's commentary.   |
| 114 | 13             | The administrator of a commodity benchmark shall ensure that its other business operations have in place appropriate procedures and mechanisms designed to minimise the likelihood that a conflict of interest will affect the integrity of benchmark calculations.   | Please refer to Annex II clause 12 above.   | Please refer to response to Annex II clause 12.  |
| 115 | 14             | The administrator of a commodity benchmark shall ensure that it has in place segregated reporting lines amongst its managers, assessors and other employees and from the managers to the administrator's most senior level management and its board to ensure:  (a) that the administrator satisfactorily implements the requirements of this Regulation; and  (b) that responsibilities are clearly defined and do not conflict or cause a perception of conflict. | Control objective To have an organisational structure with clear reporting lines and job responsibilities with appropriate segregation of duties.  Control procedures IBA has a clear organisational structure and all IBA employees report directly or indirectly to the President of IBA.  The reporting lines are separate from the ICE group.  IBA roles and responsibilities are defined in a consistent manner for all persons involved in the provision of IBA benchmarks. | <ul> <li>We obtained and inspected IBA's organisation chart to evidence that IBA has a clear and well-defined reporting structure separate from the ICE Group.</li> <li>For a sample of employees at IBA involved in the provisioning of the benchmarks, we obtained their job descriptions and profiles and inspected that roles and responsibilities are defined in a consistent manner.</li> <li>We obtained IBA's organisation chart and inspected it for evidence that reporting lines are clearly defined and reporting lines are directly or indirectly to the President of IBA.</li> </ul> |
| 116 | 15             | The administrator of a commodity benchmark shall disclose to its users as soon as it becomes aware of a conflict of interest arising from the ownership of the administrator.   | Section 2 of IBA's published Conflicts of Interest Policy refers to the ownership of IBA within the ICE group.  Please also refer to Annex II clause 14 above.  | Please refer to response to Annex II clause 14.  |

| #   | BMR<br># | BMR text   | IBA's Response  | EY Evaluation Procedure   |
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| 117 | #<br>16  | The administrator of a commodity benchmark shall have in place and publish a complaints handling policy setting out procedures for receiving, investigating and retaining records concerning complaints made about an administrator's calculation process. Such complaint mechanisms shall ensure that:  (a) subscribers of the benchmark may submit complaints on whether a specific benchmark calculation is representative of market value, proposed benchmark calculation changes, applications of methodology in relation to a specific benchmark calculation and other editorial decisions in relation to the benchmark calculation processes;  (b) there is in place a target timetable for the handling of complaints;  (c) formal complaints made against the administrator and its personnel are investigated by that administrator in a timely and fair manner;  (d) the inquiry is conducted independently of any personnel who may be involved in the subject of the complaint;  (e) the administrator aims to complete its investigation promptly; | Control objective  To ensure that IBA has effective procedures for handling complaints. The arrangements should conform to the BMR requirements and should cover complaints about the benchmark determination process. Complaints should be handled promptly and fairly. Records of complaints and complaints-handling should be retained for 5 years.  Control procedures  IBA has a complaints handling policy which provides, in accordance with the Annex II requirements that:  (a) Anyone may submit complaints on whether a specific benchmark calculation is representative.  (b) There is a target timetable for handling complaints: 5 working days for acknowledging a complaint and 8 weeks for a final response (or explaining why 8 weeks is not possible).  (c) Complaints are investigated in a timely and fair manner.  (d) The inquiry into a complaint is conducted independently of any employees who | <ul> <li>We obtained the complaints policy and the IBA complaints handling procedures and inspected for evidence that the policies and procedures are as described in IBA's response.</li> <li>We obtained management confirmation that there were no complaints regarding Precious Metals during the period under review.</li> </ul> |
|     |          |  | may be involved in the subject of the complaint.  |   |

| #   | BMR    | BMR text   | IBA's Response   | EY Evaluation Procedure  |
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| #   | #<br># | (f) the administrator advises the complainant and any other relevant parties of the outcome of the investigation in writing and within a reasonable period;  (g) there is recourse to an independent third party appointed by the administrator if a complainant is dissatisfied with the way a complaint has been handled by the relevant administrator or the administrator's decision in the situation no later than six months from the time of the original complaint; and  (h) all documents relating to a complaint, including those submitted by the complainant as well as an administrator's | (e) IBA aims to complete its investigation within 8 weeks.  (f) IBA would advise the complainant and any other relevant parties of the outcome of the investigation in writing, usually within 8 weeks.  (g) Complainants may ask for their complaint to be referred to the IBA Board.  (h) All documents relating to a complaint are retained for a minimum of 5 years. | EY Evaluation Procedure  |
| 118 | 17     | own record, are retained for a minimum of five years.  Disputes as to daily pricing determinations, which are not formal complaints, shall be resolved by the administrator of a commodity benchmark with reference to its appropriate standard procedures. If a complaint results in a change in price, the details of that change in price shall be communicated to the market as soon as possible.  | Any disputes as to a pricing determination would be resolved by IBA in accordance with its Complaints Policy and associated standard operating procedures. If a complaint resulted in a change in price, the details of that change in price would be communicated to the market as soon as possible.  | <ul> <li>We obtained the Complaints Policy and inspected for evidence that contains provisions relating to communicating to the market changes in published prices resulting from disputes in prices.</li> <li>We obtained management's confirmation that there were no pricing disputes made during the period under review.</li> </ul> |
| 119 | 18     | The administrator of a commodity benchmark shall appoint an independent external auditor with appropriate experience and capability to review and report on the administrator's adherence to its stated methodology criteria   | IBA has appointed an independent external auditor with appropriate experience and capability to review and report on IBA's adherence to its stated methodology criteria and with the requirements of the BMR. Audits will take place annually and be   | EY were appointed as the Auditor of IBA on 22 November 2018 to provide assurance over IBA's compliance with BMR and adherence with benchmark methodologies for the calculation of LBMA Gold and Silver Price.  |

| #      | BMR        | BMR text   | IBA's Response  | EY Evaluation Procedure   |
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| #      | #          | BINIT TOXE   | IDA 3 Response  | L'i Evaluation i l'occurre  |
|        |            | and with the requirements of this Regulation. Audits shall take place annually and be published three months after each audit is completed with further interim audits carried out as appropriate.   | published 3 months after each audit is completed. Further interim audits will be carried out as appropriate.  |   |
| Oversi | ght Fund   | ction - Commission Delegated Regulation (EU)   | 2018/1637 Mandatory Art 5(5)  |   |
| RTS A  | rticle 1 C | composition of the Oversight Function  |   |   |
| 120    | 1          | The structure and composition of the oversight function shall be proportionate to the ownership and control structure of the administrator and shall, as a general rule, be determined in accordance with one or more appropriate governance arrangements listed in the Annex to this Regulation. Administrators shall provide competent authorities with a justification for any deviation from such arrangements | Applicable benchmark ICE Swap Rate  The structure and composition of the oversight functions for IBA benchmarks are designed to be appropriate for the ownership and control structure of IBA. The ICE Swap Rate Oversight Committee has the following features:  • The Committee has an independent Chair;  • The composition of the Committee includes members with deep market knowledge and experience;  • The Committee is well represented in terms of oversight and governance experience and expertise;  • Individuals serve on the Oversight Committees in their own right and not as representatives of their employer organisations; and  • IBA's criteria for the selection of individuals include that they have: deep knowledge and expertise to bring to | <ul> <li>We obtained a sample of the minutes of meetings of the ICE Swap Oversight         Committee and inspected for evidence that over the period under review, the Committee has an independent Chair.</li> <li>We obtained and inspected IBA's Selection of Committee Members policy published on IBA's website for evidence of the criteria as mentioned in IBA's response.</li> <li>We obtained the relevant minutes of meetings of the IBA Board during the period under review and inspected for evidence of review of the Selection of Committee Members Policy.</li> <li>We obtained the Composition and Disclosure of Conflicts of Interest for the ICE Swap Rate Oversight Committee document on IBA's website and inspected for evidence of all members included in the document along with any conflict of interest disclosure.</li> </ul> |

| #   | BMR<br># | BMR text  | IBA's Response  | EY Evaluation Procedure   |
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|     | *        |   | Committee deliberations; have roles for which benchmarks are relevant but who are not faced with any conflict of interest that cannot be readily managed; are committed to acting in the interests of the benchmark; are willing and able to attend meetings regularly; are able to provide constructive challenge; are both attentive to detail and able to bring a broad industry perspective; are respected as individuals in their area of specialism; and appreciate the importance of the benchmark and its accuracy, integrity and relevance.  Control documentation/measures  BBA has published a procedure for the nomination, removal and replacement of its committee members.  Composition and Disclosure of Conflicts of Interest for the ICE Swap Rate Oversight Committee. |   |
| 121 | 2        | Where the benchmark is a critical benchmark, the oversight function shall be carried out by a committee with at least two independent members. Independent members shall be natural persons sitting on the oversight function who are not directly affiliated with the administrator other than through their involvement in the oversight function, and shall have no conflicts of interest, particularly at the level of the relevant benchmark | Not applicable  | Not applicable  |
| 122 | 3        | The oversight function shall be composed of members who together have the skills and expertise appropriate to the oversight of the provision of a particular benchmark and to the responsibilities that the oversight function is   | The composition of the ICE Swap Rate Oversight Committee includes members with deep market knowledge of experience. It has representation from the following sectors: financial intermediaries;   | <ul> <li>We obtained the Composition and Disclosure<br/>of Conflicts of Interest for the ICE Swap Rate<br/>Oversight Committee document on IBA's<br/>website and inspected for evidence of all</li> </ul> |

| #   | BMR | BMR text  | IBA's Response  | EY Evaluation Procedure  |
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|     | #   |   |   |  |
|     |     | required to fulfil. Members of the oversight function shall have appropriate knowledge of the underlying market or economic reality that the benchmark seeks to measure   | market infrastructure; industry association; and asset management.  As stated in the Oversight Function RTS Article 1.1 above, IBA's criteria for the selection of individuals include that they have: deep knowledge and expertise to bring to Committee deliberations; have roles for which benchmarks are relevant but who are not faced with any conflict of interest that cannot be readily managed; and are committed to acting in the interests of the benchmark.  Control documentation/measures  BA's published procedure for the nomination, removal and replacement of its committee members (see Oversight Function RTS Article 1.1 above)  Composition of the ICE Swap Rate Oversight Committee (see Oversight Function RTS Article 1.1 above) | members included in the document along with any conflict of interest disclosure.  We obtained and inspected IBA's Selection of Committee Members policy published on IBA's website for evidence that the composition of the members is appropriate and in line with IBA's response.  We obtained the relevant minutes of meetings of the IBA Board during the period under review and inspected for evidence of review of the Selection of Committee Member's Policy during the period under review. |
| 123 | 4   | Administrators of regulated-data benchmarks shall include, as members of the oversight function, representatives from the entities listed in the definition of a regulated-data benchmark at point (a) of Article 3(1)(24) of Regulation (EU) 2016/1011 and, where applicable, from entities contributing net asset values of investment funds to regulated-data benchmarks. Administrators shall provide competent authorities with a justification for any exclusion of representatives from these entities | Not applicable as IBA does not publish any regulated-data benchmarks.   | Not applicable.  |
| 124 | 5   | Where a benchmark is based on contributions and representatives of its contributors or of supervised entities that use the benchmark are members of the oversight function, the   | Not applicable.   | Not applicable.  |

| #     | BMR        | BMR text  | IBA's Response  | EY Evaluation Procedure   |
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| 125   | 6          | administrator shall ensure that the number of members with conflicts of interest does not amount to or exceed a simple majority. Before the appointment of members, administrators shall also identify and take into account the conflicts arising from relationships between potential members and other external stakeholders, in particular resulting from a potential interest at the level of the relevant benchmarks  Persons directly involved in the provision of the benchmark that may be members of the oversight function, shall have no voting rights. Representatives of the management body shall not be members or observers but may be invited to attend meetings by the oversight | No member of IBA's Board of Directors sits on the ICE Swap Rate Oversight Committee.  Two senior IBA employees are members of the ICE Swap Rate Committee in a non-voting capacity. | We obtained the Composition and Disclosure of Conflicts of Interest for the ICE Swap Rate Oversight Committee document on IBA's website and inspected for evidence that IBA management do not have voting rights with regards to the ICE Swap Rate Oversight Committee. |
|       |            | function in a non-voting capacity   | Control documentation/measures     Composition of the ICE Swap Rate     Oversight Committee published on IBA's     website  |   |
| 126   | 7          | Members of the oversight function shall not include persons who have been subject to sanctions of administrative or criminal nature relating to financial services, in particular manipulation or attempted manipulation under Regulation (EU) No 596/2014  | No member of the Oversight Committees has been subject to any sanction relating to financial services.  | Management confirmed that IBA researches each Oversight Committee member for background checks to identify whether the individual is subject to sanctions of administrative or criminal nature.   |
| RTS A | rticle 2 C | characteristics and positioning of the oversight  | t function  |   |
| 127   | 1          | The oversight function shall constitute a part of the organisational structure of the administrator, or of the parent company of the group to which it belongs, but be separate from the management body and other governance functions of the benchmark administrator  | The ICE Swap Rate Oversight Committee is a committee of the IBA Board.  The Committee has an independent Chair and no member of the Board of IBA serves on the Committee.           | <ul> <li>We obtained IBA's Governance Manual and inspected for evidence that the ICE Swap Rate Oversight Committee:</li> <li>is a Committee of the IBA Board;</li> <li>has an independent chair; and</li> </ul>   |

