

THIRD AMENDED AND RESTATED PRICING SUPPLEMENT

PROHIBITION OF SALES TO EEA RETAIL INVESTORS: The Securities are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("EEA"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as may be amended or replaced from time to time, "**MiFID II**"); (ii) a customer within the meaning of Directive 2002/92/EC, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in the Prospectus Directive (as defined below). Consequently, no key information document required by Regulation (EU) No 1286/2014 (as may be amended or replaced from time to time, the "**PRIIPs Regulation**") for offering or selling the Securities or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Securities or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation. Notwithstanding the above, if the Issuer subsequently prepares and publishes a key information document under the PRIIPs Regulation in respect of the Securities, then the prohibition on the offering, sale or otherwise making available the Securities to a retail investor as described above shall no longer apply.

Third Amended and Restated Pricing Supplement dated 6 June 2023
(Second Amended and Restated Pricing Supplement dated 10 June 2021)
(Amended and Restated Pricing Supplement dated 2 April 2020)
(Original Pricing Supplement dated 6 June 2018)

J.P. Morgan Structured Products B.V.

Structured Products Programme for the issuance of Notes, Warrants and Certificates

Guaranteed by

JPMorgan Chase Bank, N.A.

EUR 8,000,000 Certificates linked to a Dynamic Reference Portfolio, due June 2025 (the "Securities")

The offering circular dated 25 April 2018 and the Supplement(s) to the offering circular listed in Annex D hereto (as so supplemented, the "**Offering Circular**") (as completed and (if applicable) amended by this Pricing Supplement) has been prepared on the basis that any offer of Securities in any Member State of the EEA which has implemented the Prospectus Directive (each, a "**Relevant Member State**") will be made pursuant to an exemption under the Prospectus Directive, as implemented in that Relevant Member State, from the requirement to publish a prospectus for offers of the Securities. The expression "**Prospectus Directive**" means Directive 2003/71/EC (and amendments thereto, including by Directive 2010/73/EU), and includes any relevant implementing measure in the Relevant Member State. Accordingly any person making or intending to make an offer in that Relevant Member State of the Securities may only do so in circumstances in which no obligation arises for the Issuer or any Dealer to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive, in each case, in relation to such offer. Neither the Issuer nor any Dealer has authorised, nor do they authorise, the making of any offer of Securities in any other circumstances.

The Securities will not be offered, sold or otherwise distributed in or from Switzerland and neither this Pricing Supplement nor any other document relating to the Securities may be distributed in or from Switzerland in connection with any such offering or distribution, except to individually selected qualified investors within the meaning of, and in accordance with, the Swiss Federal Act on Collective Investment Schemes.

If you purchase the Securities described in this Pricing Supplement after the date hereof, you should review the most recent restatement (if any) of the Offering Circular and each supplement thereafter up to (and

including) the date of purchase to ensure that you have the most up to date information on the Issuer and (if applicable) the Guarantor on which to base your investment decision (note that the terms and conditions of the Securities will remain as described in this Pricing Supplement and the version of the Offering Circular described above, subject to any amendments notified to Holders). Each supplement and restatement (if any) to the Offering Circular can be found on (www.bourse.lu) and (www.ise.ie).

RISK FACTORS

Purchase of these Securities involves substantial risks

Investors should ensure that they understand the nature of the risks posed by, and the extent of their exposure under, the Securities. Investors should make all pertinent inquiries they deem necessary without relying on the Issuer, the Guarantor, or the Dealer. Investors should consider the suitability of the Securities as an investment in light of their own circumstances, investment objectives, tax position and financial condition. Investors should consider carefully all the information set forth in this Pricing Supplement along with all the information set forth in the Offering Circular. Investors should pay particular attention to the section entitled "Risk Factors" in the Offering Circular (pages 30 to 110 inclusive) together with Annex A (*Risk Factors*), Annex B (*Disclaimers and Potential Conflicts of Interest*) and Annex C (*Reference Portfolio Rules*).

The actions or decisions of the Reference Portfolio Allocator (as defined in the reference portfolio rules, as set out in Annex C (Reference Portfolio Rules) (the "Reference Portfolio Rules")) (the "Reference Portfolio Allocator") will be binding on all holders of the Securities. The Reference Portfolio Allocator is solely responsible for: (a) determining the composition of the Reference Portfolio (as defined in the Reference Portfolio Rules) in accordance with the criteria set out in the Reference Portfolio Rules from time to time; (b) ensuring compliance with the Reference Portfolio Rules (including, but not limited to, compliance with the Reference Portfolio Criteria (as defined in the Reference Portfolio Rules); and (c) exercising any of its rights under, and in accordance with, the Reference Portfolio Rules. The Reference Portfolio Allocator is under no obligation to consult holders of the Securities in respect of the Reference Portfolio Allocator's actions or decisions.

None of the Issuer, Calculation Agent, Portfolio Sponsor (being J.P. Morgan Securities plc) or Dealer or any other person nor any member of the J.P. Morgan group has any responsibility for the selection of the Underlying Reference Instruments and no liability whatsoever shall attach to the Issuer, Calculation Agent, Portfolio Sponsor or Dealer or any other person nor any member of the J.P. Morgan group as a result of the composition or any re-composition of the Reference Portfolio by the Reference Portfolio Allocator.

None of the Issuer, Calculation Agent, Portfolio Sponsor or Dealer or any other person nor any member of the J.P. Morgan group has any responsibility for any acts or omissions of, or breach of any obligations or duties by, the Reference Portfolio Allocator or shall be required to take any action (including legal proceedings or enforcement of any rights) against any third party (including the Reference Portfolio Allocator).

In respect of any action, decision, determination or calculation permitted to be made by the Issuer, Calculation Agent, Portfolio Sponsor or Dealer, such entity shall be under no obligation to consider the interests of any holder of the Securities. The value of the Reference Portfolio is determined in accordance with the Reference Portfolio Rules. The Reference Portfolio Rules may be amended from time to time at the sole discretion of the Portfolio Sponsor and will be re-published (in a manner determined by the Portfolio Sponsor from time to time). If such an amendment is effected, the composition of the Reference Portfolio, the manner in which such composition is determined, and/or the calculation methodology used to determine the value of the Reference Portfolio from time to time, may be changed, and this in turn may affect, possibly adversely, the return on and value of the Securities. Copies of the then most recent Reference Portfolio Rules may be obtained by holders (including Holders of the Securities) or potential holders of investments linked to the Reference Portfolio free of charge on request from each of the Reference Portfolio Allocator and the Portfolio Sponsor, at their respective principal offices in London, against such proof of status as the Reference Portfolio Allocator or Portfolio Sponsor, as the case may be, may in its reasonable discretion require.

Subsidiaries and affiliates of JPMorgan Chase & Co., in their various roles as Issuer, Guarantor, Dealer, Calculation Agent and Portfolio Sponsor are subject to various potential conflicts of interest in respect of the Securities – see Annex B (Disclaimers and Potential Conflicts of Interest).

Additional Cash Injection Amount paid by a Sole Securityholder

Any Additional Cash Injection Amount (as defined in Part C) paid into the Designated Account (as defined in Part C) by a Sole Securityholder (as defined in Part C) shall vest with the Issuer and will not be available to a Sole Securityholder in the event that it transfers or sells its Securities prior to the Redemption Date. The price at which a Sole Securityholder is able to sell its Securities prior to the Redemption Date may be at a substantial discount to the original issue price of the Securities and any Additional Cash Injection Amount(s) that it may have paid.

Pursuant to the Reference Portfolio Rules, any Additional Cash Injection Amount will notionally increase the Reference Cash Balance (as defined in Part C) in respect of the Base Currency (as defined in Part C) at the time it is paid. However, investors in the Securities should note that any Additional Cash Injection Amounts paid by a Sole Securityholder will not affect the Aggregate Notional Amount of the Securities and will not increase the entitlement of the Sole Securityholder to participate in any additional Redemption Amount.

Furthermore, although the Redemption Amount or the Certificate Early Redemption Amount (as defined in Part C), as applicable, depends on the Reference Cash Balance in respect of the Base Currency on the relevant Portfolio Business Day (as defined in Part C), there is no guarantee that the payment of any Additional Cash Injection Amount will result in the payment of a greater Redemption Amount or Certificate Early Redemption Amount, as applicable, in respect of each Security than would otherwise be payable.

In addition, notwithstanding the payment of any such Additional Cash Injection Amount, there can be no guarantee that such Additional Cash Injection Amount will not prevent a Reference Portfolio Limits Breach (as defined in Part C), or, if a Reference Portfolio Limits Breach has occurred, that such Additional Cash Injection Amount will be received prior to the end of the relevant Cure Period (as defined in the Reference Portfolio Rules) in order to successfully prevent an Uncured Reference Portfolio Limits Breach, and, therefore, a Certificate Early Redemption Date (as defined in Part C) occurring.

Unregulated Securities: The Securities do not constitute a participation in a collective investment scheme within the meaning of the Swiss Federal Act on Collective Investment Schemes and are not subject to supervision by the Swiss Financial Market Supervisory Authority FINMA

None of the Securities constitutes a participation in a collective investment scheme within the meaning of the Swiss Federal Act on Collective Investment Schemes and none of the Securities is subject to approval, registration or supervision by the Swiss Financial Market Supervisory Authority FINMA or any other regulatory authority in Switzerland. Accordingly, investors do not have the benefit of the specific investor protection provided under the Swiss Federal Act on Collective Investment Schemes and are exposed to the credit risk of the Issuer and Guarantor.

PART A - CONTRACTUAL TERMS

Terms used herein shall be deemed to be defined as such for the purposes of the General Conditions and the Specific Product Provisions (as may be amended and/or supplemented up to, and including, 8 June 2018) set forth in the Offering Circular. Full information on the Issuer, the Guarantor and the offer of the Securities is only available on the basis of the combination of this Pricing Supplement and the Offering Circular (including all documents incorporated by reference). The Offering Circular (including all documents incorporated by reference) is available from The Bank of New York Mellon S.A./N.V., Luxembourg Branch, at Vertigo Building, Polaris, 2-4 rue Eugène Ruppert, L-2453, Luxembourg, and The Bank of New York Mellon S.A./N.V., Dublin Branch, at Riverside 2, Sir John Rogerson's Quay, Grand Canal Dock, Dublin 2, Ireland.

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| 1. | (i) Issuer: | J.P. Morgan Structured Products B.V. |
| | (ii) Guarantor: | JPMorgan Chase Bank, N.A. |
| 2. | (i) Series Number: | 2018-17147 |
| | (ii) Tranche Number: | One |
| 3. | Specified Currency or Currencies: | Euro ("EUR") |
| 4. | Notes, Warrants or Certificates: | Certificates |
| 5. | Aggregate Notional Amount: | |
| | (i) Series: | EUR 8,000,000 |
| | (ii) Tranche: | EUR 8,000,000 |
| 6. | Issue Price: | 100.00 per cent. of the Aggregate Notional Amount. |

The Issue Price specified above may be more than the market value of the Securities as at the Issue Date, and the price, if any, at which the Dealer or any other person is willing to purchase the Securities in secondary market transactions is likely to be lower than the Issue Price. In particular, where permitted by applicable law and subject to any additional ex ante cost disclosure required by such, the Issue Price may take into account amounts with respect to commissions relating to the issue and sale of the Securities as well as amounts relating to the hedging of the Issuer's obligations under the Securities and secondary market prices may exclude such amounts.

If any commissions or fees relating to the issue and sale of the Securities have been paid or are payable by the Dealer to an intermediary, then such intermediary may be obliged to fully disclose to its clients the existence, nature and amount of any such commissions or fees (including, if applicable, by way of discount) as required in accordance with laws and regulations applicable to such intermediary, including any legislation, regulation and/or rule implementing the Markets in Financial Instruments Directive (Directive 2014/65/EU, as may be amended or replaced from time to time), or as otherwise may apply in any non-EEA jurisdictions

Investors in the Securities intending to invest in Securities through an intermediary (including by way of introducing broker) should request details of any such commission or fee payment from such intermediary before making any purchase hereof.

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| (i) | Notional Amount per Certificate: | EUR 1,000,000 per Security |
| (ii) | Trading in Units (Notes): | Not Applicable |
| (iii) | Minimum trading size: | The Securities may only be traded in a minimum initial amount of one Security (corresponding to a notional amount of EUR 1,000,000) and, thereafter, in multiples of one Security (corresponding to a notional amount of EUR 1,000,000). |

7.	Issue Date:	8 June 2018
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8.	Settlement Date and Redemption Date:	8 June 2025
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PROVISIONS APPLICABLE TO NOTES

Paragraphs 9-21 are intentionally deleted

PROVISIONS APPLICABLE TO WARRANTS

Paragraphs 22-34 are intentionally deleted

PROVISIONS APPLICABLE TO CERTIFICATES

35.	Cash Settlement/Physical Settlement:	Cash Settlement is applicable
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36.	Call Option:	Applicable
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(i)	Optional Redemption Date(s):	The Issuer Call Option Redemption Date
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Where:

"Issuer Call Option Redemption Date" means, in respect of an Issuer Call Option Notice, the day specified in such Issuer Call Option Notice falling not less than 30 calendar days from, and not more than 40 calendar days after, the date on which such Issuer Call Option Notice is deemed to have been given to Holders or, if such day is not a Reference Portfolio Business Day (as defined in Part C below), the immediately succeeding Reference Portfolio Business Day; and

"Issuer Call Option Notice" means a notice from the Issuer to the Holders, delivered on any Reference Portfolio Business Day, in accordance with General Condition 27 (*Notices*) (with a copy

to the Calculation Agent, the Reference Portfolio Allocator (as defined in Part C below) and the Portfolio Sponsor (as defined in Part C below) in accordance with the provisions of paragraph 63(iv) below) specifying an Issuer Call Option Redemption Date.

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| (ii) | Optional Redemption Amount(s) and method, if any, of calculation of such amount(s): | <p>The Issuer Call Option Redemption Amount</p> <p>Where:</p> <p>"Issuer Call Option Redemption Amount" means, in respect of each Security (of the Notional Amount) and an Issuer Call Option Redemption Date, an amount in the Specified Currency calculated by the Calculation Agent equal to the quotient of (a) the Reference Cash Balance in respect of the Base Currency (each as defined in Part C below) as of the Reference Portfolio Valuation Time (as defined in Part C below) in respect of the Reference Portfolio Business Day immediately preceding such Issuer Call Option Redemption Date (as numerator) and (b) the number of Securities (of the Notional Amount) outstanding as of such Reference Portfolio Business Day (as denominator), as calculated by the Calculation Agent.</p> <p>For the avoidance of doubt, if an Issuer Call Option Redemption Date has occurred and any amounts are payable in respect of any Underlying Reference Instrument (as defined in Part C below) comprising the Reference Portfolio (as defined below) in the period from, and including, the Modification Cut-Off Time on the Modification Cut-off Date (each as defined in Part C below) in respect of such Issuer Call Option Redemption Date, no amount shall be payable to any holder of a Security in respect of such amount in respect of such Underlying Reference Instrument.</p> |
| (iii) | If redeemable in part: | Not Applicable |
| | (a) Minimum nominal amount to be redeemed: | Not Applicable |
| | (b) Maximum nominal amount to be redeemed: | Not Applicable |
| (iv) | Description of any other Issuer's option: | Not Applicable |
| (v) | Notice period (if other than as set out in General Condition 9.1): | Not less than 30 calendar days from, and not more than 40 calendar days after, the date on |

which such Issuer Call Option Notice is deemed to have been given to Holders or, if the 40th calendar day after the date on which such Issuer Call Option Notice is deemed to have been given to Holders is not a Reference Portfolio Business Day, the immediately succeeding Reference Portfolio Business Day, and, for the avoidance of doubt, General Condition 9.1 (*Redemption at the Option of the Issuer*) shall be deemed to be amended accordingly.

37. **Put Option:**

Applicable

(i) Optional Redemption Date(s):

The Securityholder Put Option Redemption Date

Where:

"Securityholder Put Option Notice" means a Put Option Exercise Notice on behalf of the Holders of all (but not some only) of the Securities then outstanding to the Registrar (with a copy to the Issuer, the Calculation Agent, the Reference Portfolio Allocator and the Portfolio Sponsor in accordance with the provisions of paragraph 63(iv) below) delivered on a Reference Portfolio Business Day, specifying a Securityholder Put Option Redemption Date.

"Securityholder Put Option Redemption Date" means the date specified in the Securityholder Put Option Notice falling not less than 30 calendar days, and not more than 40 calendar days after, the date of receipt of such Securityholder Put Option Notice by the Registrar or, if such day is not a Reference Portfolio Business Day, the immediately succeeding Reference Portfolio Business Day.

(ii) Optional Redemption Amount(s) and method, if any, of calculation of such amount(s):

The Securityholder Put Option Redemption Amount

Where:

"Securityholder Put Option Redemption Amount" means, in respect of each Security (of the Notional Amount), an amount in the Specified Currency calculated by the Calculation Agent equal to the quotient of (a) the Reference Cash Balance in respect of the Base Currency as of the Reference Portfolio Valuation Time in respect of the Reference Portfolio Business Day immediately preceding the Securityholder Put Option Redemption Date (as numerator) and (b) the number of Securities (of the Notional Amount)

outstanding as of such Reference Portfolio Business Day (as denominator), as calculated by the Calculation Agent.

For the avoidance of doubt, if a Securityholder Put Option Redemption Date has occurred and any amounts are payable in respect of any Underlying Reference Instrument comprising the Reference Portfolio in the period from, and including, the Modification Cut-off Time on the Modification Cut-off Date in respect of such Securityholder Put Option Redemption Date, no amount shall be payable to any holder of a Security in respect of such amount in respect of such Underlying Reference Instrument.

