MORGAN STANLEY & CO. INTERNATIONAL PLC

FX – SIGNAL-BASED BENCHMARK FAMILY BENCHMARK STATEMENT

1. Introduction

Morgan Stanley & Co. International Plc (MSIP) has developed, calculates and publishes a number of similar types of index/strategy benchmarks that it considers are "benchmarks" under Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (the **Regulation**) (**Benchmarks** and together **Benchmark Families**). The Benchmarks are used in financial products entered into between MSIP and its clients (such clients being "investors" or "stakeholders" with respect to the relevant Benchmark). A small number of Benchmarks are licensed to third parties on a restricted basis. Each Benchmark Family may be comprised of equity, currency, interest rate, credit and/or commodity instruments.

2. Status of this document

This document is MSIP's Benchmark Statement for the FX – Signal-Based Benchmark Family and is intended to provide an overview of certain key information relating to all Benchmarks within the Family, as required by the Regulation. All of the Benchmarks in this Benchmark Family are Non-Significant Benchmarks under the Regulation. None of the Benchmarks are Regulated Data Benchmarks (but certain Benchmarks may include Regulated Data), Interest Rate Benchmarks or Commodity Benchmarks under the Regulation.

Nothing contained in this Benchmark Statement should be construed as an offer or solicitation of any transaction.

3. Market or economic reality measured by each Benchmark and all key terms

MSIP has developed, calculates and publishes each Benchmark and may offer financial products that reference the Benchmarks. The Benchmarks are quantitative, rules-based, proprietary indices that may track the performance of a broad range of currency underlyers. Geographically, the Benchmarks may be global or specific to a particular geographic region (e.g. Europe, North America or Asia).

Details of the full and definitive rules for a given Benchmark are set out in an Index Methodology document issued for each Benchmark (the "Index Methodology"). A copy of the Index Methodology for each Benchmark in a Benchmark Family is available upon request to MSIP and subject to such distribution restrictions and other requirements as may apply.

4. Input data

The Benchmarks predominately use input data that is either publicly observable or readily available to MSIP (including transaction data, committed prices or quotes). A small number of Benchmarks are determined using input data from MSIP's own trading data and in some cases, from MSIP's affiliates.

None of the Benchmarks are determined using contributions of input data.

5. Limitations of a Benchmark and circumstances in which the measurement of this market or economic reality may become unreliable

Fluctuations in the level, price, rate or value (as may be applicable) for the various constituents of a Benchmark may directly affect the overall performance of a Benchmark and potential illiquidity, market disruption, unavailability of a pricing source may also impact the ability to publish a Benchmark and delay, suspension or discontinuance of a Benchmark may result.

6. Benchmark methodology

6.1 Rationale for adopting a Benchmark methodology

The rationale is to create a quantitative, investable index or strategy that tracks the weighted performance of the underlying instruments. The selection of underlying instruments, their weighting and the methodology used are described in the Index Methodology.

6.2 Procedures for the review and approval of a Benchmark

Each Benchmark is subject to an initial approval and periodic review. MSIP operates its control framework on three levels: firstly, through an index sponsor; secondly, through one or more business committees comprised of front office and control functions; and thirdly, through a specific committee that oversees the control framework applicable to its Benchmarks.

Taking each of these in turn:

- An index sponsor is one or more individuals within the relevant business unit who will be appointed in respect of each Benchmark. The index sponsor is primarily responsible for the management and oversight of each Benchmark and to ensure the establishment, determination and operation of each Benchmark is in compliance with the Index Methodology and Regulation as implemented by MSIP.
- One or more business committees are responsible for approving each new Benchmark and for ensuring all exercises of discretion or other material determinations to be made for each Benchmark are carried out in compliance with the Regulation.
- A committee oversees the control framework, reviewing it to ensure it remains appropriate for the context of MSIP's relevant activities.

MSIP's control framework has been designed in a manner to promote the quality and integrity of the determination process of the Benchmarks. In particular, the standards that have been set by MSIP seek to ensure that (i) appropriate governance arrangements are in place with respect to approvals; (ii) potential conflicts of interest which arise out of the Benchmarks are appropriately identified and addressed; (iii) each Benchmark adequately reflects the interest for which it has been established and (iv) there are procedures designed to mitigate the impact of methodology changes or cessation of a Benchmark.

6.3 *Criteria and procedures used to determine a Benchmark:*

The criteria and procedures to determine a Benchmark are set out in the relevant Index Methodology issued for that Benchmark.

Factors, including external factors beyond the control of MSIP, may necessitate changes to, or the cessation of a given Benchmark. MSIP may, in its sole discretion, modify or adjust an Index Methodology, composition or calculation upon the occurrence of, but not limited to, unavailability of a pricing source, changes in the market, regulation, judicial interpretation, financial or fiscal conditions or other circumstances relevant to a Benchmark. In such event, MSIP will make such modifications or adjustments based on market conditions and other relevant factors, as in the

judgment of MSIP, are necessary to ensure that a Benchmark continues to reflect, as closely as possible, the underlying economic interest it is designed to represent. MSIP may, in its sole discretion cease calculating and publishing any Benchmark at any time upon the occurrence of, but not limited to, a market disruption or other event that makes calculation of a Benchmark no longer reasonably possible or practical or any other reason that means a Benchmark is no longer representative of the economic interests it was intended to reflect.

Wherever practicable, any adjustments or cessation will be announced to the relevant stakeholders. Such announcement will be made in a timely fashion and, when reasonably possible, prior to the date in which the changes are due to become effective. In relation to:

- any material change to the Index Methodology (a "Material Change"), MSIP will give prior notice to investors that a Material Change is proposed and, in certain circumstances, allow investors to give any comments on the proposed Material Change. Material changes which MSIP may make include, without limitation, amendments to the methodology, and substitution or removal of underlying components from a Benchmark, which, in each case, may have a negative impact on the performance of a Benchmark.
- any cessation, MSIP shall determine if a credible alternative Benchmark is available for stakeholders to transfer their investment into and, to the extent reasonably possible, it shall maintain the original Benchmark in existence in order to facilitate an orderly transition of the stakeholders' investment.

MSIP's oversight and control framework implements controls and oversight over changes to and cessation of a Benchmark. Users of a Benchmark should note that any such changes to a Benchmark, or the cessation of a Benchmark, may have an impact on any financial instruments or financial contracts that reference that Benchmark and any investment funds in respect of which the performance is measured by reference to that Benchmark.

7. Use of discretion in determination of a Benchmark

Where the use of discretion is applicable in the determination of a Benchmark, it is disclosed in the relevant Index Methodology document issued for each Benchmark. MSIP's oversight and control framework implements controls and oversight over the use of discretion.

8. Procedures for determination of a Benchmark in periods of stress or where transaction data sources may be insufficient, inaccurate or unreliable

The procedures for determining a Benchmark in a period of stress or where transaction data sources are insufficient are set out in the relevant Index Methodology document issued for each Benchmark. Also see 6.3 Criteria and Procedures for Determining a Benchmark.

9. Procedures for dealing with errors in input data or in the determination of a Benchmark

MSIP has implemented procedures for dealing with errors in input data or in the determination of a Benchmark. MSIP's oversight and control framework implements controls and oversight over errors.

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