| #   | BMR | BMR text  | IBA's Response   | EY Evaluation Procedure  |
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|     | #   |   | Control documentation/measures     IBA's Governance Manual     Composition of the Oversight Committee (see Oversight Function RTS Article 1.6 above)   | has no members who also serve on the IBA Board.  |
| 128 | 2   | The oversight function shall assess, and where appropriate challenge, the decisions of the management body of the administrator with regards to benchmarks provision to ensure the fulfilment of the requirements of Regulation (EU) 2016/1011. Without prejudice to point (i) of Article 5(3) of Regulation (EU) 2016/1011, the oversight function shall address all recommendations on benchmark oversight to the management body | The role of the ICE Swap Rate Oversight Committee includes assessing, and where appropriate challenging, the decisions of IBA with regards to the provision of ICE Swap Rate.  Control documentation/measures  IBA's internal Governance Manual Terms of reference for ICE Swap Rate Oversight Committee   | <ul> <li>We obtained the ICE Swap Oversight         Committee Terms of Reference and inspected         for evidence that assessing, and where         appropriate challenging, the decisions of IBA         with regards to the provision of ICE Swap Rate         forms part of their responsibilities.</li> <li>We obtained a sample of the minutes of         meetings of the ICE Swap Oversight         Committee over the period under review and         inspected for evidence that the Committee         assessed, and where appropriate challenged,         the decisions of IBA with regards to the         provision of ICE Swap Rate.</li> </ul> |
| 129 | 3   | Where the oversight function becomes aware that the management body has acted or intends to act contrary to any recommendations or decisions of the oversight function, it shall record that fact clearly in the minutes of its next meeting, or in its record of decisions where an oversight function has been established in accordance with the third governance arrangement set out in the Annex to this Regulation            | As stated above, the role of the ICE Swap Rate Oversight Committee includes assessing, and where appropriate challenging, the decisions of IBA with regards to the provision of ICE Swap Rate.  The Committee would record in its meeting minutes if it became aware that IBA has acted or intends to act contrary to any recommendations resulting from a decision of the Committee.  Control documentation/measures  IBA's Governance Manual Terms of Reference of the ICE Swap Rate Oversight Committee | We obtained a sample of the minutes of meetings of the ICE Swap Rate Oversight Committee during the period under review, and inspected for evidence of the closure of action points such as the update of policies and procedures as per the Committee's recommendation  |

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| RIS AN | ticle 3 P | rocedures governing the oversight function  |   |  |
| 130    | 1         | An oversight function shall have procedures at least relating to the following areas:  (a) its terms of reference, the frequency of its regular meetings, the recording of minutes of the meetings and of its decisions and the periodic information sharing with the management body of the administrator; 5.11.2018 EN Official Journal of the European Union L 274/3  (b) the criteria to select its members, including criteria to evaluate the potential members' expertise, skills and whether they can meet the time commitments required. Those criteria shall take into account in particular potential members' role in any other oversight function;  (c) the criteria to select observers who may be permitted to join a meeting of the oversight function;  (d) the election, nomination or removal and replacement of its members;  (e) where applicable, the criteria for choosing the person or committee responsible for its overall direction and coordination and for acting as the contact point for the management body of the administrator and for the | <ul> <li>(a) IBA's Governance Manual includes the Terms of Reference of the Oversight Committees, the frequency of their regular meetings, the recording of minutes of the meetings and of decisions.</li> <li>Periodic information about the Committee is shared with IBA's Board through regular updates from the Committee's independent Chair (in person, by telephone or by submitting a written update for the Board's consideration).</li> <li>In addition, all Minutes of the Committee's meetings are circulated to the IBA Board for information.</li> <li>Control documentation/measures</li> <li>IBA's Governance Manual</li> <li>Evidence of regular updates from the Committee's independent Chair (in person, by telephone or written update)</li> <li>Evidence that the Minutes of Committee meetings are circulated to the Board</li> <li>Terms of Reference of the ICE Swap Rate Oversight Committee</li> <li>IBA's selection criteria include that committee members are willing and able to attend meetings regularly and, having reviewed the documentation circulated for meetings, to participate actively in</li> </ul> | <ul> <li>We obtained ICE Swap Oversight         Committee Terms of Reference and         inspected for evidence of the frequency of         ICE Swap Rate Oversight Committee         meetings.</li> <li>We obtained a sample of the minutes of         meetings of the ICE Swap Oversight         Committee over the period under review as         evidence of minute taking during the         meetings.</li> <li>We obtained a sample of the minutes of         meetings of the ICE Swap Oversight         Committee over the period under review         and inspected for evidence that the Chair         provided regular updates.</li> <li>We obtained a sample of the Dashboard         circulated at ICE Swap Oversight         Committee meetings over the period under         review and inspected for evidence of         management information for the         Committee's review.</li> <li>We obtained IBA's Selection of Committee         Members policy published on IBA's website         and inspected for evidence of the condition         that members are willing and able to attend         meetings regularly and, having reviewed the         documentation circulated for meetings, to         participate actively in discussions.</li> </ul> |
|        |           | competent authority, in accordance with the appropriate governance  | discussions.  | (c)  |
|        |           | arrangements for oversight functions consisting of multiple committees as set out in the Annex;   | Control documentation/measures  | <ul> <li>EY obtained a sample the minutes of<br/>meetings of the ICE Swap Oversight</li> </ul>   |

| # | BMR<br># | BMR text   | IBA's Response   | EY Evaluation Procedure   |
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|   | #        | (f) the public disclosure of summary details of its members, along with any declarations of conflicts of interest and of any measures taken to mitigate them;  (g) the suspension of voting rights of external members for decisions that would have a direct business impact on the organisations they represent; | IBA's procedure for the nomination, removal and replacement of its committee members (see Oversight Function RTS Article 1.1 above)  (c) The ICE Swap Rate Oversight Committee currently has no Observers.  Control documentation/measures         | Committee over the period under review and inspected for evidence of no observers attended any of the meetings.  • We obtained the Composition and Disclosure of Conflicts of Interest for the ICE Swap Rate Oversight Committee document on IBA's website and inspected for evidence that none of the members are observers. |
|   |          | <ul> <li>(h) requiring members to disclose any conflict of interest before discussion of an agenda item during meetings of the oversight function and their recording in the minutes of the meeting;</li> <li>(i) the exclusion of members from specific</li> </ul>  | Composition of the Oversight Committee (see Oversight Function RTS Article 1.6 above)  (d) IBA has a documented procedure for the nomination, removal and replacement of its committee members.  | <ul> <li>(d)         <ul> <li>We obtained the relevant minutes of meetings for the Nominating and Corporate Governance Committee and inspected for evidence of the review and approval of the Selection of Committee Members policy, during the period under review.</li> </ul> </li> </ul>                                   |
|   |          | discussions in respect of which they have a conflict of interest and the recording of the exclusion in the minutes of the meeting;  (i) its access to all documentation  | The procedure is reviewed and agreed by IBA's Nominating and Corporate Governance Committee and Board.  Control documentation/measures   | We obtained the relevant minutes of<br>meetings for the Nominating and Corporate<br>Governance Committee and inspected for<br>evidence of the review and approval of the<br>Selection of Committee Members policy,<br>during the period under review.   |
|   |          | necessary to carry out its duties;  (k) the management of disputes within it;  (l) measures to be taken in respect of breaches of the code of conduct;  (m) the notification to the competent  | IBA's procedure for the nomination, removal and replacement of its committee members (see Oversight Function RTS Article 1.6 above)      Evidence that the procedure is reviewed and agreed by IBA's Nominating and Corporate Governance Committee | (e) We obtained a sample of the minutes of meetings of the ICE Swap Oversight Committee over the period under review and inspected for evidence of the Chair providing overall direction and coordination between the Committee and the IBA Board of Directors.   |
|   |          | authority of any suspected misconduct by contributors or by the administrator and of any anomalous or suspicious input data;  (n) the prevention of improper disclosure of confidential or sensitive information   | Evidence that the procedure is reviewed and agreed by IBA's Board  (e) The independent Chair of the ICE Swap Rate Oversight Committee is responsible for its overall direction and coordination and for acting as the                              | (f) We obtained the Composition and Disclosure of Conflicts of Interest for the ICE Swap Rate Oversight Committee document on IBA's website and inspected for evidence of Conflicts of Interests declared by all Committee members as required.   |

| # | BMR | BMR text   | IBA's Response   | EY Evaluation Procedure  |
|---|-----|--|--|--|
|   | #   |  |  |  |
|   |     | received, produced or discussed by the oversight function. | contact point with the IBA Board and for contact as appropriate with the FCA. IBA's usual selection criteria apply.  (f) IBA publishes the names of the ICE Swap Rate Oversight Committee members and any declarations of conflicts of interest and measures to mitigate them. | (g) We obtained the ICE Swap Oversight Committee Terms of Reference and inspected for evidence that voting rights of external members would be suspended for decisions that would have a direct business impact on the organisations they represent.   |
|   |     |  | Control documentation/measures     Composition of the Oversight Committee (see Oversight Function RTS Article 1.6 above)  (g) Voting rights of external members would be   | (h) We obtained a sample of the minutes of<br>meetings of the ICE Swap Oversight<br>Committee during the period under review<br>and inspected for evidence of conflict of<br>interest declaration raised as an agenda<br>point at each meeting.  |
|   |     |  | suspended for decisions that would have a direct business impact on the organisations they represent.  Control documentation/measures  Composition of the Oversight Committee (see Oversight Function RTS Article 1.6  | (i) We obtained the ICE Swap Oversight Committee Terms of Reference and inspected for evidence that where the chair determines that a Committee member has an actual or potential material conflict of interest on a particular matter, that Committee member shall not be allowed to vote on that matter. |
|   |     |  | above)  (h) Each Oversight Committee agenda has an item for the declaration of conflicts of interest.  Also, Oversight Committee members confirm in their letters of appointment that they will: (i) promptly declare to the Committee Chairman or a                           | (j) We obtained a sample of the minutes of<br>meetings of the ICE Swap Oversight<br>Committee during the period under review<br>and inspected for evidence of the<br>Committee carrying out its duties as<br>outlined in the Terms of Reference.   |
|   |     |  | director of the Company any other appointments or<br>arrangements that conflict or may conflict with their<br>position as a Committee member, and (ii) comply<br>with the Company's policy on conflicts of interest<br>from time to time.                                      | (k) We obtained a sample of the minutes of<br>meetings of the ICE Swap Oversight<br>Committee during the period under review<br>and inspected for evidence of dispute<br>resolution as per IBA's response.   |
|   |     |  | Control documentation/measures   | (I) Not applicable since ICE Swap Rate does not have contributors of input data.   |

| # | BMR | BMR text | IBA's Response   | EY Evaluation Procedure   |
|---|-----|----------|--|---|
|   | #   |          | Sample agenda for the ICE Swap Rate Oversight Committee     Conflicts of Interest Policy  (i) One of the Terms of Reference of the ICE Swap Rate Oversight is, "Considering existing or potential conflicts of interest and establishing whether they are material".  A Committee member would be excluded from discussions in respect of which they have a conflict of interest; their exclusion would be recorded in the minutes of the meeting.  Control documentation/measures  Terms of Reference of the ICE Swap Rate Oversight Committee (see Oversight Function RTS Article 2.2 above)  (j) The Oversight Committees have access to all documentation necessary to carry out its duties. IBA manages the Committee agendas so as to ensure that their Terms of Reference are fulfilled in compliance with the BMR.  The independent Chair of the Committee is the contact point with the IBA Board and he participates regularly at IBA Board meetings (in person, by telephone or by memo).  Control documentation/measures  Published Terms of Reference of the Oversight Committees | <ul> <li>(m) We obtained the ICE Swap Oversight Committee Terms of References and inspected for evidence that the Committee is to notify the FCA of any suspected misconduct by IBA and of any anomalous or suspicious input data to the benchmark.</li> <li>(n)</li> <li>We obtained a sample Appointment letter and inspected for evidence of confidentiality obligations for Committee Members.</li> <li>We obtained a sample Dashboard circulated at the ICE Swap Rate Oversight Committee meeting during the period under review and inspected for the anonymised management information circulated to members.</li> </ul> |

| # | BMR | BMR text | IBA's Response  | EY Evaluation Procedure |
|---|-----|----------|---|-------------------------|
|   | #   |          |   |                         |
| # |     | BMR text | Sample agendas of the Oversight Committees     Evidence of participation of the chair of the Oversight Committee at IBA Board meetings - relevant Board minutes  (k) If a dispute within the Committee could not be resolved through discussion, the Chair would take a formal vote on the matter in question. The Chair may exercise a deciding vote.  The Chair would seek to discuss a dispute with the management and chair of IBA. The Chair would also inform the FCA of the matter as appropriate.  Control documentation/measures  ICE Swap Rate Oversight Committee Role, Procedures and Terms of Reference (see Oversight Function RTS Article 1.1 and Oversight Function RTS Article 2.2 above)  (I) (Not applicable since ICE Swap Rate do not have contributors of input data)  (m) One of the Terms of Reference of the Oversight Committees is, "Notifying the FCA of any suspected misconduct by IBA and of any anomalous or suspicious input data to the benchmark". | EY Evaluation Procedure |
|   |     |          | Control documentation/measures  Published Torms of Reference of the ICE   |                         |
|   |     |          | Published Terms of Reference of the ICE<br>Swap Rate Oversight Committee  |                         |