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| (iii) | Description of any other Holders' option: | Not Applicable |
| (iv) | Notice Period (if other than as set out in General Condition 9.2): | Not less than 30 calendar days from and not more than 40 calendar days after the date of receipt by the Registrar of the Securityholder Put Option Notice or, if the 40 th calendar day from the date of receipt by the Registrar of the Securityholder Put Option Notice is not a Reference Portfolio Business Day, the immediately succeeding Reference Portfolio Business Day, and, for the avoidance of doubt, General Condition 9.2 (<i>Redemption at the Option of the Holders</i>) shall be deemed to be amended accordingly. |
38. **Redemption Amount:** See Part C below
- In cases where the Redemption Amount is Share Linked, Index Linked, Commodity Linked, FX Linked, Fund Linked or other variable linked:
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| (i) | Reference Asset(s): | The Reference Portfolio (the " Reference Portfolio "), as more fully described in the Reference Portfolio Rules set out in Annex C (<i>Reference Portfolio Rules</i>) (the " Reference Portfolio Rules "). |
| (ii) | Provisions for determining Redemption Amount where calculated by reference to Share and/or Index and/or Commodity and/or FX Rate and/or Fund and/or other variable: | As specified in Part C below |
| (iii) | Provisions for determining Redemption Amount where calculation by reference to Share and/or Index and/or Commodity and/or FX Rate and/or Fund and/or other variable is impossible or impracticable or | See Part C below |

otherwise disrupted:

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| 39. | Early Payment Amount: | Early Payment Amount 1 is applicable |
| 40. | Exercise applicable to Certificates (General Condition 10): | Not Applicable |

CERTIFICATE COUPON PROVISIONS

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| 41. | Certificate Coupon Provisions (General Condition 8): | Not Applicable – the provisions of paragraph 5 (<i>Interim Coupon Amount</i>) of Part C shall apply |
| 42. | Certificate Floating Rate Coupon Provisions (General Condition 8.3): | Not Applicable |

SPECIFIC PRODUCT PROVISIONS APPLICABLE TO THE SECURITIES

SHARE LINKED PROVISIONS

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| 43. | Share Linked Provisions: | Not Applicable |
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INDEX LINKED PROVISIONS

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| 44. | Index Linked Provisions: | Not Applicable |
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COMMODITY LINKED PROVISIONS

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| 45. | Commodity Linked Provisions: | Not Applicable |
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FX LINKED PROVISIONS

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| 46. | FX Linked Provisions: | Not Applicable |
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FUND LINKED PROVISIONS

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| 47. | Fund Linked Provisions: | Not Applicable |
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MARKET ACCESS PARTICIPATION PROVISIONS

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| 48. | Market Access Participation Provisions: | Not Applicable |
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LOW EXERCISE PRICE WARRANT PROVISIONS

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| 49. | Low Exercise Price Warrant Provisions: | Not Applicable |
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GENERAL PROVISIONS APPLICABLE TO THE SECURITIES

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| 50. | New Safekeeping Structure (in respect of Registered Notes) or New Global Note (in respect of Bearer Notes): | Not Applicable |
| 51. | Form of Securities: | Registered Securities |
| | (i) Temporary or Permanent Bearer Global Security / Registered Global Security; | Temporary Registered Global Security which is exchangeable for a Permanent Registered Global Security, each of which is exchangeable for Registered Definitive Securities (i) automatically in the limited circumstances specified in the |

		relevant Registered Global Security or (ii) in the case of a Permanent Registered Global Security only, at any time at the option of the Issuer by giving notice to the Holders and the Registrar of its intention to effect such exchange on the terms as set forth in the relevant Permanent Registered Global Security
	(ii) Are the Notes to be issued in the form of obligations under French law?	No
	(iii) Name of French Registration Agent	Not Applicable
	(iv) Representation of Holders of Notes/Masse:	Not Applicable
	(v) Regulation S/Rule 144A Securities:	Not Applicable
52.	Record Date:	As set out in the General Conditions
53.	Additional Financial Centre(s) (General Condition 12.2) or other special provisions relating to payment dates:	Each of London and, for the avoidance of doubt, TARGET2
54.	Payment Disruption Event (General Condition 13):	
	Relevant Currency:	Specified Currency
55.	Extraordinary Hedge Disruption Event (General Condition 17):	Applicable
	(i) Extraordinary Hedge Sanctions Event:	Applicable
	(ii) Extraordinary Hedge Bail-in Event:	Applicable
	(iii) Extraordinary Hedge Currency Disruption Event:	Applicable
56.	Early Redemption for Tax on Underlying Hedge Transactions (General Condition 18.4(b)):	Not Applicable
57.	Disruption Event (General Condition 19):	Not Applicable
	(i) Change in Law (Hedge):	Not Applicable
	(ii) Hedging Disruption:	Not Applicable
58.	Physical Settlement:	Not Applicable
59.	Calculation Agent:	J.P. Morgan Securities plc
60.	Redenomination, renominatisation and reconventioning provisions:	Not Applicable
61.	Gross Up (General Condition 18):	Applicable – as specified in General Condition 18.1

- (i) Exclude Section 871(m) Taxes from Gross Up (General Condition 18): Not Applicable
 - (ii) 871(m) Securities: Section 871(m) and the regulations promulgated thereunder will not apply to the Securities
62. **Rounding:** General Condition 23 applies
63. **Other terms or special conditions:** Applicable:
- (i) see Part C below;
 - (ii) General Condition 9.2 (*Redemption at the Option of the Holders*) shall be amended by:
 - (a) the insertion of the words "with a copy to the Issuer, the Calculation Agent, the Portfolio Sponsor and the Reference Portfolio Allocator, and the Issuer, Calculation Agent, Portfolio Sponsor, Reference Portfolio Allocator and Registrar shall each provide a further copy of such notice to each other" after the words "Paying Agent or the Registrar, respectively," where they appear in the third line of General Condition 9.2(a) (*Global Certificates*); and
 - (b) the insertion of the words "and send a copy of such Put Option Exercise Notice to each of the Issuer, the Calculation Agent, the Portfolio Sponsor and the Reference Portfolio Allocator and the Issuer, Calculation Agent, Portfolio Sponsor, Reference Portfolio Allocator and Registrar shall each provide a further copy of such notice to each other" after the words "within the notice period" where they appear in the fourth line of General Condition 9.2(b) (*Certificates in definitive form*);
 - (iii) details of the Reference Instruments Portfolio composition and Reference Cash Balance (each as defined in the Reference Portfolio Rules) are available to Holders of the Securities from the Reference Portfolio Allocator upon request either in writing or by email to the

Reference Portfolio Allocator in accordance with the contact details specified in sub-paragraph (iv) below, from 12 noon London time on each Reference Portfolio Business Day from, but excluding, the Start Date (as defined in the Reference Portfolio Rules) to, and including, the Modification Cut-off Date, in respect of the Reference Portfolio Valuation Time (as defined in Part C below) on the immediately preceding Reference Portfolio Business Day; and

- (iv) Holders of the Securities shall provide notices to the Issuer, the Calculation Agent, the Portfolio Sponsor and the Reference Portfolio Allocator by either email or fax as specified in respect of the relevant party below (together with a copy in writing sent to the relevant party's address), being, in respect of:

The Issuer:

Attention: The Managing
Directors

Address:
J.P. Morgan Structured Products
B.V.
Luna ArenA
Herikerbergweg 238
1101 CM Amsterdam
The Netherlands

The Calculation Agent and the Portfolio
Sponsor:

Attn: Credit Exotics Team

E-mail:
credit.exotics.ta@jpmorgan.com

Address:
J.P. Morgan Securities plc
25 Bank Street
London E14 5JP

The Reference Portfolio Allocator:

Attn: Mark Rall and Stefan
Ulbricht

E-mail: mark.rall@lgt.com; and

stefan.ulbricht@lgt.com

Address:

LGT Capital Partners AG
Schützenstrasse 6
8808 Pfäffikon SZ
Switzerland

Notices will be deemed effective as indicated:

- (a) if in writing and delivered in person or by courier, on the date it is delivered;
- (b) if sent by certified or registered mail (airmail, if overseas) or the equivalent (return receipt requested), on the date it is delivered or its delivery is attempted; or
- (c) if sent by e-mail, on the date it is delivered,

in each case, unless the date of that delivery (or attempted delivery) or that receipt, as applicable, is not a Reference Portfolio Business Day or such notice is delivered (or attempted) or received, as applicable, after the close of business on a Reference Portfolio Business Day, in which case such notice will be deemed given and effective on the first following day that is a Reference Portfolio Business Day.

DISTRIBUTION

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| 64. | If non-syndicated, name and address of Dealer: | J.P. Morgan Securities plc of 25 Bank Street, Canary Wharf, London E14 5JP |
| 65. | Stabilising Manager(s) (if any): | Not Applicable |
| 66. | Total commission and concession: | See paragraph 6 |
| 67. | U.S. selling restrictions: | Regulation S |

ERISA Restrictions for all Securities (including Rule 144A Securities and Securities subject to Regulation S)

JPMSP Standard Restrictions apply: The Securities may not be acquired by, on behalf of, or with the assets of any plans subject to ERISA or Section 4975 of the U.S. Internal Revenue

Code of 1986, as amended, other than certain insurance company general accounts. See "Subscription and Sale – United States" and "Purchaser representations and requirements and transfer restrictions – ERISA Legends and ERISA Restrictions – (b) JPMCFC/JPMSP Standard Restrictions" in the Offering Circular.

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| 68. | ECI Holder Restrictions: | Not Applicable |
| 69. | Additional Selling Restrictions: | Not Applicable |
| 70. | Swiss Distribution: | No |
| 71. | Prohibition of Sales to EEA Retail Investors: | Applicable |

GENERAL

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| 72. | The aggregate principal amount of Notes issued has been translated into U.S. dollars at the rate of [•] 1 = U.S.\$ [•], producing a sum of (for Notes not denominated in U.S. dollars): | Not Applicable |
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PURPOSE OF PRICING SUPPLEMENT

This Pricing Supplement comprises the pricing supplement required for the issue of the Securities described herein pursuant to the Structured Products Programme for the issuance of Notes, Warrants and Certificates of JPMorgan Chase Financial Company LLC, J.P. Morgan Structured Products B.V., JPMorgan Chase Bank, N.A. and JPMorgan Chase & Co.

GOVERNING LAW AND JURISDICTION

Securities: English Law/Courts of England

Guarantee: English Law/Courts of England

RESPONSIBILITY

Each of the Issuer and the Guarantor accepts responsibility for the information contained in this Pricing Supplement. Information on the Reference Asset has been provided by the Portfolio Sponsor. Each of the Issuer and the Guarantor confirms that such information has been accurately reproduced and that, so far as it is aware, and is able to ascertain from the information provided by the Portfolio Sponsor, no facts have been omitted which would render the reproduced information inaccurate or misleading.

An investor intending to acquire or acquiring any Securities from an offeror will do so, and offers and sales of the Securities to an investor by an offeror will be made, in accordance with any terms and other arrangements in place between such offeror and such investor including as to price, allocations and settlement arrangements. The Issuer will not be a party to any such arrangements with investors (other than the Dealer(s)) in connection with the offer or sale of the Securities and, accordingly, this Pricing Supplement will not contain such information. The investor must look to the offeror at the time of such offer for the provision of such information. The Issuer has no responsibility to an investor in respect of such information.

Signed on behalf of the Issuer:
By:


Susan Small
Managing Director & Associate General Counsel
(acting under a Power of Attorney)

Duly authorised

Signed on behalf of the Guarantor:
By:


Susan Small
Managing Director & Associate General Counsel

Duly authorised

UK - 613336846.7/CMS(WJD/DVML)/SC

PART B – OTHER INFORMATION

LISTING AND ADMISSION TO TRADING Not Applicable

RATINGS Not Applicable

INTERESTS OF NATURAL AND LEGAL PERSONS INVOLVED IN THE ISSUE

Save as discussed in the section of the Offering Circular entitled "Subscription and Sale" and as discussed in Annex B (*Disclaimer and Potential Conflict of Interest*), so far as the Issuer is aware, no person involved in the issue of the Securities has an interest material to the issue.

REASONS FOR THE ISSUE AND ESTIMATED NET PROCEEDS

(i) Reasons for the issue: Not Applicable

(ii) Estimated net proceeds: Not Applicable

POST-ISSUANCE INFORMATION

The Issuer will not provide any post-issuance information with respect to the Reference Asset, unless required to do so by applicable law or regulation.

OPERATIONAL INFORMATION

Intended to be held in a manner which would allow Eurosystem eligibility: No

ISIN: XS1753000071

Common Code: 175300007

RIC: XS1753000071=JPML

CFI: DTZXFR

Relevant Clearing System(s) and the relevant identification number(s): Euroclear/Clearstream, Luxembourg

Delivery: Delivery against payment

The Agents appointed in respect of the Securities are: As set out in the Agency Agreement

Registrar: The Bank of New York Mellon S.A./N.V.,
Luxembourg Branch

PART C – OTHER APPLICABLE TERMS

1. Early Redemption

If, in respect of a Reference Portfolio Business Day, the Calculation Agent determines that a Certificate Early Redemption Event has occurred (such Reference Portfolio Business Day being the "**Certificate Early Redemption Determination Date**" in respect of such Certificate Early Redemption Event) then, unless the Securities have been previously redeemed, or purchased and cancelled in accordance with the Conditions, the Issuer shall redeem each Security (of the Notional Amount) on the Certificate Early Redemption Date in respect of such Certificate Early Redemption Determination Date at an amount in the Specified Currency equal to the Certificate Early Redemption Amount in respect of such Certificate Early Redemption Date.

For the avoidance of doubt, if a Certificate Early Redemption Event has occurred and any amounts are payable in respect of any Underlying Reference Instrument comprising the Reference Portfolio in the period from (and including) the Modification Cut-off Time on the Modification Cut-off Date in respect of the Certificate Early Redemption Determination Date in respect of such Certificate Early Redemption Event, no amount shall be payable to any holder of a Security in respect of such amount in respect of such Underlying Reference Instrument.

As of the date of this Pricing Supplement, no Certificate Early Redemption Event had occurred.

2. Redemption Amount on the Redemption Date

For the purposes of General Condition 9.5 (*Redemption on the Redemption Date*) and paragraph 38 above, unless the Securities have previously been redeemed or purchased and cancelled in accordance with the Conditions (including following the occurrence of an Issuer Call Option Redemption Date or Securityholder Put Option Redemption Date) or following a Certificate Early Redemption Date pursuant to paragraph 1 (*Early Redemption*) of this Part C above, the Redemption Amount in respect of each Security (of the Notional Amount) shall be an amount in the Specified Currency calculated by the Calculation Agent equal to the Per Security Redemption Amount.

3. Additional Cash Injection Amounts

On any Reference Portfolio Business Day prior to the Redemption Date and prior to the occurrence of a Reference Portfolio Allocator Termination Event, a Sole Securityholder may, in its sole and absolute discretion, provide notification to the Issuer and the Calculation Agent that it wishes to pay to the Issuer additional cash amounts denominated in the Specified Currency (such notification a "**Cash Injection Notice**" and the relevant amount an "**Additional Cash Injection Amount**").

Any Cash Injection Notice shall include: (i) the proposed amount of any relevant Additional Cash Injection Amount; (ii) evidence to the reasonable satisfaction of the Calculation Agent, determined by the Calculation Agent in its sole discretion, that the Securityholder is a Sole Securityholder on the date of the Cash Injection Notice; and (iii) the relevant email and telephone contact details of the Sole Securityholder for the purposes of acknowledging the relevant Cash Injection Notice. For the avoidance of doubt, a Sole Securityholder may deliver multiple Cash Injection Notices during the term of the Securities.

Following the effective receipt of a Cash Injection Notice by the Calculation Agent, the Calculation Agent shall notify the Sole Securityholder using the contact details specified by the Sole Securityholder in the relevant Cash Injection Notice of any additional information (if any) required to comply with all internal regulations and procedures of the Issuer in order to receive the relevant Additional Cash Injection Amount.

Once any additional information (if any) required to comply with all internal regulations and procedures of the Issuer in order to receive the relevant Additional Cash Injection Amount has been received and the Calculation Agent has determined, in its sole and absolute discretion, whether the Issuer may receive the relevant Additional Cash Injection Amount, it shall notify the Sole Securityholder using the contact details specified by the Sole Securityholder in the relevant Cash Injection Notice (and, for the avoidance of doubt, not in accordance with General Condition 27 (*Notices*)) of such determination and, if the Calculation Agent has so determined that the Issuer may receive the Additional Cash Injection Amount, all relevant details of a non-interest bearing account (the "**Designated Account**") and the Sole Securityholder shall pay the Additional Cash Injection Amount into the Designated Account as soon as reasonably practicable following such notification. Neither the Issuer nor the Calculation Agent shall be liable to any party for any loss howsoever arising from any refusal to accept any Additional Cash Injection Amount or from a failure to provide any notification set out in this paragraph 3.

Upon the transfer of an Additional Cash Injection Amount to the Designated Account by a Sole Securityholder all right, title and interest to each such Additional Cash Injection Amount shall vest with the Issuer and will not be available to a Sole Securityholder in the event that it transfers or sells its Securities prior to the Redemption Date. The price at which a Sole Securityholder is able to sell its Securities prior to the Redemption Date may be at a substantial discount to the original issue price of the Securities and any Additional Cash Injection Amount(s) that it may have paid.

Nothing herein is intended to, and nothing herein does, create any mortgage, charge, lien, pledge, encumbrance or other security interest in any Additional Cash Injection Amount paid by the Sole Securityholder under the terms hereof.

Payment to any account other than the Designated Account or other than in accordance with the notification requirement shall not qualify as an Additional Cash Injection Amount for the purposes of the Securities or for any other purpose relating to these Securities.

4. Definitions

The following words and expressions shall have the following meanings:

"**Base Currency**" has the meaning given to it in the Reference Portfolio Rules.

"**Certificate Early Redemption Amount**" means, in respect of Certificate Early Redemption Date and a Security (of the Notional Amount), an amount in the Specified Currency calculated by the Calculation Agent equal to the product of (i) the Reference Cash Balance in respect of the Base Currency as of the Reference Portfolio Valuation Time in respect of the Reference Portfolio Business Day immediately preceding such Certificate Early Redemption Date and (ii) the Certificate Ratio in respect of such date.

"**Certificate Early Redemption Date**" means, in respect of Certificate Early Redemption Determination Date the Reference Portfolio Business Day that is three Reference Portfolio Business Days immediately following the Modification Cut-off Date in respect of such Certificate Early Redemption Determination Date.

"**Certificate Early Redemption Event**" means the occurrence of:

- (i) a Portfolio Limits Breach Early Redemption Event; or
- (ii) a Reference Portfolio Allocator Termination Event.

"**Certificate Ratio**" means, in respect of a Reference Portfolio Business Day, the quotient of (a) the Notional Amount (as numerator) and (b) the Aggregate Notional Amount of the Securities outstanding on such day (as denominator), as determined by the Calculation Agent.

"Final Valuation Date" means the Reference Portfolio Business Day that is one Reference Portfolio Business Day immediately following the Scheduled Modification Cut-off Date.

"Interim Coupon Amount" means an amount in the Specified Currency calculated by the Calculation Agent equal to the product of:

- (i) EUR 5,378,747.93; and
- (ii) the Certificate Ratio in respect of the Interim Coupon Payment Date.

"Interim Coupon Payment Conditions" means (and the Interim Coupon Payment Conditions shall be deemed to be satisfied if):

- (A) no Modification Cut-off Date has occurred on or prior to the Interim Coupon Payment Date, as determined by the Calculation Agent; and
- (B) the Calculation Agent determines, in its sole and absolute discretion, that no Reference Portfolio Limits Breach may or is likely to occur as a result of payment of the Interim Coupon Amount on the Interim Coupon Payment Date.

"Interim Coupon Payment Date" means 6 April 2020, or if such day is not a Reference Portfolio Business Day, the immediately succeeding day that is a Reference Portfolio Business Day.

"Modification Cut-off Date" means, the earliest of:

- (i) the Certificate Early Redemption Determination Date (if applicable) (and such day shall be the **"Modification Cut-off Date"** in respect of such Certificate Early Redemption Determination Date);
- (ii) the day falling three Reference Portfolio Business Days prior to a Security Holder Put Option Redemption Date (if applicable) (and such day shall be the **"Modification Cut-off Date"** in respect of such Security Holder Put Option Redemption Date);
- (iii) the day falling three Reference Portfolio Business Days prior to the Issuer Call Option Redemption Date (if applicable) (and such day shall be the **"Modification Cut-off Date"** in respect of such Issuer Call Option Redemption Date); and
- (iv) the day falling three Reference Portfolio Business Days prior to the Redemption Date (the **"Scheduled Modification Cut-off Date"**).

"Modification Cut-off Time" has the meaning given to it in the Reference Portfolio Rules.

"Per Security Redemption Amount" means an amount in the Specified Currency calculated by the Calculation Agent equal to the product of (i) the Reference Cash Balance in respect of the Base Currency as of the Reference Portfolio Valuation Time in respect of the Final Valuation Date and (ii) the Certificate Ratio in respect of such Final Valuation Date.

"Portfolio Limits Breach Early Redemption Event" means, in respect of any Reference Portfolio Business Day an Uncured Reference Portfolio Limits Breach has occurred, as determined by the Calculation Agent.

"Portfolio Sponsor" has the meaning given to it in the Reference Portfolio Allocation Deed in respect of the Reference Portfolio, being, as of the date of this Pricing Supplement, J.P. Morgan Securities plc.