| #     | BMR        | BMR text   | IBA's Response   | EY Evaluation Procedure |
|-------|------------|--|--|-------------------------|
|       | #          |  | <ul> <li>(n) ICE Swap Rate Oversight Committee members confirm in their letters of appointment that they will abide by confidentiality obligations.</li> <li>In addition, the information that IBA presents to the Oversight Committee is anonymised where appropriate to preserve confidentiality.</li> <li>Control documentation/measures</li> <li>Sample letter of appointment to the Committee</li> <li>IBA's Conflict of Interest Policy (see link at Oversight Function RTS Article 1.1 (h) above)</li> <li>Anonymised example of information presented by IBA to the Oversight Committees (e.g. Dashboard)</li> </ul> |                         |
| 131   | 2          | Where the oversight function is carried out by a natural person:  (a) points (e), (g), (i), and (k) of paragraph 1 do not apply;  (b) the administrator shall appoint an alternate appropriate body or natural person to ensure that duties of the oversight function can be consistently carried out in case of the absence of the person responsible for the oversight function. | Not applicable.  | Not applicable.         |
| RTS A | rticle 4 E | ntry into force  |  |                         |
| 132   | 1          | This Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union. It shall apply from 25 January 2019  haustive list of appropriate governance arrangements.  | -  | -                       |

| #   | BMR | BMR text  | IBA's Response  | EY Evaluation Procedure  |
|-----|-----|---|---|--|
| "   | #   | DIMIT TOXE  | IDA 3 Nosponso  | LT Evaluation Troccure   |
| 133 | 1   | An independent oversight committee consisting of a balanced representation of stakeholders including supervised entities that use the benchmark, contributors to the benchmarks and other external stakeholders such as market infrastructure operators and other input data sources, as well as independent members and staff of the administrator that are not directly involved in the provision of the relevant benchmarks or any related activities;   | This is the construct that IBA applies in respect of the ICE Swap Rate Oversight Committee including, as follows.  • Supervised entities that use the benchmark;  • Other external stakeholders such as market infrastructure operators and other input data sources;  • Independent members;  • Staff of the administrator that are not directly involved in the provision of the relevant benchmarks.  The benchmark does not have contributors of input data and therefore has no representation from contributors.  Control documentation/measures  • Composition of the Oversight Committee (see Oversight Function RTS Article 1.6 above) | <ul> <li>We obtained and inspected IBA's Selection of Committee Members policy published on IBA's website for evidence of the Committee composition requirements.</li> <li>We obtained the relevant minutes of meetings of the IBA Board during the period under review and inspected for evidence of review of the Selection of Committee Members Policy during the period under review.</li> <li>We obtained a sample of the minutes of meetings of the ICE Swap Oversight Committee during the period under review and inspected for evidence of a quorum as per IBA's Governance Manual and the ICE Swap Rate Oversight Committee Terms of Reference.</li> </ul> |
| 134 | 2   | Where the administrator is not wholly owned or controlled by contributors to the benchmark or supervised entities that use it and no other conflicts of interest exist at the level of the oversight function, an oversight committee shall include:  • at least two persons involved in the provision of the relevant benchmarks in a non-voting capacity;  • at least two members of staff representing other parts of the organisation of the administrator that are not directly involved in the provision of the relevant benchmarks or any related activities; or | Not applicable.   | Not applicable.  |

| BMR<br>" | BMR text   | IBA's Response  | EY Evaluation Procedure   |
|----------|--|---|---|
| #        |  |   |   |
|          |  |   |   |
|          |  |   |   |
| 3        | Where a benchmark is not critical and unless its complexity, degree of use or vulnerability indicate otherwise, a natural person who is a staff member of the administrator or any other natural person whose services are placed at the administrator's disposal or under the control of the administrator, who is not directly involved in the provision of any relevant benchmark and is free from conflicts of interest, particularly those resulting from a potential interest in the level of the benchmark; | Not applicable  | Not applicable  |
| 4        | An oversight function consisting of multiple committees, each responsible for the oversight of a benchmark, type of benchmarks or family of benchmarks, provided that a single person or committee is designated as responsible for the overall direction and coordination of the oversight function and for interaction with the management body of the benchmark administrator and the competent authority;  | Not applicable  | Not applicable  |
| 5        | An oversight function consisting of multiple committees, each performing a subset of the oversight responsibilities and tasks, provided that a single person or committee is designated as responsible for the overall direction and coordination of the oversight function and for interaction with the management body of the benchmark administrator and the competent authority.   | Not applicable  | Not applicable  |
|          | 4  | where such appropriate staff members are not available, at least two independent members;  Where a benchmark is not critical and unless its complexity, degree of use or vulnerability indicate otherwise, a natural person who is a staff member of the administrator or any other natural person whose services are placed at the administrator's disposal or under the control of the administrator, who is not directly involved in the provision of any relevant benchmark and is free from conflicts of interest, particularly those resulting from a potential interest in the level of the benchmark;  An oversight function consisting of multiple committees, each responsible for the oversight of a benchmark, type of benchmarks or family of benchmarks, provided that a single person or committee is designated as responsible for the overall direction and coordination of the oversight function and for interaction with the management body of the benchmark administrator and the competent authority;  An oversight function consisting of multiple committees, each performing a subset of the oversight responsibilities and tasks, provided that a single person or committee is designated as responsible for the overall direction and coordination of the oversight function and for interaction with the management body of the benchmark | where such appropriate staff members are not available, at least two independent members;  Where a benchmark is not critical and unless its complexity, degree of use or vulnerability indicate otherwise, a natural person who is a staff member of the administrator or any other natural person whose services are placed at the administrator's disposal or under the control of the administrator, who is not directly involved in the provision of any relevant benchmark and is free from conflicts of interest, particularly those resulting from a potential interest in the level of the benchmark;  An oversight function consisting of multiple committees, each responsible for the oversight of a benchmark, type of benchmarks or family of benchmarks, provided that a single person or committee is designated as responsible for the oversight function and coordination of the oversight function and for interaction with the management body of the benchmark administrator and the competent authority;  An oversight function consisting of multiple committees, each performing a subset of the oversight fresponsibilities and tasks, provided that a single person or committee is designated as responsible for the overall direction and coordination of the oversight function and toordinate as the person or committee is designated as responsibilities and tasks, provided that a single person or committee is designated as responsible for the oversight function and coordination of the oversight function and for interaction with the management body of the benchmark |

Input Data - Commission Delegated Regulation (EU) 2018/1638 Mandatory Art 11(5)

RTS Article 1 Scope

| #            | BMR              | BMR text  | IBA's Response  | EY Evaluation Procedure   |
|--------------|------------------|---|---|---|
|              | #                |   |   |   |
| 138<br>RTS A | 1<br>article 2 E | This Regulation does not cover or apply to administrators of non-significant benchmarks.  nsuring appropriate and verifiable input data   | LIBOR (Critical)  | -   |
| 139          | 1                | The administrator of a benchmark shall ensure that it has available to it all information necessary to enable it to check the following matters in relation to any input data that it uses for the benchmark, insofar as these matters are applicable to the input data in question:  (a) whether the submitter is authorised to contribute the input data on behalf of the contributor in accordance with any requirement for authorisation under Article 15(2)(b) of Regulation (EU) 2016/1011;  (b) whether the input data is provided by the contributor, or selected from a source specified by the administrator, within the time-period prescribed by the administrator;  (c) whether the input data is provided by the contributor in a format specified by the administrator;  (d) whether the source of the input data is one of the sources listed Article 3(1)(24) of Regulation (EU) 2016/1011;  (e) whether the source of the input data is reliable; | (a) The LIBOR Code of Conduct specifies that each person directly involved in a bank's submission process should be formally designated and documented as such within the Contributor Bank (including the person's name, role and reporting line, as well as a detailed job description covering the involvement in the submission process).  Control documentation/measures  Section 5.2 of the LIBOR Code of Conduct, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pd  (b) Submissions must be uploaded to IBA's platform in such manner and format as may be specified by IBA from time to time in order to ensure the secure transfer of data.  Control documentation/measures  Section 4.6 of the LIBOR Code of Conduct, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf  (c) See above | <ul> <li>We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:         <ul> <li>Version 5 issued on 18 June 2018</li> <li>Version 6 issued on 9 February 2019</li> <li>Version 7 issued on 25 July 2019</li> </ul> </li> <li>and inspected for evidence of the requirements of the Input Data RTS Article 2.1 in the LIBOR Code of Conduct, as per IBA's response.</li> <li>We obtained the IBA Surveillance Procedure documents including the alerts for each benchmark and inspected for evidence that these were reviewed and approved by Head of Benchmarks during the period under review.</li> <li>For a sample of dates during the period under review, we obtained the post-publication surveillance alert workbooks and inspected for evidence of alert flagging for review and completed actions for each flagged alert.</li> <li>For a sample of Oversight Committee Meetings during the period under review, we obtained the Dashboards circulated within the Committees and inspected for evidence of the relevant post-publication surveillance information, alerts, investigations, escalating any suspicious input data identified.</li> </ul> |

| # | BMR | BMR text | IBA's Response  | EY Evaluation Procedure   |
|---|-----|----------|---|---|
|   | #   |          |   |   |
|   |     |          | (d) Not applicable since the benchmark is not a Regulated-data benchmark.   | <ul> <li>We obtained a sample of parameter changes<br/>to the post-publication surveillance alerts tool<br/>during the period under review and inspected</li> </ul>                           |
|   |     |          | (Note: Article 3(1)(24) of the BMR defines a Regulated-data benchmark)  | for appropriate approval.  For a sample of daily and weekly backups of  |
|   |     |          | (e) Section 4 of the LIBOR Code of Conduct contains input data requirements to ensure that input data is of the required quality, accuracy and quantity. Section 5 of the Code sets out the associated governance and control requirements. Record-keeping requirements are in section 7.   | IBA systems/drives during the period under review, we obtained the backup evidence to determine that data had been appropriately retained to comply with the BMR record keeping requirements. |
|   |     |          | Validation checks are performed on the input data before being accepted by IBA into the benchmark calculation. Where the validation checks identify an anomaly, the contributor bank is sent an automatic electronic alert and must confirm all of its submissions for that LIBOR currency. |   |
|   |     |          | IBA's surveillance function validates input data after publication to identify errors and anomalies. Surveillance of the inputs to the benchmark calculation includes comparing the inputs to external market data.   |   |
|   |     |          | Control documentation/measures  |   |
|   |     |          | The LIBOR Code of Conduct, published at:  |   |
|   |     |          | https://www.theice.com/publicdocs/ICE_LIBOR_Co_de_of_C onduct.pdf   |   |
|   |     |          | Evidence of pre-publication tests   |   |
|   |     |          | Surveillance Procedures Overview  |   |

| #     | BMR          | BMR text   | IBA's Response   | EY Evaluation Procedure   |
|-------|--------------|--|--|---|
|       | #            |  | Example of daily Surveillance Meeting Log  |   |
| 140   | 2            | whether the input data meets the requirements set out in the methodology of the benchmark, in particular the requirements on the currency or unit of measurement, the tenor, and the types of counterparties;  | See above.   | See above.  |
| 141   | 3            | whether any relevant thresholds for the quantity of the input data and any relevant standards for the quality of the input data are met in accordance with the methodology;  | See above.   | See above.  |
| 142   | 4            | whether the priority of use of different types of input data is applied in accordance with the methodology;  | See above.   | See above.  |
| 143   | 5            | whether any discretion or judgement exercised in contributing the input data is exercised in accordance with the clear rules set out in the methodology and with the policies required to be established by the code of conduct for the benchmark.   | See above.   | See above.  |
| RTS A | Article 3 li | nternal oversight and verification procedures o  | f a contributor  |   |
| 144   | 1            | The internal oversight and verification procedures of a contributor that the administrator has to ensure are in place in compliance with Article 11(3)(b) of Regulation (EU) 2016/1011 shall include at least the following:   |  |   |
| 145   | a            | establishment and maintenance of an internal function to serve as the first level of control for the contribution of input data and to be responsible for carrying out the following duties:  (i) undertaking an effective check of input data prior to its contribution, including ensuring compliance with any requirement for the | (i) Section 4.3 of the LIBOR Code of Conduct (Quality and accuracy of input data) refers to a pre-contribution check to identify suspicious input data, including effective checking processes, in the form of a review of the data by a second person, for unusual data values. | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  Version 5 issued on 18 June 2018 Version 6 issued on 9 February 2019 Version 7 issued on 25 July 2019 |

| #   | BMR<br># | BMR text  | IBA's Response  | EY Evaluation Procedure   |
|-----|----------|---|---|---|
|     | #        | validation of input data to which the contributor is subject pursuant to Article 15(2)(d)(iii) of Regulation (EU) 2016/1011, and reviewing input data prior to its contribution with respect to its integrity and accuracy;  (ii) checking that the submitter is authorised to contribute input data on behalf of the contributor in accordance with any requirement imposed under Article 15(2)(b) of Regulation (EU) 2016/1011;   | <ul> <li>(ii) The LIBOR Code of Conduct specifies that each person directly involved in a bank's submission process should be formally designated as such within the bank. The LIBOR banks tend to have a small number of submitters and infrequent changes.</li> <li>(i) Section 5.3 (Conflicts of interest) of the LIBOR Code of Conduct refers to the internal controls and procedures that a bank must have around access to information about a LIBOR submission. Section 6.2 (Compliance states that the bank's compliance function must be able to access documentation covering the LIBOR Submission process.</li> <li>Control documentation/measures</li> <li>The LIBOR Code of Conduct, published at:         <ul> <li>https://www.theice.com/publicdocs/ICE_LIBOR Code of Conduct.pdf</li> </ul> </li> </ul> | and inspected for evidence of the requirements in the LIBOR Code of Conduct, as per IBA's response.   |
| 146 | b        | establishment and maintenance of an internal function to serve as the second level of control for the contribution of input data and to be responsible for carrying out the following duties:  (i) conducting a review of input data after its contribution, independent of the review carried out by the first level control function, in order to confirm the integrity and accuracy of the contribution;  (ii) establishing and maintaining a whistle-blowing procedure that includes appropriate safeguards for whistle- blowers; | <ul> <li>(i) The LIBOR Code of Conduct requires appropriate oversight of the submission process by the bank's compliance function to ensure compliance with the contributor's obligations under the BMR.</li> <li>(ii) The LIBOR Code of Conduct states that a contributor bank should maintain a whistleblowing policy so that staff and external parties have a means to raise concerns regarding unlawful or inappropriate practices related to LIBOR.</li> <li>(iii) The LIBOR Code of Conduct states that a contributor bank should have:</li> </ul>   | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019 and inspected for evidence of the requirements in the LIBOR Code of Conduct, as per IBA's response. |

| # | BMR<br># | BMR text   | IBA's Response  | EY Evaluation Procedure |
|---|----------|--|---|-------------------------|
|   | #        | <ul> <li>(iii) establishing and maintaining procedures for the internal reporting of any attempted or actual manipulation of the input data, for any failure to comply with the contributor's own benchmark-related policies and for the investigation of such events as soon as they become apparent;</li> <li>(iv) establishing and maintaining internal reporting procedures for reporting any operational problems in the contribution process as soon as they arise;</li> <li>(v) ensuring regular presence in person of a staff member from the second level control function in the office area where the front office function is based;</li> <li>(vi) maintaining oversight of relevant communications between front office function staff directly involved in contributing input data and also of relevant communications between such staff and other internal functions or external bodies;</li> <li>(vii) establishing, maintaining and operating a conflict of interest policy that ensures:</li> </ul> | <ul> <li>Internal procedures for its staff to report suspicious input data;</li> <li>A whistleblowing policy for staff (and external parties) to raise concerns; and</li> <li>Robust rules and escalation procedures that require submitters, reviewers and alternates to report any such knowledge or suspicions to their compliance function and, as appropriate, to the senior management responsible for the bank's LIBOR submission process.</li> <li>The key duties of the compliance or other similar function include investigating any complaints concerning the accuracy or integrity of the bank's submission.</li> <li>(iv) The LIBOR Code of Conduct states that a contributor bank should have contingency plans to address technical and operational difficulties experienced by the bank.</li> <li>(v) The LIBOR Code of Conduct states that a contributor bank's compliance function should maintain a physical presence, on at least a monthly basis, on the floor of the LIBOR-setting team and the floor of traders in derivatives that reference LIBOR rates.</li> <li>(vi) Section 5.3 (Conflicts of interest) of the LIBOR Code of Conduct refers to the internal controls and procedures that a bank must have around access to information about a LIBOR submission.</li> <li>The LIBOR Code of Conduct also refers to:</li> </ul> |                         |

| # | BMR | BMR text |   | IBA's Response   | EY Evaluation Procedure |
|---|-----|----------|---|--|-------------------------|
|   | #   |          |   |  |                         |
|   |     | •        | the identification and disclosure to the administrator of actual or potential conflicts of interest concerning any of the contributor's front office function staff who are involved in the contribution process, | <ul> <li>The requirement that business related<br/>to derivatives products that reference<br/>LIBOR be conducted on recorded<br/>telephone and electronic<br/>communications systems, and not on<br/>personal devices or systems (Section<br/>5. 5 - Appointment of submitters,<br/>training and controls); not on personal</li> </ul> |                         |
|   |     | •        | the absence of any direct or indirect link between the remuneration of a submitter and the value of the benchmark, the  | devices or systems (Section 5. 5 - Appointment of submitters, training and controls);  |                         |
|   |     |          | value of specific submissions<br>made or the performance of any<br>activity carried on by the<br>contributor  | <ul> <li>Communications relating to the<br/>provision of input data and of all<br/>information used to enable the<br/>contributor to make the submission<br/>(Section 5.2 - Required systems and</li> </ul>  |                         |
|   |     | •        | that might give rise to a conflict of interest related to the contribution of input data to the benchmark,  | controls); and  Testing on a risk-based approach a   |                         |
|   |     | •        | a clear segregation of duties<br>between front office function staff<br>involved in contributing input data<br>and other front office function<br>staff,  | sample of records of voice communications between those involved in the LIBOR submission process and those outside of this process (Section 6.2 - Compliance).   |                         |
|   |     | •        | a physical separation between<br>front office function staff involved<br>in contributing input data and<br>other front office function staff,<br>effective controls over the                                      | <ul> <li>(vii) That section also states that:</li> <li>The remuneration of submitters, reviewers and alternates should not be based in whole or in part on any economic target that could incentivise submitters directly or indirectly to</li> </ul>  |                         |
|   |     |          | exchange of information between<br>front office function staff and<br>other staff of the contributor<br>involved in activities that may<br>create a risk of conflicts of<br>interest, insofar as the              | <ul> <li>Modify LIBOR submissions;</li> <li>Submitters, reviewers and alternates not to be physically located in proximity to employees who primarily</li> </ul>   |                         |

| #   | BMR<br>" | BMR text   | IBA's Response   | EY Evaluation Procedure  |
|-----|----------|--|--|--|
|     | #        | information being exchanged is information that may affect the input data contributed,  • the existence of contingency provisions in case of temporary disruption of the controls regarding the exchange of information referred to in the fifth indent,  • the taking of measures to prevent any person from exercising inappropriate influence over the way in which front office function staff involved in contributing input data carry out their activities; | trade or deal in derivatives products that reference LIBOR;  • A bank must have internal controls and procedures around access to information about a LIBOR submission; and  • Individuals not involved in the LIBOR-setting process must not contact submitters, reviewers or alternates to attempt to influence, or inappropriately inform, the bank's submissions.  Section 4.9 (Provision of all relevant input data) requires a LIBOR bank to have contingency plans for submitting input data to address technical and operational difficulties.  Control documentation/measures  The LIBOR Code of Conduct, published at: <a href="https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf">https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf</a> |  |
| 147 | С        | establishment and maintenance of an internal function, independent from the first and second level control functions, to serve as the third level of control for the contribution of input data and to be responsible for performing checks, on a regular basis, on the controls exercised by the other two control functions;   | Section 6.3 (Audits) of the LIBOR Code of Conduct refers to the need for external audits of the bank's LIBOR input data, compliance with the Code compliance with the provisions of the BMR. It also recommends periodic internal audit reviews.  Control documentation/measures  - The LIBOR Code of Conduct, published at: https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_C onduct.pdf  | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence of the requirements in the LIBOR Code of Conduct, as per IBA's response. |

| #   | BMR | BMR text   | IBA's Response   | EY Evaluation Procedure  |
|-----|-----|--|--|--|
| #   | #   | DIVIN LEXT   | iba s Response   | L'i L'Valuation l'iocedure   |
| 148 | d   | procedures governing:  (i) the means of cooperation and flow of information between the three control functions required by points (a), (b) and (c) of this paragraph;  (ii) regular reporting to the senior management of the contributor on the duties carried out by those three control functions;  (iii) communication to the administrator, upon request, of information requested by the administrator relating to the contributor's internal oversight and verification procedures.  | Section 6.2 (Compliance) of the LIBOR Code of Conduct states that there should be appropriate oversight of the submission process by the Compliance Function of the bank to ensure compliance with the contributor's obligations under the BMR. The function must report any findings, including reverse transactions, to management on a regular basis.  Any significant issues which are identified by internal audit should be reported at an appropriately senior level within the bank for decision on the actions to be taken and whether these issues should be reported to IBA (Section 6.3 - Audits).  Control documentation/measures - The LIBOR Code of Conduct, published at: https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_C onduct.pdf | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence of the requirements in the LIBOR Code of Conduct, as per IBA's response. |
| 149 | 2   | The administrator may choose to waive any of the requirements specified in point (b)(v) or in the third, fourth or sixth indents of point (b)(vii) of paragraph 1, having regard to the following matters:  (v) the nature, scale and complexity of the activities of the contributor;  (vi) the likelihood of a conflict of interest arising between the contribution of input data to the benchmark and trading activity or other activities performed by the contributor;  (vii) the level of discretion involved in the process of contribution. | -  | -  |

| #     | BMR<br>#           | BMR text  | IBA's Response   | EY Evaluation Procedure  |  |  |  |
|-------|--------------------|---|--|--|--|--|--|
| Metho | dology -           | Commission Delegated Regulation (EU) 2018/  | 1687 Mandatory Art 13(3)   |  |  |  |  |
| RTS A | TS Article 1 Scope |   |  |  |  |  |  |
| 150   | 1                  | This Regulation does not cover or apply to administrators of non-significant benchmarks.  | IBA does not administer non-significant benchmarks.  | Not applicable.  |  |  |  |
| RTS A | rticle 2 K         | ey elements of the methodology used to deter  | mine a critical or significant benchmark   |  |  |  |  |
| 151   | 1                  | The information to be provided by an administrator of a benchmark or, where applicable, family of benchmarks in compliance with the requirement laid down in Article 13(1)(a) of Regulation (EU) 2016/1011 shall include at least the following elements, insofar as they are relevant to that benchmark or family of benchmarks or to the input data used to determine it:  (a) a definition and description of the benchmark or family of benchmarks and of the market or economic reality that it is intended to measure;  (b) the currency or other unit of measurement of the benchmark or family of benchmarks;  (c) the criteria used by the administrator for selecting the sources of input data used to determine the benchmark or family of benchmarks;  (d) the types of input data used to determine the benchmark or family of benchmarks and the priority given to each type;  (e) the composition of any panel of contributors and the criteria used to determine eligibility for panel membership; | (a) The Benchmark Statements define and describe the economic reality that the benchmark is intended to measure (see references to BMR Article 27(1)(a)).  Control documentation/measures  • LIBOR Benchmark Statement, published at:  https://www.theice.com/publicdocs/LIBOR Benchmark statement.pdf  • ICE Swap Rate Benchmark Statement, published at:  https://www.theice.com/publicdocs/ISR Benchmark statement.pdf  (b) LIBOR:  The LIBOR Benchmark Statement states that LIBOR is published every UK business day for five currencies: US Dollars; Pounds Sterling; Euros; Japanese Yen; and Swiss Francs (see reference to BMR Article 27(2)(a)).  ICE Swap Rate: | <ul> <li>We obtained the Benchmark Statements for LIBOR and ICE Swap Rate on IBA's website and inspected, as required, for evidence of:         <ul> <li>the definition and description of the economic reality that the benchmark is intended to measure;</li> <li>the currency or other unit of measurement of the benchmark;</li> <li>the criteria used by the administrator for selecting the sources of input data used to determine the benchmark or family of benchmarks;</li> <li>the types of input data used to determine the benchmark or family of benchmarks and the priority given to each type;</li> <li>the composition of any panel of contributors and the criteria used to determine eligibility for panel membership;</li> <li>a description of the constituents of the benchmark or family of benchmarks and the criteria used for selecting and weighting them;</li> </ul> </li> </ul> |  |  |  |

| # | (f) a description of the constituents of the   |   |   |
|---|--|---|---|
|   | benchmark or family of benchmarks and the criteria used for selecting and weighting them;  | As noted in the Benchmark Statement, ICE Swap Rate is published in USD, EUR and GBP (see reference to BMR Article 27(1)(a)).                                | <ul> <li>any minimum liquidity requirements for<br/>the constituents of the benchmark or<br/>family of benchmarks;</li> </ul>   |
|   | (g) any minimum liquidity requirements for the constituents of the benchmark or family of benchmarks;  | Control documentation/measures     LIBOR Benchmark Statement, published at:   | <ul> <li>any minimum requirements for the<br/>quantity of input data, and any<br/>minimum standards for the quality of<br/>input data, used to determine;</li> </ul>            |
|   | (h) any minimum requirements for the quantity of input data, and any minimum standards for the quality of input data, used to determine the benchmark or family of benchmarks; | https://www.theice.com/publicdocs/LIBOR_Bench<br>mark_statement.pdf  • ICE Swap Rate Benchmark Statement,   | <ul> <li>the clear rules identifying how and<br/>when discretion may be exercised in<br/>the determination of the benchmark or<br/>family of benchmarks;</li> </ul>             |
|   | (i) the clear rules identifying how and when discretion may be exercised in the determination of the benchmark or family of benchmarks;  | published at:  https://www.theice.com/publicdocs/ISR_Benchmar k_statement.pdf   | <ul> <li>whether the benchmark or family of<br/>benchmarks takes into account any<br/>reinvestment of dividends or coupons<br/>paid by its constituents;</li> </ul>             |
|   | (j) whether the benchmark or family of benchmarks takes into account any reinvestment of dividends or coupons paid by its constituents;  | (c) LIBOR:  The LIBOR banks in each currency panel are required on every UK business day to send IBA the rates at which they believe they would be able to  | <ul> <li>if the methodology may be changed<br/>periodically to ensure the benchmark or<br/>family of benchmarks remains<br/>representative of the relevant market or</li> </ul> |
|   | (k) if the methodology may be changed periodically to ensure the benchmark or family of benchmarks remains representative of the relevant market or economic reality:          | obtain funding in each of the maturities in that currency.  Submissions should be made in accordance with the published ICE LIBOR Methodology.              | economic reality:  (i) any criteria to be used to determine when such a change is necessary;  |
|   | (i) any criteria to be used to determine when such a change is necessary;  | ICE Swap Rate:  | (ii) any criteria to be used to determine<br>the frequency of such a change;<br>and   |
|   | (ii) any criteria to be used to determine the frequency of such a change; and  (iii) any criteria to be used to rebalance the constituents of the benchmark or family of       | ICE Swap Rate is based on tradable quotes from electronic venues regulated as MTFs or SEFs (see the Benchmark Statement reference to BMR Article 27(2)(b)). | (iii) any criteria to be used to rebalance<br>the constituents of the benchmark<br>or family of benchmarks as part of   |
|   | benchmarks as part of making such a change;  (I) the potential limitations of the methodology and details of any methodology to be used in                                     | Control documentation/measures     LIBOR panel bank criteria, published at:   | making such a change;  the potential limitations of the methodology and   |