"Reference Cash Balance" has the meaning given to it in the Reference Portfolio Rules.

"Reference Instruments Portfolio" has the meaning given to it in the Reference Portfolio Rules.

"Reference Portfolio Allocation Deed" has the meaning given to it in the Reference Portfolio Rules.

"Reference Portfolio Allocator" has the meaning given to it in the Reference Portfolio Rules, being, as of the date of this Pricing Supplement, LGT Capital Partners AG.

"Reference Portfolio Allocator Termination Event" means, in respect of a Reference Portfolio Business Day, the appointment of LGT Capital Partners AG in its capacity as Reference Portfolio Allocator is terminated for any reason, as determined by the Calculation Agent.

"Reference Portfolio Business Day" has the meaning given to the term "Business Day" in the Reference Portfolio Rules.

"Reference Portfolio Limits Breach" means, in respect of any day, the Calculation Agent determines that a Reference Portfolio Limits Breach (as defined in the Reference Portfolio Rules) has occurred.

"Reference Portfolio Valuation Time" means 5 p.m. London time.

"Reference Portfolio Value" has the meaning given to it in the Reference Portfolio Rules.

"Scheduled Modification Cut-off Date" has the meaning given to it in the definition of Modification Cut-off Date.

"Sole Securityholder" means, in respect of any day, any Holder who has identified itself to the Issuer and the Calculation Agent (and provided evidence to the reasonable satisfaction of the Calculation Agent, as determined by the Calculation Agent in its sole and absolute discretion) as being the sole holder of 100 per cent. of the outstanding notional amount of the Securities in respect of such day.

"Uncured Reference Portfolio Limits Breach" has the meaning given to it in the Reference Portfolio Rules.

"Underlying Reference Instrument" has the meaning given to it in the Reference Portfolio Rules.

5. Interim Coupon Amount

On the Interim Coupon Payment Date, unless the Securities have previously been redeemed or purchased and cancelled in accordance with the Conditions (including following the occurrence of an Issuer Call Option Redemption Date or Securityholder Put Option Redemption Date) or following a Certificate Early Redemption Date pursuant to paragraph 1 (*Early Redemption*) of this Part C above, and provided that the Interim Coupon Payment Conditions are satisfied, as determined by the Calculation Agent, the Issuer shall pay to each holder of a Security (of the Notional Amount) an amount equal to the Interim Coupon Amount.

ANNEX A

RISK FACTORS

Capitalised terms used in this section and not defined herein shall have the respective meaning ascribed to each in Part A or Part C of this Pricing Supplement or in the Reference Portfolio Rules, or, if not defined in Part A or Part C or the Reference Portfolio Rules, the meaning ascribed to each in the Offering Circular.

Investing in the Securities is speculative and involves certain risks, including the following, which an investor should consider carefully before deciding to invest.

The following list of risk factors does not purport to be a complete enumeration or explanation of all the risks associated with the Reference Portfolio.

An investor in the Securities should have such knowledge and experience in financial and business matters and expertise in assessing credit risk that it is capable of evaluating the merits, risks and suitability of investing in the Securities in the context of the investor's financial situation. Investment in the Securities is suitable only for investors who can bear the risks associated with a lack of liquidity in the Securities and the financial and other risks associated with an investment in the Securities. An investor shall be responsible for assessing the legality and suitability of an investment by it in the Securities.

An investor in the Securities should consult with his own legal, regulatory, tax, business, investment, financial and accounting advisers to the extent that it deems necessary, and make his own investment, hedging and trading decisions including decisions regarding the suitability of this investment based upon their own judgement and upon advice from such advisers as they deem necessary and not upon any view expressed by the Issuer, J.P. Morgan Securities plc ("**JPMS plc**") and/or any of their affiliates or subsidiaries (each such entity, together with all entities within the JPMorgan Chase & Co. group, the "**JPMorgan Group**").

In addition, an investor in the Securities should carefully consider all risks associated with any investment in the Securities, including but not limited to the following:

- (i) the Reference Portfolio rules (as described in Annex C (*Reference Portfolio Rules*)) (the "**Reference Portfolio Rules**") may be amended from time to time at the sole discretion of JPMS plc (the "**Portfolio Sponsor**"). Following any amendment of the Reference Portfolio Rules, the Portfolio Sponsor will republish the amended version of the Reference Portfolio Rules (in a manner determined by the Portfolio Sponsor from time to time);
- (ii) there may exist at times only limited markets for the Securities, resulting in low or non-existent volumes of trading in the Securities and such obligations, and therefore a lack of liquidity and price volatility of the Securities and such obligations;
- (iii) any amounts scheduled and due under the terms of the Securities bear the credit risk of the Issuer;
- (iv) the Securities may not benefit from the same ratings assigned to other obligations issued or entered into by the Issuer; and
- (v) no person has been authorised to give any information or make any representation not contained in or not consistent with this Pricing Supplement, or any other information supplied in connection with the Securities and, if given or made, such information or representation must not be relied upon as having been authorised by the JPMorgan Group.

In certain situations the Portfolio Sponsor is permitted to refuse to provide the Reference Portfolio Allocator with the Modification Amount (as defined in the Reference Portfolio Rules) in respect of a Modification Request (as defined in the Reference Portfolio Rules), and consequently the Reference Portfolio Allocator may not be able to

modify the Reference Portfolio as intended. The inability of the Reference Portfolio Allocator to modify the Reference Portfolio as intended may have a material adverse impact on the performance of the Reference Portfolio.

Reference Portfolio Modifications will be requested by the Reference Portfolio Allocator. As a result, the success of the Reference Portfolio will depend largely upon the abilities of the Reference Portfolio Allocator and certain key individuals employed by the Reference Portfolio Allocator. The loss of one or more of such key individuals may have a material adverse impact on the performance of the Reference Portfolio.

The returns of products linked to the Reference Portfolio will depend on the Reference Portfolio Allocator's asset allocation abilities. There can be no assurance that the Reference Portfolio Allocator will cause the Reference Portfolio to produce positive returns or returns that outperform any other index or basket selected by another person or by any other method.

Under the Reference Portfolio Criteria, the Reference Portfolio Allocator has broad discretion in the rebalancing of the composition of the Reference Portfolio. The exercise of such discretion may have an adverse impact on the performance of the Reference Portfolio.

Upon the termination of the appointment of the Reference Portfolio Allocator, no successor Reference Portfolio Allocator will be appointed and the Securities shall redeem early at such time. This may have an adverse effect on anyone who has taken economic exposure to the Reference Portfolio by investing in any product that references it.

The Reference Portfolio Rules contain references to certain JPMS plc determined prices, values, levels or dates in respect of the determination of the Reference Portfolio Value and, to the extent possible, such prices, values, levels or dates are the prices, values, levels or dates that are used to mark J.P. Morgan Securities plc's actual books and records in respect of a bond or derivative equivalent to the bond or derivative referenced in the Reference Portfolio on the applicable date. These prices, values, levels or dates may not be prices, values, levels or dates at which an actual transaction has occurred or can occur and, in some cases, these prices, values, levels or dates may be influenced by, be based on, or include subjective assessments as of a date that is determined. JPMS plc makes no representations or warranties (express or implied) with respect to these prices, values, levels or dates.

There may be an inherent potential or actual conflict of interest in entering into a transaction that references prices, values, levels or dates determined JPMS plc because such prices, values, levels or dates may be based on a subjective assessment made by JPMS plc or may be generated by financial models that may or may not accurately approximate prices, values, levels or dates for transactions in the market which may then have an impact, positive or negative, on the Reference Portfolio Value.

Reference Portfolio

The Reference Portfolio follows a notional strategy with the aim of enabling the Reference Portfolio Allocator to implement its proprietary investment strategy in compliance with the Reference Portfolio Rules. Accordingly, potential investors in financial products which are linked to the performance of the Reference Portfolio should determine whether those rules are appropriate in light of their individual circumstances and investment objectives.

No assurance can be given that the investment strategy on which the Reference Portfolio is based will be successful in achieving the investment objectives of any potential investor.

Notional Exposures

The Reference Portfolio is constructed on notional or synthetic exposures. Such exposures are purely notional or synthetic and will exist solely in the records maintained by or on behalf of the Portfolio Sponsor (as defined above). Consequently, investors in financial products which are linked to the performance of the Reference

Portfolio will not have any claim against any of the assets which comprise the Reference Portfolio.

Lack of Operating History

The Reference Portfolio was established on the Start Date (being 8 June 2018). There is therefore no performance history in order to evaluate it. No assurance can be given that the selection methodologies employed by the Reference Portfolio Allocator in relation to modifying the Reference Portfolio will result in returns on the Securities being positive or that the return on the Reference Portfolio will be similar to that achieved by the Reference Portfolio Allocator in the past.

Past performance should not be considered indicative of future performance.

Additional Cash Injection Amount paid by a Sole Securityholder

Payment of any Additional Cash Injection Amount by a Sole Securityholder will not affect the Aggregate Notional Amount of the Securities and will not increase the entitlement of the Sole Securityholder to participate in any additional Redemption Amount. There is no guarantee that the payment of any Additional Cash Injection Amount will result in the payment of a greater Redemption Amount or Certificate Early Redemption Amount, as applicable, in respect of each Security than would otherwise be payable.

Market Risks

The performance of the Reference Portfolio is dependent on, amongst other things, the performance of certain Reference Instruments (as defined in the Reference Portfolio Rules). As a consequence, investors in financial products the return on which is linked to the Reference Portfolio should appreciate that their investment is exposed to the performance of these Reference Instruments.

Portfolio Sponsor and Reference Portfolio Allocator Discretion

The Reference Portfolio Rules confer on the Portfolio Sponsor and Reference Portfolio Allocator discretion in making certain determinations and calculations from time to time, such as whether a Removal Disruption Event has occurred (e.g. in respect of an Underlying Reference Instrument, that the Portfolio Sponsor would not, were it to be the holder of such Underlying Reference Instrument or a party to a transaction entered into having equivalent (or equivalent equal and opposite) terms as the relevant Underlying Reference Instrument, be permitted (whether by law, regulation, for tax purposes or otherwise, including in accordance with the Portfolio Sponsor's internal guidelines and restrictions or as a result of any imposition of sanctions) to sell, realise, unwind, transfer or otherwise dispose of such Underlying Reference Instrument) and the calculation of the Reference Portfolio Value in certain cases following the occurrence of such an event. The exercise of such discretion in the making of calculations and determinations may adversely affect the performance of the Reference Portfolio.

Potential Conflicts of Interest

There is a potential for conflicts of interest in the structure and operation of the Reference Portfolio and by virtue of the normal business activities of the Portfolio Sponsor and the Reference Portfolio Allocator. The Portfolio Sponsor is acting or may act in a number of capacities in connection with the Reference Portfolio. The Portfolio Sponsor and the Reference Portfolio Allocator each shall have only the duties and responsibilities expressly set out in the Reference Portfolio Rules in respect of the relevant capacity and shall not, by virtue of its or any of its respective affiliates acting in any other capacity, be deemed to have other duties or responsibilities or be deemed to hold a standard of care other than as expressly provided with respect to each such capacity.

Various potential and actual conflicts of interest may arise from the overall investment activity of the Portfolio Sponsor and the Reference Portfolio Allocator. The Portfolio Sponsor and the Reference Portfolio Allocator may each have, or may each have had, interests or positions, or may buy, sell or otherwise trade positions, in or relating to the Reference Portfolio, or may have invested, or may engage in transactions relating to any Underlying

Reference Instrument, either for its own account or the account of others, may publish research reports or otherwise express views with respect to such transactions or regarding expected movements in price or volatility of a constituent of the Reference Portfolio (which may or may not be consistent with the exposure of such constituent in the Reference Portfolio). The Portfolio Sponsor and the Reference Portfolio Allocator may act with respect to such transactions in the same manner as if the Reference Portfolio did not exist and without regard to whether any such action might have an adverse effect on the Reference Portfolio. Such transactions may or may not be different from the transactions referenced by the Reference Portfolio and may involve events or circumstances which result in a need for the Portfolio Sponsor to exercise its discretion under the Reference Portfolio Rules. Such activity may, or may not, affect the value of a constituent of the Reference Portfolio, but those considering taking any economic exposure by reference to the Reference Portfolio should be aware that a conflict may arise. The Reference Portfolio has been developed with the possibility of any entity in the JPMorgan group issuing, entering into, promoting, offering or selling transactions or investments (structured or otherwise) linked, in whole or in part, to the Reference Portfolio and hedging such transactions or investments in any manner that they see fit. Accordingly it should be assumed that the Reference Portfolio Rules will be analysed from this point of view.

JPMS plc may have direct and material conflicts of interest with respect to Securityholders. For example, JPMS plc may have, or may have had, interests or positions, or may buy, sell or otherwise trade positions in or relating to the Reference Portfolio or may invest or engage in transactions with other persons, or on behalf of such persons, relating to any of these. Such conflict may have an impact, positive or negative, on the Reference Portfolio Value. JPMS plc (including any entity acting as Issuer, Portfolio Sponsor or Calculation Agent) does not have any duty (fiduciary or otherwise) to (A) consider the interests of the Securityholders or (B) conduct itself in a manner that is favourable to the Securityholders.

ANNEX B

DISCLAIMERS AND POTENTIAL CONFLICTS OF INTEREST

The Securities are linked to the Reference Portfolio.

J.P. Morgan Securities plc ("**JPMS plc**") and any of its affiliates or subsidiaries (each such entity, together with all other affiliates or subsidiaries of JPMorgan Chase & Co., the "**JPMorgan Group**") compile, sponsor and disseminate the Reference Portfolio. No entity in the JPMorgan Group has any obligation to take into account the interests of holders of the Securities when determining, composing or calculating the Reference Portfolio and the relevant JPMorgan Group entities can at any time and in their sole discretion, modify or change the method of calculating the Reference Portfolio or cease its calculation, publication or dissemination. Accordingly, actions and omissions of the relevant entities of the JPMorgan Group may affect the value of the Reference Portfolio and, consequently, the value of the Securities.

Neither the Portfolio Sponsor nor the Reference Portfolio Allocator (each as defined in the Reference Portfolio rules (as described in Annex C (*Reference Portfolio Rules*) (the "**Reference Portfolio Rules**")) is under an obligation to continue the calculation, publication and dissemination of the Reference Portfolio. JPMS plc and/or any affiliate, subsidiary or third party designated by it will act as Portfolio Sponsor in respect of the Reference Portfolio.

THE REFERENCE PORTFOLIO IS DERIVED FROM SOURCES THAT ARE CONSIDERED RELIABLE, BUT THE JPMORGAN GROUP DOES NOT GUARANTEE THE VERACITY, CURRENCY, COMPLETENESS OR ACCURACY OF THE REFERENCE PORTFOLIO OR OTHER INFORMATION FURNISHED IN CONNECTION WITH THE REFERENCE PORTFOLIO. NO REPRESENTATION, WARRANTY OR CONDITION, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, AS TO CONDITION, SATISFACTORY QUALITY, PERFORMANCE, OR FITNESS FOR PURPOSE ARE GIVEN OR DUTY OR LIABILITY ASSUMED BY THE JPMORGAN GROUP IN RESPECT OF THE REFERENCE PORTFOLIO OR ANY DATA INCLUDED THEREIN, OMISSIONS THEREFROM OR THE USE OF THE REFERENCE PORTFOLIO IN CONNECTION WITH THE SECURITIES, AND ALL THOSE REPRESENTATIONS, WARRANTIES AND CONDITIONS ARE EXCLUDED SAVE TO THE EXTENT THAT SUCH EXCLUSION IS PROHIBITED BY LAW.

To the fullest extent permitted by law, the JPMorgan Group shall have no liability or responsibility to any person or entity for any loss, damages, costs, charges, expenses or other liabilities, including without limitation liability for any special, punitive, indirect or consequential damages (including lost profits), even if notified of the possibility of such damages, whether caused by the negligence of that person or otherwise, arising in connection with the use of the Reference Portfolio or in connection with the Securities.

No entity in the JPMorgan Group makes any warranty or representation whatsoever, express or implied, as to the accuracy or completeness of the Reference Portfolio Rules, results to be obtained from the use of the Reference Portfolio, or as to the performance and/or the value thereof at any time (past, present or future). The JPMorgan Group retains the right to change the Reference Portfolio Rules in accordance with its provisions and such Reference Portfolio Rules may change at any time.

No entity in the JPMorgan Group (whether as a result of negligence or for any other reason) shall be liable to any investor or holder of the Securities for any error or omission in the calculation of the Reference Portfolio or be under any obligation to advise any person of any error therein or to guarantee the performance and/or value of the Reference Portfolio.

Potential Conflicts of Interest

In the normal course of business, the Issuer, JPMS plc and/or their affiliates and/or its or their directors, officers

and employees may have, or may have had, interests or positions, or may buy, sell or otherwise trade positions, in or relating to the Reference Portfolio and/or the constituents thereof, or may have invested, or may engage in transactions with others relating to any of these items. Such activity may, or may not, affect the value of the Securities, but potential investors should be aware that a conflict may arise.

In addition, on, prior to or after the Issue Date, the Issuer, JPMS plc or any of their affiliates or others may hedge their anticipated exposure with respect to the Securities by taking positions in any underlying asset, or in any investment that is a component of or an investment in or relating to the Reference Portfolio.

The Calculation Agent under the Securities, JPMS plc, has various broad discretionary powers in connection with certain determinations and valuations in respect of the Securities, exercise of any of which could have the effect of reducing the returns on the Securities to the Holders thereof.

Potential investors in the Securities should be aware that any entity within the JPMorgan Group is or may be, in respect of constituents of the Reference Portfolio, and/or the constituents thereof, comprising the hypothetical portfolio on which the performance of the Securities is based, engaged in trading, brokerage and financing activities, as well as providing investment banking and financial advisory services. Accordingly, any entity within the JPMorgan Group may at any time hold long or short positions, and may trade or otherwise effect transactions, for its own account or the accounts of its customers.

The Calculation Agent under the Securities, JPMS plc, is also the Portfolio Sponsor in respect of the Reference Portfolio, the performance of which will determine the Redemption Amount payable in respect of the Securities. JPMS plc has various broad discretionary powers in connection with (i) certain determinations and valuations in respect of the Securities and the composition and calculation of the level of the Reference Portfolio, and (ii) the calculation of the return and other determinations in respect of the Reference Portfolio, exercise of any of which could have the effect of reducing the returns on the Securities to the Holders thereof. In particular, upon the occurrence of certain events which have an impact on the constituents of the Reference Portfolio (namely, disruption events or other events affecting the constituents of the Reference Portfolio), the Calculation Agent may exercise discretion in adjusting the calculation of the value of the Reference Portfolio or of any affected constituents. In view of this dual role, JPMS plc is subject to potential conflicts of interest.

It should be noted that the Reference Portfolio has been developed with the possibility of the Portfolio Sponsor or any entity in the JPMorgan Group issuing, entering into, promoting, offering or selling transactions or investments (structured or otherwise) linked, in whole or in part, to the Reference Portfolio and hedging such transactions or investments in any manner that they see fit. Accordingly it should be assumed that the Reference Portfolio Rules will be analysed from this point of view.

ANNEX C
REFERENCE PORTFOLIO RULES

REFERENCE PORTFOLIO RULES

1 REFERENCE PORTFOLIO RULES

This document comprises the Reference Portfolio Rules for the Reference Portfolio.

Terms used in these Reference Portfolio Rules shall have the meanings given to them in Annex 1 (*General Definitions*) as supplemented by the definitions set out in each Reference Instrument Module and the Reference Cash Balances Module.