| # | BMR<br># | BMR text  | IBA's Response   | EY Evaluation Procedure   |
|---|----------|---|--|---|
|   | #        | exceptional circumstances, including in the case of an illiquid market or in periods of stress or where transaction data sources may be insufficient, inaccurate or unreliable;  (m) a description of the roles of any third parties involved in data collection for, or in calculation or dissemination of, the benchmark or family of benchmarks  (n) the model or method used for the extrapolation and any interpolation of benchmark data. | https://www.theice.com/publicdocs/Policy_Composition_ICE_LIBOR_Panels_pdf  • ICE_LIBOR_Methodology, published at: https://www.theice.com/publicdocs/ICE_LIBOR_Methodology.pdf  • ICE_Swap_Rate_Benchmark_Statement, published at: https://www.theice.com/publicdocs/ISR_Benchmark_statement.pdf  (d) LIBOR: Submissions are required to be made in accordance with the published ICE_LIBOR_Methodology.  ICE_Swap_Rate: ICE_Swap_Rate is calculated in accordance with the inputs set out in the published methodology.  Control_documentation/measures  • ICE_LIBOR_Methodology, published at: https://www.theice.com/publicdocs/ICE_LIBOR_Methodology.pdf  • ICE_Swap_Rate_Methodology, published at: https://www.theice.com/publicdocs/ICE_Swap_Rate_E_Full_Calculation_Methodology.pdf | details of any methodology to be used in exceptional circumstances, including in the case of an illiquid market or in periods of stress or where transaction data sources may be insufficient, inaccurate or unreliable;  a description of the roles of any third parties involved in data collection for, or in calculation or dissemination of, the benchmark or family of benchmarks; and  the model or method used for the extrapolation and any interpolation of benchmark data.  We obtained the LIBOR panel bank Criteria published on IBA's website and inspected for evidence of IBA's response.  We obtained the LIBOR Reduced Submission Policy published on IBA's website and inspected for evidence of IBA's response.  We obtained the ICE Swap rate Insufficient Data Policy published on IBA's website and inspected for evidence of IBA's response.  For a sample of dates during the period under review we tested the calculation of rates and prices against the published methodologies and noted no discretion was exercised by |

| # | BMR<br># | BMR text | IBA's Response  | EY Evaluation Procedure   |
|---|----------|----------|---|---|
|   | #        |          | (e) See (c) above.  (f) Not applicable since there is no periodic rebalancing of the constituents of IBA's benchmarks.  Control documentation/measures  • ICE LIBOR Methodology, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Methodology.pdf  • ICE Swap Rate Methodology, published at:  https://www.theice.com/publicdocs/ICE_Swap_Rate_Full_Calculation_Methodology.pdf  (g) LIBOR:  In the event that IBA receives fewer than the expected number of submissions by the time that LIBOR is due to be published, the Reduced Submissions Policy would apply.  This states that, if 5 or more submissions are received for a particular currency, IBA will calculate LIBOR but with a reduced number of submissions excluded in the trimmed arithmetic mean calculation.  IBA noted that there had been an incident on 21 March 2019 which led to IBA publishing the LIBOR GBP rates by applying the reduced submission policy as well as an early publication of the LIBOR GBP rates at 11:54.16am. | management, other than the data integrity validation procedure required under Art 6.4.  We tested the 21 March 2019 LIBOR published rate and noted that the published rate was in line with the LIBOR Reduced Submission Policy on IBA's website.  For a sample of dates during the period under review we tested rates that were calculated using movement interpolation, against the published ICE Swap Rate Methodology. |

| # | BMR<br># | BMR text | IBA's Response   | EY Evaluation Procedure |
|---|----------|----------|--|-------------------------|
|   | #        |          | This incident, reported to the FCA, was discussed at the LIBOR Oversight Committee of IBA held on Monday, 13 May 2019 and noted in the publicly available minutes of meetings on the IBA Website The exclusion of a panel bank's GBP LIBOR submission did not materially impact the published LIBOR GBP rates on that day and did not exceed the 3 bps re-fix threshold as per the LIBOR Error Policy.  Given that IBA did not publish Reported Errors during the transition period to the Waterfall Methodology, IBA included the incident in the ICE LIBOR - Reported Errors report, under the Reduced Submissions section.  ICE Swap Rate:  If there is insufficient market liquidity, the provisions of IBA's ICE Swap Rate Insufficient Data Policy apply and there is a No Publication.  Control documentation/measures  • LIBOR Reduced Submissions Policy, published at:  https://www.theice.com/publicdocs/ICE LIBOR Reduced Submissions Policy.pdf  • ICE Swap Rate Insufficient Data Policy, published at:  https://www.theice.com/publicdocs/ICE-Swap-Rate-Insufficient-DataPolicy.pdf  (h) LIBOR: |                         |
|   |          |          |  |                         |

| # | BMR | BMR text | IBA's Response   | EY Evaluation Procedure |
|---|-----|----------|--|-------------------------|
|   | #   |          |  |                         |
|   |     |          | The LIBOR Code of Conduct sets out standards for the quality of input data, in particular in section 4 (Input data requirements).  |                         |
|   |     |          | ICE Swap Rate:   |                         |
|   |     |          | In essence, the ICE Swap Rate calculation works out the mid-price to fill a trade of Standard Market Size using the best prices available on the trading venues at the relevant times and in the relevant currencies and tenors. Sufficient input data is needed in order for the calculation to be made in accordance with the published methodology. |                         |
|   |     |          | Control documentation/measures   |                         |
|   |     |          | LIBOR Code of Conduct, published at:   |                         |
|   |     |          | https://www.theice.com/publicdocs/ICE_LIBOR_Code of Conduct.pdf  |                         |
|   |     |          | <ul> <li>ICE Swap Rate Methodology, published at:</li> </ul>   |                         |
|   |     |          | https://www.theice.com/publicdocs/ICE Swap Rat e_Full_Calculation_Metho dology.pdf   |                         |
|   |     |          | (i) LIBOR:   |                         |
|   |     |          | The LIBOR Code of Conduct sets out how and when discretion may be exercised by a LIBOR bank in formulating its LIBOR submissions, in particular in section 4.10 (Use of discretion when contributing input data).  |                         |
|   |     |          | No discretion is exercised by IBA in the determination of LIBOR.   |                         |
|   |     |          | ICE Swap Rate:   |                         |

| # | BMR<br># | BMR text | IBA's Response   | EY Evaluation Procedure |
|---|----------|----------|--|-------------------------|
|   |          |          | No discretion is exercised by IBA in the determination of ICE Swap Rate.                 |                         |
|   |          |          | Control documentation/measures   |                         |
|   |          |          | LIBOR Code of Conduct, published at:   |                         |
|   |          |          | https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf                          |                         |
|   |          |          | ICE LIBOR Methodology, published at:   |                         |
|   |          |          | https://www.theice.com/publicdocs/ICE_LIBOR_Me_thodology.pdf                             |                         |
|   |          |          | ICE Swap Rate Methodology, published at:   |                         |
|   |          |          | https://www.theice.com/publicdocs/ICE Swap Rate Full Calculation Metho dology.pdf        |                         |
|   |          |          | (j) Not applicable   |                         |
|   |          |          | (k) Not applicable since there is no periodic rebalancing of the benchmark constituents. |                         |
|   |          |          | Control documentation/measures   |                         |
|   |          |          | ICE LIBOR Methodology, published at:   |                         |
|   |          |          | https://www.theice.com/publicdocs/ICE_LIBOR_Me_thodology.pdf                             |                         |
|   |          |          | ICE Swap Rate Methodology, published at:   |                         |
|   |          |          | https://www.theice.com/publicdocs/ICE_Swap_Rate_Full_Calculation_Metho_dology.pdf        |                         |

| # | BMR<br># | BMR text | IBA's Response   | EY Evaluation Procedure |
|---|----------|----------|--|-------------------------|
|   |          |          | (I) The Benchmark Statements refer to instances when the accuracy and reliability of the methodology used for determining the benchmark can no longer be ensured (see reference to BMR RTS Article 1(3)(a) - (c)). |                         |
|   |          |          | Control documentation/measures   |                         |
|   |          |          | LIBOR Benchmark Statement, published at:   |                         |
|   |          |          | https://www.theice.com/publicdocs/LIBOR_Bench<br>mark_statement.pdf  |                         |
|   |          |          | ICE Swap Rate Benchmark Statement,<br>published at:  |                         |
|   |          |          | https://www.theice.com/publicdocs/ISR_Benchmark_statement.pdf  |                         |
|   |          |          | (m) Not applicable in the case of LIBOR or ICE<br>Swap Rate.   |                         |
|   |          |          | (n) LIBOR:   |                         |
|   |          |          | IBA does not extrapolate or interpolate data in the production of LIBOR.   |                         |
|   |          |          | A LIBOR bank may use:  |                         |
|   |          |          | Interpolation at Level 2 of the Waterfall;     and   |                         |
|   |          |          | Interpolation and/ or extrapolation of data<br>in the bank's Level 3 methodology as<br>agreed with IBA.  |                         |
|   |          |          | ICE Swap Rate:   |                         |

| #     | BMR<br>"   | BMR text  | IBA's Response   | EY Evaluation Procedure  |
|-------|------------|---|--|--|
|       | #          |   |  |  |
|       |            |   | The calculation of ICE Swap Rate includes movement interpolation within the benchmark methodology as described in the Benchmark Statement (see references to BMR Article 27(2)(c)).  |  |
|       |            |   | Control documentation/measures   |  |
|       |            |   | LIBOR Methodology, published at:   |  |
|       |            |   | https://www.theice.com/publicdocs/ICE_LIBOR_Me_thodology.pdf   |  |
|       |            |   | ICE LIBOR Methodology, published at:   |  |
|       |            |   | https://www.theice.com/publicdocs/ICE_LIBOR_Me_thodology.pdf   |  |
|       |            |   | ICE Swap Rate Methodology, published at:   |  |
|       |            |   | https://www.theice.com/publicdocs/ICE_Swap_Rat<br>e_Full_Calculation_Metho_dology.pdf  |  |
| 152   | 2          | Administrators may opt to publish or make available the information referred to in points (m) and (n) of paragraph 1 for their critical benchmarks only   | -  | -  |
| RTS A | rticle 3 D | etails of the internal review and approval of th  | e methodology  |  |
| 153   | 1          | The information to be provided by an administrator of a benchmark or, where applicable, a family of benchmarks in compliance with the requirement laid down in Article 13(1)(b) of Regulation (EU) 2016/1011 shall include at least the following: (a) the policies and procedures relating to the internal | As described in the Benchmark Statements, the Oversight Committees have an important role in reviewing the methodology for the respective benchmark. A review of the definition, methodology and setting of the benchmark is considered at least annually by the respective Oversight Committee. | We obtained the Benchmark Statements for LIBOR and ICE Swap Rate from IBA's website and inspected for evidence that the Oversight Committees review the respective benchmarks as a part of their responsibilities.  We obtained the Terms of Reference for the |
|       |            | review and approval of the methodology; (b)   | Oversight Committee.   | LIBOR and ICE Swap Rate Oversight  |

| # | BMR        | BMR text  | IBA's Response  | EY Evaluation Procedure  |
|---|------------|---|---|--|
| # | BIVIR<br># | DIMIN TOXT  | IDA 3 IZESPOLISE  | LI LVAIUAUOII FIOCEUUIE  |
|   | #          | details of any specific events that may give rise to an internal review, including details of any mechanism used by the administrator to determine whether the methodology is traceable and verifiable; (c) the bodies or functions within the administrator's organisational structure that are involved in reviewing and approving the methodology; (d) the roles performed by any persons involved in reviewing or approving the methodology; (e) a description of the procedure for nominating and removing persons involved in reviewing or approving the methodology. | The benchmark methodologies are traceable and verifiable, as confirmed by internal and external audits to check that IBA complies with the published methodology for the benchmark.  The Oversight Committees are responsible for overseeing any changes to the benchmark methodology and may request IBA to consult on such changes.  IBA defines a material change as any change requiring an update to the published methodology. Material changes are subject to approval by IBA's President after consulting with the relevant Oversight Committee and are documented accordingly. Non-material changes, which do not require an update to the published methodology, are subject to approval by IBA's management and are documented accordingly.  Control documentation/measures  • LIBOR Benchmark Statement, published at:  https://www.theice.com/publicdocs/LIBOR Benchmark statement.pdf  • ICE Swap Rate Benchmark Statement, published at:  https://www.theice.com/publicdocs/ISR Benchmark statement.pdf  • ICE LIBOR Methodology, published at:  https://www.theice.com/publicdocs/ICE LIBOR Methodology.pdf | Committees and inspected for evidence of reviewing the respective benchmark methodologies and overseeing any changes to the methodology as part of the committee's responsibilities.  We obtained the consultations during the period under review and inspected for evidence of the Consultation Policy being applied correctly.  We obtained the selection, renewal and replacement of Oversight Committee members document and inspected for evidence of the criteria for selection of the Oversight Committee members.  We obtained the relevant minutes of meetings of the IBA Board during the period under review and inspected for evidence of review of the Selection of Committee Members Policy during the period under review. |