2 KEY ELECTIONS

Reference Portfolio Name/Identifier:	<i>LGT Reference Portfolio 2018 – 1</i>
JPMorgan:	J.P. Morgan Securities plc
Reference Portfolio Allocator:	LGT Capital Partners AG
Reference Instrument Type(s):	(i) Derivatives (ii) FX Forwards
Base Currency:	EUR
Permitted Currencies:	Base Currency and USD
Business Day:	New York, London, TARGET2 and Switzerland
Valuation Time:	5.00 p.m. London time
Start Date:	8 June 2018
Modification Cut-Off Date:	As defined in the Linked Financial Product
Modification Cut-Off Time:	Reference Instrument Modification Requests: 4.00 p.m. London time Spot FX Requests: 5.00 p.m. London time
Confirmation Cut-Off Time:	5.30 p.m. London time
Modification Fee:	Variable: in respect of each Reference Instrument Type, as specified as a Modification Fee Amount in Paragraph 2 of the Reference Instrument Module relating to such Reference Instrument Type
Platform Fee:	Variable: in respect of each Reference Instrument Type, as specified in Annex 1: General Definitions

3 REFERENCE PORTFOLIO

The “Reference Portfolio” consists of:

- (i) the **"Reference Instruments Portfolio"**, being a hypothetical portfolio of notional investments and/or positions of the Reference Instrument Types specified in Section 2 and as more fully described in Section 5; and
- (ii) a **"Reference Cash Balance"** in respect of each Permitted Currency specified in Section 2, being a hypothetical cash balance relating to a notional amount of cash as more fully described in Section 6.

Reference Portfolio Modifications: Subject to compliance with the Reference Portfolio Criteria and Reference Portfolio Limits, the Reference Portfolio Allocator may request the addition, increase, removal or unwind of one or more Reference Instruments in the Reference Instruments Portfolio and transfers between Reference Cash Balances in accordance with the terms and procedures for modification of the Reference Portfolio described in Section 8.

4 REFERENCE PORTFOLIO VALUE

The **"Reference Portfolio Value"** shall be determined by JPMorgan as of the Valuation Time (and may be determined by JPMorgan at any other time) on each Business Day in the Modification Period in accordance with the following formula:

Reference Portfolio Value = Reference Instruments Portfolio Value + Reference Cash Balance Value.

Where:

"Reference Instruments Portfolio Value" means the sum of each Reference Instruments Sub-Portfolio Value expressed in the Base Currency; and

"Reference Cash Balance Value" means the sum of each Reference Cash Balance expressed in the Base Currency.

5 REFERENCE INSTRUMENTS PORTFOLIO

The Reference Instruments Portfolio shall consist of a hypothetical portfolio of notional investments and/or positions in certain Underlying Reference Instruments divided into Reference Instruments Sub-Portfolios with one sub-portfolio for each Reference Instrument Type specified in Section 2. For each Reference Instruments Type, specific elections, terms, provisions, rules and criteria relating to it are set out in the relevant Reference Instrument Module.

The notional investments and/or positions in Reference Instruments constituting the Reference Instruments Portfolio are for reference only and do not constitute real or actual investments, transactions and/or positions that are owned by, or entered into, any investor in any Linked Financial Product or by the Reference Portfolio Allocator.

On the Start Date, the Reference Instruments Portfolio shall be notionally comprised of the Initial Reference Instruments (if any) specified in the applicable Reference Instruments Module as substituted, added to, increased, removed or unwound (as applicable) in accordance with the terms and procedures set out in Section 8.

6 REFERENCE CASH BALANCES

Each Reference Cash Balance is a hypothetical cash balance relating to a notional amount of cash denominated in a Permitted Currency specified in Section 2. The notional amounts

of cash constituting each Reference Cash Balance are for reference only and do not constitute real or actual holdings of cash and/or accounts that are owned by any investor in any Linked Financial Product or by the Reference Portfolio Allocator.

On the Start Date, the Reference Cash Balance for each Permitted Currency shall be the Initial Reference Cash Balance specified in the Reference Cash Balances Module. Each Reference Cash Balance shall then be modified as provided in the Reference Cash Balance Module.

7 REFERENCE PORTFOLIO FEES

The following notional fees shall be deducted from the applicable Reference Cash Balance on the relevant Business Day, subject to the more detailed provisions set out in the Reference Cash Balance Module:

- (i) the Daily Platform Fee Amounts from the Base Currency Cash Balance for services provided by JPMorgan; and
- (ii) the Modification Fees in a Permitted Currency from the applicable Reference Cash Balance for each modification to the Reference Instruments Portfolio made by the Reference Portfolio Allocator that incurs a Modification Fee.

8 REFERENCE PORTFOLIO MODIFICATIONS

The Reference Portfolio Allocator may, subject to the Reference Portfolio Criteria and Reference Portfolio Limits, request modifications to the Reference Portfolio by submitting Modification Requests to JPMorgan on any Business Day in the Modification Period up to and including the Modification Cut-Off Time.

Within two hours following receipt of a Modification Request, JPMorgan may, in the case of a requested Reference Instrument Addition, and shall, in the case of a requested Reference Instrument Removal or Spot FX Request, provide the Reference Portfolio Allocator with a Modification Amount(s) in respect of the Modification Request, specifying a period of time within which the Reference Portfolio Allocator may elect to proceed with the relevant Reference Portfolio Modification.

During such acceptance period the Reference Portfolio Allocator may elect to proceed with the Reference Portfolio Modification by notifying JPMorgan of its acceptance of the Modification Amount(s). If no acceptance period has been specified, the Reference Portfolio Allocator may accept a Modification Amount subject to JPMorgan's confirmation that the Modification Amount has not changed.

Following acceptance of the Modification Amount(s) relating to a Modification Request by the Reference Portfolio Allocator:

- (i) the Reference Instruments Portfolio and/or Reference Cash Balance(s) shall be adjusted to reflect the Reference Portfolio Modification and Modification Fees (if any) on the same Business Day; and
- (ii) the Reference Portfolio Allocator shall by no later than the Confirmation Cut-Off Time on the same Business Day, submit one or more duly completed Modification Recap Notices to JPMorgan indicating the terms of each Reference Portfolio Modification, as well as any additional information that JPMorgan may require,

provided that if a Modification Failure Event occurs on or prior to the Confirmation Cut-off Time, JPMorgan may, in its sole discretion, determine not to adjust the Reference Portfolio and the relevant Reference Cash Balance(s) in respect of those Modification Requests for which a Modification Failure Event has occurred.

9 REFERENCE PORTFOLIO LIMITS

The Reference Portfolio Allocator shall ensure that the Reference Portfolio complies with the Reference Portfolio Limits at all times.

If, on any day, a Reference Portfolio Limits Breach occurs, the Reference Portfolio Allocator shall take such action as is available to it under Section 8 and the terms of the Linked Financial Products to remedy such breach during the Cure Period.

If, on or after the expiry of the Cure Period, JPMorgan in its sole discretion determines that an Uncured Reference Portfolio Limits Breach has occurred, JPMorgan shall notify the Reference Portfolio Allocator of the occurrence of such Uncured Reference Portfolio Limits Breach. The Uncured Reference Portfolio Limits Breach shall have the consequences set out in the terms of the Linked Financial Products.

Deduction of fees will be made notwithstanding whether any such deduction causes a Reference Portfolio Limits Breach. Any Reference Portfolio Limits Breach resulting from the deduction of fees shall be subject to this Section 9.

10 FINAL REMOVAL PERIOD

During the Final Removal Period, the Reference Portfolio Allocator shall, subject to Section 11, (i) request Reference Instrument Removals in respect of each Underlying Reference Instrument in the Reference Portfolio and (ii) submit such Spot FX Requests as may be required to result in each Non-Base Currency Cash Balance having a value of zero (0).

At the Modification Cut-Off Time on the Modification Cut-Off Date the Reference Portfolio Allocator shall be deemed to have made the requests described in the preceding paragraph in respect of any outstanding Underlying Reference Instruments and/or Non-Base Currency Cash Balances as at such time, and shall be deemed to have accepted the corresponding Modification Amounts.

If, on the Modification Cut-off Date, a Removal Disruption Event occurs or is continuing in respect of an Affected Underlying Reference Instrument, JPMorgan shall as of such day:

- (i) attribute, or continue to attribute, each such Affected Underlying Reference Instrument with a zero value until, in each case, the Extension End Date;
- (ii) from, but excluding, the Modification Cut-Off Date, calculate each Reference Cash Balance on the basis that such Reference Cash Balance shall be an Extension Reference Cash Balance; and
- (iii) permit the Reference Portfolio Allocator to continue to request:
 - (a) Reference Instrument Removals in respect of each Underlying Reference Instrument in the Reference Portfolio that is an Affected Underlying Reference Instrument; and
 - (b) Spot FX Requests that debit Non-Base Currency Cash Balances with a corresponding credit to the Base Currency Cash Balance,

where, for such purposes, references in the rules to the 'Modification Cut-Off Date' shall be to the 'Extension End Date'.

11 REFERENCE EXPOSURE EVENT

Upon the occurrence of a Reference Exposure Event, JPMorgan has the right but not the obligation to send to the Reference Portfolio Allocator a Designation Notice in respect of each Designated Underlying.

Following receipt of a Designation Notice, the Reference Portfolio Allocator shall, during the Designated Removal Period, remove any Designated Underlying from the Reference Portfolio in accordance with Reference Portfolio Modification in Section 8.

Following the expiry of the Designated Removal Period, JPMorgan may, subject to Section 11, remove any Designated Underlying from the Reference Portfolio and adjust the applicable Reference Cash Balance by the Designated Underlying Removal Amount.

12 REMOVAL DISRUPTION EVENT

If JPMorgan determines that a Removal Disruption Event has occurred and is continuing, JPMorgan may:

- (i) suspend the ability of the Reference Portfolio Allocator to effect a Reference Instrument Removal in respect of an Affected Underlying Reference Instrument; and/or
- (ii) attribute such Affected Underlying Reference Instrument with a zero (0) value until, in each case, such time as JPMorgan determines that such Removal Disruption Event is no longer continuing in respect of such Affected Underlying Reference Instrument.

13 CONFIRMATION OF COMPOSITION AND VALUES

JPMorgan shall, by 12 noon (London time) on each Business Day from, and including, the Start Date to, and including, the End Date, inform the Reference Portfolio Allocator of each Reference Portfolio Component as at the Valuation Time on the immediately preceding Business Day.

By 2.00 p.m. (London time) on such Business Day, the Reference Portfolio Allocator may inform JPMorgan that it disagrees with a Reference Portfolio Component as determined by JPMorgan, detailing the basis of such disagreement (including, but not limited to, the provision of relevant Approved Dealer Firm Prices in respect of relevant Underlying Reference Instruments).

If the Reference Portfolio Allocator informs JPMorgan that it disagrees with a Reference Portfolio Component in accordance with the above, the Reference Portfolio Allocator and JPMorgan will attempt to resolve the disagreement. While any attempt to resolve a disagreement is continuing, JPMorgan shall continue to inform the Reference Portfolio Allocator of the Reference Portfolio Components in accordance with the above paragraph and, until the disagreement is resolved, the Reference Portfolio Components most recently communicated to the Reference Portfolio Allocator shall apply for the purposes of calculations and determinations in respect of the Reference Portfolio.

If the Reference Portfolio Allocator does not, in accordance with the above, inform JPMorgan that it disagrees, the Reference Portfolio Allocator shall be deemed to agree

with the Reference Portfolio Components and each shall apply for the purposes of calculations and determinations in respect of the Reference Portfolio.

14 CALCULATION OF AMOUNTS IN THE BASE CURRENCY

If any Non-Base Currency amount is specified in these Reference Portfolio Rules to be expressed in the Base Currency, it shall be so expressed as a Base Currency Equivalent by JPMorgan.

15 CERTAIN GENERAL TERMS RELATING TO THE REFERENCE PORTFOLIO

- 15.1 **Amendments:** The Reference Portfolio Rules, including the Reference Portfolio Limits, may be amended from time to time at the sole discretion of JPMorgan and will be re-published (in a manner determined by JPMorgan from time to time); provided that JPMorgan shall use reasonable endeavours to notify the Reference Portfolio Allocator by any Permitted Mode of Communication of any amendments to be made by JPMorgan to the Reference Portfolio Rules at least five (5) Business Days prior to the date when JPMorgan intends such amendments to take effect; and provided further that, without limiting the obligation of JPMorgan so notify the Reference Portfolio Allocator as set forth in this Section 15.1 above, failure by JPMorgan to so notify the Reference Portfolio Allocator shall not affect the validity of any amendments made by JPMorgan to the Reference Portfolio Rules as of the date when such amendments are made.

Although the Reference Portfolio Rules are intended to be comprehensive, ambiguities may arise. If so, JPMorgan will resolve such ambiguities, acting in good faith and in a commercially reasonable manner, and, if necessary, amend the Reference Portfolio Rules to reflect such resolution.

In addition, in the event that JPMorgan identifies an error or omission in the Reference Portfolio Rules or any of its calculations or determinations, JPMorgan may, if practicable and it considers such correction material, adjust or correct the Reference Portfolio Rules or any level or variable in respect of the Reference Portfolio in such manner as it determines appropriate to correct such error or omission.

- 15.2 **eMT Website:** Where any provision of the Reference Portfolio Rules which relates to the eMT Website (including, without limitation, communication through use of the eMT Website) conflicts or is inconsistent with the terms of any access agreement entered into by the Reference Portfolio Allocator in respect of its use of the eMT Website then the Reference Portfolio Rules shall prevail.

- 15.3 **No Offer of Securities:** The Reference Portfolio Rules do not constitute investment, taxation, legal, accounting or other advice within the meaning of Article 53 of the Financial Services and Markets Act 2000 (Regulated Activities) Order 2001 or Article 4(4) of the Markets in Financial Instruments Directive 2004/39/EC.

The Reference Portfolio Rules neither constitute an offer to purchase or sell securities nor specific advice of whatever form (tax, legal, accounting or regulatory) in respect of any investment strategy or investment that may be linked to the Reference Portfolio.

- 15.4 **Reference Nature of Reference Portfolio:** The Reference Portfolio references a 'notional' exposure to various Reference Instruments and Reference Cash Balances. There is no actual portfolio of underlying constituents, assets or cash to which any person is entitled or in which any person has any ownership interest. The Reference Portfolio merely references hypothetical investments or positions entered into in respect of Reference

Instruments and any hypothetical cash account as a reference point for the purposes of calculating the Reference Portfolio Value.

15.5 JPMorgan: JPMorgan is responsible, amongst other things, for:

- (i) establishing and maintaining the Reference Portfolio Rules;
- (ii) performing the calculations set out in these Reference Portfolio Rules; and
- (iii) any actions specified to be performed by JPMorgan in each Reference Instrument Module and the Reference Cash Module.

15.6 Effect of Determinations: The exercise of (or failure to exercise) JPMorgan's or the Reference Portfolio Allocator's sole discretion in relation to the Reference Portfolio may have a detrimental effect on the Reference Portfolio Value and/or Reference Cash Balance Value and/or the volatility of the Reference Portfolio Value and/or Reference Cash Balance Value.

JPMorgan may make certain calculations based on information obtained from publicly available sources without independently verifying such sources and accepts no responsibility or liability for loss or damage in respect thereof.

All determinations, interpretations and calculations of JPMorgan relating to the Reference Portfolio shall be final, conclusive and binding and no person shall be entitled to make any claim against JPMorgan or any of its affiliates, subsidiaries, directors, officers, employees, representatives, delegates or agents in respect thereof. None of JPMorgan or any of its affiliates, subsidiaries, directors, officers, employees, representatives, delegates or agents shall:

- (i) be under any obligation to revise any determination, interpretation or calculation made or action taken for any reason in connection with the Reference Portfolio or the Reference Portfolio Rules; or
- (ii) have any responsibility to any person for any determination, interpretation or calculation made or anything done (or omitted to be done) (whether as a result of negligence or otherwise) in respect of the Reference Portfolio or in respect of any use to which any person may put the Reference Portfolio or any element thereof.

15.7 Reference Portfolio Allocator: The Reference Portfolio Allocator shall determine the composition of the Reference Portfolio from time to time pursuant to a Reference Portfolio Allocation Deed.

The Reference Portfolio Allocator will be responsible for:

- (i) determining composition of the Reference Instruments Portfolio in accordance with these Reference Portfolio Rules; and
- (ii) negotiating and agreeing the terms of each Underlying Reference Instrument and exercising rights in respect of such Underlying Reference Instrument as if it were the holder or counterparty of such Underlying Reference Instrument.

15.8 Force Majeure: Where JPMorgan determines that as a result of market disruption, force majeure, systems failure or any other event of an analogous nature, JPMorgan or any delegate of it is unable to perform its obligations under these Reference Portfolio Rules or that any action permitted to be taken by JPMorgan under these Reference Portfolio Rules cannot be taken, JPMorgan shall notify the Reference Portfolio Allocator via a Permitted Mode of Communication as soon as is practicable and JPMorgan's right to take any such

action, or the obligation upon JPMorgan, as applicable, shall be suspended until JPMorgan acting in a commercially reasonable manner determines that such event has ceased.

15.9 Cancellation: JPMorgan may, at any time, cancel the calculation of the Reference Portfolio. Without limiting the unfettered discretion of JPMorgan to cancel the calculation of the Reference Portfolio at any time, in the event that:

- (i) the Reference Portfolio Allocation Deed is terminated; and/or
- (ii) any other event (including, but not limited to, any change in law, regulation or market practice) occurs that, in the determination of JPMorgan, has or will have a detrimental effect on the ability of, or cost to, JPMorgan or any of its affiliates to calculate the Reference Portfolio or provide exposure to the Reference Portfolio,

JPMorgan may cancel the calculation of the Reference Portfolio (at such time as it determines) and/or make such other adjustments to the Reference Portfolio Rules or the calculation and determination of the Reference Portfolio as it considers appropriate, provided that JPMorgan shall use reasonable endeavours to notify the Reference Portfolio Allocator by any Permitted Mode of Communication of such cancellation or adjustments (as applicable) at least five (5) Business Days prior to the date when JPMorgan intends such cancellation or adjustments (as applicable) to take effect; and provided further that, without limiting the obligation of JPMorgan so notify the Reference Portfolio Allocator as set forth in this Section 15.9 above, failure by JPMorgan to so notify the Reference Portfolio Allocator shall not affect the validity of such cancellation or adjustments (as applicable) as of the date when such cancellation or adjustments (as applicable) are made.

15.10 Communications: Each communication, document or notice required to be made under these Reference Portfolio Rules may be made by a Permitted Mode of Communication.

15.11 Interpretation: For the purposes of these Reference Portfolio Rules:

- (i) the singular includes the plural and the plural includes the singular;
- (ii) terms used but not defined in these Reference Portfolio Rules (including any Annexes) shall have the meaning given to them in the 2006 ISDA Definitions as published by ISDA interpreted as necessary to give effect to the provisions of these Reference Portfolio Rules;
- (iii) for the purpose of construction of any definition set out in these Reference Portfolio Rules that refers to an election specified in Section 2 of these rules, the meaning of such term shall be interpreted in relation to the information specified in such election and may, for the avoidance of doubt, refer further to other elections specified in the relevant Reference Instrument Module or the Reference Cash Balance Module; and
- (iv) for the purpose of construction of any definition set out in these Reference Portfolio Rules that refers to an election specified in a Reference Instrument Module or the Reference Cash Balance Module, the meaning of such term shall be the as specified in such election and may, for the avoidance of doubt, refer further to terms defined in the relevant Paragraph of definitions set out in the relevant Reference Instrument Module or the Reference Cash Balance Module within which such elections are made.

15.12 Disclaimer: Neither JPMorgan nor any of its affiliates, subsidiaries, directors, officers, employees, representatives, delegates or agents is under any obligation to the Reference

Portfolio Allocator or any third party to monitor compliance with the Reference Portfolio Rules, Reference Portfolio Criteria or the Reference Portfolio Limits nor to take any action to enforce compliance with the Reference Portfolio Criteria or the Reference Portfolio Limits. The obligation on the Reference Portfolio Allocator to comply with the Reference Portfolio Criteria and the Reference Portfolio Limits is not conditional upon the receipt by the Reference Portfolio Allocator of any information or calculations from JPMorgan or any of its affiliates, subsidiaries, directors, officers, employees, representatives, delegates or agents.

In determining whether any breach of the Reference Portfolio Limits has been remedied, JPMorgan shall be under no obligation to consider the interests of the Reference Portfolio Allocator or any third party.

When making any determination, calculation or exercising any discretion in accordance with these Reference Portfolio Rules including, without limitation, in determining whether any relevant event has occurred, election is to be made or notice is to be given and, in each case, as applicable, subsequently, in respect of any action that may be or is taken and/or omitted to be taken in relation thereto JPMorgan shall be under no obligation to: (i) consider the interests of the Reference Portfolio Allocator or any third party; (ii) monitor whether any determination, calculation or election is to be made, or a notice to be given, by any party in any capacity; (iii) notify the Reference Portfolio Allocator or any third party of the same; and (ii) in so determining, calculating or exercising its discretion, JPMorgan shall not be providing investment advice to any investor or potential investor on the merits of such investor buying, selling or gaining exposure to any Reference Instrument relating to the Reference Portfolio including any Reference Instrument which may be the subject of any Modification Request, determination, calculation, election, or notice under these Reference Portfolio Rules.

15.13 **Version(s):** The following table sets out the version(s) of the Reference Portfolio Rules.

Version	Date	Amendment
1.0	8 June 2018	Not Applicable (First Release)

ANNEX 1

GENERAL DEFINITIONS

In respect of the Reference Portfolio, the terms defined below shall have the following meanings in the Reference Portfolio Rules:

"Affected Underlying Reference Instrument" means, in respect of any Underlying Reference Instrument on at any relevant time, a Removal Disruption Event occurs or is continuing in respect of such Underlying Reference Instrument.

"Approved Dealer" means the dealers specified as such in Paragraph 2 of the relevant Reference Instrument Module set out in Annex 3.

"Approved Dealer Firm Price" means the price specified as such in Paragraph 2 of the relevant Reference Instrument Module set out in Annex 3.

"Base Currency" means the currency specified as such in Section 2.

"Base Currency Cash Balance" means the Reference Cash Balance denominated in the Base Currency.

"Base Currency Equivalent" means, in respect of an amount of currency not denominated in the Base Currency, the equivalent of such amount converted into an amount denominated in the Base Currency at an appropriate spot rate as determined by JPMorgan in good faith and a commercially reasonable manner for the purpose solely of the relevant calculation.

"Business Day" means a day on which:

- (i) commercial banks are open for general business (including dealings in foreign exchange and foreign currency deposits) in the location specified in Section 2 (if any); and/or
- (ii) if "TARGET2" is specified in Section 2, that is also a day on which TARGET2 (the Trans-European Automated Real-time Cross Settlement Express Transfer system) is open for the settlement of payments in EUR.

"Confirmation Cut-Off Time" means the time specified as such in Section 2.

"Cure Period" means, in respect of a Reference Portfolio Limits Breach, the period ending two hours following notification by JPMorgan to the Reference Portfolio Allocator of the occurrence of the Reference Portfolio Limits Breach or, if such notification is given after 4.00 p.m. (London time) on any Business Day, the period ending at 10.00 a.m. (London time) on the following Business Day.

"Daily Platform Fee Amount" means, in respect of each day, an amount expressed in the Base Currency equal to the sum of the Individual Platform Fee Amounts, where **"Individual Platform Fee Amount"** means, in respect of each Underlying Reference Instrument Type in the table below, the product of:

- (i) the portion of the gross notional amount of such Underlying Reference Instrument Type applicable to each Spread;
- (ii) the applicable Spread; and
- (iii) $1/365$

Underlying Reference Instrument Type	Spread (per cent.)	
	Reference Instrument Modification Amount was not derived from Approved Dealer Firm Price	Reference Instrument Modification Amount was derived from Approved Dealer Firm Price
IG Untranch Reference Instruments	0.06	0.09
HY Untranch Reference Instruments	0.12	0.18
Tranch Reference Instruments (equity tranche)	0.24	0.36
Tranch Reference Instruments (mezzanine or senior tranche) with Trading Spread => 2 per cent.	0.12	0.18
Tranch Reference Instruments (mezzanine or senior tranche) with Trading Spread < 2 per cent.	0.06	0.09
Interest Rate Swaps	0.02	N/A
FX Forwards	0.02	0.02

“Designated Removal Period” means the period from the time of occurrence of a Reference Exposure Event to the Modification Cut-Off Time on the day falling two (2) Business Days following the occurrence of such Reference Exposure Event.

“Designated Underlying” has the meaning given to it in the definition of Reference Exposure Event.

“Designated Underlying Removal Amount” means the Reference Instrument Modification Amount determined in accordance with the Reference Portfolio Modification at 4.00 p.m. (London time) on the Removal Cut-Off Date.

“Designation Notice” means, in respect of any Reference Exposure Event, the designation by JPMorgan of one or more Underlying Reference Instruments by notice via a Permitted Mode of Communication to the Reference Portfolio Allocator.

“Eligible Reference Instrument” means any Reference Instrument that satisfies the Reference Portfolio Criteria in respect of each Reference Instrument Type specified in Section 2.

“eMT Website” means the eMT web interface of JPMorgan allowing the exchange and storage of information relating to Reference Portfolio Modifications, or any successor thereto.

“End Date” means the latter of (i) the Modification Cut-Off Date or (ii) the Extension End Date, as applicable.

"Extension End Date" means, in respect of a Removal Disruption Event, the date and time that such Removal Disruption Event is no longer continuing in respect of any Affected Underlying Reference Instrument as determined by JPMorgan provided that such date shall not exceed 90 days from the Modification Cut-Off Date.

"Extension Reference Cash Balance" means each Reference Cash Balance as determined by JPMorgan in accordance with the terms of Section 6 provided that all calculations and determinations relating thereto shall be deemed to be in respect of the date from, but excluding, the Modification Cut-Off Date.

"Final Removal Period" means, other than following a Reference Portfolio Allocator Termination Event or a Portfolio Limits Breach Early Redemption Event, the period commencing five (5) Business Days prior to the Modification Cut-Off Date and ending on, and including, the Modification Cut-Off Date.

"HY Untranching Reference Instrument" means,

- (i) a Single Name Credit Default Swap that is not an Investment Grade Reference Instrument;
- (ii) an untranching Index Credit Default Swap, untranching Index Total Return Swap or Index Swaption in respect of which the CDS Reference Index or TRS Reference Index, as applicable, is one of the following:
 - (a) Markit iTraxx Europe Subordinated Financial index;
 - (b) Markit iTraxx Europe Crossover index;
 - (c) Markit CDX North America High Yield index;
 - (d) Markit CDX Emerging Markets index;
 - (e) Markit iBoxx EUR Liquid High Yield Index;
 - (f) Markit iBoxx USD Liquid High Yield Index;
 - (g) Markit iBoxx USD Liquid Leveraged Loan Total Return Index; or
 - (h) any other indices or sub-indices as is customarily identified as high yield or subordinated by market practice.

"Individual Platform Fee Amount" has the meaning given to it in the definition of Daily Platform Fee Amount.

"Initial Reference Instruments" means collectively, in respect of each Reference Instrument Type specified in Section 2, the instruments specified as the "Initial Reference Instruments Sub-Portfolio" in Paragraph 2 of the relevant Reference Instruments Module relating to such Reference Instruments Type.

"IG Untranching Reference Instrument" means,

- (i) a Single Name Credit Default Swap in respect of which the Reference Entity is rated by at least one of Moody's, S&P, and Fitch, and is rated Baa3 or higher if rated by Moody's, BBB- or higher if rated by S&P and BBB- or higher if rated by Fitch;
- (ii) an untranching Index Credit Default Swap, untranching Index Total Return Swap or Index Swaption in respect of which the CDS Reference Index or TRS Reference Index, as applicable, is one of the following:
 - (a) Markit iTraxx Europe Main index;

- (b) Markit iTraxx Europe Senior Financial index;
- (d) Markit CDX North America Investment Grade index;
- (d) Markit iBoxx EUR Corporates Overall Total Return index;
- (e) Markit iBoxx USD Liquid Investment Grade Index; or
- (f) any other indices or sub-indices as is customarily identified as investment grade or senior by market practice.

"ISDA" means the International Swaps and Derivatives Association, Inc.

"JPMorgan" means the entity specified as such in Section 2.

"Linked Financial Product" means any Linked Securities or Linked OTC Products or other financial products issued or entered into the payments on which are linked (directly or indirectly) to the Reference Portfolio (in whole or in part).

"Linked OTC Product" means any over-the-counter derivatives transactions with payments linked to the Reference Portfolio.

"Linked Securities" means any securities issued with payments linked to the Reference Portfolio.

"Modification Amount" means the sum of all Reference Instrument Modification Amounts and Reference Cash Balance Modification Amounts denominated in the same Permitted Currency and relating to a single Modification Request.

"Modification Cut-Off Date" means the date specified as such in Section 2.

"Modification Cut-Off Time" means the time specified as such in Section 2.

"Modification Failure Event" means:

- (i) JPMorgan has not received the required Modification Recap Notice and required accompanying information on or before the Confirmation Cut-Off Time on the relevant Business Day;
- (ii) in respect of a Modification Amount that is derived from an Approved Dealer Firm Price:
 - (a) JPMorgan determines, acting in good faith, that it would be impossible, impracticable, illegal or not permitted due to internal controls or limits for JPMorgan to execute a transaction to implement the removal, unwind, addition or increase (in whole or in part) of any Eligible Reference Instrument or any Underlying Reference Instrument, as applicable, for any reason (including, without limitation, due to any law, regulation, or court order, any failure of the relevant clearing system, the nature, status or credit quality of the relevant Approved Dealer (in respect of a Modification Amount), or any transfer restriction on the relevant Eligible Reference Instrument or Underlying Reference Instrument, as applicable); and/or
 - (b) JPMorgan is not satisfied, acting reasonably, that JPMorgan could execute a transaction to implement the removal, unwind, addition or increase (in whole or in part) of any Eligible Reference Instrument or any Underlying Reference Instrument, as applicable, with the relevant Approved Dealer with the same economic terms as referenced in the relevant Modification Request and related acceptance, or there is a discrepancy between the details of the acceptance and the Modification Recap Notice and required accompanying information,

- (iii) in respect of a Permitted Currency, immediately prior to delivery of the relevant Modification Request,
 - (a) the Potential Aggregate Permitted Currency Daily Modification Amount is negative; and
 - (b) such negative Potential Aggregate Permitted Currency Daily Modification Amount when added to the then prevailing Reference Cash Balance denominated in such Permitted Currency results in an amount less than the relevant Reference Cash Balance Limit for that Permitted Currency; or
- (iv) the occurrence of an Additional Modification Failure Event as set out in the applicable Reference Instruments Module.

"Modification Fee" means the fee specified in Section 2.

"Modification Period" means the period from, and including, the Start Date to, and including, the End Date.

"Modification Recap Notice" means the form of transaction confirmation notice specified as such in Paragraph 2 of the relevant Reference Instrument Module set out in Annex 3.

"Modification Request" means Reference Instrument Modification Request or a Spot FX Request, as applicable.

"Non-Base Currency" means any of the Permitted Currencies other than the Base Currency, if any.

"Non-Base Currency Cash Balance" means, in respect of each Non-Base Currency, a Reference Cash Balance denominated in such Non-Base Currency.

"Partial Reduction Amounts" means, in respect of any relevant time, all amounts paid prior to such time in accordance with the terms of the relevant Linked Financial Product in the form of:

- (i) an Linked OTC Product, relating to any reduction of the notional amount of such Linked OTC Product howsoever described including (without limitation) any partial early termination or unwind or by the exercise of rights in accordance with such terms; or
- (ii) a Linked Security, relating to:
 - (c) any partial redemption of principal of such Linked Security; and
 - (d) any Theoretical Cancellation Amounts of such Linked Security,

in each case, expressed in the Base Currency as a Base Currency Equivalent.

"Permitted Currency" means the currency, or each of the currencies, specified as such in Section 2.

"Permitted Mode of Communication" means by:

- (i) in respect of:
 - (a) a Modification Request, any provision of a Modification Amount and any corresponding acknowledgment thereto;
 - (b) any acceptance and corresponding acknowledgment;
 - (c) any Designation Notice and corresponding acknowledgment;
 - (d) any Modification Recap Notice;

- (e) any Derivative Election (as defined in the Reference Instruments Module) and corresponding acknowledgment; or
- (f) any notice in respect of a removal of an Approved Dealer, submission via the eMT website or other such website or method of communication (including e-mail, telephone or Bloomberg chat) as may be agreed between JPMorgan and the Reference Portfolio Allocator from time to time;
- (ii) otherwise, e-mail (sent to such e-mail addresses as may be agreed between JPMorgan and the Reference Portfolio Allocator from time to time); and
- (iii) such other methods as may be agreed in writing between JPMorgan and the Reference Portfolio Allocator from time to time.

"Portfolio Limits Breach Early Redemption Event" has the meaning given to it in the terms of the Linked Securities.

"Potential Aggregate Permitted Currency Daily Modification Amount" means, in respect of a Permitted Currency and any Modification Request at any relevant time on any Business Day, the sum of:

- (i) each Reference Instrument Modification Amount relating to such Modification Request (if any);
- (ii) each Reference Cash Balance Modification Amount relating to such Modification Request (if any);
- (iii) (a) any prior outstanding Reference Instrument Modification Amount and/or Reference Cash Balance Modification Amount which is capable of acceptance by JPMorgan and in respect of which the decision of whether JPMorgan is to accept such amount is pending and (b) any prior accepted Reference Instrument Modification Amount and/or Reference Cash Balance Modification Amount, in each case, in respect of any *other* Modification Request falling on the same date as the relevant Modification Request,

in each case (i), (ii) and (iii) above provided that all such amounts are denominated in the same Permitted Currency.

"Reference Cash Balance" has the meaning given to it in Section 3.

"Reference Cash Balance Limit" means each limit specified in Annex 2 - Portfolio Limits - relating to any Reference Cash Balance.

"Reference Cash Balance Modification Amount" has the meaning given to it in the Reference Cash Balances Module.

"Reference Cash Balance Module" means the Reference Cash Balance Module set out in Annex 3.

"Reference Cash Balance Value" has the meaning given to it in Section 4.

"Reference Exposure Event" means, in relation to an Underlying Reference Instrument, that JPMorgan, or any of its affiliates, subsidiaries, delegates or agents, would be obliged (whether by law, regulation, for tax purposes or otherwise, including in accordance with JPMorgan's internal guidelines and restrictions or as a result of any imposition of sanctions) not to hold such Underlying Reference Instrument or enter into transactions on the same or substantially the same terms as the relevant Underlying Reference Instrument (each, a **"Designated Underlying"**).

"Reference Instrument" means, in respect of each Reference Instrument Type specified in Section 2, any instrument of such Reference Instrument Type, including (as applicable) bonds, derivatives and foreign exchange transactions and any other asset or financial instrument or security, notional or otherwise.

"Reference Instrument Addition" means the addition or increase of one or more Eligible Reference Instruments to the Reference Portfolio in accordance with the procedure set out in Section 8.

"Reference Instrument Modification Amount" means as defined in the relevant Reference Instrument Module.

"Reference Instrument Modification Request" means a communication from the Reference Portfolio Allocator to JPMorgan specifying:

- (i) (a) the removal or unwind of an Underlying Reference Instrument (in whole or in part) or
(b) the addition of, or increase in, an Eligible Reference Instrument; and
- (ii) in each case, the notional amount to be removed, unwound, added or increased, as applicable.

"Reference Instrument Module" means each Reference Instrument Module set out in Annex 3.

"Reference Instrument Removal" means the removal or unwind of one or more Underlying Reference Instruments from the Reference Portfolio in accordance with the procedure set out in Section 8.

"Reference Instrument Type" means the type of Reference Instrument specified as such in Section 2.

"Reference Instruments Portfolio" has the meaning given to it in Section 3.

"Reference Instruments Portfolio Value" has the meaning given to it in Section 4.

"Reference Instruments Sub-Portfolio" means, in respect of each Reference Instrument Type specified in Section 2, the portfolio specified as the "Reference Instruments Sub-Portfolio" in Paragraph 2 of the relevant Annex relating to such Reference Instruments Type and collectively, in respect of all Reference Instrument Types, the **"Reference Instruments Sub-Portfolios"**).

"Reference Instruments Sub-Portfolio Value" means, in respect of each Reference Instruments Sub-Portfolio, the value specified as the "Reference Instruments Sub-Portfolio Value" in Paragraph 2 of the relevant Annex relating to the Reference Instruments Type of such Reference Instruments Sub-Portfolio.

"Reference Portfolio" has the meaning given to it in Section 3.

"Reference Portfolio Allocation Deed" means the deed entered into between JPMorgan and the Reference Portfolio Allocator relating to the Reference Portfolio.

"Reference Portfolio Allocator" means the entity specified as such in Section 2.

"Reference Portfolio Allocator Fee Letter" means the fee letter agreement entered into between JPMorgan and the Reference Portfolio Allocator relating to the Reference Portfolio.

"Reference Portfolio Allocator Termination Event" has the meaning given to it in the terms of the Linked Securities.

"Reference Portfolio Component" means the composition of the Reference Instruments Portfolio, the Reference Cash Balances, the Reference Portfolio Value and Reference Cash Balance Value.

"Reference Portfolio Criteria" means in respect of each Reference Instrument Type specified in Section 2, the limits specified as the "Reference Portfolio Criteria" in Paragraph 2 of the relevant Reference Instruments Module relating to such Reference Instruments Type.

"Reference Portfolio Modification" means any modification to the constituents of the Reference Instruments Portfolio and/or any Reference Cash Balance specified in a Modification Request.

"Reference Portfolio Rules" means the rules set out in this document.

"Reference Portfolio Value" has the meaning given to it in Section 4.

"Removal Cut-Off Date" means the day falling two (2) Business Days following the occurrence of a Reference Exposure Event.

"Removal Disruption" means, in respect of an Underlying Reference Instrument, that JPMorgan would not, were it to be the holder of such Underlying Reference Instrument or a party to a transaction entered into having equivalent (or equivalent equal and opposite) terms as the relevant Underlying Reference Instrument, be permitted (whether by law, regulation, for tax purposes or otherwise, including in accordance with JPMorgan's internal guidelines and restrictions or as a result of any imposition of sanctions) to sell, realise, unwind, transfer or otherwise dispose of such Underlying Reference Instrument.

"Removal Disruption Event" means, in respect of an Underlying Reference Instrument that is the subject of a proposed Reference Instrument Removal, such Underlying Reference Instrument is subject to a Removal Disruption.

"Sovereign" means any state, political subdivision or government, or any agency, instrumentality, ministry, department or other authority acting in a governmental capacity (including, without limiting the foregoing, the central bank) thereof.

"Spot FX Request" means a request to notionally transfer cash between any of the Non-Base Currency Cash Balances and the Base Currency Cash Balance by means of a Spot FX Transaction in accordance with Section 8.

"Start Date" means the date specified as such in Section 2.