| #     | BMR        | BMR text   | IBA's Response  | EY Evaluation Procedure  |
|-------|------------|--|---|--|
| -     | #          |  |   |  |
|       |            |  | ICE Swap Rate Methodology, published at:  |  |
|       |            |  | https://www.theice.com/publicdocs/ICE_Swap_Rate_E_Full_Calculation_Metho_dology.pdf                                   |  |
|       |            |  | Internal and external audit findings  |  |
|       |            |  | IBA's Consultation Policy, published at:  |  |
|       |            |  | https://www.theice.com/publicdocs/IBA_consultation_process.pdf  |  |
|       |            |  | (e) IBA has a published procedure for selecting, removing and replacing Oversight Committee members.                  |  |
|       |            |  | Control documentation/measures  |  |
|       |            |  | <ul> <li>"Selection, Renewal and Replacement of<br/>Oversight Committee Members",<br/>published by IBA at:</li> </ul> |  |
|       |            |  | https://www.theice.com/publicdocs/IBA_Selection_<br>of_Committee_Members.pdf  |  |
| 154   | 2          | Administrators may opt to publish or make available the information referred to in points (d) and (e) of paragraph 1 for their critical benchmarks only. | -   | -  |
| RTS A | rticle 4 N | laterial changes to the methodology  |   |  |
| 155   | 1          | The information to be provided by an administrator of a benchmark or, where applicable, family of benchmarks in  | Applicable benchmarks LIBOR and ICE Swap Rate   | We obtained the Consultation Policy from<br>IBA's website and inspected for evidence of: |
|       |            | compliance with the requirement laid down in Article 13(1)(c) and (2) of Regulation (EU)   | IBA's Consultation Policy includes these points.  | (a) a description of the information to be disclosed by the administrator at the         |
|       |            | 2016/1011 shall include at least the following:  | Control documentation/measures  | start of each consultation exercise,   |

| #     | BMR        | BMR text   | IBA's Response   | EY Evaluation Procedure   |
|-------|------------|--|--|---|
|       | #          | <ul> <li>(a) a description of the information to be disclosed by the administrator at the start of each consultation exercise, including a requirement to disclose the key elements of the methodology that would, in its view, be affected by the proposed material change;</li> <li>(b) the administrator's standard time frame for consultations;</li> <li>(c) the circumstances in which a consultation may take place within a shorter time frame and a description of the procedures to be followed when undertaking a consultation within a shorter time frame.</li> <li>LIBOR</li> </ul> | ► Consultation Policy, published at:  https://www.theice.com/publicdocs/IBA_consultation_process.pdf | including a requirement to disclose the key elements of the methodology that would, in its view, be affected by the proposed material change;  (b) the administrator's standard time frame for consultations;  (c) the circumstances in which a consultation may take place within a shorter time frame and a description of the procedures to be followed when undertaking a consultation within a shorter time frame.  • We obtained the consultations during the period under review and inspected for evidence of the Consultation Policy being applied correctly |
| 156   | 2          | The rationale to be provided by an administrator in compliance with the requirement laid down in Article 13(1)(c) of Regulation (EU) 2016/1011 shall include, among other things, whether the representativeness of the benchmark or family of benchmarks, and its appropriateness as a reference for financial instruments and contracts, would be put at risk if a proposed material change were not made.   | -  | -   |
| RTS A | rticle 5 E | intry force and application  |  |   |
| 157   | 1          | This Regulation shall enter into force on the twentieth day following that of its publication in   | -  | -   |

| #      | BMR<br>#   | BMR text   | IBA's Response   | EY Evaluation Procedure  |
|--------|------------|--|--|--|
|        |            | the Official Journal of the European Union. It shall apply from 25 January 2019.   |  |  |
| Contri | butors C   | Code of Conduct – Commission Delegated Regu  | ulation (EU) 2018/1639 Mandatory Art 15(6)   |  |
| RTS A  | rticle 1 C | Description of input data  |  |  |
| 158    | 1          | The code of conduct to be developed by the administrator under Article 15(1) of Regulation (EU) 2016/1011 ('the code of conduct') shall include a clear description of, and requirements with respect to, at least the following matters concerning the input data to be provided:  (a) the type or types of input data to be provided; (b) the required standards to be met regarding the quality and accuracy of the input data;  (c) the minimum quantity of input data to be provided;  (d) the order of priority, if any, in which the different types of input data are to be contributed;  (e) the format in which the input data is to be provided;  (f) the frequency of submission of the input data;  (g) the timing of submission of the input data;  (h) the procedures, if any, that each contributor is required to have in place for adjustments to and standardisation of the input data. | The FCA verified that the June 2018 LIBOR Code of Conduct complies with the BMR.  Control documentation/measures  LIBOR Code of Conduct, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Code of Conduct.pdf  Email from the FCA stating that the FCA had verified the Code for compliance with BMR | We obtained the email from the FCA and inspected for evidence of verification of the LIBOR Code of Conduct.  |
| RTS A  | rticle 2 S | Submitters   |  |  |
| 159    | 1          | The code of conduct shall include provision ensuring that a person is only permitted to act as a submitter of input data on behalf of a contributor if the contributor is satisfied that the person has the necessary skills,  | Section 5. 5 (Appointment of submitters, training and controls) of the LIBOR Code of Conduct states that a contributor bank must undertake a due diligence process to determine that it is satisfied that a person has the necessary skills, knowledge,  | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 |

| #   | BMR | BMR text   | IBA's Response   | EY Evaluation Procedure   |
|-----|-----|--|--|---|
|     | #   |  |  |   |
|     |     | knowledge, training and experience for the role.   | training and experience to submit input data on its behalf. This process must include undertaking checks to verify the identity, qualifications and reputation of the potential Submitter.  Control documentation/measures  The LIBOR Code of Conduct, published at: <a href="https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf">https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf</a> | Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 2.1 are included in Section 5.5 of the LIBOR Code of Conduct.                     |
| 160 | 2   | The code of conduct shall describe the due diligence process that a contributor is required to undertake in order to be satisfied that a person has the necessary skills, knowledge, training and experience to submit input data on its behalf. The See above.  description of that process shall include a requirement to undertake checks to verify: (a) the person's identity; (b) the person's qualifications; and (c) the person's reputation, including whether the person has previously been excluded from submitting input data to a benchmark for | See above  | See above.  |
| 161 | 3   | reasons of misconduct.  The code of conduct shall specify the process and means of communication to be used by a contributor to notify the administrator of the identity of any person submitting input data on its behalf, so as to allow the administrator to check that the submitter is authorised to submit the data on the contributor's behalf.   | A contributor bank must inform IBA by email to IBA@theice.com of the appointment of a submitter on behalf of the bank, as stated in section 5.5.1 (Appointment of Submitters) of the LIBOR Code of Conduct.  Control documentation/measures  | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019 |

| #     | BMR        | BMR text   | IBA's Response   | EY Evaluation Procedure   |
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|       | #          |  | ➤ The LIBOR Code of Conduct, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf  | and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 2.3 are included in Section 5.5.1 of the LIBOR Code of Conduct.   |
| RTS A | rticle 3 P | olicies to ensure that a contributor provides a  | Il relevant input data   |   |
| 162   | 1          | The code of conduct shall include provisions requiring contributors to have in place and comply with at least the following policies:  | -  | -   |
| 163   | а          | an input data policy that includes at least a description of:  (i) the data to be taken into account in determining the input data contribution; and (ii) the data that the contributor may exclude from a contribution of input data, together with the reason or reasons for which that data may be excluded;  | Section 4.9 (Provision of all relevant input data) of the LIBOR Code of Conduct requires a contributor bank to have a input data policy that at least includes a description of the data to be provided in accordance with the Code and covers the exclusion of data that does not conform to the Submission Methodology.  Control documentation/measures  The LIBOR Code of Conduct, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Code of Conduct.pdf | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 3.1(a) are included in Section 4.9 of the LIBOR Code of Conduct. |
| 164   | b          | a policy on the transmission of data to the administrator that includes at least:  (i) a description of the process to be used for the secure transfer of data; and  (ii) contingency plans for submitting input data in the event of technical or operational difficulties, the temporary absence of a submitter or the unavailability of the input data required by the methodology. | Section 4.9 (Provision of all relevant input data) of the LIBOR Code of Conduct includes these provisions.  Control documentation/measures  The LIBOR Code of Conduct, published at: <a href="https://www.theice.com/publicdocs/ICE_LIBOR_Code">https://www.theice.com/publicdocs/ICE_LIBOR_Code</a> of Conduct.pdf  | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 3.1(b) are included in Section 4.9 of the LIBOR Code of Conduct. |

| #     | BMR | BMR text  | IBA's Response  | EY Evaluation Procedure   |
|-------|-----|---|---|---|
| RTS V | #   | ystems and controls   |   |   |
| 165   | 1   | The code of conduct shall include provisions ensuring that the systems and controls referred to in Article 15(2)(d) of Regulation (EU) 2016/1011 include, among other things, the following elements:  (a) pre-contribution checks to identify any suspicious input data, including checks in the form of a review of the data by a second person;  (b) post-contribution checks to confirm that the input data has been contributed in accordance with the requirements of the code of conduct and to identify any suspicious input data;  (c) monitoring of the transfer of input data to the administrator in accordance with the applicable policies. | Section 4.3 (Quality and accuracy of input data) of the LIBOR Code of Conduct relates to these points.  Control documentation/measures  The LIBOR Code of Conduct, published at: <a href="https://www.theice.com/publicdocs/ICE_LIBOR_Code">https://www.theice.com/publicdocs/ICE_LIBOR_Code</a> of Conduct.pdf | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 4.1 is included in Section 4.3 of the LIBOR Code of Conduct. |
| 166   | 2   | The code of conduct may permit a contributor to use an automated system for the contribution of input data, in which natural persons are not able to modify the contribution of input data, only if the code of conduct makes such permission subject to the following conditions:  | Section 5.2 (Required systems and controls) of the LIBOR Code of Conduct relates to these points.  Control documentation/measures  The LIBOR Code of Conduct, published at:   | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019 and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 4.2 is  |

| # BMR<br># | BMR text  | IBA's Response   | EY Evaluation Procedure   |
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|            | (a) the contributor is able to monitor the proper functioning of the automated system on a continuous basis; and  (b) the contributor checks the automated system following any update or change to its software, before new input data is contributed.  In such a case, the code of conduct does not need to require the contributor to establish the checks referred to in paragraph 1. | https://www.theice.com/publicdocs/ICE_LIBOR_Co_de_of_Conduct.pdf   | included in Section 5.2 of the LIBOR Code of Conduct.   |
| 167 3      | The code of conduct shall define the procedures that a contributor must have in place to address any errors in the contributed input data.  | Section 4.3 (Quality and accuracy of input data) of the LIBOR Code of Conduct refers.  Control documentation/measures  The LIBOR Code of Conduct, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf     | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 4.3 is included in Section 4.3 of the LIBOR Code of Conduct. |
| 168 4      | The code of conduct shall require a contributor to review the systems and controls established by it concerning the contribution of input data on a regular basis and, in any event, at least annually.   | Section 5.2 (Required systems and controls) of the LIBOR Code of Conduct relates to this.  Control documentation/measures  The LIBOR Code of Conduct, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 4.4 is included in Section 5.2 of the LIBOR Code of Conduct. |

| #    | BMR        | BMR text  | IBA's Response  | EY Evaluation Procedure   |  |
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| "    | #          | Dim toxt  | IBA G RESPONSE  | Li Evaluation i roccario  |  |
| 169  | 1          | If the code of conduct provides for a contributor to use discretion in contributing input data, it shall require the contributor to establish policies on the use of discretion that specify at least the following:  (a) the circumstances in which the contributor may exercise discretion;  (b) the individuals within the contributor's organisation who are permitted to exercise discretion;  (c) the internal controls that regulate the exercise of the contributor's discretion in accordance with its policies;  (d) the individuals within the contributor's organisation who are authorised to conduct an ex post evaluation of the exercise of discretion. | Various sections of the LIBOR Code of Conduct refer to the exercise of Expert Judgement, and in particular section 3.5 (Governance and control requirements for supervised contributors) and section 4.10 (Use of discretion when contributing input data).  With reference to (b), section 5.5.1 (Appointment of Submitters) requires a contributor bank to inform IBA of the appointment of Submitters and alternates on behalf of the bank. Each person directly involved in a bank's submission process should be formally designated and documented as such (including the person's name, role and reporting line, as well as a detailed job description covering the involvement in the Submission process).  Control documentation/measures  The LIBOR Code of Conduct, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Code of Conduct.pdf | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 5.1 is included in the LIBOR Code of Conduct.              |  |
| RISA | rticle 6 R | ecord-keeping policies  |   |   |  |
| 170  | 1          | The code of conduct shall include provisions requiring contributors to establish record-keeping policies that ensure that a record is kept by the contributor of all relevant information necessary to check the contributor's adherence to the code of conduct, including a record of at least the following information:  (a) the contributor's policies and procedures governing the contribution of input data and  | Section 7 (Record-keeping) of the LIBOR Code of Conduct covers these points.  Control documentation/measures  The LIBOR Code of Conduct, published at: <a href="https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf">https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf</a>  | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 6.1 is included in Section 7 of the LIBOR Code of Conduct. |  |