"Theoretical Cancellation Amounts" means, in respect of any buy back and cancellation of Linked Securities, an amount (expressed in the Base Currency as a Base Currency Equivalent) in relation to the relevant cancelled Linked Security equal to (a) the Reference Portfolio Value immediately prior to such cancellation multiplied by (b) the proportion that such Linked Security bore to all Linked Securities immediately prior to such cancellation.

"Uncured Reference Portfolio Limits Breach" means, on or after the expiry of the Cure Period, that:

- (i) a Reference Portfolio Limits Breach has not been remedied (taking in account any relevant Additional Cash Injection Amounts (as defined in the Linked Securities) (if any) received prior to the expiry of the relevant Cure Period); and
- (ii) the Reference Portfolio Limits Breach is not attributable to a Removal Disruption Event, as determined by JPMorgan in its sole discretion.

"Trading Spread" means the spread hypothetically payable in respect of an Underlying Reference Instrument at the point at which such Underlying Reference Instrument was added to the Reference Portfolio.

"Tranched Reference Instrument" means a tranched Index Credit Default Swap

“Underlying Reference Instrument” means, at any relevant time, each notional investment or positions entered into in respect of a Reference Instrument notionally comprising all or part of the Reference Instruments Portfolio at such time.

“Valuation Time” means the time specified as such in Section 2.

ANNEX 2

REFERENCE PORTFOLIO LIMITS

1 Total Scenario Loss

Reference Portfolio Value must be greater than the Total Scenario Loss at all times.

2 Reference Derivatives Portfolio Limits

2.1 Long Reference Derivatives Portfolio Maximum Leverage

The aggregate notional amount of all Long positions in Underlying Derivatives that are Single Name Credit Default Swaps, Index Credit Default Swaps, Index Swaptions or Index Total Return Swaps (in each case, expressed in the Base Currency as a Base Currency Equivalent) must not be greater than 2 times the sum of the Aggregate Reference Notional Amount and the Aggregate Additional Cash Injection Amount.

2.2 Short Reference Derivatives Portfolio Maximum Leverage

The aggregate notional amount of all Short positions in Underlying Derivatives that are Single Name Credit Default Swaps, Index Credit Default Swaps, Index Swaptions or Index Total Return Swaps (in each case, expressed in the Base Currency as a Base Currency Equivalent) must not be greater than 10 times the sum of the Aggregate Reference Notional Amount and the Aggregate Additional Cash Injection Amount.

2.3 Long Single Name Credit Default Swaps

In respect of any Reference Entity, the aggregate notional amount of all Long positions of such Reference Entity in Underlying Derivatives that are Single Name Credit Default Swaps and are constituents of the Reference Portfolio at any given time (expressed in the Base Currency as a Base Currency Equivalent) must not be greater than 0.25 times the sum of the Aggregate Reference Notional Amount and the Aggregate Additional Cash Injection Amount.

2.4 Short Single Name Credit Default Swaps

In respect of any Reference Entity, the aggregate notional amount of all Short positions of such Reference Entity in Underlying Derivatives that are Single Name Credit Default Swaps (expressed in the Base Currency as a Base Currency Equivalent) must not be greater than 5 times the sum of the Aggregate Reference Notional Amount and the Aggregate Additional Cash Injection Amount.

2.5 Interest Rate Swaps Notional Limit

The aggregate notional amount of all Underlying Derivatives that are Interest Rate Swaps (expressed in the Base Currency as a Base Currency Equivalent) must not be greater than 2 times the sum of the Aggregate Reference Notional Amount and the Aggregate Additional Cash Injection Amounts.

3 Reference Cash Balance Limits

3.1 Base Currency Cash Balance Limit

In respect of the Base Currency Cash Balance, the absolute value of any negative balance for such Base Currency Cash Balance must not be greater than the sum of the Aggregate Reference Notional Amount and the Aggregate Additional Cash Injection Amount, subject

to the provisions of Section 9 in respect of the deduction of any Daily Platform Fee Amount and Partial Reduction Amount, as applicable.

3.2 Non-Base Currency Cash Balances Limits

In respect of each Non-Base Currency Cash Balance, the absolute value of any negative balance for such Non-Base Currency Cash Balance expressed in the Base Currency as a Base Currency Equivalent must not be greater than the sum of the Aggregate Reference Notional Amount and the Aggregate Additional Cash Injection Amounts.

4 Reference FX Forwards Portfolio Limit

The aggregate amount of all payments of any Permitted Currency of Party B under all Underlying FX Forwards that are constituents of the Reference FX Forwards Portfolio at any given time (in each case, expressed in the Base Currency as a Base Currency Equivalent) must not be greater than 1.25 times the sum of the Aggregate Reference Notional Amount and the Aggregate Additional Cash Injection Amounts.

5 Definitions

“Stress Limits Tests” means, on any day, the set of stress limits tests that have been most recently communicated to the Reference Portfolio Allocator by JPMorgan. The Stress Limits Tests are expected to take into account, inter alia, the “Reference Portfolio Value” in respect of the Reference Portfolio and the Total Scenario Loss from time to time.

“Total Scenario Loss” means in respect of each Business Day, the total scenario loss calculated in accordance with the Stress Limits Tests.

ANNEX 3
REFERENCE INSTRUMENTS MODULE

- 1 Reference Instrument Module – Derivatives**
- 2 Reference Instrument Module – FX Forwards**
- 3 Reference Cash Balance Module**

REFERENCE INSTRUMENT MODULE – DERIVATIVES

1 General

If “Derivatives” is specified as a ‘Reference Instrument Type’ in Section 2 of the Reference Portfolio Rules, the following provisions shall apply in addition to those set out elsewhere in the Reference Portfolio Rules.

2 Elections

Modification Fee Amount:	<p>In respect of any day, EUR 500 x n</p> <p>where “n” means the number of Underlying Derivatives added to or removed from the Reference Portfolio on such day, in respect of which the Reference Instrument Modification Amount equals the Approved Dealer Firm Price</p> <p>Otherwise: EUR 0</p>
Approved Dealers:	<p>Bank of America Corporation, Barclays Bank PLC, BNP Paribas, Citibank, N.A., Credit Suisse Group, The Goldman Sachs Group, Inc., HSBC Holdings Plc, Morgan Stanley Capital Services Inc., Nomura International Plc, Société Générale, UBS AG or the subsidiaries or affiliates of those entities which are, in the sole opinion of the JPMorgan, regularly involved in trading bonds and OTC Derivatives, and any other dealer agreed between the Reference Portfolio Allocator and JPMorgan from time to time.</p> <p>Subject to the paragraph below, JPMorgan has the right, in its sole discretion, to add or remove any party from the above list. Upon removal or addition of an Approved Dealer from or to the above list, JPMorgan shall notify the Reference Portfolio Allocator via a Permitted Mode of Communication on the same day in relation to the removal of an Approved Dealer, and within five Business Days in relation to the addition of an Approved Dealer.</p> <p>The Approved Dealers list shall not include fewer than three Approved Dealers, unless the reduction of the number of Approved Dealers below three would result from either:</p> <p>(i) JPMorgan being restricted from trading with an Approved Dealer for</p>

	any internal reason whatsoever; or (ii) such Approved Dealer not being an active dealer in either the bond or credit derivatives market.
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<i>Terms defined elsewhere in the Reference Portfolio Rules:</i>	<i>Terms defined in Paragraph 6 of this Annex below:</i>
Approved Dealer Firm Price:	Approved Dealer Executable Derivative Value
Initial Reference Instruments:	Initial Reference Derivatives
Reference Instrument Modification Amount:	Reference Derivative Modification Amount
Modification Recap Notice:	As set out in the Appendix I of this Reference Instrument Module - Derivatives
Reference Instruments Sub-Portfolio:	Reference Derivatives Portfolio
Reference Instruments Sub-Portfolio Value:	Reference Derivatives Portfolio Value
Reference Portfolio Criteria:	Reference Derivatives Portfolio Criteria
Reference Instruments Payment Amount:	Underlying Derivative Payment Amount

3 Initial Reference Derivatives

k	Permitted Currency	Reference Notional	Strike	EUR Notional	Maturity Date	Settlement Date
1		No initial Reference investment				
2						

4 Reference Derivatives Portfolio Criteria

4.1 Eligible Derivatives

- (i) A hypothetical credit derivatives transaction (Buy or Sell) for a notional amount denominated in a Permitted Currency providing for the purchase or sale of credit protection in respect of a Reference Entity on an untranching basis and satisfying the Liquidity Constraint at the point deemed to be entered into (a **"Single Name Credit Default Swap"**);
- (ii) A hypothetical credit derivatives transaction (Buy or Sell) for a notional amount denominated in a Permitted Currency providing for the purchase or sale of credit protection in respect of a CDS Reference Index on a tranching or untranching basis (an **"Index Credit Default Swap"**);
- (iii) A hypothetical total return swap for notional amounts denominated in any Permitted Currency where Party A, or Party B (as applicable), pays a funding leg and Party A, or Party B (as applicable) receives the total return performance of a TRS

Reference Index on a tranching or untranching basis (an **"Index Total Return Swap"**);

- (iv) A hypothetical index swaption for notional amounts denominated in any Permitted Currency where Party A, or Party B (as applicable), pays a fixed amount that gives it the right to enter into an untranching Index Credit Default Swap on a certain date and a certain fixed rate (an **"Index Swaption"**); and
- (v) A hypothetical interest rate swap for notional amounts denominated in any Permitted Currency where Party A, or Party B (as applicable), pays a floating rate amount calculated by reference to a benchmark rate, in return for a fixed amount payable by Party B, or Party A (as applicable) (an **"Interest Rate Swap"**).

Where:

"Buy" or **"Long"** means where Party A is the hypothetical credit protection buyer under a Single Name Credit Default Swap or Index Credit Default Swap hypothetically entered into with Party B, or where Party B receives the total return performance and pays to Party A a funding leg under an Index Total Return Swap, or where Party A buys a hypothetical Index Swaption from Party B.

"Liquidity Constraint" means, in respect of any Single Name Credit Default Swap, three (3) or more Approved Dealers showing executable bid/offer prices for such Single Name Credit Default Swap with the same notional and same Reference Entity as the proposed hypothetical Eligible Derivative.

"Sell" or **"Short"** means where Party A is the hypothetical credit protection seller under a Single Name Credit Default Swap or Index Credit Default Swap hypothetically entered into with Party B, or where Party B pays the total return performance and receives from Party A a funding leg under an Index Total Return Swap, or where Party A sells a hypothetical Index Swaption to Party B.

4.2 Eligible Derivatives Criteria

4.2.1 Single Name Credit Default Swaps

- (i) *Reference Entities*: any entity agreed from time to time between JPMorgan and the Reference Portfolio Allocator (a **"Reference Entity"**).
- (ii) **Maturity**: no longer than 10 years and 3 months from the 'Trade Date'.

4.2.2 Index Credit Default Swaps

- (i) CDS Reference Indices: The current-on-the run and the immediately preceding on-the-run series of (each a **"CDS Reference Index"**):
 - (c) Markit iTraxx Europe Main index;
 - (d) Markit iTraxx Europe Senior Financial index;
 - (e) Markit iTraxx Europe Subordinated Financial index;
 - (f) Markit iTraxx Europe Crossover index;
 - (g) Markit CDX North America Investment Grade index;
 - (h) Markit CDX North America High Yield index;
 - (i) Markit CDX Emerging Markets index; and

- (j) any other indices or sub-indices as may be agreed between JPMorgan and the Counterparty.
- (ii) Maturity: no longer than 10 years and 3 months from the 'Trade Date'.

4.2.3 Index Total Return Swaps

- (i) TRS Reference Indices (each a "**TRS Reference Index**"):
 - (a) Markit iBoxx EUR Corporates Overall Total Return Index;
 - (b) Markit iBoxx USD Liquid Investment Grade Index;
 - (c) Markit iBoxx EUR Liquid High Yield Index;
 - (d) Markit iBoxx USD Liquid High Yield Index;
 - (e) Markit iBoxx USD Liquid Leveraged Loan Total Return Index; and
 - (f) any other indices or sub-indices as may be agreed between JPMorgan and the Reference Portfolio Allocator.
- (ii) Maturity: no longer than the scheduled maturity or termination date of the longest dated Linked Financial Product.

4.2.4 Index Swaptions

- (i) Maturity: no longer than 1 year
- (ii) An Index Swaption must be in respect of an Index Credit Default Swap referencing one of the following indices:
 - (a) Markit iTraxx Europe Main index;
 - (b) Markit iTraxx Europe Senior Financial index;
 - (c) Markit iTraxx Europe Crossover index;
 - (d) Markit CDX North America Investment Grade index;
 - (e) Markit CDX North America High Yield index;

4.2.5 Interest Rate Swaps

- (i) Maturity: no longer than 10 years from the 'Trade Date'.

5 Additional Provisions

5.1 Transaction Terms

Each Eligible Derivative added to the Reference Derivatives Portfolio will be a reference derivative hypothetically entered into on the relevant Transaction Terms.

5.2 Amendments

JPMorgan may, at any time, make such amendments to each relevant notice and Form of Derivative Transaction Confirmation (including any definitions and provisions published by ISDA referred to therein) as it determines necessary and will notify the Reference Portfolio Allocator of such amendments as soon as it is reasonably practicable to do so:

- (i) in order to reflect then prevailing market standards (provided that any such amendments shall not be effective for the purposes of any Underlying Derivative

entered into between the parties prior to the effective date of such amendment); and/or

- (ii) to correct any manifest error.

Each Underlying Derivative and the Transaction Terms thereof shall also be subject to such amendments thereto as may be agreed from time to time between JPMorgan and the Reference Portfolio Allocator.

JPMorgan and the Reference Portfolio Allocator may, from time to time, agree the standard terms that shall apply to a new type of Eligible Derivative, including the relevant notice(s) and Form of Derivative Transaction Confirmation, in which event these Reference Portfolio Rules, and, consequently, the relevant Transaction Terms, shall be deemed amended accordingly.

5.3 **Adherence**

Notwithstanding anything to the contrary in any protocol published by ISDA or any similar arrangement published by ISDA or any other professional or trade body (each, a "**Protocol**"), JPMorgan and Reference Portfolio Allocator agree that no Protocol shall be capable of being adhered to in respect of any Underlying Derivative save for where JPMorgan and the Reference Portfolio Allocator have, by written agreement between themselves, expressly agreed to such adherence with respect to such Underlying Derivative.

5.4 **Additional JPMorgan Duties**

In addition to provisions set out in Section 15.4 of the Reference Portfolio Rules, JPMorgan shall be responsible for exercising rights, as applicable, in respect of the Underlying Derivatives as if it were Party A.

Unless otherwise specified to the contrary, JPMorgan shall act in good faith and in a commercially reasonable manner in respect of determinations made by it or otherwise in respect of its discretions, in each case, pursuant to the Reference Portfolio Rules.

Where the terms of an Underlying Derivative require a calculation or determination to be made by a 'Calculation Agent', JPMorgan shall make such determination or calculation, as the case may be, in accordance with the terms of the relevant Underlying Derivative and the required standards therein.

Where the terms of an Underlying Derivative permit or require any determination or election to be made, or a notice to be given, by Party A in any other capacity (including in its capacity as the 'Determining Party' in respect of, and as defined in, the notional terms of such Underlying Derivative), JPMorgan may, in its sole discretion, make such determination or election or deem Party A to have given such notice, as applicable, for the purposes of such Underlying Derivative and for such purpose, shall be entitled to make such determination or election or deemed notice up to five minutes after the terms of such Underlying Derivative would have otherwise required the same.

Any such decision by JPMorgan shall be made solely by reference to what JPMorgan considers would be in the best interests of Party A in such circumstances. For the avoidance of doubt, in exercising such sole discretion, JPMorgan shall not be required to have any regard to the Reference Portfolio or any Linked Financial Products.

Where the terms of an Underlying Derivative permit or require any determination or election to be made, or a notice to be given, by Party B in any capacity, the Reference

Portfolio Allocator may in its sole discretion make such determination or election by notice (a "**Derivative Election**") to JPMorgan via a Permitted Mode of Communication at any time permitted pursuant to the terms of the Underlying Derivative *provided that* the final time at which the Reference Portfolio Allocator may make such Derivative Election shall be no later than five minutes prior to the last time that Party B, pursuant to the terms of such Underlying Derivative, would have otherwise been permitted or required to make such determination or election whereupon, and following acknowledgement by JPMorgan via a Permitted Mode of Communication of JPMorgan's receipt of such notice, Party B shall be deemed to have given such notice, as applicable, for the purposes of such Underlying Derivative.

Any such decision by the Reference Portfolio Allocator shall be made solely by reference to what the Reference Portfolio Allocator considers would be in the best interests of Party B in such circumstances.

5.5 Discretionary Actions

If, following exercise by the Reference Portfolio Allocator of an option under the terms of an Underlying Derivative, JPMorgan determines, in its sole discretion, that it is not practicable (for any reason including, but not limited to, the timing of the exercise of the option by the Reference Portfolio Allocator) for JPMorgan to exercise the equivalent option under the associated Offsetting Dealer Transaction (if any), the purported exercise of the option by the Reference Portfolio Allocator under such Underlying Derivative shall be deemed invalid and of no further effect.

If, following exercise by an Eligible Dealer of an option under the terms of an Offsetting Dealer Transaction, JPMorgan determines in its sole discretion that it is not practicable (for any reason including, but not limited to, the timing of the exercise of the option by the Eligible Dealer) for JPMorgan to exercise the equivalent option under the associated Underlying Derivative: (i) the equivalent option under the associated Underlying Derivative shall be deemed to have been exercised by JPMorgan simultaneously with, and on identical terms as, the exercise of the option under the Offsetting Dealer Transaction and (ii) JPMorgan shall notify the Reference Portfolio Allocator of such determination and the terms of such deemed exercise as soon as reasonably practicable, provided that a failure to so notify shall not invalidate such deemed exercise.

For the avoidance of doubt, nothing in this paragraph 5.5 shall oblige JPMorgan to maintain an Offsetting Dealer Transaction.

6 Derivatives Definitions

In respect of the Reference Derivatives Portfolio, the terms defined below shall have the following meanings in the Reference Portfolio Rules:

"Approved Dealer Executable Derivative Value" means, in respect of the addition of an Eligible Derivative to the Reference Derivatives Portfolio or the Unwind of an Underlying Derivative from the Reference Derivatives Portfolio, in each case, as applicable, subject to a Reference Instrument Modification Request, an upfront amount payable by an Approved Dealer (expressed as a positive number) or by JPMorgan (expressed as a negative number) at which JPMorgan is able to enter into an Offsetting Dealer Transaction with such Approved Dealer.

"Derivatives" means the Eligible Derivatives and the Underlying Derivatives.

"Derivative Election" has the meaning given to it in Paragraph 5.4 of this Reference Instrument Module – Derivatives.

"Eligible Derivative" means a hypothetical derivative of a type specified in Paragraph 4.1 of this Reference Instrument Module – Derivatives.

"Form of Derivative Transaction Confirmation" means, in respect of any Eligible Derivative or Underlying Derivative, as applicable, the market standard form specified in Appendix II of this Reference Instruments Module - Derivatives as may be amended and supplemented from time to time in accordance with Paragraph 5.2 of this Reference Instrument Module – Derivatives.

"Initial Reference Derivatives" means the Underlying Derivatives specified in Paragraph 3 of this Reference Instrument Module – Derivatives.

"JPMorgan Hypothetical Derivative Value" means, in respect of the addition of an Eligible Derivative to the Reference Derivatives Portfolio or the Unwind of an Underlying Derivative from the Reference Derivatives Portfolio, in each case, as applicable, the subject of a Reference Instrument Modification Request, the amount hypothetically payable by Party A (expressed as a positive number) or Party B (expressed as a negative number), as applicable, if the Eligible Derivative were deemed to be entered into, or if the Underlying Derivative were deemed to be terminated, as applicable, by Party A and Party B, as determined by JPMorgan in its sole discretion.

"Offsetting Dealer Transaction" means:

- (i) in respect of an addition of an Eligible Derivative to the Reference Derivatives Portfolio, a transaction between JPMorgan and an Approved Dealer whose Transaction Terms are the same as those of the Eligible Derivative (subject to such adjustments as may reasonably be specified by JPMorgan in order that the Offsetting Dealer Transaction would, in the reasonable opinion of JPMorgan, appropriately hedge the exposure of Party A under the Eligible Derivative were the Eligible Derivative a real, as opposed to a Reference, transaction or in order to reflect amendments JPMorgan reasonably determines necessary to reflect the fact that the Eligible Derivative is a reference derivative between two notional parties but the Offsetting Dealer Transaction would be a real, as opposed to a Reference, transaction) but where JPMorgan makes payments to the Approved Dealer of amounts equal to the amounts payable by Party B under the Eligible Derivative and the Approved Dealer makes payments to JPMorgan of amounts equal to the amounts payable by Party A under the Eligible Derivative; and
- (ii) in respect of an Unwind of an Underlying Derivative in the Reference Derivatives Portfolio, a transaction between JPMorgan and an Approved Dealer whose Transaction Terms are the same as those of the Unwind (subject to such adjustments as may reasonably be specified by JPMorgan in order that the Offsetting Dealer Transaction would, in the reasonable opinion of JPMorgan, appropriately hedge the exposure of Party A under the Eligible Derivative were the Eligible Derivative a real, as opposed to a Reference, transaction or in order to reflect amendments JPMorgan reasonably determines necessary to reflect the fact that the Eligible Derivative is a reference derivative between two notional parties but the Offsetting Dealer Transaction would be a real, as opposed to a Reference, transaction) and where JPMorgan makes payments to the Approved Dealer of amounts equal to the amounts payable by Party B under the Underlying Derivative

and the Approved Dealer makes payments to JPMorgan of amounts equal to amounts payable by Party A under the Unwind.

"Party A" means JPMorgan.

"Party B" means the Reference Portfolio as if the Reference Portfolio had corporate existence and were a party of similar nature to a market participant with whom JPMorgan would customarily enter into derivative transactions such as the Eligible Derivatives.

"Reference Derivative Modification Amount" means, in respect of the addition of an Eligible Derivative to the Reference Derivatives Portfolio or the Unwind of an Underlying Derivative from the Reference Derivatives Portfolio, in each case, as applicable, the subject of a Reference Instrument Modification Request, an amount in the applicable Permitted Currency (which may be positive or negative) determined by JPMorgan equal to the more favourable (from Party B's perspective) of (a) the JPMorgan Hypothetical Derivative Value quoted by JPMorgan in its sole discretion and (b) other than in respect of an Interest Rate Swap, any Index Credit Default Swap referencing Markit CDX North America Investment Grade index, Markit CDX North America High Yield index, Markit iTraxx Europe Main index or Markit iTraxx Europe Crossover index, any Approved Dealer Executable Derivative Value provided to JPMorgan by the Reference Portfolio Allocator.

"Reference Derivatives Portfolio" means a sub-portfolio of the Reference Instruments Portfolio consisting of a notional portfolio of hypothetical over-the-counter derivatives transactions deemed to be entered into between two parties, Party A and Party B comprised initially of the Initial Reference Derivatives as may be modified in accordance with Section 8 of the Reference Portfolio Rules.

"Reference Derivatives Portfolio Criteria" means the criteria set out in Paragraph 4 of this Reference Instrument Module – Derivatives.

"Reference Derivatives Portfolio Value" means, in respect of a Business Day and at any time on such day, an amount expressed in the Base Currency as a Base Currency Equivalent equal to the aggregate market value to Party B of the Underlying Derivatives comprising the Reference Derivatives Portfolio, and with such derivatives being given a positive value where its market value is in favour of Party B and a negative value where its market value is in favour of Party A in each case, determined by JPMorgan as at such time.

"Transaction Terms" means, in respect of any Underlying Derivative or Eligible Derivative, as applicable, the terms of any Modification Recap Notice delivered pursuant to the Reference Portfolio Rules together with the terms specified or otherwise incorporated by reference in the relevant Form of Derivative Transaction Confirmation as completed by the Modification Recap Notice, which, together with any information required to be specified by the Reference Portfolio Allocator and that is to be provided by it at or around the same time as the Modification Recap Notice, are, in the determination of JPMorgan, sufficient to define the terms of such transaction.

"Underlying Derivative" means each derivative notionally comprising all or part of the Reference Derivatives Portfolio.

"Underlying Derivative Payment Amount" means, in respect of an Underlying Derivative, an amount expressed in the Base Currency equal to any amount payable by Party A (expressed as a positive number) or Party B (expressed as a negative number), as applicable, in accordance with the terms of such Underlying Derivative while such

Underlying Derivative is a notional constituent of the Reference Derivatives Portfolio as determined by JPMorgan.

"Unwind" means, in respect of an Underlying Derivative, to enter into an equal and opposite transaction to such Underlying Derivative in accordance with these Reference Portfolio Rules and the noun **"Unwind"** shall be construed accordingly. For the avoidance of doubt, upon an Unwind, the equal and opposite transaction to such Underlying Derivative and the related Underlying Derivative shall be deemed to be notionally compressed such that neither shall be comprised in the Reference Derivatives Portfolio, and at this point, the Underlying Derivative shall be considered **"Unwound"**.

APPENDIX I

FORMS OF DERIVATIVES RECAP NOTICES

The following forms of notice are indicative and may be amended or supplemented from time to time in such form as JPMorgan and the Reference Portfolio Allocator may agree.

INDEX CREDIT DEFAULT SWAP (TRANCHED / UNTRANCHED) RECAP NOTICE

Include the following details in respect of each proposed transaction. For the avoidance of doubt, JPMorgan and the Reference Portfolio Allocator have agreed to use electronic templates, and both parties agree to rely on such electronic templates.

RED Id	[insert Markit RED TM code]
Reference Name (Index)	iTraxx Europe Crossover Series [], Version []
Trade Date	
Effective Date	
Maturity Date	[Scheduled Termination Date]
Protection Buyer	[Party A/Party B]
Notional	[Original Notional Amount]
CCY	
Coupon (bps)	[Fixed Rate]
Traded Level	
Upfront Points	
Upfront Payer	[Party A/Party B]
Upfront Amount	[Initial Payment Amount]
Upfront Pay Date	[Initial Payment Amount payment date]
Attachment Point:	[Specify percentage, which shall be 0 per cent. for untranching Transactions]
Exhaustion Point:	[Specify percentage, which shall be 100 per cent. for untranching Transactions]

INDEX SWAPTION RECAP NOTICE

Include the following details in respect of each proposed transaction. For the avoidance of doubt, JPMorgan and the Reference Portfolio Allocator have agreed to use electronic templates, and both parties agree to rely on such electronic templates.

Swaption Terms	
Swaption Trade Date	
Option Style	European
Seller	[Party A/Party B]
Buyer	[Party A/Party B]
Premium	
Premium Payment Date	
Expiration Date	
Strike Price	
Settlement	Physical
Index Credit Default Swap Terms	
RED Id	[insert Markit RED TM code]
Reference Name (Index)	iTraxx Europe Crossover Series [], Version []
Trade Date	
Effective Date	
Maturity Date	[Scheduled Termination Date]

Protection Buyer	[Party A/Party B]
Notional	[Original Notional Amount]
CCY	
Coupon (bps)	[Fixed Rate]
Traded Level	
Upfront Points	
Upfront Payer	[Party A/Party B]
Upfront Amount	[Initial Payment Amount]
Upfront Pay Date	[Initial Payment Amount payment date]

SINGLE NAME CREDIT DEFAULT SWAP RECAP NOTICE

Include the following details in respect of each proposed transaction. For the avoidance of doubt, JPMorgan and Reference Portfolio Allocator have agreed to use electronic templates, and both parties agree to rely on such electronic templates.

RED Id	[Markit RED TM code]
Reference Name	[Reference Entity]
Seniority	[insert Seniority applicable]
ISDA	[2003 or 2014 ISDA Credit Derivatives Definitions applicable]
Restructuring Type	[insert Restructuring type applicable]
Trading Standard	[Transaction Type]
Exec Ref Ob. ISIN	[Reference Obligation ISIN where no SRO published as at Trade Date]
SRO Applicable	[Yes/No]
Trade Date	
Effective Date	
Maturity Date	[Scheduled Termination Date]
Protection Buyer	[Party A/Party B]
Notional	[Floating Rate Payer Calculation Amount]
CCY	
Coupon (bps)	[Fixed Rate]
Traded Level	
Upfront Points	
Upfront Payer	[Party A/Party B]
Upfront Amount	[Initial Payment Amount]
Upfront Pay Date	[Initial Payment Amount payment date]

INDEX TOTAL RETURN SWAP RECAP NOTICE

Include the following details in respect of each proposed transaction. For the avoidance of doubt, JPMorgan and the Reference Portfolio Allocator have agreed to use electronic templates, and both parties agree to rely on such electronic templates.

RED Id	[Markit RED TM code]
Trade Date	
Effective Date	
Notional Amount	[Insert notional amount, denominated in Settlement Currency]

Index	<i>[iBoxx EUR Corporates]/[iBoxx USD Liquid Investment Grade]/[iBoxx GBP Corporates]/[iBoxx EUR Liquid HY]/[iBoxx USD Liquid HY]/[iBoxx USD Liquid IG]/[iBoxx USD Liquid Leveraged Loans]/[iBoxx USD CoCo Liquid Developed Market]/[iBoxx USD CoCo Liquid Developed Market AT1]/[iBoxx Trepp CMBS Overall]/[iBoxx Trepp CMBS Liquid]</i>
Index Buyer	<i>[Party A]/[Party B]</i>
Index Seller	<i>[Party A]/[Party B]</i>
Settlement Currency	<i>[USD]/[EUR]/[GBP]</i>
Initial Payment Amount:	<i>[•]/[Not applicable]</i>
Initial Payment Date:	<i>[•]/[Not applicable]</i>
Floating Rate for initial Calculation Period:	<i>[•] per cent</i>
Floating Rate Option:	<i>[•]</i>
Spread:	<i>[[•] per cent]/[None]</i>
Initial Fixing Amount:	<i>[•]</i>
Scheduled Final Fixing Date:	<i>[•]</i>

INTEREST RATE SWAP RECAP NOTICE

Include the following details in respect of each proposed transaction. For the avoidance of doubt, JPMorgan and the Reference Portfolio Allocator have agreed to use electronic templates, and both parties agree to rely on such electronic templates.

Trade Date	
Effective Date	
Termination Date	
Fixed Rate Payer	<i>[Party A/Party B]</i>
Fixed Rate Payer Currency Amount	<i>[Notional Amount]</i>
Fixed Rate Payer Payment Dates	<i>[or Period End Dates, if Delayed Payment or Early Payment applies] [Business Days] [Business Day Convention]</i>
Fixed Amount	<i>[or Fixed Rate and Fixed Rate Day Count Fraction]:</i>
Floating Rate Payer	<i>[Party A/Party B]</i>
Floating Rate Payer Currency Amount	<i>[Notional Amount]</i>
Floating Rate Payer Payment Dates	<i>[or Period End Dates, if Delayed Payment or Early Payment applies] [Business Days] [Business Day Convention]</i>
Floating Rate Option	
Designated Maturity	
Spread	<i>[Plus/Minus%] [None]</i>
Floating Rate Day Count Fraction	
Reset Dates	<i>[Business Day Convention]</i>
[Initial Exchange]	<i>[Initial Exchange Date] [Party A Initial Exchange Amount] [Party B Initial Exchange Amount]</i>
[Interim Exchange]	<i>[Interim Exchange Date] [Party A Interim Exchange Amount] [Party B Interim Exchange Amount]</i>
[Final Exchange]	<i>[Final Exchange Date]</i>

	<i>[Party A Final Exchange Amount]</i>
	<i>[Party B Final Exchange Amount]</i>

APPENDIX II

FORMS OF DERIVATIVE TRANSACTION CONFIRMATION

1 Form of Single Name Credit Default Swap Confirmation

The form of confirmation applicable to Underlying Derivatives that are Single Name CDSs shall be the relevant form of confirmation for use within the Credit Derivatives Physical Settlement Matrix (Version 20 – September 22, 2014) as published by ISDA and available from www.ISDA.org or, where later versions have been published, the later version of the same or, as applicable, such other form as is used from time to time by JPMorgan to confirm transactions of the relevant type.

2 Form of Index Credit Default Swap Confirmation (tranchéd / untranchéd)

Where the relevant index is (i) any of the Markit CDX North America Investment Grade Index (CDX.NA.IG) or the Markit CDX North America High Yield Index (CDX.NA.HY), the form of Untranchéd Confirmation (for use with Markit CDX Untranchéd Terms published on 22 September 2014), incorporating the Markit CDX Untranchéd Transactions Standard Terms Supplement (published on 22 September 2014) or (ii) any of the Markit iTraxx Europe Main Index (ITRX Europe), the Markit iTraxx Europe Crossover Index (ITRX XOVER), the Markit iTraxx Asia ex-Japan Index (ITRX EXJP IG) or the Markit iTraxx Europe Senior Financial Index (ITRX SNR FIN), the relevant form of confirmation (for use with the Markit iTraxx Europe Untranchéd Standard Terms Supplement published on 20 September 2014), in each case available from www.markit.com, or such other form as is used from time to time by JPMorgan to confirm transactions of the relevant type.

Markit Group Limited ("Markit") is the administrator of the Markit iTraxx® Europe Crossover Index (ITRX XOVER).

Markit does not undertake any duty of care and will not be liable to any party to a transaction referencing the Markit iTraxx® Europe Crossover Index (ITRX XOVER) for any form of damages, whether direct, indirect, special, consequential or otherwise, that might arise in connection with Markit's performance of its duties under the relevant rules and methodologies, except in the case of the Markit's gross negligence, fraud or wilful misconduct.

3 Form of Index Swaption Confirmation

The form of confirmation applicable to Underlying Derivatives that are Index Swaptions shall be the relevant form of confirmation published by ISDA and available from www.ISDA.org or, where later versions have been published, the later version of the same or, as applicable, such other form as is used from time to time by JPMorgan to confirm transactions of the relevant type.

4 Form of Index Total Return Swap Confirmation

The form of Confirmation (for use with iBoxx® Index Transaction Standard Terms Supplement (published on February 18, 2015)), available from www.markit.com, or such other form as is used from time to time by JPMorgan to confirm transactions of the relevant type.

Markit Group Limited ("Markit") is the administrator of the Markit iBoxx indices.

Markit does not undertake any duty of care and will not be liable to any party to a transaction referencing the Markit iBoxx indices for any form of damages, whether direct, indirect, special, consequential or otherwise, that might arise in connection with Markit's performance of its duties under the relevant rules and methodologies, except in the case of the Markit's gross negligence, fraud or wilful misconduct.

5 Form of Interest Rate Swap Confirmation

The form of confirmation applicable to Underlying Derivatives that are Interest Rate Swaps shall be the relevant form of confirmation set out in the 2006 ISDA Definitions at Exhibit I and Exhibit II-A as published by ISDA and available from www.ISDA.org or, where later versions have been published, the later version of the same or, as applicable, such other form as is used from time to time by JPMorgan to confirm transactions of the relevant type.

REFERENCE INSTRUMENT MODULE – FX FORWARDS

1 General

If "FX Forwards" is specified as a 'Reference Instrument Type' in Section 2 of the Reference Portfolio Rules, the following provisions shall apply in addition to those set out elsewhere in the Reference Portfolio Rules.

2 Elections

Modification Fee Amount:	In respect of any day, EUR 500 x n where "n" means the number of FX Forwards added to or removed from the Reference Portfolio on such day
Approved Dealers:	<p>Bank of America Corporation, Barclays Bank PLC, BNP Paribas, Citibank, N.A., Credit Suisse Group, The Goldman Sachs Group, Inc., HSBC Holdings Plc, Morgan Stanley Capital Services Inc., Nomura International Plc, Société Générale, UBS AG or the subsidiaries or affiliates of those entities which are, in the sole opinion of the JPMorgan, regularly involved in trading bonds and OTC Derivatives, and any other dealer agreed between the Reference Portfolio Allocator and JPMorgan from time to time.</p> <p>Subject to the paragraph below, JPMorgan has the right, in its sole discretion, to add or remove any party from the above list. Upon removal or addition of an Approved Dealer from or to the above list, JPMorgan shall notify the Reference Portfolio Allocator via a Permitted Mode of Communication on the same day in relation to the removal of an Approved Dealer, and within five Business Days in relation to the addition of an Approved Dealer.</p> <p>The Approved Dealers list shall not include fewer than three Approved Dealers, unless the reduction of the number of Approved Dealers below three would result from either:</p> <ul style="list-style-type: none"> (i) JPMorgan being restricted from trading with an Approved Dealer for any internal reason whatsoever; or (ii) such Approved Dealer not being an active dealer in either the bond or credit

	derivatives market.
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<i>Terms defined elsewhere in the Reference Portfolio Rules:</i>	<i>Terms defined in Paragraph 6 of this Annex below:</i>
Approved Dealer Firm Price:	Approved Dealer FX Forward Quotation
Initial Reference Instruments:	Initial Reference FX Forwards
Reference Instrument Modification Amount:	Reference FX Forward Modification Amount
Modification Recap Notice:	As set out in Appendix I of this Reference Instrument Module – FX Forwards
Reference Instruments Sub-Portfolio:	Reference FX Forwards Portfolio
Reference Instruments Sub-Portfolio Value:	Reference FX Forwards Portfolio Value
Reference Portfolio Criteria:	Reference FX Forwards Portfolio Criteria
Reference Instruments Payment Amount:	Underlying FX Forward Payment Amount

3 Initial Reference FX Forwards

k	Permitted Currency	Reference Notional	Strike	Base Currency Notional	Maturity Date	Settlement Date
1		No initial Reference investment				
2						

4 Reference FX Forwards Portfolio Criteria

4.1 Eligible FX Forwards

A hypothetical derivative transaction, with a notional amount expressed in a Permitted Currency other than the Base Currency, providing for the delivery and settlement on a future date of such Permitted Currency notional amount payable by Party B in exchange for delivery and settlement of a notional amount of Base Currency payable by Party A on such future date, or vice versa, as specified in the terms of such transaction (a "FX Forward").

4.2 Addition of Eligible FX Forwards

In respect of the addition of an Eligible FX Forward to the Reference FX Forward Portfolio, the notional amount of the proposed Eligible FX Forwards shall be no greater than 125% of the USD-equivalent of the a related Underlying Bond Obligation denominated in EUR that are constituents of the Reference Bonds Portfolio, when aggregated with the notional amounts of any existing Underlying FX Forwards in respect of such related Underlying Bond Obligation.

5 Additional Provisions

- 5.1 **Transaction Terms:** Each Eligible FX Forward added to the Reference FX Forwards Portfolio will be a reference derivative hypothetically entered into on the relevant Transaction Terms.
- 5.2 **Amendments:** JPMorgan may, at any time, make such amendments to each relevant notice and Form of FX Forward Transaction Confirmation (including any definitions and provisions published by ISDA referred to therein) as it determines necessary and will notify the Reference Portfolio Allocator of such amendments as soon as it is reasonably practicable to do so:
- (i) in order to reflect then prevailing market standards (provided that any such amendments shall not be effective for the purposes of any Underlying FX Forward entered into between the parties prior to the effective date of such amendment); and/or
 - (ii) to correct any manifest error.