| #   | BMR | BMR text  | IBA's Response  | EY Evaluation Procedure  |
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|     | #   |   |   |  |
|     |     | any material changes to those policies or procedures;   |   |  |
|     |     | (b) the register of conflicts of interest referred to in Article (8)(1)(b) of this Regulation;  |   |  |
|     |     | (c) any disciplinary action taken against any of the contributor's staff in respect of benchmark-related activities;  |   |  |
|     |     | (d) a list of submitters and persons performing checks in respect of contributions, including their names and roles within the contributor's organisation and the dates when they were authorised and, where applicable, ceased to be authorised to carry out their submission-related roles; |   |  |
|     |     | (e) in respect of each contribution of input data:  |   |  |
|     |     | (i) the input data contributed;   |   |  |
|     |     | (ii) the data taken into account in determining the input data contribution, and any data that was excluded;  |   |  |
|     |     | (iii) any use of discretion;  |   |  |
|     |     | (iv) any input data checks undertaken   |   |  |
|     |     | (v) any communications in relation to the contribution of input data between the submitter and anyone within the contributor's organisation performing checks in respect of contributions.  |   |  |
| 171 | 2   | The code of conduct shall require the recordkeeping policies to provide that information be kept for a minimum of five  | Section 7 (Record-keeping) of the LIBOR Code of Conduct requires a contributor bank to retain a number of records for 5 years, or 3 years where | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review: |

| #     | BMR        | BMR text  | IBA's Response  | EY Evaluation Procedure  |
|-------|------------|---|---|--|
|       | #          | years, or three years where the records are of telephone conversation or electronic communications and be stored on a medium that allows the information to be accessible for future reference.   | the records are of telephone conversation or electronic communications.  Control documentation/measures  The LIBOR Code of Conduct, published at: <a href="https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf">https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf</a>   | Version 5 issued on 18 June 2018     Version 6 issued on 9 February 2019     Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 6.2 is included in Section 7 of the LIBOR Code of Conduct.  |
| RTS A | rticle 7 P | <br>olicies on the use of discretion when contribu  | ting input data   |  |
| 172   | 1          | The code of conduct shall require a contributor to establish documented internal procedures that provide for its staff to report any suspicious input data to the contributor's compliance function, if any, and to the contributor's senior management.        | Section 4.11 (Reporting of suspicious input data) of the LIBOR Code of Conduct states that a contributor bank must have robust rules and escalation procedures that require submitters, reviewers and alternates to report any suspicions to the bank's compliance function and, as appropriate, to the senior management responsible for the bank's LIBOR submission process.  Control documentation/measures  The LIBOR Code of Conduct, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Code of Conduct.pdf | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 7.1 is included in Section 4.11 of the LIBOR Code of Conduct. |
| 173   | 2          | The code of conduct shall specify the conditions under which a contributor must report suspicious input data to the administrator and shall specify the process and means of communication to be used by the contributor in order to contact the administrator. | Section 3.4 of the LIBOR Code of Conduct refers.  Control documentation/measures  The LIBOR Code of Conduct, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Co  | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019 and inspected for evidence that the requirements   |

| #     | BMR        | BMR text  | IBA's Response   | EY Evaluation Procedure   |
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|       | #          |   |  | included in Section 3.4 of the LIBOR Code of Conduct.   |
| RTS A | rticle 8 C | Conflicts of interest   |  |   |
| 174   | 1          | The code of conduct shall require a contributor to establish systems and controls concerning the management of conflicts of interest that include at least the following elements:  (a) establishment of a conflicts of interest policy that addresses:  (i) the process for identifying and managing conflicts of interest, including any internal escalation of conflicts of interest;  (ii) steps to prevent, or minimise the risk of, conflicts of interest in the process for recruiting submitters;  (iii) steps to prevent, or minimise the risk of, conflicts of interest in the remuneration policies for the contributor's staff;  (iv) steps to prevent, or minimise the risk of, conflicts of interest arising from the contributor's management structure;  (v) requirements with respect to communications between submitters and other staff within the contributor's organisation;  (vi) any physical or organisational separation between submitters and other staff of the contributor required to prevent, or minimise the risk of, conflicts of interest; | Various sections of the LIBOR Code of Conduct cover the management of conflicts of interest, in particular section 5.3 (Conflicts of interest).  Control documentation/measures  The LIBOR Code of Conduct, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Code of Conduct.pdf | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 8.1 is included in Section 5.3 of the LIBOR Code of Conduct. |

| #     | BMR        | BMR text  | IBA's Response  | EY Evaluation Procedure   |
|-------|------------|---|---|---|
|       | #          |   |   |   |
|       |            | <ul> <li>(vii) rules and measures to address any financial exposure that the contributor may have to a financial instrument or financial contract which references</li> <li>(b) establishment of a register of conflicts of interest to be used to record any conflicts of interest identified and any measures taken to manage them, together with requirements to keep the register up-to-date and to provide internal or external auditors with access to it.</li> </ul> |   |   |
| 175   | 2          | The code of conduct shall require that members of a contributor's staff who are involved in the contribution process be trained in all policies, procedures and controls relating to the identification, prevention and management of conflicts of interest.  | Section 5.5.3 (Training for employees who trade or deal in products that reference LIBOR) of the LIBOR Code of Conduct covers this requirement.  Control documentation/measures  The LIBOR Code of Conduct, published at:  https://www.theice.com/publicdocs/ICE_LIBOR_Code_of_Conduct.pdf        | We obtained all applicable versions of the LIBOR Code of Conduct during the period under review:  • Version 5 issued on 18 June 2018 • Version 6 issued on 9 February 2019 • Version 7 issued on 25 July 2019  and inspected for evidence that the requirements of the LIBOR Code of Conduct RTS Article 8.2 is included in Section 5.5.3 of the LIBOR Code of Conduct. |
|       |            | tements – Commission Delegated Regulation   | (EU) 2018/1643 Mandatory Art 27(3)  |   |
| RTS A | rticle 1 G | eneral Disclosure Requirements  |   |   |
| 176   | 1          | The benchmark statement shall state:  | All benchmarks:   | All benchmarks:   |
|       |            | <ul> <li>(a) the date of publication of the statement and, where applicable, the date of its last update;</li> <li>(b) where available, the international securities identification number (ISIN) of the benchmark or benchmarks; alternatively, for a family of benchmarks, the statement may provide details of where the ISINs are publicly accessible free of charge;</li> </ul>  | <ul> <li>(a) This is on the title page of this document.</li> <li>(b) The benchmark does not have ISINs.</li> <li>LIBOR:</li> <li>(c) See response to BMR Art 27(2) (c.)</li> <li>(d) Annex I of the BMR contains a specific regulatory regime for interest rate benchmarks to ensure:</li> </ul> | <ul> <li>(a) We obtained the LIBOR and ICE Swap Rate Benchmark Statements from IBA's website and inspected for evidence of the publication dates.</li> <li>(b) No matters to report</li> </ul> LIBOR:   |
|       |            |   |   | (c) See response to BMR Art 27(2) (c.) (d) See response to Annex I and BMR Art 27(2)(b)   |

| # E | BMR | BMR text   | IBA's Response  | EY Evaluation Procedure  |
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|     | #   |  |   |  |
|     |     | (c) whether the benchmark, or any benchmark in the family of benchmarks, is determined using contributions of input data;        | <ul> <li>Accurate and sufficient data used in a hierarchy;</li> <li>An independent oversight committee;</li> </ul>  | In addition, we obtained all applicable versions of<br>the LIBOR Code of Conduct during the period<br>under review:  |
|     |     | (d) whether the benchmark or any benchmark in the family of benchmarks qualifies as one of the types of                          | <ul> <li>An independent external audit of<br/>compliance with the benchmark<br/>methodology and the BMR; and</li> </ul>   | <ul> <li>Version 5 issued on 18 June 2018</li> <li>Version 6 issued on 9 February 2019</li> <li>Version 7 issued on 25 July 2019</li> </ul>  |
|     |     | benchmarks listed<br>under Title III of Regulation (EU) 2016/1011,<br>including the specific<br>provision by virtue of which the | <ul> <li>Contributor systems and controls<br/>requirements. Annex I of the BMR<br/>sets out the requirements for<br/>contributors' systems and controls,</li> </ul>   | And inspected for evidence of the Annex I requirements as per IBA's response.  ICE Swap Rate:  |
|     |     | benchmark qualifies as that type.  | i. An outline of responsibilities within each firm, including internal reporting lines and accountability, including the location of submitters and managers and the names of relevant individuals and alternates; ii. Internal procedures for sign-off of contributions of input data; iii. Regular internal reviews of input data and associated procedures; iv. Disciplinary procedures for actual or attempted manipulation of the benchmark; v. Effective conflicts of interest management procedures and communication controls; vi. Physical separation of submitters from interest rate derivatives traders and rules against collusion; vii. Measures to prevent, or limit, inappropriate influence over | (c) No matters to report (d) We obtained the ICE Swap Rate Benchmark Statement from IBA's website and inspected for evidence of the designation of ICE Swap Rate as neither a Significant no a non-significant benchmark and neither a critical nor a regulated data benchmark  Precious Metals:  (c) No matters to report (d) We obtained the LBMA Precious metals Benchmark Statement and inspected for evidence of the designation as a commodity benchmark |

| # | BMR | BMR text | IBA's Response  | EY Evaluation Procedure |
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|   | #   |          |   |                         |
|   | #   |          | persons involved in the provision of input data; viii. No direct link between the remuneration of employees involved in the provision of input data and the remuneration of, or revenues generated by, persons engaged in another activity where a conflict of interest may arise; ix. Controls to identify any reverse transaction subsequent to the provision of input data; x. Detailed record-keeping in relation to a bank's LIBOR submissions; and xi. The compliance function reporting any findings to management on a regular basis.  All of these requirements are included within the LIBOR Code of Conduct. All submitters and their direct managers are required to acknowledge in writing that they have read the Code and will comply with it. |                         |
|   |     |          | See also response to BMR Art 27(2)(b).  |                         |
|   |     |          | ICE Swap Rate:  |                         |
|   |     |          | (c) The benchmark is not determined using contributions of input data, and nor is any benchmark in the family of benchmarks.  |                         |
|   |     |          | (d) The value of contracts referencing the benchmark exceeds the thresholds for Significant and Non-significant benchmarks. ICE Swap Rate is not any of the following BMR types of benchmark:   |                         |

| #   | BMR | BMR text  | IBA's Response   | EY Evaluation Procedure  |
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|     | #   |   |  |  |
|     |     |   | Regulated-data; Interest rate; or Commodity.   |  |
|     |     |   | Precious Metals:   |  |
|     |     |   | (c) The benchmark is not determined using<br>contributions of input data, and nor is any<br>benchmark in the family of benchmarks  |  |
|     |     |   | (d) This Benchmark Statement is for the LBMA Gold and Silver Prices which are Commodity benchmarks under the BMR. Accordingly, the specific Commodity benchmarks requirements in Annex II apply instead of the general BMR requirements of Title II (with the exception of Article 10 concerning outsourcing). |  |
| 177 | 2   | In defining the market or economic reality, the                                 | All benchmarks:  | All benchmarks:  |
| ''' | _   | benchmark statement shall include at least the                                  | <u>riii bonemante.</u>   | <u> </u>   |
|     |     | following information:  | (a) See the response to BMR Art 27(1)(a)   | (a) Please refer to the response to BMR Art 27(1)(a).                        |
|     |     | (a) a general description of the market or                                      | <u>LIBOR:</u>  | (b) (-) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \                                |
|     |     | economic reality;   | (b) LIBOR is written into standard derivative  | (b) and (c) We obtained the benchmark statement for LIBOR, ICE Swap Rate and |
|     |     | (b) the geographical boundaries, if any,  | and loan documentation, such as the  | Precious Metals and inspected for evidence                                   |
|     |     | of the market or economic reality;  | 2006 ISDA definition, and is used for a range of retail products such as   | of the requirements of RTS Article 8.2 as per IBA's response.                |
|     |     | (c) any other information that the  | mortgages and student loans and for  | 12/13/13/2013  |
|     |     | administrator reasonably considers to<br>be relevant or useful to help users or | other commercial purposes.   |  |
|     |     | potential users of the benchmark to   | It is also used as a barometer to measure  |  |
|     |     | understand the relevant features of the market or economic reality,             | the health of the banking system and as a gauge of market expectation for future   |  |
|     |     | including at least the following  | central bank interest rates. It is currently   |  |
|     |     | elements insofar as reliable data on these elements is available:               | the basis for settlement of interest rate  |  |
|     |     | uicoc cicilicitto io avaliable.   | contracts on many of the world's major<br>futures and options exchanges. LIBOR   |  |