Each Underlying FX Forward and the Transaction Terms thereof shall also be subject to such amendments thereto as may be agreed from time to time between JPMorgan and the Reference Portfolio Allocator.

JPMorgan and the Reference Portfolio Allocator may, from time to time, agree the standard terms that shall apply to a new type of Eligible FX Forward, including the relevant notice(s) and Form of FX Forward Transaction Confirmation, in which event these Reference Portfolio Rules, and, consequently, the relevant Transaction Terms, shall be deemed amended accordingly.

- 5.3 **Adherence:** Notwithstanding anything to the contrary in any protocol published by ISDA or any similar arrangement published by ISDA or any other professional or trade body, JPMorgan and Reference Portfolio Allocator agree that no protocol shall be capable of being adhered to in respect of any Underlying FX Forward save for where JPMorgan and the Reference Portfolio Allocator have, by written agreement between themselves, expressly agreed to such adherence with respect to such Underlying FX Forward.

6 FX Forwards Definitions

In respect of the Reference FX Forwards Portfolio, the terms defined below shall have the following meanings in the Reference Portfolio Rules:

"Approved Dealer FX Forward Amount" means, in respect of the addition of an Eligible FX Forward to the Reference FX Forward Portfolio or the Unwind of an Underlying FX Forward from the Reference FX Forward Portfolio, in each case, as applicable, the subject of a Reference Instrument Modification Request, the amount in the Base Currency quoted by an Approved Dealer as the amount that the Approved Dealer would be prepared to pay JPMorgan on a future date for delivery by JPMorgan on such future date of an amount in the relevant Permitted Currency, or vice versa, as applicable, in an executable FX Forward between JPMorgan and such Approved Dealer on the same terms as the proposed Eligible FX Forward or Underlying FX Forward.

"Eligible FX Forward" means a hypothetical FX Forward specified as such in Paragraph 4.1 of this Annex.

"Form of FX Forward Transaction Confirmation" means, in respect of any Eligible FX Forward or Underlying FX Forward, as applicable, the market standard form specified in

Appendix II of this Reference Instruments Module – FX Forwards as may be amended and supplemented from time to time in accordance with Paragraph 5.2 of this Annex.

"FX Forwards" means the Eligible FX Forwards and the Underlying FX Forwards.

"FX Forward Unwind Value" means the Base Currency amount hypothetically payable by Party A (expressed as a positive number) or Party B (expressed as a negative number), as applicable, if the Underlying FX Forward were deemed to be terminated, determined by JPMorgan in its sole discretion.

"Initial Reference FX Forwards" means the Underlying FX Forwards specified in Paragraph 3 of this Annex.

"JPMorgan Hypothetical FX Forward Amount" means in respect of the addition of an Eligible FX Forward to the Reference FX Forwards Portfolio or the Unwind of an Underlying FX Forward from the Reference FX Forwards Portfolio, in each case, as applicable, the subject of a Reference Instrument Modification Request, the amount in the Base Currency quoted by JPMorgan as an amount that Party A would be prepared to pay Party B on a future date for delivery by Party B on such future date of a specified amount of the relevant Permitted Currency, or vice versa, pursuant to the terms of such Eligible FX Forward or Underlying FX Forward.

"Reference FX Forward Modification Amount" means, in respect of each Eligible Derivative or Underlying Derivative the subject of a Reference Instrument Modification Request, an amount in the Base Currency determined by JPMorgan equal to the more favourable (from the Party B's perspective) of (a) JPMorgan Hypothetical FX Forward Amount quoted by JPMorgan in its sole discretion and (b) any Approved Dealer FX Forward Amount provided to JPMorgan by the Reference Portfolio Allocator.

"Reference FX Forwards Portfolio" means a sub-portfolio of the Reference Instruments Portfolio consisting of a notional portfolio of hypothetical FX Forward transactions deemed to be entered into between two parties, Party A and Party B comprised initially of the Initial Reference Derivatives as may be modified in accordance with Section 8 of the Reference Portfolio Rules.

"Reference FX Forwards Portfolio Criteria" means the criteria set out in Paragraph 4 of this Annex.

"Reference FX Forwards Portfolio Limits" means the limits specified as such set out in Annex 2.

"Reference FX Forwards Portfolio Value" means, in respect of a Business Day and at any time on such day, an amount expressed in the Base Currency as a Base Currency Equivalent equal to the aggregate market value to Party B of the Underlying FX Forwards comprising the Reference Derivatives Portfolio, and with such FX Forwards being given a positive value where its market value is in favour of Party B and a negative value where its market value is in favour of Party A in each case, determined by JPMorgan as at such time.

"Underlying FX Forward" means each hypothetical FX Forward notionally comprising all or part of the Reference FX Forwards Portfolio.

"Underlying FX Forward Payment Amount" means, in respect of an Underlying FX Forward, an amount expressed in the Base Currency equal to any amount payable by Party A (expressed as a positive number) or Party B (expressed as a negative number), as

applicable, in accordance with the terms of such Underlying FX Forward while such Underlying FX Forward is a notional constituent of the Reference FX Forwards Portfolio as determined by JPMorgan.

"Unwind" means, in respect of an Underlying FX Forward, to enter into an equal and opposite transaction to such Underlying FX Forward in accordance with these Reference Portfolio Rules and the noun **"Unwind"** shall be construed accordingly. For the avoidance of doubt, upon an Unwind, the equal and opposite transaction to such Underlying FX Forward and the related Underlying FX Forward shall be deemed to be notionally compressed such that neither shall be comprised in the Reference Derivatives Portfolio, and at this point, the Underlying FX Forward shall be considered **"Unwound"**.

APPENDIX I **FORM OF FX FORWARD RECAP NOTICE**

The following forms of notice is indicative and may be amended or supplemented from time to time in such form as JPMorgan and the Reference Portfolio Allocator may agree.

FX FORWARD RECAP NOTICE

Include the following details in respect of each proposed transaction. For the avoidance of doubt, JPMorgan and the Reference Portfolio Allocator have agreed to use electronic templates, and both parties agree to rely on such electronic templates.

k	Non-Base Currency Permitted Currency Notional	Strike	Base Currency Notional	Maturity Date	Forward Settlement Date
1					
2					

APPENDIX II

FORM OF FX FORWARD CONFIRMATION

The purpose of this letter agreement is to confirm the terms and conditions of the Transaction entered into between [Party A] ("Party A") and [Party B] (the "Party B") on the Trade Date specified below.

1. The definitions and provisions contained in the 1998 FX and Currency Option Definitions as published by International Swaps and Derivatives Association, Inc., the Emerging Market Traders Association and The Foreign Exchange Committee (the "1998 Definitions") are incorporated into this Confirmation. In the event of any inconsistency between the 1998 Definitions and this Confirmation, this Confirmation will govern.

2. The terms of the particular Transaction to which this Confirmation relates are as follows:

Trade Date:	[date] [NOTE: date of Reference Derivatives Portfolio Modification is deemed to be the Trade Date]
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Settlement Date:	[date] [NOTE: as specified in the Derivative Transaction Notice]
------------------	--

Amount and Currency Payable by Party A:	Base Currency [amount] [NOTE: corresponds to the USD Notional in the Derivative Transaction Notice]
---	---

Amount and Currency Payable by Party B:	Non-Base Currency [amount] [NOTE: corresponds to the EUR Notional in the Derivative Transaction Notice]
---	---

Forward Rate:	[rate] [NOTE: corresponds to the Strike in the Derivative Transaction Notice]
---------------	---

3. Offices:

Party A: [location]

Party B: [location]

Please confirm that the foregoing correctly sets forth the terms of our agreement by executing the copy of this Confirmation enclosed for that purpose and returning it to the above address.

REFERENCE CASH BALANCE MODULE – MULTIPLE CURRENCIES

1 General

There shall be a Reference Cash Balance for each Permitted Currency specified in Section 2 of the Reference Portfolio Rules. The following provisions shall apply in addition to those set out elsewhere in the Reference Portfolio Rules.

2 Elections

	Permitted Currency:	Initial Reference Cash Balance:	Positive Reference Cash Balance Spread:	Positive Reference Cash Balance Benchmark:	Negative Reference Cash Balance Spread:	Negative Reference Cash Balance Benchmark:	Reference Cash Balance Basis:
Base Currency:	USD	[zero (0)]/[insert other amount]	0% p.a.	Fed Funds	0% p.a.	Fed Funds	[Act/360]
Non-Base Currency:	EUR	[zero (0)]/[insert other amount]	0% p.a.	EONIA	0% p.a.	EONIA	[Act/360]

Terms used in the table of this Paragraph 2 but not defined elsewhere in these Reference Portfolio Rules shall have the meaning given to them in the 2006 ISDA Definitions as published by ISDA interpreted to give effect to the provisions of these Reference Portfolio Rules (including without limitation by disregarding references to 'Floating Rate Option' and 'Reset Date').

3 Reference Cash Balances

Each Reference Cash Balance is a hypothetical cash balance relating to a notional amount of cash denominated in each of the Permitted Currencies.

On the Start Date, the Reference Cash Balance for each Permitted Currency shall be the Initial Reference Cash Balance for the relevant Permitted Currency specified in Paragraph 2 of this Reference Cash Balance Module. The Reference Cash Balance for each Permitted Currency shall then be modified to reflect hypothetical debits and credits relating to any Spot FX Requests in accordance with Section 8 of the Reference Portfolio Rules.

The Reference Cash Balance for each Permitted Currency shall be determined by JPMorgan at any relevant time, as an amount (which may be positive or negative) denominated in such Permitted Currency as at such time equal to the sum of:

- (i) the Initial Reference Cash Balance for that Permitted Currency; plus
- (ii) Aggregate Daily Accrual Amount for that Permitted Currency; plus
- (iii) the Aggregate Reference Instruments Modification Amount for that Permitted Currency; plus
- (iv) the Aggregate Reference Instruments Payment Amount for that Permitted Currency; minus

- (v) the Aggregate Modification Fee Amount for that Permitted Currency,
- and, in respect of the Base Currency Cash Balance only, plus:
- (vi) the Additional Base Currency Notional Amount (if any); plus
 - (vii) the Aggregate Additional Cash Injection Amount (if any); minus
 - (viii) the Aggregate Daily Platform Fee Amount; minus
 - (ix) the Aggregate Base Currency Partial Reduction Amount; minus
 - (x) the Aggregate Linked Financial Product Payment Amount.

4 Additional Modification Failure Events

For the purpose of these Reference Portfolio Rules, for any Spot FX Request on any Business Day, the occurrence of any of the following events in respect of any Permitted Currency shall constitute an **"Additional Modification Failure Event"**:

- (i) the Reference Cash Balance Modification Amount for that Permitted Currency is negative and the Reference Cash Balance for that Permitted Currency is negative prior to the addition of such Reference Cash Balance Modification Amount; or
- (ii) the Reference Cash Balance Modification Amount for that Permitted Currency is negative and the Reference Cash Balance for that Permitted Currency is positive prior to the addition of such Reference Cash Balance Modification Amount which when added to that Reference Cash Balance would result in a Reference Cash Balance Limit Breach for that Permitted Currency.

5 Reference Cash Balances Definitions

In respect of the Reference Cash Balances, the terms defined below shall have the following meanings in the Reference Portfolio Rules:

"Additional Base Currency Notional Amount" means a Notional Amount expressed in the Base Currency as a Base Currency Equivalent, equal to (i) the proceeds from any fungible issuance of the Linked Securities or (ii) the notional amount or otherwise of any Linked OTC Product.

"Aggregate Additional Cash Injection Amount" means the aggregate of all Additional Cash Injection Amounts (as defined in the Linked Securities) paid to the issuer of the Linked Securities in accordance with the terms of the Linked Securities.

"Aggregate Base Currency Partial Reduction Amount" means, at any relevant time, the aggregate of all Partial Reduction Amounts that have been paid prior to such time

"Aggregate Daily Accrual Amount" means, in respect of a Permitted Currency at any time on any relevant day, an amount (which may be positive or negative) equal to the sum of all Daily Accrual Amounts that have accrued prior to such time.

"Aggregate Daily Platform Fee Amount" means, in respect of the Base Currency at any time on any relevant day, an amount equal to the sum of all Daily Platform Fee Amounts that have been paid or accrued prior to such time.

"Aggregate Linked Financial Product Payment Amount" means, in respect of the Base Currency at any time, the aggregate of all amounts that have been paid prior to such time

by Party A or an affiliate of Party A in accordance with the terms of any Linked Financial Product.

"Aggregate Modification Fee Amount" means, in respect of a Permitted Currency at any time on any relevant day, an amount equal to the sum of all Modification Fee Amounts that have been incurred prior to such time.

"Aggregate Reference Instruments Modification Amount" means, in respect of a Permitted Currency at any time on any relevant day, an amount (which may be positive or negative) equal to the sum of all accepted Reference Instrument Modification Amounts denominated in such Permitted Currency as at such time.

"Aggregate Reference Instruments Payment Amount" means, in respect of a Permitted Currency at any time on any relevant day, an amount (which may be positive or negative) equal to the sum of all Reference Instrument Payment Amounts denominated in such Permitted Currency as at such time.

"Aggregate Reference Notional Amount" means an amount expressed in the Base Currency as a Base Currency Equivalent equal to the aggregate of the Notional Amounts for the Linked Financial Products outstanding (and with the aggregate Notional Amounts of Linked Securities being the aggregate of that for each security comprising the relevant series of the Linked Securities).

"Daily Accrual Amount" means, in respect of the Reference Cash Balance for each Permitted Currency at any time on each day, an amount (which may be positive or negative) determined by JPMorgan as at such time equal to the product of:

- (i) the Reference Cash Balance for that Permitted Currency on the immediately preceding day at the Valuation Time (for the avoidance of doubt, on the Start Date, the Initial Reference Cash Balance for that Permitted Currency); and
- (ii) if the applicable Reference Cash Balance was negative on the immediately preceding day, the Negative Reference Cash Balance Benchmark plus the Negative Reference Cash Balance Spread on such day multiplied by Reference Cash Balance Basis Fraction; or
- (iii) if the applicable Reference Cash Balance was positive on the immediately preceding day, the Positive Reference Cash Balance Benchmark plus the Positive Reference Cash Balance Spread on such day multiplied by the Reference Cash Balance Basis Fraction.

"Initial Reference Cash Balance" means, on the Start Date, in respect of each Reference Cash Balance, an amount denominated in the relevant Permitted Currency equal to the amount specified under "Initial Reference Cash Balance" of Section 2 of this Reference Cash Balances Module.

"JPM Quoted Amount" means, in respect of the Specified Buy or Specified Sell (as applicable) of the Specified Amount of Specified Currency specified in a Spot FX Request, the relevant amount of Other Currency that JPMorgan would be prepared to pay or receive (as applicable) to Party B on a spot settlement date in exchange for such Specified Buy or Specified Sell of the Specified Amount of Specified Currency on such date as determined by JPMorgan in its sole discretion.

"Modification Recap Notice" means Spot FX Recap Notice.

"Negative Reference Cash Balance Benchmark" means the benchmark rate specified under "Negative Reference Cash Balance Benchmark" in Paragraph 2 of this Reference Cash Balance Module.

"Negative Reference Cash Balance Spread" means initially the percentage specified under "Negative Reference Cash Balance Spread" in Paragraph 2 of this Reference Cash Balance Module, if any, provided that such percentage may be modified by JPMorgan in its sole discretion at any time with 30 calendar days' notice to the Reference Portfolio Allocator.

"Notional Amount" means, in respect of any Linked Financial Product at any relevant time, the amount (notional or otherwise) outstanding and/or applicable at such time in accordance with the terms of the relevant Linked Financial Product.

"Other Currency" has the meaning given to it in the definition of Spot FX Request.

"Positive Reference Cash Balance Benchmark" means the benchmark rate specified under "Positive Reference Cash Balance Benchmark" in Paragraph 2 of this Reference Cash Balance Module.

"Positive Reference Cash Balance Spread" means initially the percentage specified under "Positive Reference Cash Balance Spread" in Paragraph 2 of this Reference Cash Balance Module, if any, provided that such percentage may be modified by JPMorgan in its sole discretion at any time with 30 calendar days' notice to the Reference Portfolio Allocator.

"Reference Cash Balance Basis Fraction" means the basis specified under "Reference Cash Balance Basis" in Paragraph 2 of this Reference Cash Balance Module applicable in respect of any calculation to the actual the number of calendar days between any two relevant dates used for the purposes of such calculation.

"Reference Cash Balance Limit Breach" means a breach of the limits applicable for Reference Cash Balances set out in Annex 2.

"Reference Cash Balance Modification Amount" means, in respect of each Spot FX Transaction specified in a Spot FX Request:

- (i) the Specified Amount in the Specified Currency of such Spot FX Transaction to be notionally credited to, or debited from, as applicable, the Reference Cash Balance for that Specified Currency; and
- (ii) the JPM Quoted Amount in the Other Currency of such Spot FX Transaction to be notionally debited from, or credited to, as applicable, the Reference Cash Balance for that Other Currency.

"Specified Amount" has the meaning given to it in the definition of Spot FX Request.

"Specified Buy" has the meaning given to it in the definition of Spot FX Request.

"Specified Currency" has the meaning given to it in the definition of Spot FX Request.

"Specified Sell" has the meaning given to it in the definition of Spot FX Request.

"Spot FX Request" means a communication from the Reference Portfolio Allocator to JPMorgan specifying:

- (i) a pair of Permitted Currencies for a proposed Spot FX Transaction; and

- (ii) a notional amount (the **"Specified Amount"**) denominated in one Permitted Currency of such pair (the **"Specified Currency"** and the other Permitted Currency in such pair, the **"Other Currency"**) to be:
 - (a) notionally bought or purchased in such Spot FX Transaction and notionally credited (expressed as a positive number) to the Reference Cash Balance for that Permitted Currency (**"Specified Buy"**); or
 - (b) notionally sold or delivered in such Spot FX Transaction and notionally debited (expressed as a negative number) from the Reference Cash Balance for that Permitted Currency (**"Specified Sell"**).

"Spot FX Transaction" means a notional foreign exchange transaction specified in a Spot FX Request.

"Spot FX Recap Notice" means, in respect of a Spot FX Transaction, a notice in the form set out in the Appendix of this Reference Cash Balance Module.

"Reference Instruments Payment Amount" means, in respect of each Reference Instrument Type specified in Section 2, the payment amount specified as the "Reference Instruments Payment Amount" in Paragraph 2 of the Reference Instruments Module relating to such Reference Instruments Type set out in Annex 3.

APPENDIX
FORM OF SPOT FX RECAP NOTICE

The following forms of notice is indicative and may be amended or supplemented from time to time in such form as JPMorgan and the Reference Portfolio Allocator may agree.

SPOT FX RECAP NOTICE

Include the following details in respect of each proposed transaction. For the avoidance of doubt, JPMorgan and the Reference Portfolio Allocator have agreed to use electronic templates, and both parties agree to rely on such electronic templates.

k	Non-EUR Permitted Currency Notional	Strike	EUR Notional	Maturity Date	Spot Settlement Date
1					
2					

ANNEX D

The Offering Circular dated 25 April 2018 has been supplemented by the following Supplement:

Supplement	Description	Date
Supplement No. 1	In respect of (i) the Quarterly Report on Form 10-Q of JPMorgan Chase & Co. for the quarter ended 31 March 2018 and (ii) amendments and supplemental information to the Offering Circular.	11 May 2018