| i. information on actual or potential participants in the market; ii. an indication of the size of the market or economic reality.  (c) See response to BMR Art 27(1)(a) and RTS Art (1)(2)(b)  ICE Swap Rate.  (b) There are no geographical boundaries to the ICE Swap Rate.  (c) See the response to BMR Art 27(1)(a) and RTS Art (1)(2)(b) in Art (1)(2)(b) and RTS Art (1)(2)(b) above. IBA transitioned the benchmark methodology in March 2015 from being a polled rate to one based on tradable quotes sourced from regulated electronic trading Pacilities (MIFs) regulated by the US Commodity Futures Trading Commission (CFTC), ICE Swap Rate is used as the exercise value for cash-settled swaptions, for close-out payments on early terminations of interest rate swaps, among others.  ICE Swap Rate is calculated by working out the theoretical mid-price to fill a trade of Standard Market Size (SMS) using the best prices available on relevant regulated electronic trading venues and tenors. | # | BMR<br> | BMR text |   | IBA's Response   | EY Evaluation Procedure |
|--|---|---------|----------|---|--|-------------------------|
| Precious Metals:   |   | #       |          | potential participants in the market; an indication of the size of the market or economic | has global significance with trillions of outstanding business in maturities ranging from overnight to more than 30 years  (c) See response to BMR Art 27(1)(a) and RTS Art (1)(2)(b)  ICE Swap Rate:  (b) There are no geographical boundaries to the ICE Swap Rate.  (c) See the response to BMR Art 27(1)(a) and RTS Art (1)(2)(b) above. IBA transitioned the benchmark methodology in March 2015 from being a polled rate to one based on tradable quotes sourced from regulated electronic trading venues which are Multilateral Trading Facilities (MTFs) regulated by the FCA and Swap Execution Facilities regulated by the US Commodity Futures Trading Commission (CFTC). ICE Swap Rate is used as the exercise value for cash-settled swaptions, for close-out payments on early terminations of interest rate swaps, for some floating rate bonds and for valuing portfolios of interest rate swaps, among others.  ICE Swap Rate is calculated by working out the theoretical mid-price to fill a trade of Standard Market Size (SMS) using the best prices available on relevant regulated electronic trading venues at the specified times and in the specified currencies and |                         |

| #   | BMR<br># | BMR text   | IBA's Response   | EY Evaluation Procedure                           |  |
|-----|----------|--|--|---|--|
|     |          |  | <ul> <li>(b) The LBMA Gold and Silver Prices are the global benchmark prices for unallocated gold and silver delivered in London.</li> <li>(c) See the response to BMR Art 27(1)(a) and RTS Art (1)(2)(b) above.  Producers, the investment community, banks and central banks, fabricators, jewellers and other consumers as well as market participants from around the globe use the benchmarks as reference prices.</li> </ul> |   |  |
| 178 | 3        | In defining the potential limitations of the benchmark and the circumstances in which the measurement of the market or economic reality may become unreliable, the benchmark statement shall include at least:  (a) a description of the circumstances in which the administrator would lack sufficient input data to determine the benchmark in accordance with the methodology;  (b) where relevant, a description of instances when the accuracy and reliability of the methodology used for determining the benchmark can no longer be ensured, such as when the administrator deems the liquidity in the underlying market as insufficient; | Please see the response to BMR Art 27(1)(a).   | Please refer to the response to BMR Art 27(1)(a). |  |
|     |          | (c) any other information that the administrator reasonably considers to be relevant or useful to help users and potential users to understand the circumstances in which the measurement of the market or economic reality may become unreliable,   |  |   |  |

| #   | BMR<br>#   | BMR text  | IBA's Response   | EY Evaluation Procedure  |
|-----|--|---|--|--|
|     |  | including a description of what might constitute an exceptional market event.   |  |  |
| 179 | 4  | In specifying the controls and rules that govern any exercise of judgement or discretion by the administrator or any contributors in calculating the benchmark or benchmarks, the benchmark statement shall include an outline of each step of the process for any ex post evaluation of the use of discretion, together with a clear indication of the position of any person(s) responsible for carrying out the evaluations. | Please refer to the response to BMR Art 27(1)(b).  | Please refer to the response to BMR Art 27(1)(b).  |
| 180 | 5  | In specifying the procedures for review of the methodology, the benchmark statement shall at least outline the procedures for public consultation on any material changes to the methodology.   | Applicable Benchmark ICE Swap Rate  IBA typically designs evolutionary enhancements to benchmarks, and it is important for IBA to gain feedback on proposed changes where they are material to the benchmark.  IBA therefore consults publicly from time to time on proposed material changes in relation to IBA benchmarks.  IBA's Consultation Policy outlines the considerations that inform public consultations and the steps that IBA takes when seeking feedback on material proposals. | <ul> <li>We obtained the Changes and Cessation Policy from IBA's website and inspected for the requirement of a public consultation on material changes to the benchmark methodologies.</li> <li>We obtained the Consultation Policy from the IBA website and inspected for evidence of the considerations in IBA's response.</li> </ul> |
|     | RTS Article 2 - Specific disclosure requirements for regulated-data benchmarks |   |  |  |
| 181 | 1  | In addition to the information to be included pursuant to Article 1, for a regulated-data benchmark or, where applicable, family of regulated-data benchmarks, the benchmark statement shall state at least the following in its description of the input data:   | Not applicable.  | Not applicable.  |

| BMR          | BMR text   | IBA's Response  | EY Evaluation Procedure  |
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| #            |  |   |  |
|              | (a) the sources of the input data used;  |   |  |
|              | (b) for each source, the relevant type, as listed in Article 3(1)(24) of Regulation (EU) 2016/1011   |   |  |
| 3 - Spec     |  | penchmarks  |  |
| 1 1 A - Spec | In addition to the information to be included pursuant to Article 1, for an interest rate benchmark or, where applicable, family of interest rate benchmarks, the benchmark statement shall include at least the following information:  (a) a reference alerting users to the additional regulatory regime applicable to interest rate benchmarks under Annex I to Regulation (EU) 2016/1011;  (b) a description of the arrangements that have been put in place to comply with that Annex. | Not applicable.   | Not applicable.  |
| 14           |  |   | Precious metals:   |
|              | included pursuant to Article 1, for a commodity benchmark or, where applicable, family of commodity benchmarks, the benchmark statement shall at least:  (a) indicate whether the requirements of Title II of, or Annex II to, Regulation (EU) 2016/1011 apply to the benchmark, or family of benchmarks as prescribed by Article 19 of that Regulation;  (b) include an explanation as to why Title II of or, as the case may   | (a) and (b) Please see the response to RTS Art (1)(1)(d) above.  (c) Please see Appendix 1 of the Precious Metals Benchmark Statement, for definitions of key terms.  (d) IBA keeps benchmark methodologies under continuous review and has appointed the Precious Metals Oversight Committee with responsibilities which include reviewing at least annually the   | (a) and (b) Please see the response to RTS Art (1)(1)(d) above.  (c) We obtained the Precious Metals Benchmark Statement and inspected for evidence of definitions of key terms in Appendix 1.  (d) We obtained the Terms of Reference of the Precious Metals Oversight Committee and inspected for evidence that the review of the definition and methodology   |
|              | # 3 - Spec   | (a) the sources of the input data used; (b) for each source, the relevant type, as listed in Article 3(1)(24) of Regulation (EU) 2016/1011  3 - Specific disclosure requirements for interest rate benchmark or, where applicable, family of interest rate benchmarks, the benchmark statement shall include at least the following information:  (a) a reference alerting users to the additional regulatory regime applicable to interest rate benchmarks under Annex I to Regulation (EU) 2016/1011; (b) a description of the arrangements that have been put in place to comply with that Annex.  4 - Specific disclosure requirements for commodity benchmark or, where applicable, family of commodity benchmarks, the benchmark statement shall at least:  (a) indicate whether the requirements of Title II of, or Annex II to, Regulation (EU) 2016/1011 apply to the benchmark, or family of benchmarks as prescribed by Article 19 of that Regulation;  (b) include an explanation as to why Title II of | (a) the sources of the input data used; (b) for each source, the relevant type, as listed in Article 3(1)(24) of Regulation (EU) 2016/1011  3 - Specific disclosure requirements for interest rate benchmarks  1 In addition to the information to be included pursuant to Article 1, for an interest rate benchmark or, where applicable, family of interest rate benchmarks, the benchmark statement shall include at least the following information:  (a) a reference alerting users to the additional regulatory regime applicable to interest rate benchmarks under Annex I to Regulation (EU) 2016/1011; (b) a description of the arrangements that have been put in place to comply with that Annex.  4 - Specific disclosure requirements for commodity benchmarks that have been put in place to comply with that Annex.  4 - Specific disclosure requirements for commodity benchmarks  1 In addition to the information to be included pursuant to Article 1, for a commodity benchmark or, where applicable, family of commodity benchmarks, the benchmark statement shall at least:  (a) indicate whether the requirements of Title II of, or Annex II to, Regulation (EU) 2016/1011 apply to the benchmark, or family of benchmarks as prescribed by Article 19 of that Regulation;  (b) include an explanation as to why Title II of Committee with responsibilities which |

| #     | BMR<br>#   | BMR text  | IBA's Response   | EY Evaluation Procedure  |
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|       |            | (c) include in the definitions of key terms a concise description of the criteria that define the relevant underlying physical commodity;  (d) where applicable, indicate where the explanations are published that the administrator is required to publish under paragraph 7 of Annex II to that Regulation.  | Gold and Silver Prices. The BMR refers to an administrator's procedures and practices to ensure consistency between its assessors in exercising their judgement. This is not applicable to the LBMA Gold and Silver Prices since IBA does not employ assessors.  Please see the response to BMR Art 27(1)(b) and Art 27(2)(c).   | included in the Committee's responsibilities.  (e) We obtained a sample of the minutes of meetings of the Precious Metals Oversight Committee for the period under review and inspected for evidence of review of the definition and methodology of the LBMA Gold and Silver Prices during the period under review.  Please also refer to the response to BMR Art 27(1)(b) and Art 27(2)(c). |
| RTS A | rticle 5 - | Specific disclosure requirements for critical b   | enchmarks  |  |
| 184   | 1          | In addition to the information to be included pursuant to Article 1, for a critical benchmark, or, where applicable, a family of benchmarks that contains at least one critical benchmark, the benchmark statement shall include at least the following information:  (a) a reference alerting users to the enhanced regulatory regime applicable to critical benchmarks under Regulation (EU) 2016/1011  (b) a statement indicating how users will be informed of any delay in the publication of the benchmark or of any re-determination of the benchmark, and indicating the (expected) duration of measures. | LIBOR:  LIBOR is a Critical benchmark pursuant to BMR Article 3 (1) (25) and, as such, an enhanced regulatory regime is applicable. The requirements in both Title II and Annex I apply in respect of LIBOR.  The following is a summary of the applicable BMR requirements for Critical benchmarks:  • Article 7 (Accountability framework requirements):  The BMR requires an independent external audit of the administrator's compliance with the benchmark methodology and the BMR. The first external audit must be carried out six months after the introduction of the Code of Conduct and subsequently every two years. | Please refer to response to Title 1 and Annex 1 paragraphs.  |

| #     | BMR        | BMR text  | IBA's Response   | EY Evaluation Procedure  |
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|       | #          |   |  |  |
|       | #          |   | Under the BMR, the FCA could compel IBA to continue to publish the benchmark for a period not exceeding 24 months.  • Article 22 (Mitigation of market power of critical benchmark administrators):  Administrators of Critical benchmarks must ensure that licences of, and information relating to, such benchmarks are provided to all users on a fair, reasonable, transparent and non-discriminatory basis.  • Article 23 Mandatory contribution to a critical benchmark:  Under the BMR, the FCA has the power to compel Contributor Banks to continue to provide LIBOR submissions to IBA for a period not exceeding 24 months. |  |
|       |            |   | An administrator of one or more Critical benchmarks must, every two years, submit to its competent authority an assessment of the capability of each Critical benchmark it provides to measure the underlying market or economic reality.  |  |
| RTS A | rticle 6 – | Updates   |  |  |
| 185   | 1          | In addition to the cases referred to in the third subparagraph of Article 27(1) of Regulation (EU) 2016/1011, an update of the benchmark statement shall be required whenever the information contained in the statement ceases to be correct or sufficiently precise, and including in any event in the following cases: | This Benchmark Statement is subject to review by the Oversight Committee at least annually.  It will additionally be reviewed and updated if the information it provides is no longer correct or sufficiently precise, including if there is a material change in the methodology for determining the benchmark.   | We obtained a sample of the minutes of meetings of the Oversight Committees for LIBOR, ICE Swap and Precious Metals and inspected for evidence of the Benchmark Statement review for the relevant benchmarks during the period under review. |

| #     | BMR<br>#   | BMR text   | IBA's Response | EY Evaluation Procedure |
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|       |            | (a) whenever there is a change in the type of the benchmark;   |                |                         |
|       |            | (b) whenever there is a material change in the methodology used for determining the benchmark or, if the benchmark statement is for a family of benchmarks, in the methodology used for determining any benchmark within the family of benchmarks. |                |                         |
| RTS A | rticle 7 – | Entry into force and application   |                |                         |
| 186   | 1          | This Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union. It shall apply from 25 January 2019.  | -              | -                       |